



## Mecca or oil? Why Arab states lag in gender equality

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**Synopsis:** Why do Arab states continue to lag behind the rest of the world in gender equality? Cultural values and structural resources offer two alternative perspectives. Drawing upon Inglehart's modernization theory, cultural accounts emphasize that disparities are reinforced by the predominance of traditional attitudes towards the roles of women and men in developing societies, combined with the strength of religiosity in the Middle East and North Africa (Inglehart and Norris 2003, Norris and Inglehart 2004). An alternative structural view is presented by the 'petroleum patriarchy' thesis, developed by Michael Ross (2008), which claims that oil-rich economies directly limit the role of women in the paid workforce and thus also (indirectly) restrict women's representation in parliament. To consider these issues, Part I outlines these theoretical arguments. Part II discusses the most appropriate research design used to analyze the evidence. Part III presents multilevel models using the World Values Survey 1995-2005 in 75-83 societies demonstrating that religious traditions have a greater influence on attitudes towards gender equality and sexual liberalization than either labor force participation or oil rents. Part IV then demonstrates the impact of these cultural attitudes on the proportion of women in legislative and ministerial office. The conclusion summarizes the main findings and considers their implications.

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Achieving gender equality is a challenge for all states – but particularly for those in the Middle East and North Africa (MENA). The *Arab Human Development Report* (UNDP 2006) highlights the multiple ways that gender equality continues to lag behind in the MENA region when compared with the rest of the world. One of the most difficult challenges concern elected office; women members are roughly one in ten of Arab parliamentarians (12.5%), well below the world average (19.2%). (IPU 2011) The lower house of parliament in Bahrain and in Yemen include only one woman member each, while none are included in Oman, Saudi Arabia, and Qatar national assemblies. These extreme disparities persist despite some significant breakthroughs in particular states, notably the implementation of reserved seats in Morocco and gender quotas in Iraq (Norris 2007). Problem of gender equality are also not simply confined to the lack of women’s voices in the highest echelons of power. Most governments in the Middle East have now formally endorsed, with reservations, the Convention on the Elimination of All Forms of Discrimination against Women (CEDAW), pledging to establish women’s rights.<sup>1</sup> Yet the *Arab Human Development Report* documents that compared with the rest of the world, the region has some of the high rates of female illiteracy, and the lowest rate of female labor force participation. Women in the region encounter serious problems of basic health care, educational access, and income poverty, as well as suffering from exposure to violence, limited legal rights, and lack of access to justice. These conditions are compounded in the region by general problems of social exclusion, the curtailment of fundamental freedoms, and lack of democracy. The radical civil movements toppling autocracies in Egypt and Tunisia, with repercussions shaking the ground throughout the region, may provide new opportunities for women’s representation, especially if women’s rights are recognized in the constitution-building process, but the outcome remains to be determined in the months and years ahead.

### **I: The ‘resource curse’ matters?**

Why do contemporary Arab states lag behind the rest of the world in gender equality in elected office? One obvious historical cause concerns the legal barriers to women’s suffrage and limited rights to stand for office in the region but these formal restrictions have been gradually dismantled, most recently in Qatar (1999), Bahrain (2002), Oman (2003), Kuwait (2005) and the United Arab Emirates (2006). With the important exception of the Kingdom of Saudi Arabia, women and men now enjoy equal legal and constitutional rights to be candidates for office in all states in the region.<sup>2</sup> Setting the legal barriers aside, therefore, alternative explanations why so few women continue to be represented in national parliaments in the MENA region are offered by social structural and cultural accounts. These

can each be regarded as rival theories (Bergh 2006), or else, more realistically, as complimentary parts of the same puzzle, for a more holistic understanding.

The traditional sociological perspective, reflecting the mainstream view during the 1960s and 1970s, emphasizes that women's mass mobilization in politics, and their recruitment into leadership positions in the public sphere, have been hindered by the structure of society, notably the traditional roles of men and women within the workforce, home and family. Reflecting this view, an early classic study of engagement in American election campaigns by Kristi Andersen (1975) emphasized that the entry of more women into the U.S. workforce during the post-war decades gradually narrowed the gender gap in mass political participation. The structural viewpoint has become less common today although it has not died away; contemporary studies continue to emphasize the impact of residual gender gaps in literacy, educational qualifications, family responsibilities, or work-based professional networks on women's entry into political elites. All of these factors are regarded as limiting the resources, experience, and capacities which women bring both to civic engagement at mass level (Schlozman 1999), and well as to the pursuit of elected and appointed office for legislative, executive and judicial elites (Iversen and Rosenbluth 2008). In terms of Arab states the structural thesis suggests that where the residual formal legal barriers to candidacy are removed, gender equality in elected office will follow once more Arab women gradually gain higher education and then move into the paid labor force, gaining entry into relevant occupations with high status, relevant skills, and organizational networks in management and the professions.

The structural perspective gained plausibility in advanced industrialized economies during the 1960s and 1970s, an era when many more women were surging into higher education and the paid workforce, especially entering well-paid and high-status positions, and organizing to demand equality in the public sphere. The argument has come under increasing challenge in subsequent decades, however, not least by the simple observation that millions of women in post-industrial economies have now entered higher education and the paid workforce, gradually rising in management and the professions. For example, a legal career is a common pathway into elected office in the United States and the American Bar Association (2006) reports that women represent about half of the entrants to American law schools. Women also constitute the majority of the American college population. Despite these developments, countries such as the US and Japan continue to lag far behind the world average in the proportion of women in elected office, with the U.S. Congress currently ranked 71<sup>st</sup> and Japan Diet 95<sup>th</sup> worldwide (IPU 2011). By contrast, far more women are members of parliament in some poorer

developing societies and emerging economies, notably the well-known cases of Rwanda (ranked Number 1) and Cuba (4<sup>th</sup>), South Africa (3<sup>rd</sup>), and Mozambique (10<sup>th</sup>). Moreover structural arguments have also lost support due to their conservative policy implications; the idea of incremental social evolution in men and women's lives over successive generations has proved less attractive politically than 'fast track' institutional solutions, including gender quotas, which promise to transform women's representation over just a few successive elections (Dahlerup 2006; Krook 2009).

The traditional idea that women's labor force participation will eventually lead directly to political power in the Arab region has been revived, however, by Michael Ross (2008) who has claimed that the well-known 'resource curse', particularly the extraction and production of oil and gas, plays an important role in economic and political dimensions of gender equality. The notion of a 'resource curse' has been most commonly applied to explaining why many countries apparently blessed with abundant reserves of non-renewable mineral resources, such as Nigerian oil, the Democratic Republic of Congo's gold, or Sierra Leone diamonds, in fact are commonly blighted with less transparency and probity, economic stability, economic diversification, social equality, and investment in human capital. In these conditions, the heightened danger of state capture and rent-seeking by ruling elites generate poorer prospects for the transition from autocracy and the consolidation of stable democracies (Auty 1993; Ross 2001; Boix 2003; Jensen and Wantchekon 2004; Dunning 2008). Lootable mineral resources, in particular, are thought to make a country particularly vulnerable to civil war, insurgency, and rebellion (Collier and Sambanis 2005; Humphreys 2005; Snyder 2006; Ross 2004, 2006).

In "Oil, Islam and Women" (2008), Michael Ross builds on this catalogue of social ills by suggesting that petroleum also damages equality between men and women, both directly as well as indirectly. In particular, Ross's argument makes two core claims. First, he suggests that the structure of Arab economies which are heavily dependent upon oil and gas resources are *directly* responsible for the inequality of men and women's participation in the paid labor force in the region. Manual jobs in the mining, extraction, refining and production of mineral resources are heavily male dominated, in contrast to service-sector white-collar economies. Secondly, lower female labor force participation in Arab economies, he reasons, indirectly limit female opportunities to run for elected office in these states. Labor force participation, he suggests, affect women's identities and perceptions, as well as their engagement in formal and informal networks, and the incentives for governments to take their interests into account. All these factors, Ross believes, should enhance women's political influence. Thus more women in the workforce in Arab states should eventually facilitate their representation in elected and

appointed office. The resource curse (petroleum) is thereby seen to *indirectly* reinforce patriarchal states.

To support these twin claims, Ross employs econometric evidence drawn from macro-level cross-national and time-series data. The key independent variable – the value of oil and gas production – is operationalized as oil and gas rents per capita. This represents the total annual value of a country's oil and gas production, minus the extraction costs in each country, divided by its population to normalize the value of the rents, measured from 1960 to 2002 in constant 2000 US dollars. The dependent variables for the econometric models are aggregate-level indicators of women's status, including the proportion of women in the paid labor force, and the fraction of parliamentary seats and ministerial positions held by women in 2002. Controls include levels of democracy and economic development, and the Muslim fraction of each country's population. The study also contrasts illustrative case studies of women's status in North African states with poor mineral resources, including Tunisia and Morocco, compared with their position in oil-rich Algeria. Ross concludes: "The extraction of oil and gas tends to reduce the role of women in the work force, and the likelihood that they will accumulate political influence....In short, petroleum perpetuates patriarchy." (p120) From a policy perspective, the argument implies that as long as the oil reserves hold, no matter how many women candidates challenge the status quo of male elites in Bahrain, Iran, and Jordan, few are likely to succeed.

### **Or traditional cultural attitudes?**

In fact, however, as can be demonstrated later, cultural explanations trump structural ones. Enduring religious traditions and the strength of religious values, in particular, have a strong impact upon attitudes towards gender equality, and these cultural attitudes, in turn, influence the supply and demand for women in pursuing elected office.

Why might culture be expected to play an important role in determining gender equality in Arab states? A leitmotif in Ronald Inglehart's theory of societal modernization is the argument that human development has transformed gender ideologies, including societally-constructed beliefs, attitudes and values towards the roles of women and men in many post-industrial societies worldwide, while traditional cultural values and more rigid sex roles continue to prevail among both men *and* women in many developing nations. These core themes were first developed by Inglehart in a series of publications (1990, 1997) before being unpacked fully in *Rising Tide* (Inglehart and Norris, 2003). Inglehart theorizes that human development fuels more egalitarian attitudes towards gendered roles in virtually any society, although the exact pace of change in each is mediated by the enduring impact of

religious legacies, historical traditions, and institutional structures within each country. This development is seen as a core component of a broader process of cultural change towards 'self-expression' values (Inglehart 1997, Inglehart and Baker 2000, Welzel, Inglehart and Klingemann 2003, Inglehart and Welzel 2005), and parallel patterns of cultural transformation have been observed concerning closely-related syndrome of attitudes towards sexual morality, marriage, and the family, including greater tolerance of liberal sexual mores, homosexuality, and divorce within post-industrial societies. Theories of value change emphasize that fixed identities determined from birth, including those based on the biological characteristics of sex, give way increasingly to more flexible identities of choice, including less conformity to the strict demarcation of gendered roles for women *and* men. Moreover within societies, Inglehart has long predicted that the most affluent and secure sectors of the population, and the process of generational replacement, will also encourage more egalitarian gender ideologies. These cultural shifts are intrinsically important, for understanding the values and beliefs underpinning human behavior. But they are also expected to have significant consequences as one of the key drivers for political change. *Rising Tide* claimed:

*“Cultural change is not sufficient by itself for gender equality – a limitation not always sufficiently recognized by the conscious-raising individualistic focus of the women’s movement in the 1960s. But we argue that cultural change is a necessary condition for gender equality; women need to change themselves before they can hope to change society. In turn, cultural change lays the basis for the mass mobilization of women’s movements and support for public policies that reinforce, consolidate and accelerate the process of gender equality.”* (Inglehart and Norris 2003)

[Figure 1 about here]

Figure 1 illustrates the analytical model developed in a series of studies of cultural change (Inglehart and Norris 2003; Norris and Inglehart 2003; Norris and Inglehart 2004). This model suggests that long-standing religious traditions in each society have a deep and enduring impact upon contemporary social values and moral attitudes, including support for gender equality in politics, as well as shaping broader attitudes towards sexual liberalization. In turn, Inglehart and Norris (2003) suggest that the diffusion of more egalitarian attitudes in society facilitates the recruitment of more women to elected and appointed office, both by encouraging more women to come forward to pursue political careers (on the supply-side) as well as by shaping the attitudes of gate-keeping elites and, ultimately, the broader electorate (on the demand-side) (Norris and Lovenduski 1995). In highly traditional cultures, women will not be regarded as suitable candidates by party leaders and elites and, even if selected,

women candidates will face a hostile climate. In the most severe cases, they may even encounter intimidation, threats, and outright violence restricting the rights of women candidates and their supporters to campaign freely.<sup>3</sup> Culture does not act alone; the process of pursuing elected office is also conditioned by the institutional context, set by the electoral system and the use of any positive action strategies (Norris 2004). In particular, to explain the lack of female representation in the Arab states, the model suggests that any explanation needed to take account of a substantial gulf separating the more conservative and traditional attitudes towards the role of women in the public sphere which are commonly found in many Muslim-majority societies and the more egalitarian values which are far more pervasive among Western nations (Norris and Inglehart 2004).

## **II: Multilevel models testing the role of cultural values and structural resources**

So does women's labor force participation and petroleum production matter for women in elected office in the MENA region – or are enduring religious cultural traditions at the heart of any gender gap in oil rich states? To compare these alternative factors, and to reexamine and update the evidence, this chapter examines data drawn from all five wave of the World Values Survey. In the first step, following the logic of the Norris and Inglehart (2003) thesis, this study first compares the relative impact of religious traditions and oil rents on attitudes towards gender equality. In the second step, it then examines the relative influence of egalitarian cultures and oil rents on the election of women to office.

Before proceeding, however, the empirical evidence presented to support the structural argument needs to be considered. Several concerns about the evidence used by Ross can be highlighted, including problems surrounding the selection of cases, problems of poorly specified econometric models with missing controls, and the lack of any analysis of direct evidence concerning cultural values.

### *Case selection*

First, a number of doubts arise from the case-study evidence used by Ross. As Charrad (2009) points out, the choice of illustrative case-studies is inevitably somewhat selective and the comparison of different paired countries, such as contrasts between Morocco and Tunisia, could generate alternative interpretations. If the resource curse is defined more broadly than oil and gas production – as it should be – then of course the comparison would have to account for cases such as South Africa, an economy founded upon gold and diamonds – and yet one where women have always made their voices felt effectively, through engagement in the anti-apartheid struggles as well as through currently representing more 43.5% of all members of parliament. Alternatively it might have been more

persuasive to select cases from non-Muslim petroleum and gas rich states outside of the Middle East, such as Venezuela or Russia, although both these societies fail to provide a good fit for the thesis, and energy-rich Norway and Canada (and Scotland?) are obviously even more extreme outliers. Ross's discussion of the Republic of Korea (South Korea), to illustrate the way that industrialization and women's entry into the workforce has opened doors to political representation, is somewhat unconvincing. The country currently ranks 87<sup>th</sup> worldwide in the proportion of women in parliament, well below the world average. Moreover closer scrutiny of the descriptive data presented by Ross suggests that any statistical relationship between oil rents and the economic and political status of women in the Middle East may be due primarily to a few outliers – namely, Qatar, Kuwait and the United Arab Emirates (and, to a lesser extent, Saudi Arabia). Once these countries are excluded, from observing the descriptive scatter-plots there appears to be almost no linear relationship between Oil Rents per capita and any of the dependent variables. In most other Arab states, including female participation in the non-agricultural labor force, the year of female suffrage (where Saudi Arabia and the UAE are coded, curiously, as allowing women to vote, although this has not yet occurred), the proportion of parliamentary seats held by women, and gender rights. By contrast, Ross's scatter-grams highlight that substantial variation need to be explained in these indicators of gender equality among Arab states with few or no revenues from oil rents. As we shall demonstrate later, a worldwide comparison demonstrates even weaker relationships between petroleum and patriarchy.

#### *Econometric models*

Moreover, questions can also be raised about the econometric models which Ross uses to account for the proportion of women in parliament. From an institutional perspective, the suspicion remains that the controls which Ross incorporates into his models may be mis-specified in one important regard. As Kang (2009) emphasizes, Ross controls for the impact of proportional representation electoral systems with closed lists, but he does not examine the role of different types of affirmative action used for women in elected office. Reserved seats have long been used in Muslim-majority countries, including in Pakistan and Bangladesh (Norris 2007). Research also needs to consider the contemporary popularity of voluntary and legal gender quotas for parliamentary candidates, as well as the interaction between the type of electoral system and the quota system (Norris 2004; Dahlerup 2006; International IDEA 2008; Krook 2009). Kang (2009) presents evidence that where quotas are introduced in mineral-rich nations, the effects on women's representation are indeterminate.



Ross theorizes that oil rents per capita should have (i) a direct role in shaping female labor force participation, and they should thereby also have (ii) an additional indirect effect on women's representation in parliament. This suggests that properly specified cross-national regression models should include an interaction effect, to monitor the impact of oil rents combined with female labor force participation on women's representation. It also remains unclear theoretically why the value of oil production is expected to have any *direct* impact on women's parliamentary representation. Some plausible reasons can be constructed, for example if the resource curse depresses the process of democratization, and, as a result, this may, in turn, thereby limits the expansion of human rights, including women's equality. Similarly Iversen and Rosenbluth (2008) argue that low levels of female labor force participation contribute to female underrepresentation in democratic states by reinforcing traditional voter attitudes toward women (a demand-side feature) and by constraining the supply of women with professional experience and resources who are capable of mounting credible electoral campaigns. Whatever the precise underlying reason, the linkages in the structural argument remain underdeveloped.

In terms of measures, the use of oil rents per capita as an indicator of the 'resource curse' is also open to challenge. Ideally a broader measure of non-renewable natural resources would capture the underlying logic of the core argument more precisely; if the oil and gas extraction industries are overwhelmingly male dominated, then so too is the workforce mining gold, diamonds, and copper. Since the extraction and distribution of natural commodities forms a critical part of the economy in many diverse regions of the world, a measure which reflected a more comprehensive basket of resources would also help to disentangle the complex effects of Muslim religious faith and oil. Moreover the theoretical link between the value of oil rents per capita and the structure of the labor market may also prove tenuous. In some cases, such as Trinidad and Tobago, energy production generates about 40% of GDP and 80% of exports, but only 5% of employment. It is also worth noting that even in economies heavily dependent on oil production for revenue, this does not mean that manual work directly in this industry engages the largest sector of the workforce, by any means. For example the petroleum industry in Saudi Arabia accounts for roughly 80% of budget revenues, 45% of GDP, and 90% of export earnings, but nevertheless almost three-quarters of the Saudi workforce is employed in the service sector. Rather than oil revenues per capita, a stricter test of the structural claim would therefore be to examine the relationship between the proportion of the labor force employed by this sector of the economy and the representation of women in elected office. The measure of oil rents per capita used by Ross also generates some counter-intuitive patterns compared with our popular image of oil rich states; in 2006,

for example, oil rents per capita are twice as high in Trinidad and Tobago as in Saudi Arabia. The socially egalitarian welfare states of Norway and Canada also have particularly high oil rents per capita, by this measure, more so than Venezuela, Russia, Iraq, Iran, and Nigeria. This clearly suggests the need for considerable caution in generalizing about patterns of gender equality worldwide from our cultural stereotypes about oil-rich states.

*Direct evidence for cultural values*

Leaving aside these issues, for the moment, as legitimate questions where interpretations can and do differ based on empirical issues of evidence, methodology and measures, there is still one remaining major lacuna to the resource curse thesis. Although the structural argument is explicitly framed to reject cultural explanations, in fact Ross does not analyze any direct evidence concerning attitudes and values. Thus the analysis is unable to test successive rival models which monitor how the public feels about women and men's roles in the workforce, family and public life, moral values towards sexuality, or any other direct measures about the strength of religiosity or religious identities and beliefs derived from public opinion. As a proxy measure of culture, Ross controls for the proportion of Muslim adherents in each society. This measure (usually based on fairly crude estimates) does not take into account of important variations among Muslim societies in the type of regime, levels of human development, the official role of religion in the state, as well as important contrasts among types of Muslim faith, such as between Sunni, Shi'a and Sufi traditions. For example, Muslim are over 90 per cent of the population in Egypt, Saudi Arabia, Mali and Indonesia, yet according to Freedom House (2009), Syria and Saudi Arabia are some of the most repressive autocracies around the world, while today Mali and Indonesia are electoral democracies. Rizzo, Abdel-Latif, and Meyer (2007) have emphasized that the comparison of *all* Islamic societies may overlook important distinctions, since attitudes towards gender equality and sexuality in Arab cultures are expected to be substantially more traditional than those of Asian Islamic cultures (see also Steele and Kabashima 2008). Ross concludes that "The persistence of patriarchy in the Middle East has relatively little to do with Islam, but much to do with the region's oil-based economy." (Ross 2008, p120). Without any direct survey evidence of public opinion, however, it would be wiser to remain agnostic when estimating how much resources matter compared with cultural factors.

To test the petroleum patriarchy thesis against direct measures of cultural values, the analysis in this study includes the measure of Oil Rents per Capita which Ross argues is the most appropriate indicator of oil and gas production. The total value of mineral production might be a better indicator of

the 'resource curse' thesis, or the proportion of the population employed in this sector of the economy, for the reasons discussed above, but to replicate the Ross study exactly, it is important to retain the measure and data for Oil Rents used earlier. Ross also suggests the need to examine the impact of participation in the paid labor force, since this could potentially affect women and men's cultural attitudes, as well as providing the organizational networks and the resources which facilitate political engagement. Accordingly, paid work force participation (either full or part time) is included in the models in this study.

The empirical evidence for cultural attitudes towards gender equality used in this study draws upon the World Values Surveys/European Values Surveys (WVS/EVS), pooled across three waves conducted from 1995-2007. This project has conducted representative national surveys of the basic values and beliefs of the publics in more than 90 independent countries, containing over 88 of the world's population and covering all six inhabited continents. A study utilizes the third wave, carried out in 55 nations in 1995-1996, the fourth wave, conducted in 59 countries in 1999-2001 and the fifth wave covering 55 countries and conducted in 2005-2007.<sup>4</sup>

Most importantly for our purposes, the survey includes systematic data on public opinion in twenty diverse Islamic states containing Muslim-plurality populations, listed in Table 1, providing some of the broadest global comparison available from any existing representative social survey. Societies in the World Values Survey are classified by their predominant religion, based on estimates of the religious population contained in the CIA World Fact-book. *Islamic* nations are defined as those where the Muslim population is the largest plurality (although societies may, and often do, also contain substantial minorities of other faiths). It is important to compare a wide variety of societies to examine the variety of attitudes and values found among diverse Muslim nations and Islamic traditions around the globe (Moaddel 2007). The World Values Survey includes Arab states, both majority Sunni (such as Jordan, Algeria, Morocco, and Egypt) and majority Shi'a (such as Iran and Iraq), as well as countries in Asia (Azerbaijan, Kyrgyzstan, Pakistan, Bangladesh, Malaysia), Central Europe (Bosnia Herzegovina, Albania), and in Sub-Saharan Africa (Mali, Nigeria, Burkina Faso). The survey also covers states that have adopted Islam as the foundation of political institutions (such as Saudi Arabia and Pakistan), societies where Islam is the official or established state religion (including Egypt, Bangladesh, and Malaysia), and secular states where the constitution is neutral towards religion (such as Turkey, Azerbaijan, Indonesia). The surveys contain eight of the ten most populous Muslim nations around the globe, including the top three in size, Indonesia, Pakistan and Bangladesh. The WVS/EVS surveys also covers societies with all levels of

economic and human development, including many affluent Western countries, such as the U.S., Japan and Switzerland, with per capita annual incomes over \$40,000; together with middle-level Muslim countries including Malaysia, Turkey and Saudi Arabia, as well as poorer Muslim societies, such as Bangladesh, Mali and Burkina Faso, with per capita annual incomes of \$500 or less. In terms of regimes, Saudi Arabia is an absolute monarchy, which Freedom House (2009) classifies as one of the world's most restrictive states in respect for civil liberties and political rights, but the World Values survey also monitored public opinion in the democratic states of Mali and Indonesia, as well as the secular state of Turkey.<sup>5</sup>

[Table 1 about here]

A series of items were selected from the WVS/EVS survey to monitor cultural values towards gender and sexuality, and their dimensions were examined using factor analysis. The results presented in Table 2 show that the items monitoring tolerance of homosexuality, abortion and divorce formed one consistent dimension, representing positive orientations towards issues of sexual liberalization. The three items concerning gender equality, available in the three waves from 1995 to 2005, tapped into approval of traditional or egalitarian roles for men and women in the workforce, elected office and university education, forming another consistent scale, as used in an earlier detailed study (Inglehart and Norris 2003). These two separate dimensions were each summed and standardized into 100-point scales, for ease of comparison, with the full details listed in the Technical Appendix. Survey data was pooled across the third to fifth waves of the WVS from 1995 to 2005, to maximize cross-national coverage and the diversity of societies under comparison. Arguably some modest changes in cultural values could occur during this decade; for example the introduction of gender quotas and the subsequent election of many women into the Iraq national assembly could possibly have strengthened support for the principle of gender equality in political leadership in this country. But the data was pooled across successive waves based on the assumption that cultural values reflect more enduring orientations towards the roles of men and women, and deep-rooted attitudes towards sexual mores, acquired through socialization during early childhood and reinforced in adult life through social norms. In the long-term, longitudinal studies of gender ideologies in the United States suggest that values change mainly through cohort replacement, although ideological learning also modifies adult attitudes (Brooks and Bolzendahl 2004). Values are therefore expected to prove relatively stable during the short-term period of a decade. Using this process, the gender equality scale was available for 85 societies and the liberal sexual morality scale for 95 societies worldwide.

[Table 2 about here]

### III: What explains cultural values towards gender equality: religion or oil?

The first step in the analysis is to test the relative importance of religious traditions or oil rents on support for either traditional or liberal values towards gender equality and sexual liberalization. Based on cultural theories (Norris and Inglehart 2004), this study predicts that religious traditions will play a central role in shaping attitudes at two levels. In particular, this study predicts that (H#1) *individual Muslim religious identities will strengthen traditional values towards gender equality and sexual liberalization*. For the same reasons, it is expected that (H#2) *the strength of individual religiosity will also bolster traditional values*. The strength of religiosity is monitored here by the importance of religion, as measure closely associated with religious practices and behavior (Norris and Inglehart 2004). It is also predicted that there will be a more diffuse cultural effect, so that (H#3) *living in Islamic societies will also strengthen traditional values*. In this regard, individuals who do not subscribe to the Muslim religious identity or faith, such as Christians in Iraq or Hindus living in Pakistan, are still expected to be influenced by the predominant norms and moral attitudes within their community. To compare cultural explanations against the resource curse thesis, this study also tests the rival prediction (H#4) that *societies with high oil rents will display more traditional values*. The models control for the standard demographic and social factors commonly associated with cultural attitudes and values, measured at individual level, namely age, gender, household income, education, labor force participation, marital status and religiosity. At national level, the models also control for per capita GDP, and the location of countries in the Middle East region. The use of the two alternative indicators of cultural attitudes -- towards gender equality and sexual liberalization -- provides an important cross-check on the robustness and reliability of the results.

To operationalize these factors, the key models involve measurement at two distinct levels. A representative sample of individual respondents (level 1) is nested within national-level contexts (level 2). The WVS/EVS was conducted among a representative random sample of the adult population within each country. The use of Hierarchical Linear Models, in particular multilevel regression analysis, is the most appropriate technique for comparing the impact of societal-level and individual-level factors simultaneously. The models in this study use restricted maximum likelihood techniques (REML) to estimate direct and cross-level effects for hierarchical data. Individual respondents are thus grouped into countries. Each country has a different set of parameters for the random factors, allowing intercepts and slopes to vary by nation (Raudenbush and Bryk 2002; Gelman and Hill 2007; Bickel 2007).

In hierarchical linear models, as is customary, all independent variables were centered, by subtracting the grand mean (which becomes zero). The standardized independent variables all have a standard deviation of 1.0. This process also helps to guard against problems of collinearity in the independent variables in the OLS models. The independent variables were treated as fixed components, reflecting the weighted average for the slope across all groups, while nation was treated as a random component, capturing the country variability in the slope. The strength of the beta coefficients (slopes) can be interpreted intuitively as how much change in the dependent variable is generated by a one-percent change in each independent variable. The multilevel regression models used in this study usually generate small differences in the size of the slope coefficient (b) compared with the results of OLS models, but the average standard errors for level 2 variables tend to be slightly larger. The process is thus more rigorous and conservative than OLS, avoiding Type I errors (false positives, concluding that a statistically-significant difference exists when, in truth, there is no statistical difference). In the REML model, by contrast, Schwarz's Bayesian Criterion (BIC) is used, where the model with the lower value is the best fitting.

Level 1 in the core models includes *individual-level* Muslim religious identities, and the strength of religiosity, along with several other standard controls, described in the Technical Appendix, including male gender (0/1), household income using a 10-point scale, age (in years), an education scale, marital status, and labor force participation. Level 2 includes *national-level* variables, including the classification of Islamic or non-Islamic societies, based on the plurality faith in each country's population. In addition, we also control for the regional location, classified as in the Middle East or elsewhere in the world, to test whether global areas differ. This study also models the effects of Oil Rents Per Capita, to test the alternative resource curse thesis.

[Figure 2 about here]

If we first examine the descriptive statistics, Figure 2 illustrates the mean distribution of Islamic and Western societies on the gender equality and the sexual liberalization 100-point scales, without any controls. The scatter-plot illustrates the strong clustering of societies on these dimensions, with the Islamic societies concentrated in the left-bottom quadrant, displaying the most traditional attitudes. Saudi Arabia, Jordan and Egypt prove the most conservative on these indicators, but other predominately Muslim states from Asia and Africa are closely located. By contrast, the affluent post-industrial Western societies are all clustered in the right-hand-top quadrant, led by Sweden,

representing the most egalitarian and liberal values. Interestingly the two Islamic societies closest to this position (Bosnia-Herzegovina and Albania) are both in Europe.

[Figures 2 and 3 about here]

Attitudes among oil rich and oil poor types of economies can also be described by dichotomizing the measure of oil rents per capita around the mean into two categories, as well as by comparing countries with predominant Islamic or non-Islamic religious traditions. Figure 3 shows the mean position of each type of society in their support for gender equality and the sexual liberalization scales, again without any controls. It is immediately apparent that the most traditional attitudes towards gender equality values are found in the oil-rich Islamic states. But does an oil economy or religious culture matter most in this regard? Mean support for gender equality varied sharply among the Muslim and non-Muslim oil rich states, generating a 25-point gap between these groups; this suggests that without any controls, the type of faith is more important than natural resources per se. A smaller 10-point gap in support for gender equality can be observed among Muslim and non-Muslim societies without substantial oil rents, and this gap pointed in the expected direction. To check whether these patterns were due to the selection of the particular questions used in constructing the gender equality scale, or whether the results were robust, similar comparisons can be made using the sexual liberalization scale. The results the lower half of Figure 3 provided even stronger indications that the type of oil-rich or poor society made no difference to these moral attitudes; by contrast people living in Muslim and non-Muslim religious cultures expressed sharply contrasting sexual values.

[Table 3 about here]

Yet obviously many other factors could be driving these differences, beyond religious culture, such as levels of economic development. Table 3 presents the results of the multilevel regression models predicting cultural values, including the predictor variables and the individual and societal-level controls. The models explaining attitudes towards both gender equality and liberal sexual morality show strikingly consistent relationships across nearly all variables, lending confidence to the robustness of the results. The most important findings concern the relative strength of the key predictor variables: individual Muslim identities, living in an Islamic society, and the strength of religiosity were all significantly associated with more traditional gender attitudes. The coefficient for oil rents per capita was also significant across both models, *but in a positive, not negative, direction*, contrary to the structural resource thesis. Labor force participation was significantly associated with more liberal attitudes, however. Most importantly, among all the predictor variables, the coefficients demonstrate

that living in a predominately Muslim society proved by far the strongest factor of support for traditional gender equality attitudes, outweighing all other variables in the model. The diffuse impact of religious traditions within each society on attitudes towards women thus appears to be more important for gender ideologies than individual religious identities and the strength of religiosity; in other words, what appears to matter is *where* you live more than your type of faith or your adherence to religious practices. By contrast, sexual liberalization attitudes were influenced more by the strength of adhering to religious values, irrespective of the particular type of faith-based society. The remaining controls mostly behaved as expected, with support for gender equality and sexual liberalization stronger among the younger generation, women, the more affluent and educated, those in paid employment and the unmarried. More affluent nations were also more liberal, as expected by modernization theories. Once all these factors were entered into the models, the Middle East and North Africa region was a significant negative predictor of attitudes towards gender equality but not sexual liberalization. Overall the models indicate that *the predominant or diffuse religious traditions in Muslim societies, Muslim identities, and the strength of religiosity, provide strong predictors of traditional attitudes towards gender roles* – as well as shaping lower tolerance of homosexuality, divorce and abortion. By contrast, there appears to be no support for the thesis that oil-dependent economies are associated directly with more traditional cultural attitudes towards women and sexual morality.

#### **IV: What explains women's representation in parliament: cultural values or oil?**

Building upon these foundations, as a second step this study can also compare the societal level impact of religious cultures, egalitarian cultural values, and oil rents on women's representation in national parliaments and in Ministerial office. Figure 4 presents the simple descriptive statistics analyzing the proportion of women elected to the lower house of parliament, as well as the proportion of women ministers in higher office in 2005 (the year selected as closest to the fifth wave of the WVS survey). Comparisons can be drawn between Islamic and non-Islamic societies, as well as between oil rich and poor economies. The results in Figure 4 are similar to those observed earlier concerning attitudes towards gender equality; women prove far more successful in gaining legislative and ministerial office power in non-Islamic societies, *whether oil rich or oil poor*. By contrast, women are usually less successful in Islamic societies, *whether oil rich or oil poor*. In short, the religious culture shapes opportunities for women's leadership, most plausibly by influencing the willingness of potential female candidates to run for office, as well as by affecting the decisions of the gatekeepers when selecting parliamentary candidates, whereas the resource curse (oil rents) does not seem to matter.



[Figures 4 and 5 about here]

To examine this pattern in more detail, however, we can also see how particular countries are distributed, using the scatter-grams presented in Figure 5. The top graph illustrated the relationship between the proportion of women members in the lower house of parliament in 2005 and the mean support for egalitarian cultural attitudes across different societies. Societies are also classified by the type of Islamic or non-Islamic religious tradition. The results further confirm the significant positive correlation between egalitarian attitudes and women's election, as noted in 2000 (Inglehart and Norris 2003). This pattern is stronger in the non-Islamic societies ( $R^2=.177$ ), but which also exists to differentiate more or less traditional Islamic cultures ( $R^2=.108$ ). The correlation is not particularly strong, not surprisingly as many other institutional conditions also influence men and women's access to elected office, not least the type of electoral system and any affirmative action measures used in the recruitment process (Norris 2004; Krook 2009). In some cases, such as Rwanda, the proportion of women in office is ahead of public opinion (which can be explained by institutionally by the implementation of top-down positive action measures such as gender quotas). In a few other cases, such as the U.S. and France, this relationship was reversed, suggesting that public opinion among the electorate is less of a potential barrier to women seeking elected office than the practical obstacles, such as the need to gain party endorsements or to raise sufficient campaign resources. Nevertheless the evidence presented here suggests that the predominant religious tradition in any society also matters, by influencing the supply and the demand for female recruitment.

To consider again the rival structural account, the bottom graph in Figure 5 compares women in elected office against the logged distribution of oil rents per capita. By contrast, there appears to be no significant correlation and countries are widely scattered across the graph; women are elected in relatively substantial numbers in societies as diverse as Iraq, Canada, Trinidad and Tobago (as well as Norway), despite relatively high oil rents per capita. Among the oil-poor nations, few women enter elected office Jordan and Armenia, while they perform remarkably well in Sweden and Finland. Indeed the story presented here is summarized by the tight clustering of Scandinavian countries in the top graph in Figure 5, (with a shared egalitarian culture which favors equal opportunities for women), compared with the wide dispersion of oil-poor Sweden and oil-rich Norway on the bottom graph.

## **V: Conclusions**

Does petroleum perpetuate patriarchy? Any observers looking at the limited rights which women face in some of the major oil-rich states, such as Saudi Arabia, Qatar and the United Arab

Emirates, might be tempted to believe that there could possibly be a strong potential linkage. Yet in general structural accounts of gender inequality suffer from several major flaws and the petroleum patriarchy thesis, in particular, does not stand up to scrutiny against the evidence. It seems more plausible to conclude that long-standing religious traditions generate an enduring mark on the gendered norms and beliefs, the attitudes and values, which characterize different societies. These cultural values leave a deep imprint upon the way that men *and* women see the most appropriate division of labor for men and women in the home, family and public sphere – including the contemporary role of women in elected office. Thus Buddhist and Confucian, Catholic and Protestant, Hindu and Muslim societies each display certain distinctive ideas about gender and sexuality –and these values continue to leave an imprint on the lives of women and men, even when post-industrial societies become more secular in orientation (Norris and Inglehart 2004). Thus, for example, active engagement in Protestantism has gradually dwindled and died out in Scandinavian countries, including involvement in religious services and church organizations, as well as adherence to the importance of religion in people’s lives. Nevertheless the legacy of Protestant traditions continues to be evident in the DNA of contemporary Scandinavian values.

The imprint of predominant religious traditions thus influences many cultural values, including attitudes about whether women should play a leadership role in public life. In turn, as illustrated in Figure 1, these attitudes can be understood to facilitate or hinder the recruitment of women into elected and appointed office. Cultural barriers are not fixed in stone; there is a wealth of evidence that values towards gender equality can and do gradually change on a generational basis (Brooks and Bolzendahl 2003), reflecting long-term processes of societal modernization. In the short term, as well, cultural barriers to women’s equality can also be overcome by the effective implementation of well-designed institutional reforms, as exemplified most dramatically by the election of women through the use of reserved seats in Afghanistan and the use of candidate gender quotas in Iraq. Through these fast-track mechanisms, where parliaments are effective, women can have a voice in the future of their countries. Therefore the extensive body of research literature presents a wealth of evidence that the resource curse can probably be blamed for a multitude of ills, from conflict and civil war to anemic economic growth, corruption, state capture, and autocracy. But the resource curse -- at least petroleum -- does not appear to be a major factor at the heart of the problems facing the continuing gender disparities in elected office among Arab states.

**Table 1: Muslim countries contained in the World Values Surveys**

	Country	% Muslims	Global region
1	Iraq	98.9	Middle East
2	Saudi Arabia	98.0	North Africa
3	Iran	97.7	Middle East
4	Saudi Arabia	97.0	Middle East
5	Jordan	96.9	Middle East
6	Egypt	94.3	North Africa
7	Mali	93.0	West Africa
8	Indonesia	92.2	South East Asia
9	Azerbaijan	91.0	Central Europe
10	Bangladesh	88.7	South Asia
11	Turkey	81.7	Central Europe
12	Kyrgyzstan	74.3	Central Asia
13	Pakistan	69.6	South Asia
14	Albania	64.3	Central Europe
15	Morocco	63.6	North Africa
16	Malaysia	57.4	South East Asia
17	Burkina Faso	53.3	Sub-Saharan Africa
18	Bosnia	48.9	Central Europe
19	Tanzania	40.1	East Africa
20	Nigeria	28.1	West Africa

**Source:** Pooled World Values Survey, 1995-2007

**Table 2: Dimensions of cultural value scales**

	<b>Sexual liberalization</b>	<b>Gender equality</b>
Justifiability abortion	.753	.
Justifiability divorce	.745	
Justifiability homosexuality	.702	
Men make better political leaders than women		.742
University education more important for a boy		.719
Men should have more right to a job than women		.669
% of variance	16.5	13.4

**Notes:** Individual-level Principal Component Factor Analysis was used to develop the scales with varimax rotation and Kaiser Normalization, excluding coefficients below 0.40. See the technical appendix for the detailed survey items.

**Source:** Pooled World Values Survey, 1995-2007

**Table 3: Multilevel model predicting cultural values**

	Gender equality	Liberal sexual morality
<b>PREDICTOR VARIABLES</b>		
Muslim religious identity	<b>-0.45***</b> (.064)	<b>e B67***</b> (.083)
Islamic society	<b>-5.51**</b> (2.51)	<b>-2.79*</b> (2.89)
Strength of religiosity	<b>-.86***</b> (.090)	<b>-5.70***</b> (.060)
Oil rents per capita	<b>.620***</b> (1.13)	<b>1.80***</b> (.098)
<b>INDIVIDUAL-LEVEL CONTROLS</b>		
Age (years)	<b>-0.95***</b> (.041)	<b>-2.17***</b> (.084)
Gender (male=1)	<b>-3.47***</b> (.067)	<b>-1.52***</b> (.047)
Household income 10-pt scale	<b>1.03***</b> (.044)	<b>1.21***</b> (.050)
Education 9-pt scale	<b>2.79***</b> (.046)	<b>2.65***</b> (.054)
Labor force participation	<b>0.53***</b> (.043)	<b>0.98***</b> (.050)
Marital status	<b>-0.58**</b> (.042)	<b>-1.03***</b> (.048)
<b>NATIONAL-LEVEL CONTROLS</b>		
Middle East	<b>-3.10**</b> (1.13)	.155 (1.33)
Logged GDP per capita	<b>2.74***</b> (.828)	<b>7.01***</b> (.920)
Constant (intercept)	70.5	40.2
Schwartz BIC	139,093	170,834
N. respondents	165,322	192,999
N. nations	75	83

**Note:** All independent variables were standardized using mean centering (z-scores). Models present the results of the REML multilevel regression models including the beta coefficient, (the standard error below in parenthesis), and the significance. The 100 point scales are constructed from the items listed in Table 2. P.\*\*\*>.000, \*\*=.01, \*>.05 **Source:** Pooled World Values Survey 1995-2007.

**Figure 1: Theoretical model of how religious traditions shape women's representation**

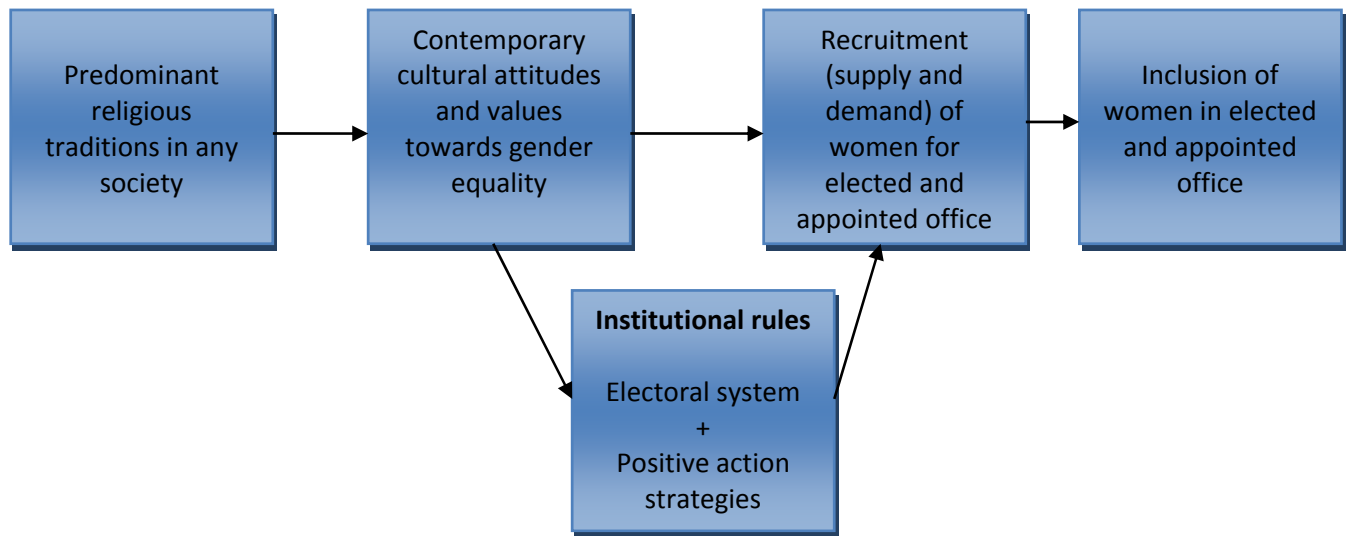
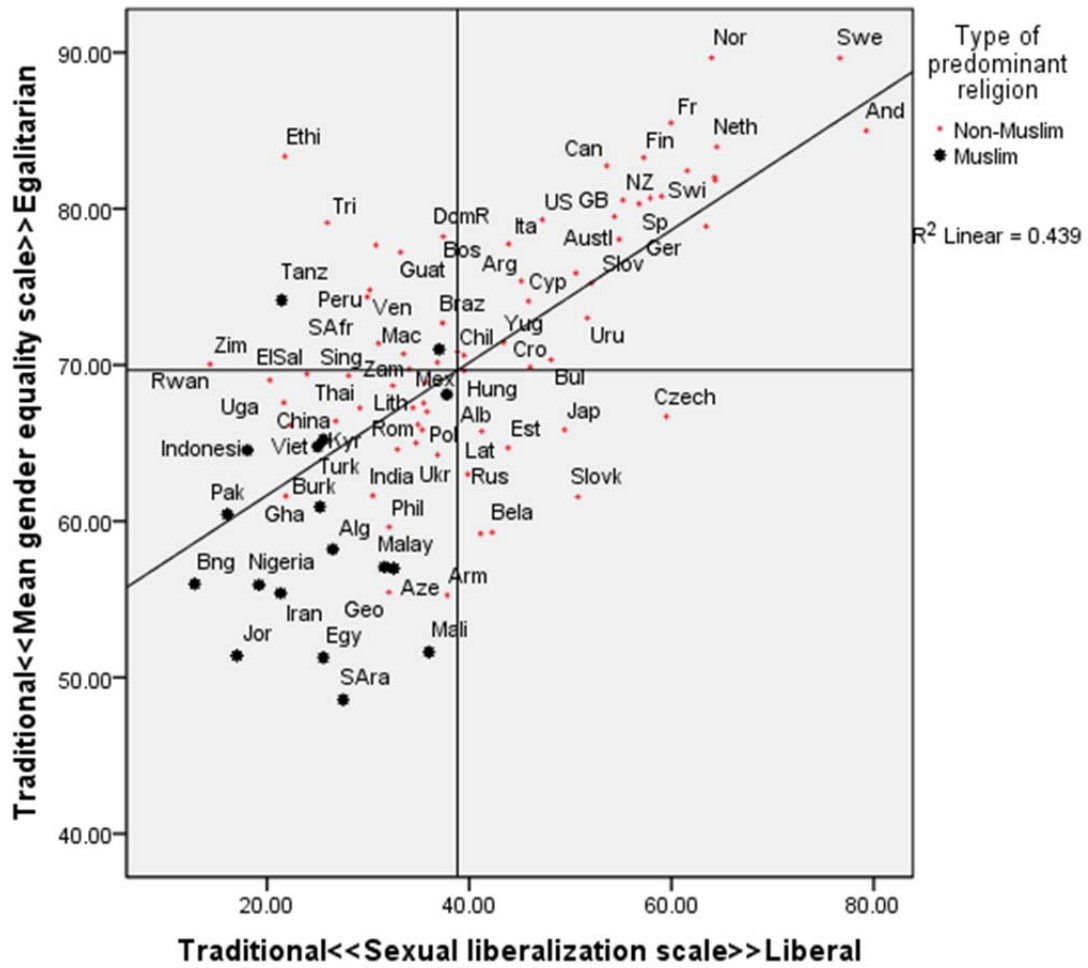


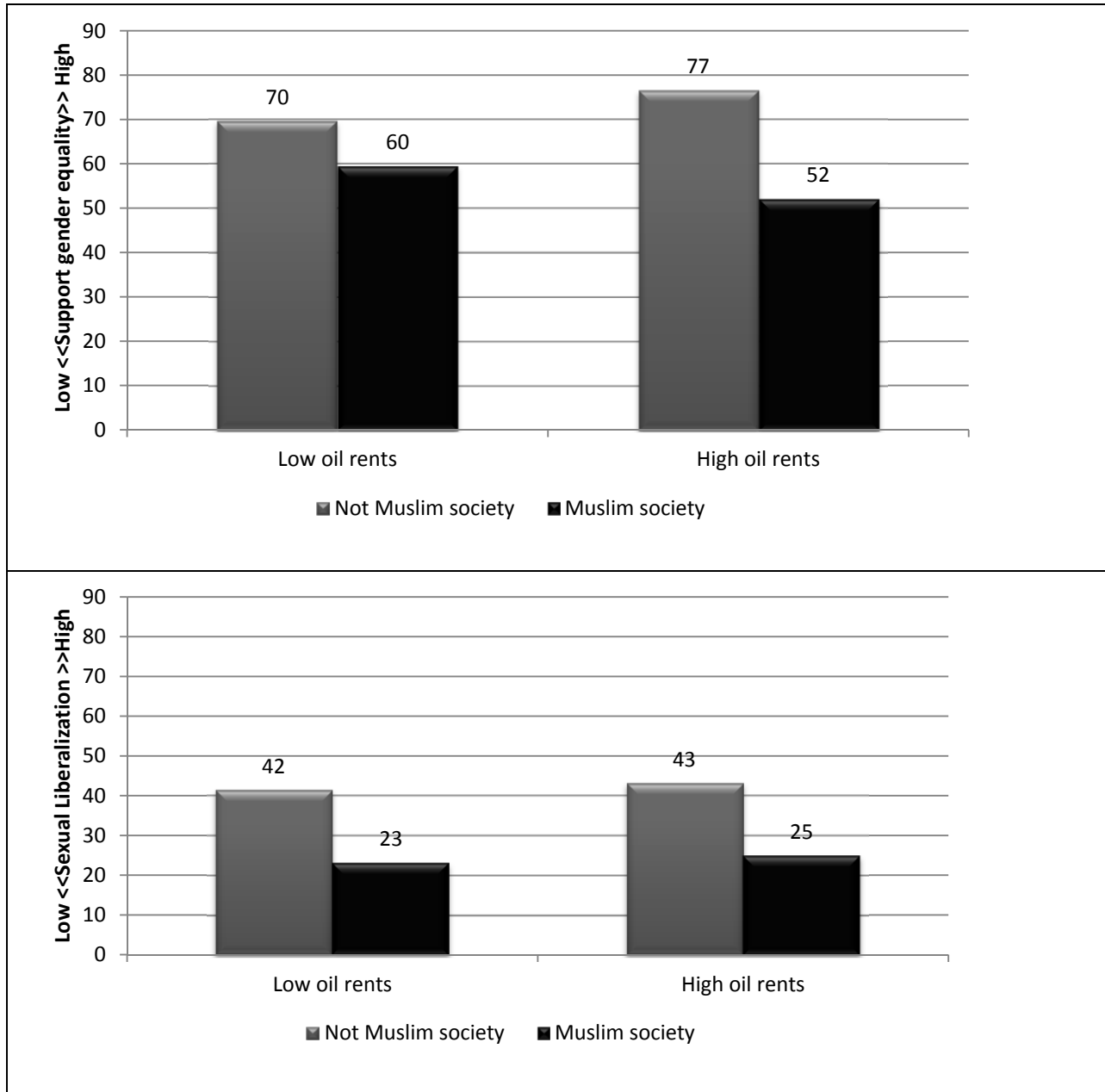
Figure 2: Sexual liberalization and gender equality values by type of society



**Note:** For the two 100-point value scales, see the Technical Appendix.

**Source:** Pooled World Values Survey 1995-2007.

**Figure 3: Support for gender equality and sexual liberalization**

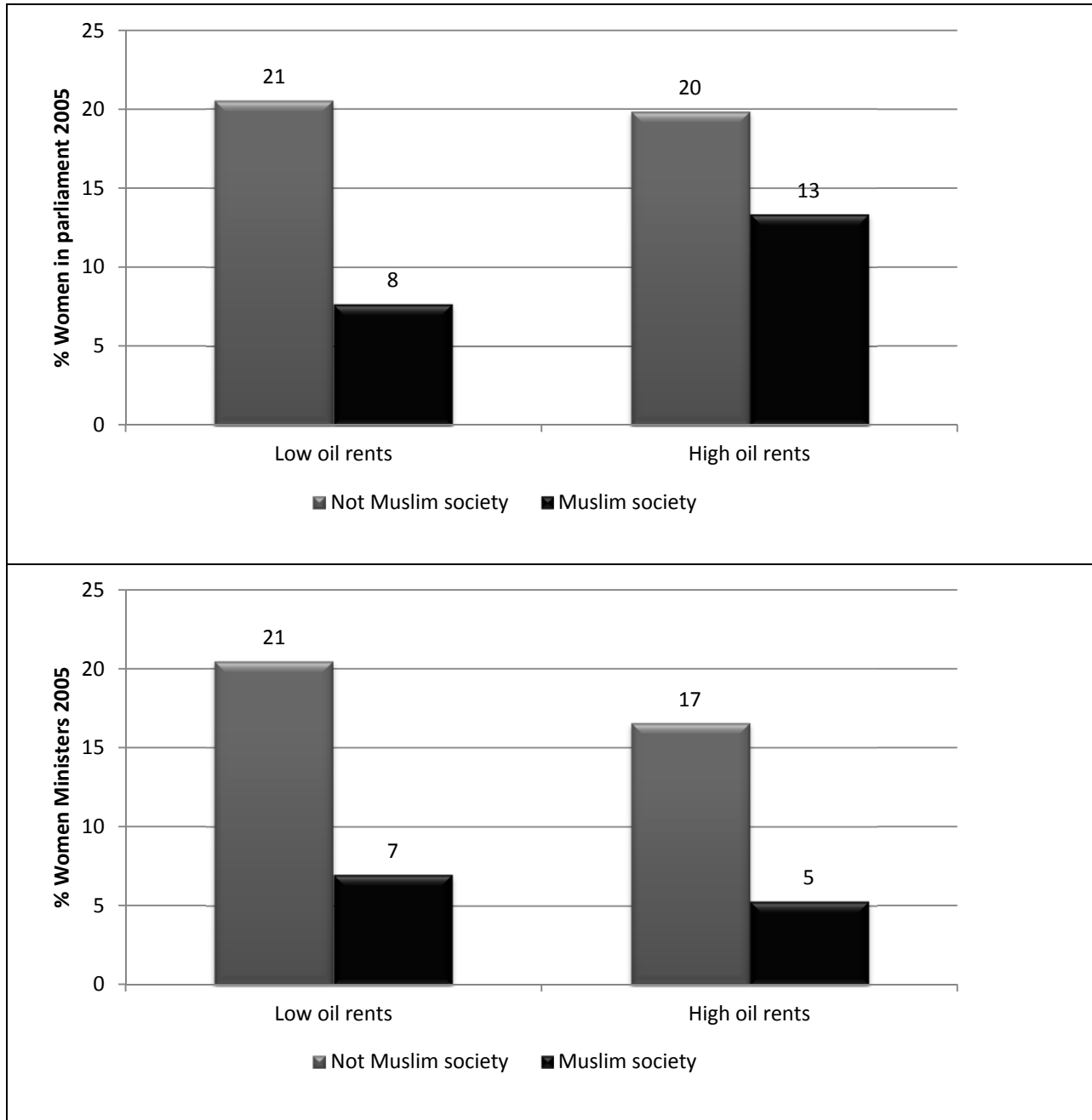


**Note:** For the two 100-point value scales, and the classification of societies, see the Technical Appendix.

**Source:** pooled World Values Survey 1995-2007.

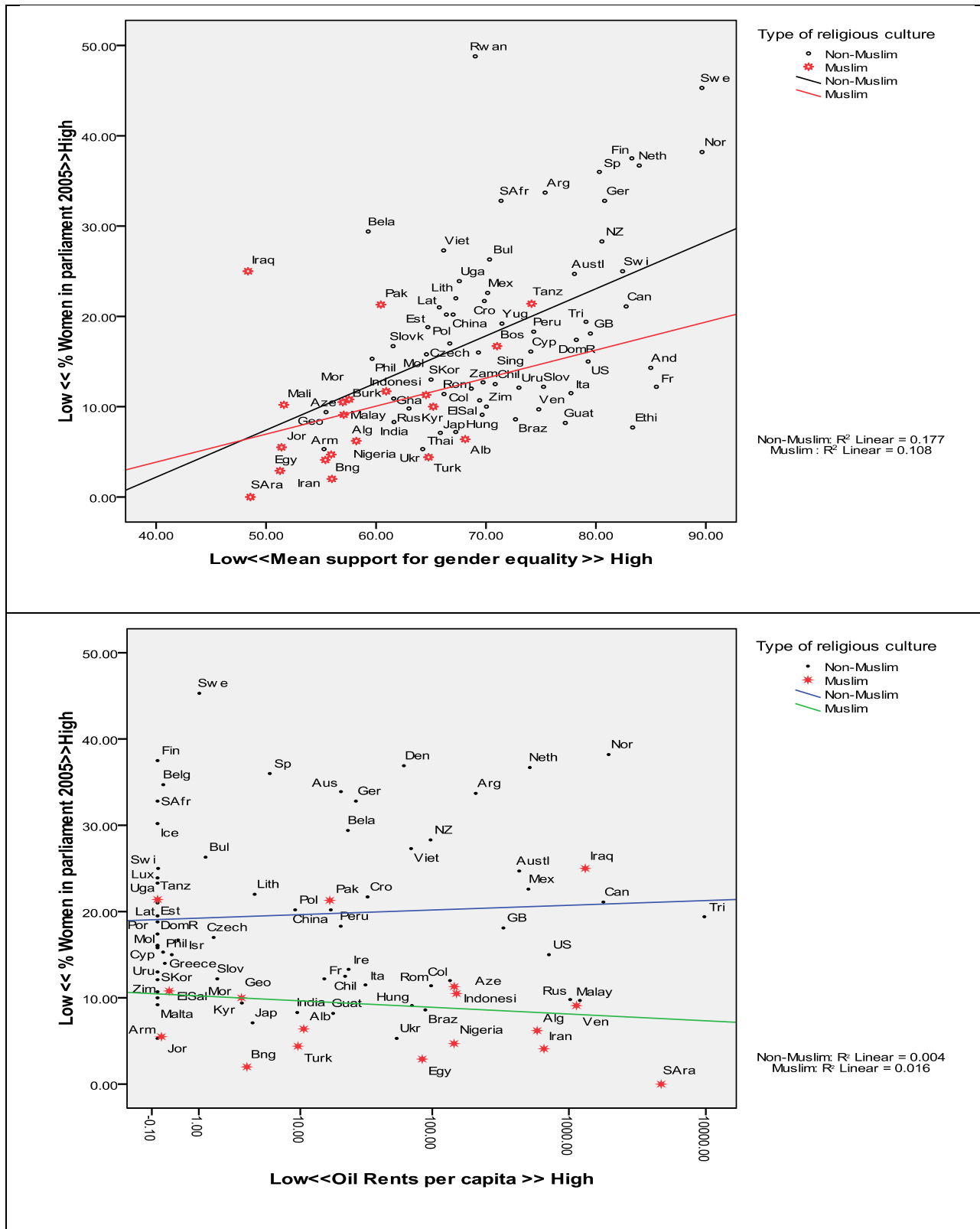


**Figure 4: Women in elected office, 2005**



**Source:** The proportions of women in the lower house of parliament and in ministerial office (2005) are derived from the Inter-Parliamentary Union. [www.IPU.org](http://www.IPU.org)

Figure 5: Cultural attitudes, oil, and the proportion of women in parliament, 2005



Note: The proportion of women in the lower house of parliament (2005) is derived from the Inter-Parliamentary Union. [www.IPU.org](http://www.IPU.org). See the Appendix for the other measures.

## Technical Appendix A: Concepts and Measures

<b>Variable</b>	<b>Definitions, coding and sources</b>
<b>Per Capita GDP</b>	Measured in constant international \$ in Purchasing Power Parity. Various years. Source: The World Bank. World Development Indicators.
<b>Type of religion</b>	V184: "Do you belong to a religious denomination? [IF YES] Which one?" Coded: No, not a member; Roman Catholic; Protestant; Orthodox (Russian/Greek/etc.); Jewish; Muslim; Hindu; Buddhist; Other. Source: World Values Surveys.
<b>Type of predominant religion in each society</b>	The classification of the major religion (adhered to by the plurality groups in the population) in all 193 states around the world is based on the CIA. <i>The World Factbook, 2009</i> . (Washington, DC: Central Intelligence Agency). Source: <a href="http://www.cia.gov/cia/publications/factbook">http://www.cia.gov/cia/publications/factbook</a>
<b>Islamic societies</b>	Based on the societies with Muslim plurality populations, based on the above source, as listed in Table 1. It should be noted that throughout the paper the term 'Islamic' is used to refer to Muslim-plurality societies, and it is not used to describe the official religion or policies of the state, or the relation between religious and political authorities. 'Muslim' refers to individuals who identify with the Muslim faith.
<b>Gender equality scale</b>	The combined 100-pt gender equality scale is based on the following 3 items: MENPOL Q118: "On the whole, men make better political leaders than women do." (Agree coded low); MENJOBS Q78: "When jobs are scarce, men should have more right to a job than women." (Agree coded low); BOYEDUC Q.119: "A university education is more important for a boy than a girl." (Agree coded low). Source: World Values Surveys 1995-2007.
<b>Sexual liberalization value scale</b>	"Please tell me for each of the following statements whether you think it can always be justified (10), never justified (1), or somewhere in-between, using this card...Abortion, Homosexuality, Divorce". Source: World Values Surveys
<b>Occupational Class</b>	Coded for the respondent's occupation. "In which profession/occupation do you, or did you, work?" The scale is coded into 4 categories: Professional/manager (1); Other non-manual (2); Skilled non-manual (3); Unskilled Manual Worker (4). Source: World Values Surveys
<b>Paid work status</b>	V220. "Are you employed now or not?" Coded fulltime, part-time or self-employed (1), other (0). Source: World Values Surveys
<b>Education</b>	V217. "What is the highest educational level that you have ever attained?" Coded on a 9-point scale from no formal education (1) to university level with degree (9). Source: World Values Surveys
<b>Age</b>	Age coded in continuous years derived from date of birth. Source: World Values Surveys. Age groups: Younger (18-29), middle (30-49), and older (50+).
<b>Religiosity</b>	V192 'How important is God in your life' 10-point scale

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<b>Household Income</b>	V253 “On this card is a scale of incomes on which 1 indicates the “lowest income decile” and 10 the “highest income decile” in your country. We would like to know in what group your household is. Please, specify the appropriate number, counting all wages, salaries, pensions and other incomes that come in.” (Code one number). Source: World Values Surveys
<b>Education scale</b>	V238. “What is the highest educational level that you have attained?” [NOTE: if respondent indicates to be a student, code highest level s/he expects to complete]: (1) No formal education; (2) Incomplete primary school; (3) Complete primary school; (4) Incomplete secondary school: technical/vocational type; (5) Complete secondary school: technical/vocational type; (6) Incomplete secondary: university-preparatory type; (7) Complete secondary: university-preparatory type; (8) Some university-level education, without degree; (9) University-level education, with degree. Source: World Values Surveys
<b>% Women in parliament</b>	Proportion of women in the lower house of the national parliament, latest election 2005. Source: Inter-Parliamentary Union.
<b>% Women ministers</b>	Proportion of women ministers in the national cabinet, 2005. Source: Inter-Parliamentary Union.
<b>Oil rents per capita</b>	Oil and gas rents per capita, measured by the total value of production minus the extraction costs, normalized by the country’s population. The data relates to the year closest to the WVS survey wave. Source: Michael Ross (2008).
<b>Oil rent categories</b>	‘Low’ and ‘high’ oil rent societies are classified for the countries contained in the WVS by dichotomizing the value of oil rents per capita (see above) around the mean.

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**Note:** Full details of the World Values Survey codebooks and questionnaires can be found at [www.worldvaluessurvey.com](http://www.worldvaluessurvey.com).

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<sup>1</sup> The exceptions to Arab state endorsement of CEDAW are Oman, Qatar, Somalia, Sudan and the Occupied Palestinian Territories.

<sup>2</sup> It should be noted that in Saudi Arabia, by law Saudi women are denied voting suffrage and the right to stand for election. In Lebanon, elementary education is required for the female but not the male suffrage. In Kuwait, women could only run for election in 2009. In Qatar, the expansion of the franchise has not yet been implemented in national contests.

<sup>3</sup> See, for example, Human Rights Watch. Sept 8<sup>th</sup> 2010. 'Afghanistan: Unchecked violence threatens election.' <http://www.hrw.org/en/news/2010/09/09/afghanistan-unchecked-violence-threatens-election>



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<sup>4</sup> Full methodological details about the World Values Surveys, including the questionnaires, sampling procedures, fieldwork procedures, principle investigators, and organization can be found at:  
<http://wvs.isr.umich.edu/wvs-samp.html>.

<sup>5</sup> These regimes are classified according to the 2009 Freedom House assessments of political rights and civil liberties Freedom House. 2009. *Freedom in the World*. [www.freedomhouse.org](http://www.freedomhouse.org).