

# Labour market outcomes and sexual orientation: an analysis of the South African labour market

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## **Abstract**

Until 1995, most studies of labour market discrimination focused on race and gender income differentials. Following the publication of the first study on the effects of sexual orientation on labour market outcomes, Badgett (1995), and the increased public awareness of sexual minority rights and homosexual culture, the literature on sexual orientation discrimination has become well established. The consensus from this literature demonstrates a consistent gay male wage penalty and a lesbian female wage premium. However, very little is known about how sexual orientation affects labour market outcomes in developing countries. By adding South Africa to the list of countries for which these effects have been estimated, this analysis is the first to apply econometric tools to investigate sexual orientation discrimination in South Africa. The empirical analysis reveals a significant gay male penalty and a lesbian female premium in South Africa. These results are contextualised with a discussion of the history of legislation and social attitudes towards homosexuality in South Africa.

Key words: discrimination, sexual preferences, income gap, labour market, LGBT

# Contents

<a href="#">Introduction</a>	3
<a href="#">1. The empirical consensus of sexual orientation effects</a>	4
<a href="#">1.1 Socioeconomic models of sexual orientation discrimination</a>	8
<a href="#">1.2 Psychological models of sexual orientation discrimination</a>	11
<a href="#">2. A brief history of homosexuality in South Africa</a>	12
<a href="#">3. Data</a>	17
<a href="#">4. Methodology</a>	20
<a href="#">4.1 Interval regression</a>	20
<a href="#">4.1.1 Methodological concerns</a>	21
<a href="#">4.2 Income decompositions</a>	23
<a href="#">5. Empirical analysis</a>	27
<a href="#">5.1 Descriptive statistics</a>	27
<a href="#">5.2 Results</a>	30
<a href="#">5.2.1 Interval regression</a>	30
<a href="#">6. Conclusion</a>	30
<a href="#">7. Reference list:</a>	37

Labour markets have seen the enactment of various forms of legislation that make it illegal to discriminate against individuals based on their race, sex, religion, national origin, age or physical disability. Other noteworthy aspects of human identity, such as sexual orientation, have, until recently, been excluded from legal protection. In 1995, Lee Badgett published the first econometric study of sexual orientation effects in the US labour market. Over the last two decades, several studies examined the effects of sexual orientation on labour market outcomes, and the literature has reached a virtual consensus that gay males earn less than their heterosexual counterparts and lesbian women earn more than their heterosexual counterparts.

In 1994, the newly elected African National Congress (ANC) inherited a labour market shaped by the discriminatory and oppressive Apartheid regime. Thus, the need arose for the ANC to hastily introduce and enforce a wide range of laws to promote the economic and social well-being of previously disadvantaged groups, mainly the black, female and disabled population (Burger and Woolard, 2005). However, the South African government may have another possible objective to address sexual orientation discrimination, as such discrimination inflicts economic, psychological and even physical harm on homosexual individuals.

Despite legal reform aimed at addressing labour market inequality, race and gender remains strong predictors of South African labour market outcomes. The historical advantage of whites and males stem from oppressive Apartheid laws. Considering South Africa's already troubled labour market dynamics, the question is whether the labour market discriminates against homosexuals in a similar way as is observed by international labour economists. This analysis is the first econometric study of possible income effects of such discrimination in South Africa.

As mentioned above, many groups have been adversely affected by Apartheid, but one group that has been seemingly neglected during this era is the Lesbian, Gay, Bisexual and Transgender (LGBT) community. The Apartheid government did not aggressively target the LGBT community until 1968. Laws focused on establishing human rights for the LGBT community would only come to the fore in the late 90's – after white and black gay rights movements merged.

Thus, past laws of the Apartheid government can go a long way in explaining various South Africans' views and attitudes towards the LGBT community in South Africa, akin to how past laws influence current racial attitudes. Given that discrimination against sexual minorities inflicts harmful psychological effects, whether current attitudes harm sexual minorities economically or psychologically, needs to be investigated if adequate policy is needed.

While many articles and academic papers from the psychology and sociology fields have discussed anti-gay sentiment in South Africa, no one has empirically investigated the effects of sexual orientation on labour market outcomes explicitly. Various articles provide extensive evidence for physical and psychological harm endured by homosexual individuals in South Africa, however, economic harm tends to be neglected from these articles. Thus, the need to investigate the economic impacts in order to assist policies in addressing possible discrimination against sexual minorities.

The outline of this analysis is as follows: section two outlines the literature and theories for the effects of sexual orientation on labour market outcomes from international studies. Section three briefly outlines the historical anti-gay laws of the Apartheid regime and the current challenges of reforming the South African labour market. Sections four and five discuss the data and methodology respectively. Finally, section six presents and discusses the econometric results.

## 1. The empirical consensus of sexual orientation effects

Badgett (1995) published the very first econometric study on the wage effects of sexual orientation discrimination. The study followed civil rights proponents' arguments that individuals from the LGBT community in the American labour market experience employment discrimination and therefore suffer economic and psychological harm. During that time, the LGBT community in America were seen as an affluent group without need for further legal protection; hence employment discrimination against them was questioned. However, the studies claiming the above were based on biased samples and inappropriate statistical comparisons. Thus, Badgett (1995) applied econometric tools used in various studies of racial and gender discrimination to the new hypothesis of sexual orientation discrimination.

Badgett (1995) found that gay men earn approximately 11-27% less than heterosexual men, and that lesbians earn approximately 12-30% less than heterosexual females. These results were not statistically significant, the sample size of homosexual individuals was small and the dataset used by Badgett (1995), lacked many unobservable variables. After Badgett (1995), a wide array of evidence that sexual minorities may face discrimination and endure differential labour market outcomes compared to heterosexuals has received much attention from researchers across the globe.

This has led to researchers adopting much more advanced econometric techniques. Similar discrimination against the LGBT community has been found in the UK, Canada, Belgium, Sweden, Austria, Germany, France, the Netherlands, Italy, Greece, Australia and Hong Kong. Some of these cases, their methods and results are briefly discussed in the rest of this section.

While the vast majority of studies find that gay men earn significantly less and lesbians earn significantly more than their heterosexual counterparts, there is some variation in the results as some countries find a wage penalty for both gay men and lesbians. Klawitter (2015) conducts a meta-regression to clarify the variation and finds that for men, the type of sexual orientation measure and controls for work intensity all explain significant variation in estimates of the impact of sexual orientation. For women, the chosen dataset is crucial, but work intensity controls and treatment of other characteristics explain variation in the size of the lesbian earnings premium.

The meta-regression in Klawitter (2015), along with the broader American literature, shows strong evidence of the importance of partner gender and intra-household decision making to sexual orientation differences in the American labour market. Here, human capital investments contribute significantly to earnings differences especially among women and there is strong evidence of greater discrimination for gay men than lesbians.

Klawitter (2015) uses the Oaxaca (1973) and Blinder (1973) decomposition in the meta-regression analysis, and finds an average earnings penalty of 12% for gay men and an earnings premium of 12% for lesbians. Blandford (2003) and Cushing-Daniels and Yeung (2009) find greater penalties for gay men who were married than those who were unmarried, which suggests

potential discrimination for those who are more visibly gay. For lesbians, the results suggest greater earnings premium for married lesbians than for unmarried lesbians.

This is inconsistent with the general discrimination and intra-household story where marriage is seen as a disadvantage, which provides further evidence that homosexuals structure home life differently. Waite and Denier (2015) also use the Oaxaca-Blinder decomposition and find that industry of employment, rather than occupation, disadvantages gay men and lesbians. Contingently, all wage gaps are eliminated for homosexuals in the public sector in Canada due to government adhering more strictly to anti-gay legislation.

Sabia and Wooden (2015) were the first in Australia to econometrically estimate sexual orientation wage differences. Their individual fixed effect estimates from an Ordinary Least Squares (OLS) regression reveal that gay males are 15.6% less likely to be employed – and earn approximately 11.5% less than their heterosexual counterparts. After controlling for education, family background characteristics, personal characteristics such as religiosity, appearance and health behaviours, the results of a significant penalty for gay males does not change.

Among other results, Sabia and Wooden (2015) also find that lesbians work 18.7 to 25.9% more hours – and earn approximately 33% more than heterosexual women. Furthermore, earnings growth, work intensity and growing labour supply differentials on the intensive margin between lesbians and heterosexual women explain these wage differences in Australia.

Ahmed et al (2011) conducted a controlled field experiment to assess whether gay men and lesbians are discriminated against in the Swedish labour market. Such experiments, where fictitious job applicants with their resumes are sent to actual job vacancies have proven to be powerful in providing evidence of racial discrimination in other studies. After sending resumes to ten random occupations, a linear probability model of the probability of receiving a positive response to the job application is estimated. Distinctive male and female names were used and applicants were labelled as gay, lesbian or heterosexual on their resumes. Additional information regarding whether homosexuals or heterosexuals did voluntary work in a homosexual or sexually neutral organization was provided by the resume as well.

A gay male applicant received a positive response to about 16% of his job applications whereas a heterosexual male applicant received positive responses to 30% of his applications. The proportion of applications that led to a positive response was about 26% for a lesbian applicant, whereas for a heterosexual female applicant, the proportion was about 32%. Interestingly, Ahmed et al (2011) find evidence for sexual orientation discrimination against gay men and lesbians in the hiring process. Furthermore, Swedish private employers tend to discriminate against homosexuals, while Swedish public employers do not, which is similar to the American and Canadian public sector (Klawitter, 2011).

Moreover, Ahmed et al (2011) show that compared to other European countries, the magnitude of the discrimination is small. This result is not overly surprising since Sweden's public opinion of homosexuality is among the most tolerant and liberal in the world (Gerhards, 2010). Thus, proving that informal institutions are a key factor in driving sexual orientation labour market discrimination, this issue is discussed further in sections 1.1 and 1.2. Finally, Ahmed et al (2011) also find that gay men were discriminated against in typical male-dominated occupations and similarly, lesbians were discriminated against (i.e. advantaged) in typical female-dominated occupations. This result is similar to Carpenter (2005), who finds that gay men are under-represented in typical male dominated occupations such as transport, manufacturing and utility occupations in America.

Plug and Berkhout (2001) examine how sexual orientation affects earnings in the beginning of the working career of Dutch graduates with tertiary education. For young men, they find an earnings penalty of 3% for gay workers. For young women, they find an earnings premium of 4% for lesbians. Their sample reveals that the lesbian premium almost fully compensates the traditional heterosexual male-female wage gap, and that the gay male penalty almost bridges the male-female gap. Thus, Plug and Berkhout (2001) conclude that sexual orientation discrimination in the Netherlands is not observed when highly educated people enter the labour market.

In the Greek labour market, assuming discrimination increases job dissatisfaction, Drydakis (2014) examines the effect of sexual orientation on job satisfaction. Four measures of job satisfaction are included: satisfaction with total pay; satisfaction with promotion prospects; satisfaction with respect received from supervisor; and total job satisfaction. The ordered probit

estimates reveal that bisexual and gay men and women are estimated to be less satisfied according to all measures of satisfaction. Gay men and lesbians who disclosed their sexual preference at their current workplace longer ago are more satisfied, compared to those who disclosed more recently.

These results suggest a social cost to “coming out” at the workplace. The gay penalty is an estimated 4.2% and the lesbian premium approximately 8.1%. Additionally, Drydakis (2009) found that homosexuals face lower occupational access and entry wages, while gay and bisexual men face higher unemployment rates in Greece.

Attitudes towards homosexuals, gay rights and social norms/culture differ to an extent across the countries discussed thus far. Various econometric methods have been used to estimate wage effects of sexual orientation, yet they all reflect a common trend or pattern of gay male penalties and lesbian premiums.

Before investigating sexual orientation discrimination in any labour market, it is important to understand the incentives or motivations governing human discriminatory behaviour, i.e. what factors can lead to employers, colleagues and even the government to discriminate on the grounds of sexual orientation. The following two subsections discuss various social trends and informal institutions (norms, customs, traditions and culture) that could explain human behaviour in a sexually orientated discriminatory labour market. It is important to note the economic definition of institutions, where “institutions are humanly devised rules that structure human interaction”, (North, 1994) and informal institutions which partly drive opinions and attitudes towards ethnic, gender, racial and other minority groups, tend to be time invariant to an extent, i.e. hostile attitudes to minority groups are slow to change.

## 1.1 Socioeconomic models of sexual orientation discrimination

Becker (1971) provided models on how employer, employee and customer tastes for gender or racial discrimination could drive labour market discrimination. Since taste for discrimination is a combination of both prejudice and ignorance, the amount of knowledge available must be included as a determinant of tastes, i.e. knowledge of race, gender or sexual preference. Taste for

discrimination is a necessary, but not sufficient condition for the occurrence of labour market discrimination against homosexual employees (Badgett, 1995). Thus, the importance of voluntary or involuntary disclosure of sexual orientation by homosexual employees for discrimination to occur. Tastes are also influenced by geographical location: discrimination may differ from region to region, from rural to urban areas, and from one time period to another (Becker, 1971:17).

Since the work of Phelps (1972) and Arrow (1973), it has become generally acknowledged that due to a lack of individual-level information, employers often depend on group statistics as a signal of unobserved characteristics. Thus, giving rise to statistical discrimination. Economists have little to say about the formation of preferences regarding: whether homosexuals have different leisure and market preferences than heterosexuals, whether they differ in taste for private or public sector work or skilled and unskilled jobs (Plug and Berkhout, 2001). Consequently, due to scarce data on homosexuals, there is a mixed consensus about which subjective averages are used in statistical discrimination towards the LGBT community.

Klawitter (2015) outlines a few social norms that could account for the sexual orientation wage gap in America. It is possible that sexual minorities might have different preference structures than heterosexuals, and thus face different incentives for acquiring human capital. For example, lesbians may choose to invest more in human capital and work more hours than heterosexual women in order to offset current and future lower earnings due to having a female partner who is also subject to the traditional gender wage gap. Similarly, gay males may choose to invest less in human capital and work less hours due to having a male partner who enjoys a wage premium over women. Factoring in the prevalence of the gender wage gap into human capital decisions is a widely used argument in explaining differential educational outcomes by sexual orientation.

Additionally, there is another argument that sexual minorities might avoid discrimination and its psychological impacts by accumulating higher levels of human capital, opting for 'gay friendly' occupations and migrating to 'gay friendly' areas. These are the same outcomes of discrimination and choice that are used to explain the wage gaps by race and gender in America (Altonji and Blank, 1999). Including certain European countries, Antecol et al (2008), Black et al (2000) and Zavodny (2007) provide evidence that both gay men and lesbians have more education than heterosexuals on average.

Baumle and Poston (2011), Antecol and Steinberger (2011) and Trebaldi and Elmslie (2006) all show that gay men have fewer weeks of work and work fewer hours than heterosexual men, whereas lesbians have greater work effort relative to heterosexual women. However, it is argued that differentials in hours worked are a result of discrimination and not of social norms and productivity. This is plausible if discriminatory employers obtain a disutility of interacting with homosexual employees for longer hours at work.

However, some argue that sexual minorities might organize home life differently than heterosexuals – which could in turn affect hours worked and productivity. Various studies show that homosexual couples tend to divide household tasks more equally compared to heterosexual couples. Not only are household responsibilities shared more equally, Ahmed *et al* (2011) provide evidence that in lesbian households, household income is distributed more equally compared to heterosexual households.

Finally, same sex couples are more likely to have both partners in the labour market, even with children present in the household. Same sex couples are also less likely to be raising children than are opposite sex couples (Antecol and Steinberger, 2009). Given that same sex households share household responsibilities more evenly, it is argued that children in a same sex household will have a lower impact on lesbians' incomes and a larger impact on gay males' incomes compared to their heterosexual counterparts, where heterosexual females disproportionately share child rearing responsibilities in a heterosexual household (Antecol and Steinberger, 2009).

Thus, a vast number of empirical studies have revealed the legitimacy of the social norms of sexual minorities outlined in the various paragraphs above. However, it is not to say that these norms are part of the data generating process in all countries. It is important to understand household decision-making, incentives and constraints in each country, which in turn effect various labour market variables, such as labour supply, productivity, human capital levels, hours worked, etc., in order to understand how various labour markets discriminate against homosexuals.

## 1.2 Psychological models of sexual orientation discrimination

Sexual prejudice – negative attitudes toward an individual because of his/her sexual orientation – can vary towards gays and lesbians. Globally, the gay rights framework emphasizes that homosexuals are becoming a visible community with cultural traditions, physical boundaries and political interests and are increasingly accepted by societies throughout the world. In other words, gay men and lesbians comprise a discrete minority much like an ethnic group (Herek, 2000), and thus attitudes towards homosexuals are psychologically similar to majority attitudes towards racial or gender groups.

Herek (2000) argues that instead of reflecting attitudes towards a subordinate and well defined ethnic group, sexual prejudice is understood to be much about attitudes toward oneself. On the one end of the spectrum, Kinsey et al (1948) argue that some heterosexuals either engaged in or had attractions to same sex behaviour, just as many homosexuals have had heterosexual experiences. Due to the stigmatized status of homosexuality however, such heterosexual individuals may experience anxiety at the prospect of being labelled homosexual, which they may then externalize in hostility or aggression toward gay people.

Conversely, Minton (1986) tells the story that homosexuality in the 20<sup>th</sup> century was regarded as similar to gender inversion, male homosexuals were presumed to be more like women and lesbians were presumed to be more like men. Men, therefore, might experience greater pressure to demonstrate their masculinity by rejecting gay men. However, Kimmel (1997) suggests that demonstrating one's heterosexuality appears to be a greater concern for men than women. It follows that heterosexual men's attitudes are significantly more hostile toward gay men than lesbians, whereas, heterosexual women's attitudes do not reflect significant differences between gay men and lesbians, and tend to be less hostile.

From the male-female wage gap literature, one can see that masculine traits are compensated, whilst feminine traits are penalised. Thus, gay men who are stereotyped to have feminine traits are penalised, whereas lesbians who are stereotyped to have masculine traits are compensated (Gorsuch, 2015). Therefore, one can see the psychological attitudes towards characteristics of individuals that partly drive the male-female gap, can partly explain why gay men are penalised

and why lesbians earn a premium, however, this in itself is discrimination because not all gay men/lesbians are feminine/masculine. From the psychological arguments, it is plausible to assume that a male employer will discriminate more harshly towards gay men than lesbians.

When considering factors from section 1.1 and 1.2, labour economists can more easily explain the lesbian premium. Lesbians tend to have more education, work longer hours, have less children, do not share household responsibilities disproportionately, are favoured by men due to masculine traits and in some countries lesbians enjoy anti-gay discriminatory policies. All these factors explain the lesbian premium well. The gay male penalty is still wildly misunderstood – a clear consensus as to why it is observed is lacking.

## 2. A brief history of homosexuality in South Africa

The racially discriminatory and oppressive laws of the Apartheid regime had long run social and institutional impacts on the South African labour market. The heavy burden of much needed large scale reform rested on the ANC post 1994, yet the labour market still reflects: white and male wage premiums (Burger and Woolard, 2005). Accordingly, looking at the laws targeting South African homosexuals under the Apartheid era could go a long way in explaining public opinion and attitudes towards homosexuals in the labour market post 1994. These long run effects could partly explain why, if any, discrimination against sexual minorities arise in the South African labour market.

The institutional environment can be a determinant of taste for discrimination as institutions, both formal and informal, establish and alter incentive structures. Consistent with Becker (1971:11), it seems plausible to expect a change in taste for discrimination over time as the institutional environment changes, i.e. changing from the Apartheid regime, where discrimination was legalized by formal institutions and socially acceptable by informal institutions, to a democratic regime where liberalised laws and rights prevail. As noted earlier, a culture that allows discrimination is slow to change – even after formal rules illegalizes discrimination of any sort and evidence of this is reflected by ongoing racial and gender discrimination in the South African labour market.

Homosexuality in South Africa seems to have been part of life across all races. There is evidence that pre-colonial African societies accepted homosexuality on a situational basis, for example within South Africa, homosexual acts were referred to as *hlobongo* amongst the Zulu tribe (Sanders, 1997). Gay relationships among black workers were a common occurrence in the gold mines of South Africa during the 50's and 60's (Moodie et al., 1988).

Although some men claim they turned to homosexuality as a last resort after being isolated from their wives, some chose to extend their stay at the mine instead of returning to their wives in order to be with their homosexual partners. From all groups, the Western Cape's coloured communities are credited with the earliest and most formalized expression of homosexuality, with their drag parties being part of life during periods of sexual oppression (Chetty, 1995).

The Immorality Act of 1927, though enforced laxly and inconsistently, outlawed homosexuality in public, implying that homosexuals were safe as long as they remained "indoors". Much later, the Immorality Act of 1957 was aimed at constraining relationships between people of different ethnicities, as well as restricting 'unnatural or immoral sexual acts' which was euphemism for non-reproductive or homosexual intercourse, however, enforcement of these laws were slack (Weeks, 1981). An amendment to the Immorality Act in 1968 would make it legal for homosexuals to be arrested if 'offences' were public. This amendment aroused upset and mobility.

The Law Reform Movement was led by a small group of gay professionals and although it consisted mainly of white middle-class males, it was successful in bringing homosexuals from different classes of society, however, The Law Reform Movement distanced itself from the anti-Apartheid movement, thus marginalising black homosexuals within the LGBT community.

During the Apartheid era, homosexual life and culture remained behind closed doors as the LGBT community had to maintain a certain level of secrecy. Homosexual individuals organized parties at their homes or visited clubs that catered specifically to them. During this time, urban areas offered individuals from townships more freedom, despite raids on clubs and houses being more prominent in urban areas (Gevisser, 1995). Thus, one can see that homosexual attitudes structure migration incentives, as one would expect.

The objective of the government was to minimize the presence of homosexuals and protect society from the “corrupting influence” of the LGBT community (Gevisser, 1995). The white homosexual movement, although repressed, had enough mobilization and economic power to challenge the government and achieve minor victories. Only during the 1980’s would gay rights movements diverge from the white-centred, apolitical stance, and align themselves with anti-Apartheid groups.

The government continued to make amendments to The Immorality Act in 1988, which emboldened the punishments to “sexual crimes” (Webster, 1996). During the 80’s, homosexual men and women in the military were subject to electric shock therapy, imprisonment and public humiliation (Zyl et al., 1999:68). While the laws targeted homosexual behaviour and culture, explicit income differential laws were not put in place by the government as was the case for different race groups.

Possibly one of the earliest accounts of sexual orientation discrimination in the labour market are the interviews and diaries of white and black lesbians which tell historians that they were fearful of telling, disclosing their sexual preference to, their families and co-workers as they expected to be ostracized and this would limit their earnings potential (Sam, 1995). No historical study has found links between labour market earnings and sexual orientation such as the diaries of the lesbian women for gay men. However, although white gay men were more well off compared to other homosexual groups, they were also targeted by their communities and this continued well into the 90’s. They were often accused of being child molesters and would be arrested (Gevisser and Cameron, 1995).

Homosexuality was seen as an anti-Afrikaner weapon and later it would be discovered, homosexuality was seen as un-African. It can be speculated that cultural and political discrimination transpired in the labour market. As the diaries of the lesbians indicate, sexual orientation discrimination can take place regardless of race as both white and black lesbians were fearful of sexual orientation disclosure effects. Also, as discussed above, one can see that gay men, despite their race, were targeted and discriminated against.

“Criminalisation and legal sanctions typified life for homosexuals under Apartheid.” – South African Social Attitudes Survey, (2008). Post 1994, constitutional reform facilitated the protection of gay rights, enabling homosexuals to develop their identities. The equality clause in the South African Constitution’s Bill of Rights (1996) is the first to prohibit discrimination on the grounds of sexual orientation in the world. A decade later, the Civil Union Act in 2006 brought legal recognition of gay marriages, positioning South Africa as the first African country (and fifth in the world) to do so.

Despite numerous great concerns at the time, the ANC initiated political discussions regarding sexual freedoms. A number of new legislations were introduced to protect the rights and personal freedoms of the sexual minority groups. The 1998 Employment Equity Act ensures that employers may not discriminate against employees based on sexual orientation, the 1996 South African Schools Act ensured that schools are more inclusive, and the Union Bill (which was passed in 2006) legalized same sex marriage.

However, homosexual identities are still characterised as ‘un-African’ by many in South Africa. Homosexual conduct has always existed throughout Africa, yet homosexual identity or the concept of sexual orientation has not (Murray and Roscoe, 1998:199). Negative attitudes towards the LGBT community are widespread: roughly 80% of households interviewed in the South African Social Attitudes Survey (SASAS) reveal that same sex relations are considered ‘always wrong’. The representative sample, which consists of between 3500 and 7000 individuals in households aged 16 and above, change each year. Various incidences of hate crimes against black lesbians and gay bashing attest to negative attitudes throughout the 2000-2008 period.

SASAS (2008) find an age effect in attitudes towards homosexuality, with older individuals being less tolerant or liberal compared to younger individuals. More highly educated individuals are more tolerant compared to individuals with no formal schooling or only primary education. However, the age effect remains as among tertiary educated adults, approximately 76% consider homosexuality ‘immoral’. According to SASAS (2008), the South African data reflects ambiguous evidence on the effect of religiosity and homosexual attitudes. Whereas Butler and Ashbury (2005:19) poses that homophobic sentiments in South Africa are enhanced by a strong patriarchal Christian ethic, which views homosexuality as immoral.

Furthermore, black South Africans tend to report higher levels of disapproval of homosexuality compared to white and coloured South Africans. The number of Indian respondents have fluctuated significantly which makes it difficult to establish assertions about this group. Lastly, rural areas exhibit most negative attitudes compared to urban areas. Since taste for discrimination is determined by geographical locations (Becker, 1971:11), it is plausible to assume that homosexuals will have incentives to migrate to “gay friendly” areas to avoid discrimination, assuming migration costs are negligible.

Sadly, even though great strides in anti-gay legislation have been achieved, homophobia and sexual orientation discrimination still persists in South African society (Butler and Ashbury, 2012). For example, Bhana (2012) provides evidence of bullying, harassment and discrimination against homosexual students in white and black schools where in black schools, these acts tend to continue without any action by teachers and education authorities.

South Africa is known for the phenomenon of “corrective rape”. Which is based on the belief that lesbian women can be cured from lesbianism if they are raped (Moisan, 2014). This practice has been taking place mostly in townships in urban areas. As section 1.2 explained, men have a greater need to assert their sexuality than women, and one can see evidence of this from an interview with a corrective rape victim: “In townships, men think being lesbian is un-African, that lesbians are taking their girlfriends and that they have to prove that they are men and that you are a woman” (Moisan, 2014).

Butler and Ashbury (2005:20) argue that homosexual employees are confronted by homophobic sentiment. For example, a lesbian police officer sued the South African Police Service for not receiving equal domestic partner benefits for herself and her partner. In fact, many workplace discrimination cases that South African courts have dealt with, are concerned with same sex couples not receiving equal workplace benefits as spouses of opposite sex employees (Vimba, 2003).

Despite a government that protects the rights of sexual minorities, equal access to antiretroviral HIV/AIDS medication, protection against homophobic hate crimes, homophobic abuse in secondary schools, protection of partnership rights and discrimination in the workplace,

constitute the major issues which LGBT activist organizations are trying to place on the national agenda (Butler and Ashbury, 2005:14). In rural areas, high rates of lesbian sexual assault, lack of affordable access to social activities and social service providers are a few problems that persist.

The issue of a somewhat homophobic society has been identified and even though workplace and social discrimination has been noted, the articles and papers discussed in this section have not explicitly analysed the economic effects of sexual orientation endured by sexual minorities in South Africa. The issue of an explicitly sexually-orientated discriminatory labour market and quantification of sexual orientation effects remains to be investigated with econometric techniques, where this analysis is the first to do so.

### 3. Data

Despite the growing literature, a crucial challenge faced by labour economists is the scarcity of large nationally representative datasets that can facilitate the analysis of sexual minorities. This is one of the reasons why economists, policy makers and people in general know little about the effects of sexual orientation on labour market outcomes. Due to household surveys or national questionnaires that do not include explicit questions enquiring about sexual orientation, researchers are faced with scarce representative datasets matching specific economic outcomes and sexual orientation.

Thus, the lack of information on homosexuals poses a limitation to sexual orientation studies. Small samples of sexual minorities in various datasets limit the precision of estimated earnings differentials when comparing homosexual and heterosexual individuals or couples. Limited precision of estimates further limits public concerns and prevents adequate policy responses that, depending on whether sexual discrimination is present in South Africa, may or may not be needed.

Since this analysis is the first to investigate different sexually orientated individuals, the analysis is based on the 2011 South African census dataset, in order to obtain the largest possible sample size of homosexual individuals. The dataset was constructed by questionnaires that were

administered to the population in a household setting. The census data provides extensive information on demographics, but limited labour market outcomes for all household members. The questionnaires do not explicitly enquire about an individual's sexual preference or orientation. However, each household head is asked whether he/she has a spouse, or whether they are living with a significant other as if they are married, and the sex of the spouse, or significant other, is recorded.

Subsequently, it is then possible to identify homosexual couples based on the gender of each household head's spouse. Individuals who are assigned a spouse number are either married to - or 'living as if married' with - the household head. A dummy variable (equal to one if spouse is of the same sex and zero otherwise) can be generated to represent same sex couples which can then be split further into gay men and lesbian women, where the homosexual dummy variable equals one if a male (female) household head has a male (female) spouse and zero otherwise. It is therefore possible to compare labour market outcomes of married homosexual individuals to married heterosexual individuals.

It is important to note, that the nature of the dataset poses sources of selection bias. Firstly, due to hostile attitudes towards homosexuality in South Africa, as discussed in section 3, it is possible that homosexual individuals do not want to voluntarily reveal their sexual preferences and either claim that they are unmarried or even heterosexual. Thus, measurement error, stemming from stigmatized views on homosexuality, can bias the estimates of sexual orientation effects on incomes. Secondly, an individual may be homosexual, but may choose to live in secrecy due to adverse labelling effects by communities, families and co-workers. In fear of being exposed, a homosexual individual being interviewed might not reveal their sexual preferences to the individual conducting the census questionnaire.

Therefore, given that same sex marriage is legal in South Africa, widowed and divorced individuals cannot all be considered as heterosexual individuals as it is unknown whether they are widowed to or divorced from an opposite sex individual. Similarly, individuals who have never been married can also not be assumed to be heterosexual. However, in the absence of sexual preference enquiries in the census questionnaire and for descriptive statistic purposes only, household heads who are widowers/widows, divorced, separated and have never been

married will be considered or not included as homosexual individuals, and the formal analysis will therefore only compare married individuals across the sexual groups.

From the 2011 census dataset, there are 12,006 gay male individuals and 16,933 lesbian women individuals. Once again, these gay men and lesbian women are individuals who are either married to a same sex individual or living together with a same sex individual as if they are married. From the dataset, there are 944,651 married heterosexual individuals, of which 471,859 are males and 472,792 are females.

In the dataset, the number of children in each household consists of biological and adopted children, as well as stepchildren and grandchildren. Biological children are not necessarily absent in gay male households; it is possible that a gay male had a heterosexual relationship and conceived a child before entering a homosexual relationship, as explained in section 1.2, whereas married lesbian women can still conceive children. Therefore, for both same and opposite sex couples, all the types of children are considered since they live together, even though they are not biologically related.

Whether biological or not, children living with homosexual couples can constrain their labour supply, income and productivity. Due to children exhibiting heterogeneous effects across homosexual and heterosexual households (as discussed earlier), separate dummy variables representing the total number of children in a homosexual and heterosexual household are created.

Furthermore, the dataset then gives the age, level of education, race, province of residence, industry of work and income interval of each married homo- and heterosexual individual, thus allowing comparisons of limited labour market outcomes to be done at an individual level across both married homo- and heterosexual samples. These variables are similar to those used in estimating racial or gender wage gaps, as well as earnings equations used in the sexual orientation discrimination empirical studies.

In the census dataset, the income of each individual was recorded in intervals, which poses some challenges. One way to deal with interval responses is to assign a point value equal to the midpoint of the interval and then regress the logged midpoints on the explanatory variables.

Another way is to perform an interval regression, which will be discussed in greater detail in the next section.

In response to the need to address conceptual, measurement and data collection issues with respect to sexual orientation, some national statistics agencies have embarked on designing and including appropriate questions in their census questionnaires. However, the United Nations and many pro-gay rights Non-Governmental Organizations (NGO's) are still struggling in some countries to improve the collection of data on socioeconomic indicators for the LGBT community.

## 4. Methodology

The following two subsections discuss the econometric techniques used in the analysis of sexual orientation effects on income. Multivariate income regressions and decomposition techniques have been used in the literature in an attempt to measure the effects of racial, gender and sexual orientation discrimination. These techniques will be discussed below and implemented in section six.

### 4.1 Interval regression

Surveys often ask respondents to report income or earnings by specifying relevant intervals, rather than exact values. Casale and Posel (2005) show that estimators using the point value and interval responses from surveys both produce very similar results. From the census dataset both the logged midpoint and interval regressions gave similar results and thus interval regression will be used in this study to estimate the effects of sexual orientation on income. Another supporting argument for interval regression is the greater efficiency achieved by accounting for the different income interval thresholds in the dataset. Furthermore, it is possible to interpret estimates of  $\beta$  as the marginal effects on income without calculating response probabilities as is required by ordered probit models for example.

The income equation to be estimated, in order to investigate the differential outcomes between homosexuals and their heterosexual counterparts, has the following form:

$$Y_i = X_i \beta + \epsilon_i, \quad i = 1, \dots, n \quad [1]$$

where  $Y_i$  represents the income interval of the  $i$ -th individual,  $X_i$  is a  $K + 1$  column vector of individual characteristics,  $\beta$  is a  $K + 1$  column vector of coefficients and  $\epsilon_i$  represents the model error term.

In order to estimate the interval regression, the lower and upper limits of each income interval is identified and denoted by  $Y_{iL}$  and  $Y_{iU}$  respectively. The natural logarithm of these limits,  $[\ln(Y_{iL})]$  and  $[\ln(Y_{iU})]$ , is then taken and used in the regression. The vector of individual characteristics consists of years of education, years of education squared, years of potential experience, years of potential experience squared, race, province of residence, total number of children, as well as dummy variables representing whether the individual is a gay male or lesbian female.

#### 4.1.1 Methodological concerns

The dataset has no experience variable and so the generally used proxy for potential experience – age less years of education minus six – will be used. Woolard (2002) and Borat and Goga (2012) argue that this proxy has some flaws. Firstly, individuals, particularly in South Africa, do not work continuously after completing school. Secondly, Kunze (2008) argues that due to family responsibilities such as household production and child rearing, women have higher levels of interrupted work histories than men. The latter criticism implies that the potential experience proxy itself is gendered and can reflect disproportionate share of household responsibilities in a heterosexual household. However, in the absence of actual experience data, the proxy explained above will be used.

Sexual orientation may affect the labour market in ways that are distinct from the effects of race and gender. Gay men and lesbian women can choose whether or not they want to disclose their sexual preference or others may mistakenly assume someone to be homosexual and these misperceptions may distort the effects of sexual orientation on certain labour market outcomes. Factors influencing differential outcomes by sexual orientation, can be related to factors of

gender because the sex of one's partner is inherently tied to gender norms, such as gay men who invest less in human capital due to their male partner earning more than women, which in turn could affect labour market variables (Klawitter, 2014). Additionally, one can expect the effects of sexual orientation to be the same across all races, as discussed in section 3. Hence, the need to estimate separate equations.

To isolate the male-female gap, separate income equations are estimated to compare married gay men to their married heterosexual counterparts [2], as well as to compare married lesbian women to their married heterosexual counterparts [3]. Race is controlled for to isolate the effect of racial discrimination. Equation [1] is separated and estimated as follows:

[2]

[3]

Equations [2] and [3] are consistent with the typical earnings equations used to estimate sexual orientation discrimination in studies discussed in section 2.

Given the nature of the dataset, it is unknown whether the homosexual couples in the dataset have disclosed their sexual preferences to their families, co-workers or employers. If employers and co-workers have a distaste for gay identity, behaviour or culture, then employers and co-workers need knowledge of their employees' or co-workers' sexual preference in order to develop a taste for discrimination. Unlike race and gender, sexual orientation is inherently unobservable, thus for discrimination to occur, disclosure of an employee's sexual preferences are necessary. Disclosing one's sexual preferences voluntarily can have important labour market effects that the data is unable to reveal (Sabia and Wooden, 2015). A variable measuring the extent of workplace disclosure is therefore more appropriate to include in the model, however this information is not available in the 2011 census dataset and so the effects of disclosure cannot be controlled for or measured.

A common challenge when estimating models or decompositions is to control for as many factors as possible that might affect productivity without controlling for factors that are themselves the results of discrimination. Although it does not pose a concern for this study, the

inclusion of characteristics such as hours worked is one example of a factor that might already be part of the discriminatory labour market data generating process. Klawitter (2014) shows that studies using annual or monthly earnings estimate larger sexual orientation differences than do hourly earnings studies due to gay men working less – and lesbian women working more – hours compared to their heterosexual counterparts as a result of discrimination.

Another point to consider is that occupation and industry of work are also possible factors that might already be reflective of discrimination. Gay men and lesbian women could choose particular occupations or industries to try and avoid those where discrimination is perceived to be more prevalent and those who lack anti-gay discrimination policies (Klawitter, 2011). As section 1.2 explained, feminine gay men can self-select into female dominated occupations which tend to have lower wages and masculine lesbian women can self-select into male dominated occupations which tend to have higher wages.

Contrary to the above, Plug and Berkhout (2001) have emphasized that homosexual individuals do have different preferences, lifestyles and culture, and all these could influence the type of industry a homosexual individual is attracted to. This argument is similar to that put forward by Burger and Jafta (2006) with respect to racial wage differences: if white (heterosexual) and black (homosexual) workers are typically found in high and low skilled occupations respectively, then the unexplained income gap will understate the effect of discrimination in a regression that controls for occupation. Thus, due to the possibility of self-selection into low paid industries or occupations by homosexuals, a control for industry or occupation should be included, but will not be done in this analysis.

## 5. Empirical analysis

The following subsections discuss descriptive statistics regarding certain characteristics of the sampled married homosexual and heterosexual individuals, as well as the results obtained from estimating [2], [3] and [5] respectively.

### 5.1 Descriptive statistics

We start our analysis by investigating whether South African couples reveal the same correlations across self-reported sexual preferences than is observed internationally.

Table 1 shows various demographic characteristics of the sampled homosexual and heterosexual individuals.

Gay men have fewer children than heterosexual men and the difference in number of children is statistically significant. It is important to note that adoption by homosexual couples in South Africa is legally allowed, however, the adoption agency has the right to deny applications based on agency specific values and culture. Hence, we either observe adoption agency discrimination or the fact that homosexual men have preferences for fewer children, compared to heterosexual men.

Lesbian women also have more children compared to their heterosexual counterparts and the difference in number of children is statistically significant. Homosexual individuals are also younger than heterosexual individuals, which may be indicative of changing societal attitudes towards homosexuality, as section one outlined that older individuals are generally less tolerant or liberal towards homosexuality.

Table 2 provides the province distribution of sexual minorities and heterosexual individuals. Gay male relationships are more common in Gauteng, the Western Cape and KwaZulu-Natal, and under-represented in the Free State, Limpopo and North West. Lesbian relationships are more common in Gauteng, the Eastern Cape and KwaZulu-Natal, while under-represented in the

Northern Cape and Mpumalanga. These provinces are generally regarded as “gay-friendly” and more tolerant towards homosexuality (Wildenboer, 2014 and Mamba, 2016). This could reflect the incentive for sexual minorities to migrate away from hostile regions or provinces, as they avoid hostile attitudes and search for social inclusion and possibly better financial outcomes. An alternative explanation may be that married homosexual couples are more comfortable living as a married couple, and therefore voluntarily disclose their same sex partner to the census questionnaire, given that they live in gay friendly areas.

Table 3 provides limited labour market outcomes from the census dataset. On average, gay men have lower employment rates compared to their heterosexual counterparts, whereas lesbian women have higher employment rates compared to heterosexual women and the difference in employment rates is statistically significant. The difference in employment rates is largest between gay and heterosexual men. Empirical studies have shown that discrimination in the hiring process can lead to significantly higher unemployment rates for sexual minorities.

Thus, it seems plausible that the South African labour market discriminates against gay men in the hiring process. Table 3 provides evidence that lesbian women are more likely to be in the labour market than heterosexual women, which is similar to foreign empirical studies. Table 3 also shows that on average, sexual minorities are in lower income intervals compared to their heterosexual counterparts.

Table 4 shows various educational attributes. On average, gay men have slightly more years of education and lesbian women have slightly fewer years of education compared to their heterosexual counterparts. Sexual minorities attend private schooling to a significantly larger extent than heterosexual individuals. This reflects homosexual individuals that want to avoid rampant bullying that still persists in schools across South Africa. Reports reveal that private schools are more liberal and adopt anti-gay bullying policies more stringently. However, it could be possible that homosexual individuals self-select into private schooling for reasons other than sexual orientation.

Furthermore, a significantly greater (lower) share of gay men (lesbian women) hold a bachelors degree compared to their heterosexual counterparts. Where most sexual minorities, heterosexual men and women tend to study health sciences, engineering and education at tertiary institutions

respectively. Gay men and lesbian women tend to be in gender neutral fields of education whereas heterosexual men and women are in typical male and female dominated fields of education respectively.

Table 5 presents the occupation distribution for each group. It is observed that most gay men work as technical and associate professionals, professionals and domestic workers, compared to heterosexual men who mostly work as professionals, domestic workers and in an elementary occupation. Whereas most lesbian women work as legislators, senior officials and managers, skilled agriculture and fishery workers and craft and related trades workers, compared to heterosexual women who mostly work as technical and associate professionals and domestic workers. It is evident that lesbian women typically work in male dominated or typical male occupations, whereas heterosexual women work in female dominated or typical female occupations. However, gay and heterosexual men seem to work in male dominated or typical male occupations. Here it is assumed that most domestic workers who are gardeners tend to be male.

Lastly, table 6 presents the industry distribution for each group. Most gay men work in the wholesale and retail trade, financial intermediation and insurance and private households industries compared to most heterosexual men who work in the mining and quarrying, electricity, gas and water supply and transport, storage and communication industries. It is evident that gay men work in female dominated industries compared to heterosexual men who work in male dominated industries.

It can also be observed that most lesbian women work in the mining and quarrying, construction and transport, storage and communication industries compared to most heterosexual women who work in the agriculture, hunting and forestry, community, social and personal services and private households industries. Apart from agriculture, hunting and fishery industry, it is evident that lesbian women work in male dominated industries and heterosexual women work in female dominated industries.

Similar to studies which find that gay men and lesbian women are under-represented in typical male and female industries and occupations respectively (Carpenter, 2005), the majority of the sampled sexual minorities reflect similar preferences or incentives when faced with occupational

sorting, as well as industry of employment. This is a crucial point as Waite and Denier (2015) have shown that industry of employment has a greater adverse effect on homosexual individuals' incomes than type of occupation. This could be due to anti-gay legislation implementation and being enforced at an industry level, rather than an occupational level.

If similar distastes for sexual orientation that drive discrimination in other labour markets are present in the South African labour market, one can expect the sampled married homosexual individuals to earn less than their married heterosexual counterparts given that South African homosexual individuals present similar characteristics and various attributes than those investigated in many empirical studies.

## 5.2 Results

### 5.2.1 Interval regression

The results obtained after estimating [2] and [3] are jointly presented in table 7 and 8 respectively, where robust z statistics are shown in parenthesis. The signs of the coefficients of the explanatory variables are consistent with what economic theory would predict. The signs of the racial group coefficients are also consistent with what other studies find in South Africa, where whites earn significantly more than Indians/Asians, who earn more than coloureds, who in turn earn more than blacks (Seekings, 2007., Burger and Woolard, 2005 and Van der Berg, 2010).

From table 7, we see that gay men earn 13.5% less than their married heterosexual counterparts when controlling for education, age, race, province of residence, occupation and industry of employment. These income differences are statistically significant at the 1% level. On the other hand, lesbian females earn 4.7% more than their married heterosexual counterparts when including the same controls. These income differences are statistically significant at the 10% level.

An interesting pattern emerges when observing the impact of children on incomes in table 8. Initially, children have a positive effect on income for gay and heterosexual men. The effects reverse as more children are added to the household, where children have a lower adverse

impact on income for heterosexual men compared to gay men. This result is consistent with the literature which notes that heterosexual women tend to share a disproportionate share of child rearing responsibilities and thus heterosexual men's incomes are affected to a lesser extent than for heterosexual women. Gay men share child rearing responsibilities more equally and therefore their children have larger negative impacts on their incomes. The results provide evidence that gay men have greater household specialisation.

Initially, children have a negative impact on income for lesbian women and this effect reverses beyond a certain number of children in the household. The opposite pattern occurs for heterosexual women. These results support the literature and provides evidence that homosexual women organise home life differently. It could be that South African lesbian females share child rearing responsibilities more equally than heterosexual couples, or that their labour market participation decisions are less affected by children in the household. Note that table 8 included the same set of controls as table 7.

Further questions can be investigated, where we ask whether there are significant income differences for sexual minorities across racial groups and across the formal and informal sectors of the economy. The census dataset unfortunately does not have a private or public sector question. From table 9 we see that black gay men have the lowest income gap between their heterosexual counterparts, whereas Indian/Asian gay men have the largest income gap between their heterosexual counterparts. These results are consistent with the literature where studies often find that the usual racial income gaps (where blacks earn less than whites) are reversed. Black lesbian women are the only group to have an income penalty compared to their heterosexual counterparts, but this result is insignificant. White lesbian women have the largest significant income premium compared to their heterosexual counterparts.

Lastly, from table 10 we see that gay men have a lower income penalty in the formal sector and that lesbian women actually have an income penalty in the informal sector. Although these results are not statistically significant, they are in line with the literature, where the formal sector adheres to anti-discrimination policies more extensively.

### 5.2.2 Income decompositions

## 6. Conclusion

After two decades of research, one result is clear in international labour markets, gay men earn less – and lesbian women earn more – compared to their heterosexual counterparts. Yet there is still no clear consensus as to why this pattern persists. The first econometric analysis of the South Africa labour market, provides evidence that significant social and economic differences exist between individuals with different sexual orientations.

Despite South Africa being the first African country to legalize same sex marriage and having legislation that forbids discrimination based on sexual orientation, social attitudes towards homosexuality are still relatively hostile. Given the Apartheid regime's hostile anti-gay laws, it seems plausible that the South African labour market could discriminate on the basis of sexual orientation due to social attitudes that are slow to change. Thus, there is a need for more appropriate nationally representative datasets whereby sexual orientation effects on labour market outcomes can be investigated.

Furthermore, discrimination based on sexual orientation leads to psychological harm and hence should be addressed by policies. Articles have provided evidence of physical harm to homosexual individuals such as corrective rape, harassment and bullying. These articles have also suggested that employer, co-worker and income discrimination is at play within the South African labour market.

However, this analysis is the first to provide an estimate of the extent of economic harm against homosexual individuals. It is estimated that married gay men earn 13.5% less - and married lesbian women earn 4.7% more - than their heterosexual counterparts. The income differentials are unexplained and significant, suggesting that discrimination based on sexual orientation is at play, to a great extent.

Social attitudes are slow to change, but can be changed gradually by further formal legislation adjustments. Further studies should investigate whether the South African laws illegalizing discrimination against sexual minorities in the labour market, assist in reducing the income gap.

Studies that have been discussed have shown that policies addressing such discrimination can be effective in lowering income differences across sexual orientated groups in different sectors of the economy. Hence, the need for more efficient enforcement and adherence to such policies in South Africa.

## 7. Descriptive statistics tables

Table 1: Demographic characteristics

	<b>Gay men</b>	<b>Heterosexual men</b>	<b>Lesbian women</b>	<b>Heterosexual women</b>
	Unit			
	Mean			
	Mean			
	Mean			
	Mean			
Sample size	Number			
	7940			
	421 183			
	3532			
	420307			

Children		Number
		0.61***
		1.37***
		1.42***
		1.37***
Age		Years
		39**
		43**
		38***
		39***
Race:		
Black		%
		0.62***
		0.67***
		0.68
		0.67
Coloured		%
		0.08***
		0.11***
		0.08***
		0.12***
Indian		%
0.04		
0.04		
		0.02***
		0.04***
White		%
		0.24***
		0.17***
		0.21***
		0.16***
Other		%
		0.02***
		0.006***
		0.004
		0.005

Table 2: Province of residence

Province:	Gay men	Heterosexual men	Lesbian women	Heterosexual women
Western Cape				0.145
	0.151	0.122***	0.151***	
Eastern Cape				0.095
	0.095	0.113**	0.095**	
Northern Cape				0.022
	0.023	0.016	0.023	
Free State				0.044***
	0.062***	0.056*	0.062*	
KwaZulu-Natal				0.16
	0.144	0.192***	0.145***	
North West				0.055**
	0.065**	0.052**	0.065**	
Gauteng				

		0.352***
	0.315***	
	0.305	
	0.315	
<b>Mpumalanga</b>		0.067
	0.07	
	0.066	
	0.07	
<b>Limpopo</b>		0.061***
	0.075***	
	0.077	
	0.075	

Note: these are the prevalence scales of each group across all provinces.

Table 3: Labour market attributes

**Gay men**  
**Heterosexual men**  
**Lesbian women**  
**Heterosexual women**

Unit

**Employment**

%

51.67\*\*\*

62.27\*\*\*

41.65\*\*\*

38.79\*\*\*

**Income**

Rand

153 601 – 307 200\*\*\*

614 401 - 1 228 800\*\*\*

153 601 – 307 200\*\*\*

Table 4: Education attributes

	Gay men	Heterosexual men	Lesbian women	Heterosexual women
	Unit			
	Mean			
	Mean			
	Mean			
	Mean			
<b>Education</b>	Years			
	9.75**			
	9.6**			
	9.75*			
	9.79*			
<b>Private Schooling</b>	%			
	0.011**			
	0.008**			
	0.023***			
	0.0115***			
<b>Bachelors degree</b>	%			
	0.034**			
	0.029**			
	0.023			
	0.027			
<b>Field of tertiary education</b>	Field			
	Health sciences			
	Engineering			
	Health sciences			
	Education			

Table 5: Occupation distribution

**Gay men**  
**Heterosexual men**  
**Lesbian women**  
**Heterosexual women**

Occupation:

Legislators, senior official and manager

0.0168  
0.9882  
0.0114\*\*  
0.9883\*\*

Professionals

0.0198  
0.9879  
0.0099\*\*  
0.9898\*\*

Technical and associate professionals

0.0199  
0.9902  
0.0082\*\*  
0.9914\*\*

Clerks

0.0195  
0.9924  
0.0094\*\*  
0.9902\*\*

Service, shop and market workers

0.0138  
0.9906  
0.0099\*\*  
0.9898\*\*

Skilled agriculture and fishery workers

0.0127  
0.9907  
0.014\*\*  
0.9871\*\*

Craft and related trades workers

0.0114  
0.9909  
0.01\*\*  
0.9901\*\*

Plant and machine operators

0.0128  
0.9908  
0.0096\*\*  
0.9904\*\*

Elementary occupation

0.0155  
0.991

	0.0092**
	0.9904**
Domestic workers	0.0232
	0.9915
	0.0074**
	0.992**

Note: these are the prevalence scales of each group across all occupations.

Table 6: Industry distribution

Industry:	Gay men	Heterosexual men	Lesbian women	Heterosexual women
Agriculture, hunting, forestry and fish	0.0135**	0.991**	0.0098	0.9905
Mining and quarrying	0.0117**	0.9916**	0.0135	0.9869
Manufacturing				

	0.0129**
	0.9914**
	0.0099
	0.99
Electricity, gas and water supply	0.0107**
	0.9931**
	0.0105
	0.9895
Construction	0.0123**
	0.9903**
	0.0107
	0.9896
Wholesale and retail trade	0.0177**
	0.9892**
	0.01
	0.9895
Transport, storage and communication	0.0117**
	0.9923**
	0.0116
	0.9878
Financial intermediation and insurance	0.0186**
	0.9884**
	0.0103
	0.9894
Community, social and personal services	0.017**
	0.9913**
	0.0083
	0.9913
Private Households	0.0216**
	0.9906**
	0.0072
	0.9923

Note: these are the prevalence scales of each group across all industries.

## 8. Empirical results

Table 7: income equation

Table 8: income equation with children

### VARIABLES

Gay male	-0.124***
	(0.0239)
Lesbian female	0.140***
	(0.0330)
Hetero female	-0.358***
	(0.00506)
Gay children	0.118**
	(0.0534)
Gay children2	-0.0398***
	(0.0153)
Hetero male children	0.0487***
	(0.00348)
Hetero male children2	-0.0123***
	(0.000790)
Lesbian female children	-0.186***
	(0.0604)
Lesbian female children2	0.0405***

	(0.0156)
Hetero female children	0.0761***
	(0.00460)
Hetero female children2	-0.0210***
	(0.00114)
Constant	8.293***
	(0.0263)
Observations	421,577

#### VARIABLES

Gay males	-0.135***
	(0.0210)
Lesbian females	0.0470*
	(0.0261)
Hetero female	-0.351***
	(0.00336)
Primary	-0.00219*
	(0.00130)
Secondary	0.0989***
	(0.00187)
Matric	0.629***
	(0.00497)

Tertiary	0.211***
	(0.00121)
Age	0.0659***
	(0.00115)
Age2	-0.000605***
	(1.36e-05)
Coloured	0.419***
	(0.00569)
Indian/Asian	0.696***
	(0.00775)
White	0.912***
	(0.00424)
Other	0.288***
	(0.0197)
Constant	8.263***
	(0.0261)
Observations	421,577

Table 9:

Table 10:

VARIABLES	Formal	Informal
	Sector	sector
Gay male	-0.0472*	-0.0214
	(0.0254)	(0.0613)
Lesbian female	0.105***	-0.00162
	(0.0311)	(0.0873)
Hetero female	-0.295***	-0.340***
Age, education, occupation and province controls		
	(0.00399)	(0.0106)
Observations	319,808	47,723

Decomposition results

Table 11:

	<b>Males</b>	<b>Females</b>
<b>Characteristics</b>	0.01668	0.05609
<b>Coefficients</b>	0.02396	-0.06017
<b>Total</b>	0.04064	-0.00408

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