

ENVIRONMENTALISM AND ISLAM:
A STUDY OF MUSLIM WOMEN IN THE U.S.

By

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Abstract

Although it may come as a surprise to many Westerners, there is a solid foundation for an environmental ethic within the Islamic tradition. However, Islamic environmental values have not translated into much visible environmental activism from the Muslim community living in the U.S. This study was conducted to gain a better understanding of existing levels of Muslim environmental behavior, both individually and communally.

This paper provides an overview of Muslim history in the U.S., describes the religious basis for a unique Islamic environmental ethic, and analyzes the surveys from snowball sample of 330 Muslim women living in the U.S. Results show significant differences between sociodemographic traits and Pro-Environmental Behaviors, Environmental Activism, Outdoor Activities, and Mosque Activism.

Chapter 1

Introduction: Muslims in the United States

For more than thirty years, environmentalists have leveraged various spiritual and religious traditions to advance environmental awareness, concern, behavior, and activism. In this quest, Islam has been largely ignored. This is more due to Western misconceptions about Islam than the lack of an established Islamic value system regarding the environment. Many scholars have analyzed the theological roots of Islamic environmental values (Ammar, 2000; Haq, 2001; Masri, 1992; Nasr 2001), but few discuss the environmental behavior of Muslims (Rice 2006). My research attempts to add to this field of study by exploring how Muslims in the U.S. participate in environmental behaviors.¹

This paper will analyze possible Islamic influences on the environmental ethic of U.S. Muslims, then will survey actual behavior to uncover any unique patterns. The results of this study will provide U.S. environmentalists with an additional way of communicating issues and gaining support with people of color while also helping Muslims

¹This study uses the term “environment” to refer to the place in which people live, work, and recreate. Environmental attitudes are the beliefs and values about the environment. Environmental behaviors are those that have direct impacts on the environment (such as recycling, outdoor activities, etc.).

understand how to increase their community's role in the influential environmental movement.

Research Objectives

This thesis explores how American Muslims conceptualize Islamic environmental values and how they implement them in their daily lives. This will be discussed in three ways. First this study will provide an overview of Muslims in the United States; then will discuss the environmental ethic found within Islam. Finally, this paper will analyze the results of a regional survey of U.S. Muslim women that explores their self-reported environmental behaviors.

Why is this study important?

Although I received immense support from the Muslim community regarding this project, I often faced the question – “Why should Muslims focus on environmental problems - don't they have more pressing issues to worry about?” The terrorist attack of 9/11 led to wars in Afghanistan and Iraq and resulted in the U.S. Patriot Act. Many American Muslims feel their primary efforts should be focused on voicing their disapproval of these policies. Other Muslims believe their priority should be on building a cohesive Muslim community with a special emphasis on bridging the

gap between African American and Middle Eastern/South Asian Muslims.² Still others feel Muslims' primary objective should be to transform public misperceptions that all Muslim religious groups have terrorist tendencies and that all Muslims are fanatical. With such critical issues taking primacy in inter-Muslim debate, it is understandable that few U.S. Muslims feel an urgent calling to take on environmental issues.

Nevertheless, the alarming increase of anti-Muslim sentiment since 9/11 highlights the need for Muslims to become more visible as social activists and philanthropists to counteract the image of Muslims as terrorists. Such Muslim participation will help minimize the promulgation of anti-Muslim policies and programs. To accomplish these tasks, Muslims must take leadership roles on a variety of national and local issues, not just those pertaining directly to Muslims.

It would be a mistake for Muslims to ignore environmental activism. Environmental organizations are taking a stand on a number of social policies that will significantly impact Muslims. The ongoing controversy within the Sierra Club about the group's position on immigration illustrates environmental organizations' important role in American politics³. As anti-immigration advocates attempt to take control

²The use of these terms is controversial and imperfect. I will address this issue later in the paper.

³ The Sierra Club has debated taking a stand on immigration as part of its environmental advocacy since the late 1960s, going so far as to commission a book, "The Population Bomb," by Paul Erlich. (<http://www.sierraclub.org/population/history.asp>). This spurred the Zero Population Growth group (which changed its name to the Population Connection) (Davis 2004). These groups advocate restricting population growth to protect U.S. resources. Since U.S. birth rates have stabilized in the post baby-boom

of the Sierra Club board, it is clear the lack of minority participation impacts how the organization defines its priorities and policies. Muslim participation in such environmental organizations helps ensure that Islamic viewpoints are included in debates concerning important issues.

Muslims in the United States

There is no universally agreed upon population estimate for the number of Muslims living in the United States (Smith The Pew Research Center conducted a nationwide survey in 2007 that showed .8%⁴ (2.35 million individuals) of the total U.S. population report they are Muslims (p.9).

U.S. Muslims are a unique population – they are a heterogeneous group with representatives from many countries, speaking many different languages, bringing together many different customs. This group is struggling to find a cohesive identity within the United States, and before delving into an understanding of U.S. Muslim environmental ethics and activism, it is necessary to have a clear understanding of Muslim history in the U.S. This chapter will provide a historical overview and will summarize the current social, religious, and political characteristics of major Muslim groups in this country.

years, these groups believe the best way to minimize population growth in the U.S. is to limit immigration.

⁴ This percentage is calculated based on estimates calculated by the U.S. Census Bureau for the 2007 American Community Survey 1-Year Estimates.

American Muslims come from every ethnic and racial background and every class. Some Muslims have been in this country for generations, while others arrived within the past few years. Muslims are involved in every aspect of U.S. life – they are business executives, taxi drivers, lawyers, cashiers, scientists, janitors, teachers, and factory workers. Muslims belong to a variety of sects, brotherhoods, and schools of thought. Some Muslims are very religious while others consider themselves to be “cultural” Muslims. Despite these ethnic, cultural, socioeconomic, and religious differences, all Muslims believe in basic Islamic precepts known as the five pillars of Islam. The pillars instruct Muslims to:

1. Acknowledge there is only one God (known in Arabic as *Allah*) and that Muhammad is His Prophet
2. Pray five daily prayers (*salaat*) in the prescribed manner, at the prescribed times
3. Fast from dawn to sunset (*saum*) for 30 days during the holy month of Ramadan
4. Give alms (*zakat*) to the needy
5. Make at least one pilgrimage (*hajj*) to Mecca

Muslims believe Islam is the religion sent by God to validate Jewish and Christian messages (via the Torah and Gospel) and also provide a

correction for the teachings that were misunderstood and/or misinterpreted by humankind. As such, Muslims view their religion as the final word from God. The majority of Muslims do not follow one principal authority figure (such as the Pope); instead Muslims look to their Holy Book, the *Qur'an*, for all guidance

Muslim Sects and Brotherhoods

Although the media portrays U.S. Muslims as one unified religious group, they are actually divided into a variety of divisions, sects, and brotherhoods. American Muslims identify themselves as Sunnis, Shi'ah (also spelled "Shi'ites"), Sufis, the Moorish Science Temple, the Nation of Islam (NOI), and Ahmadiyyas. Yet there is controversy amongst U.S. Muslims as to which groups can be rightfully considered Islamic. Smith explains,

“the question of who is and who is not a Muslim in the American context is sometimes straightforward and other times difficult to ascertain. While some individuals and groups consider themselves to be under the umbrella of Islam, or at least identify with elements of Islamic faith and practice, those very individuals and groups may be denied Islamic affiliation by others who accuse them of marginality, sectarianism, or even heresy” (1999, p.77-78).

Sunnis and Shi'ah

The two largest groups, the Sunni and Shi'ah, constitute approximately 95% of the world's Muslims (Rashid, 2000, p.79). The main split, between the Sunnis and the Shi'ah, occurred very early in Muslim history. After the Prophet Muhammad died, political disputes led the Sunnis to follow the leadership of Abu Bakr (companion to the Prophet) and the Shi'ah to follow the leadership of Ali' (son-in-law of the Prophet). The two groups have a long history of difficult relations, much of it stemming from Sunni persecution of the Shi'ah minority. Sunnis form the majority of the world's Muslims and are correspondingly the largest Islamic sect in the U.S. Though still a minority, the Shi'ah have a higher representation within the U.S. The global Shi'ah population is around 10%, but estimates indicate that as much as 16% of the U.S. Muslim population is Shi'ah (Pew Research Center, p. 9, 2007).⁵

Within the Sunni and Shi'ah sects, Muslims are further subdivided by school of Islamic jurisprudence. Adding to this complexity are cultural differences within immigrant groups. Immigrants from different regions form their own communities with groups separating by country, ancestral villages, and/or mother tongue. In addition, major cultural differences exist between immigrant and African American Muslims.

The most important difference between these groups involves the five pillars of Islam. The Sunni and Shi'ah, despite their differences,

⁵ This translates to 224,000 individuals

place the highest importance on the Qur'an and follow the five pillars of Islam (as described above). Other Muslim sects that depart in some way from the five pillars are considered heretical by these two main groups. In the United States, the most important of these groups are Sufis, Ahmadiyyas, the Moorish Science Temple, and the Nation of Islam (NOI).

These minority groups face discrimination within the greater Muslim community because Sunni and Shi'ah Muslims believe that their religious "innovation" (such as believing in other prophets after Muhammad) and departure from the five pillars separate these followers from "true" Muslims. The Moorish Science Temple and NOI are movements that began in the United States, and are further discussed in the section describing the history of Islam in this country. The Sufi and Ahmadiyya movements began in the Middle East and South Asia, but also have followings in the United States.

Sufism

Sufism is a movement of diverse brotherhoods that are found within most branches of Islam. Sufism was initially a Shi'ah movement but has nearly disappeared from Shi'ah Islam over the past several hundred years and is now primarily a Sunni movement (globalsecurity.org 2004). Sufis place a great emphasis on the mystical dimension of Islam and their practice revolves around finding ecstasy through achieving

oneness with God. Despite the many Sufi orders within the Sunni branch, many orthodox Sunni scholars view Sufis with suspicion because of its strong mystical components. Shi'ah Muslims tend to be even more hostile towards Sufis because feel that certain Sufi beliefs are sacrilegious (globalsecurity.org 2004).

Ahmadiyya Movement

The Ahmadiyya movement in the U.S. was an extension of Hadhrat Mirza Ghulam Ahmad's desire to revive Islamic spiritual and moral values in India (Ahmadiyya Muslim Community, 1995). Followers believe Ahmad (born in 1835) was the promised messiah and received divine revelation.⁶ The Ahmadiyya movement began in the U.S. when missionary Muhammad Sadiq arrived in Philadelphia in 1920. Sadiq's original objective was to create a multi-racial Islamic movement that would create bonds of mutual respect and understanding between Muslims and Christians in the U.S. (Turner, 1987, p.123). The racism Sadiq encountered with the U.S. media (blatantly anti-Islamic), government (especially immigration authorities), and churches (which were strictly segregated) led Sadiq to take a more anti-imperialist, anti-Christian stance (Turner, 1987, p.123-4).

⁶ Non-Ahmadiyya Muslims regard this belief as blasphemy. In Pakistan this criticism has increasingly taken the form of religious persecution and harassment.

The Ahmadiyya movement began to focus its evangelical efforts on the African American community which was more welcoming of its Islamic message. Although African Americans always composed the majority of members in the U.S. Ahmadiyya movement, this was the most inter-racial Islamic group in the U.S. with white, black, and South Asian members attending the same mosques. The Ahmadis also succeeded in spreading information about Islam by providing the first English version of the Qur'an and an influential Muslim newspaper, *The Moslem Sunrise* (Turner, 1987, p.130). The Ahmadiyya movement had fewer than 1,000 followers in the 1920s, but within thirty years it had grown to become one of the most influential and prominent U.S. Islamic groups (Turner, 1987, p.131). The rise of Sunni and Shi'ah Islam within the United States has reduced the influence of the Ahmadiyyas, and although exact numbers are not available, less than 5% of the total Muslim population (less than 70,000 individuals) probably identifies with this sect today (Pew Research Center, p. 21, 2007).

Moorish Science Temple

The first mass Islamic religious movement in the United States was the Moorish Science Temple of America. This brotherhood was founded in 1913 in Newark, New Jersey by Noble Drew Ali who declared himself a prophet of God. Ali created a new holy scripture, *The Holy Koran of the*

Moorish Science Temple of America, based on his study of Islam and other Eastern religions.⁷ His objective was to bring African Americans back to their true religion – Islam. According to Ali’s teachings all African Americans were Moors: descendents of Muslims from North and West Africa. As a response to the racism found within U.S. Christianity and the separatism of Middle Eastern and Asian Muslim immigrants at that time, Ali promoted a religion based on Islam that created a unique Moorish identity for African Americans.

Through the Moorish Science Temple, Ali promoted a Black Nationalist agenda (Turner, 1997, p. 71-72). As a part of this, Ali felt it was critical for African Americans to achieve economic self-sufficiency. He stated, “We shall be secure in nothing until we have economic power” and “A beggar people cannot develop the highest in them, nor can they attain to a genuine enjoyment of the spiritualities of life” (Smith, 1999, p.79). Under Ali’s guidance, Moorish Science Temple communities established grocery stores, restaurants, and other businesses.

The Moorish Science Temple had a strong following in the early 1900s, but this religious group is a minority within the U.S. Muslim community today. Orthodox Muslims view the Moorish Science Temple’s ideology and Ali’s claims of prophecy as heretical and don’t consider the Moorish Science Temple followers as “true” Muslims.

⁷Although Sadiq initiated the U.S. Ahmadiyya movement seven years after Ali founded the Moorish Science Temple, Sadiq’s teachings greatly influenced Ali and his followers.

Nation of Islam and the American Muslim Society

Similar to the Moorish Science Temple, the NOI is a U.S.-based Islamic group that arose in opposition to the racist atmosphere of the early 20th century. The NOI is a black nationalist, black supremacist group that based its ideologies on Islamic teachings. W.D. Fard Muhammad, a man assumed to be of Middle Eastern heritage, developed a vision of Islam that promoted the moral superiority of non-whites and aimed at creating a separate African American nation. Nation of Islam followers believe Fard was an incarnation of God. Although Fard may never have claimed this directly, he was encouraged the belief among his followers as a replacement for the imperialist “white” Christ (Smith 1999, p.81).

In 1930, Fard began to spread his message that African Americans should reclaim their pride and glory as the lost tribe of Shabazz. Four years later, when Fard mysteriously disappeared, Elijah Muhammad took over leadership of the fast-growing NOI community. By the 1950s, the NOI had over one thousand members and was an important political force. The NOI’s most famous member is undoubtedly Malcolm X, the man who helped make the NOI (and the plight of African Americans) known internationally.

NOI placed a strong emphasis on education and economic self-sufficiency. Elijah Muhammad developed a network of Islamic schools to teach elementary, junior high, and high school kids. He also implemented

development programs that led NOI members to form a strong African American middle class (Nuruddin, 1998, p.281). Elijah Muhammad encouraged his followers to “think black, invest black, buy black, “as economic independence was a necessary prerequisite to political independence (Smith 1999, p.85).

In 1975 Elijah Muhammad died and his son, W. D. Muhammad, took over leadership of the NOI. W. D. Muhammad initiated a radical departure from his father’s practices and led the NOI to follow orthodox Sunni Islam practices. W.D. Muhammad changed the name of his group several times, and at one point attempted to dismantle the group name by saying they should simply refer to themselves as Muslims. However, followers demanded a name to identify themselves and the former NOI is now referred to the American Muslim Society.

Louis Farrakhan initially accepted the leadership of W. D. Muhammad, but was not able to commit to the complete overhaul of the NOI’s belief system. In 1978 Farrakhan separated himself from the W. D. Muhammad’s group and resurrected the NOI. This group retained very few members from the original movement and is now primarily composed of new converts (Smith 1999, p.94). The NOI also generated offshoots such as the Ansaru Allah and Five Percenter movements, which both preached extremist black supremacy ideologies (Nuruddin, 1998, p.280).

Orthodox Muslims, including W.D. Muhammad’s group, are vehemently opposed to NOI because of its upholding of the un-Islamic

belief that Fard was an incarnation of God. In addition, NOI's refusal to follow all the pillars of Islam leads most Muslims to dismiss this group as un-Islamic. Orthodox Muslims also point to the NOI leaders' anti-Semitic statements as additional proof of their un-Islamic belief system.

History of Islam in the United States

1400s- 1865

Islam in the U.S. predated the arrival of Christopher Columbus. Muslim Moors, slaves to Spanish explorers, worked as sailors, interpreters, and navigators to help "discover" the new world (Rashid, p.77, 2000; Smith, 1999, p.50). Columbus' crew probably included Muslims as well. It is believed that some of these early Muslims remained in the New World and joined Native American tribes. The Muslim population in the U.S. was not substantial until the advent of the slave trade. Some researchers estimate that 8% of all West African slaves were Muslim (Turner, p.12, 2000).⁸

The constraints of slavery prevented the first Muslims from freely practicing their religion. Many owners forced slaves into accepting Christianity and/or prohibited the practicing of other religions. Owners also denied slaves the right to read and write. These barriers made it

⁸ According to early census numbers, the total slave population in the U.S. grew to nearly 4 million by 1860 (U.S. Census Bureau)

nearly impossible for Muslim slaves to transmit comprehensive religious knowledge to their children and grandchildren. Despite these obstacles small numbers of slaves persisted in maintaining their Islamic beliefs and practices. Documents show that some slaves were known to say their five daily prayers, fast during Ramadan, and otherwise maintain their Muslim identity (Turner, 1997, p. 11-46). These individuals were aided in their religious practice by the continuous influx of new Muslim slaves from Africa whose religious knowledge bolstered that of second and third-generation Muslims (Nuruddin 1998, p. 268).

1865-1965

After slavery was abolished in 1865 there is little documentation of Islam in the African American community. Once the slave trade stopped, new Muslims no longer arrived from Africa and the fragmented Muslims were left with few, if any, connections to their African and Muslim heritage (Nuruddin 1998, p. 268). Nevertheless, Muslim African Americans formed a few isolated communities in the South (Smith, 1999, 77) and continued their presence as members of Native American tribes (Rashid, 2000, p.85).

The first known white American convert to Islam was Alexander Russell Webb, a middle class Protestant who was inspired to turn to Islam through his reading and studying of the religion. In 1893 Webb built the

first documented mosque in the United States and established the nation's first Muslim newspaper, *The Moslem World* (Osman, 1943) Webb, who was influenced by the Ahmadiyya movement in India, had two overriding goals: to counteract the American public's misperceptions of Islam and to establish a Muslim community from "the intelligent masses" of the U.S. (Osman 1943). Webb's target audience was white elites but although he spent a great deal of time and energy disseminating his message, Webb failed to recruit many converts from this group. Webb's small Islamic movement did not continue on beyond his death in 1916 (Turner, 1999, p.65).

Beginning in the early 1900s, three important Islamic groups gained prominence: the Moorish Science Temple, the Ahmadiyya movement, and the NOI. These groups stressed racial equality (or in the case of the NOI, racial superiority) and this ideology succeeded in converting large numbers of African Americans to their cause. The Moorish Science Temple and the NOI advanced black nationalist-separatist movements (Nuruddin 1998, p. 271). Smaller numbers of African Americans turned to orthodox Sunni Islam. African American Sunnis frequently attended mosques led by immigrant Muslims who were more interested in establishing connections with the global Muslim community than in promoting nationalistic goals.

The two first African American Sunni Muslim organizations were the Islamic Mission of America and the First Mosque of Pittsburgh. The

Islamic Mission of America was established by Shaykh Daoud Ahmed Faisal who founded the State Street Mosque in New York City in 1924. Another group of African American Muslims established the First Mosque of Pittsburgh, Pennsylvania, in 1945. Both organizations spread beyond their founding cities and influenced African American Muslims throughout the 20th century (Turner, 2004).

Multi-racial Sunni Muslim groups, including black, white, African, Turkish, Polish, Lithuanian, Russian, Indian, Albanian, Arab, Persian, and Caribbean immigrants, arose in New York City and in the mid-west. Nevertheless, Muslims immigrants for the most part maintained an ethnic, racial, and linguistic separation from African-American Muslims (Turner 2004).

Other Sunni and Shi'ah groups were established with the first wave of Middle Eastern immigrants between the years of 1875 and 1912 (see Table 1 below). Although most of these Middle Eastern immigrants were Christian, a small number were Sunni and Shi'ah. The Muslims who arrived between 1918 and the 1940s were primarily relatives of the first wave of immigrants. Towards the end of World War II, the religious makeup of immigrants from the Middle East began to change from primarily Christian to primarily Muslim. Between 1947 and the early 1960s more Muslims began to arrive from South Asia. And whereas the first three waves of Muslim immigrants had little formal education, this

fourth group came from elite classes and usually held college degrees (Smith, 1999, p.51-520).

Table 1: Muslim Immigration to the United States

Years of Immigration	Regions	Characteristics
1875-1912	<ul style="list-style-type: none"> ◆ Rural areas of “Greater Syria” under the Ottoman Empire: Syria, Jordan, Palestine, Lebanon 	<ul style="list-style-type: none"> ◆ Primarily Christian; few Sunnis Shi’ah, and other Muslims ◆ Mostly uneducated laborers
1918- mid-1940s	<ul style="list-style-type: none"> ◆ Rural areas of “Greater Syria” from former Ottoman Empire 	<ul style="list-style-type: none"> ◆ Mostly relatives of previous immigrants ◆ Christian, some Muslims
1947-1960	<ul style="list-style-type: none"> ◆ Eastern Europe, East Asia, Middle East, South Asia 	<ul style="list-style-type: none"> ◆ Majority Christians, but more Muslims than before ◆ More from elite classes, well-educated
1965-present	<ul style="list-style-type: none"> ◆ Eastern Europe, East Asia, Middle East ◆ Those fleeing strife in Afghanistan, Lebanon, Palestinian areas, Iran, and Iraq ◆ Largest number from South Asia 	<ul style="list-style-type: none"> ◆ Majority Muslims ◆ Most from elite classes, well-educated

Source: Smith, 1999, p.51-520

Despite the growing number of immigrant Muslims, African American Muslims remained the dominant social and political force of the Islamic community in the U.S. Most immigrants planned to return to their homelands after making their fortune in the U.S. This homeward-looking stance led immigrant Muslims to focus on political issues in their home countries and stay out of American social and political movements. African American Muslims, on the other hand, were very proactive in changing the racial and economic climate for non-whites in the U.S. and they American led the fight for Muslim rights in the U.S.

In 1952 African American soldiers won a lawsuit against the U.S. government demanding the Armed Forces accept Islam as a legitimate religion. Prior to this time, Muslims did not have the same rights as Christians and Jews to take religious holidays or otherwise practice their religion as granted in the Bill of Rights. African American Muslims also played a pivotal role in the Civil Rights Movement. One of the most prominent Muslim leaders during this time was Malcolm X who inspired civil rights activism both in the U.S. and around the world.

1964-Present

The years 1964 and 1965 brought four milestones in U.S. Muslim history – the passing of the Civil Rights Act and the Immigration and

Nationality Act, Malcolm X's split with the NOI, and the death of both Malcolm X and Elijah Muhammad.

The Civil Rights Act of 1964 had profound implications for both the immigrant and African American Muslim communities. The Civil Rights Act prohibited discrimination based on race, color, religion, and national origin with respect to voting, education, and the use of public facilities. This law opened the door for the Immigration and Nationality Act of 1965 that ended racially discriminatory immigration laws. Previous immigration laws were biased against non-whites and restricted virtually all Asian immigration between 1920 and 1965.

The Immigration and Nationality Act introduced a shift in immigration from mostly European immigrants to a majority of immigrants from non-European countries. As a result, the numbers of Muslims from Eastern Europe, the Middle East, and South Asia increased dramatically. It is estimated that at least one million Muslim immigrants arrived after 1965 (Turner 2004). Immigration to the U.S. was in part due to political unrest in Muslim countries. Muslims arrived in the U.S. because of the exodus of Palestinians after the Arab-Israeli War of 1967, civil discord in Pakistan, anti-Muslim sentiment in India, the war in Afghanistan, and the Lebanese Civil War (Smith, 1999, p.53). Most of the Muslims who arrived since the Act were well educated and came to the U.S. to hold professional positions such as accountants, engineers, and doctors.

Malcolm X (later known as El Hajj Malik El-Shabazz) separated from the NOI in 1964 and turned to orthodox Sunni Islam after completing the *hajj*. Malcolm X launched an independent effort to promote a multi-racial Islamic movement and bring global attention to the plight of blacks in the U.S. The impacts of Malcolm X's final years is well-summarized by Turner: "The sweeping religious and political changes that [Malcolm X] undertook from that time until his assassination on February 21, 1965 were destined to become potent models for signification and identity in contemporary African-American Islam" (1999, p. 213-214).

Elijah Muhammad, head of the NOI, died on February 25, 1975 from congestive heart failure. His death sent a shockwave through the NOI community that had believed he was a divine prophet and therefore immortal (Smith, 1999, p.90). This set the stage for W. D. Muhammad to take over and lead the community to orthodox Sunni beliefs and practices.

W.D. Muhammad has become one of the most influential Muslim leaders in the U.S. and has gained the respect of both African American and immigrant Muslims. In 1990 he was the first Muslim to open the U.S. Senate with prayer and he participated in President Bill Clinton's inauguration celebration.

Muslims Today

Because the United States Census does not collect information on religious affiliations, Muslim population figures are derived from a variety of sources that include polls, mosque studies, and analyses of census and immigration data describing country of origin. Due to the difficulty in gathering accurate data, estimates of the American Muslim population have ranged from under 2 million to over 18 million (Pew Research Center, p. 10, 2007; Smith, p.414, 2002). Few groups agree on the true numbers due to the political implications. Many Muslims claim their numbers are undercounted for both intentional and unintentional reasons. The most widely-cited unintentional reason for the undercount is the difficulty in obtaining accurate numbers for this diverse group. Yet Muslims also point out that some Jewish, evangelical Christian and conservative political organizations use higher numbers to justify vigilance against the perceived “Islamic” threat on American soil.

As previously noted, a recent survey by the Pew Research Center puts the Muslim population at .8% (2.35 million individuals) (Pew Research Center, p. 9, 2007). These numbers are miniscule compared to the size of the Christian population in the U.S. Out of the 281.4 million U.S. residents in 2000, 47% identified themselves as Christian (U.S. Census Bureau, 2000). This accounts for 133.4 million individuals.

Despite their small numbers, Muslims are becoming an increasingly powerful political force (Weiner, 2003). Islam is the U.S.' second largest religion (Smith, p. 3, 2002) and is also the nation's fastest growing religion (IslamicWeb 1996).⁹ As numbers grow and Muslims start voting in greater numbers, Islamic political groups have increasing potential to sway U.S. foreign policy regarding Israel and the Middle East and to influence domestic policy as well.

Today, over 100 countries are represented in the Muslims of the United States. This constitutes the most diverse group of Muslims in the world. The only other place where such diversity exists is during the annual *hajj* pilgrimage. Current estimates show that African Americans form the largest ethnic group of Muslims in the U.S., making up between 30% and 42% of all Muslims (Leonard, p.5, 2003). South or Central Asians form the second largest ethnic group accounting for nearly one third of U.S. Muslims population. The third major group is Arabs, constituting 25%. Other U.S. Muslim group figures include 2% from South East Asian heritage, 3% from European heritage, and 8% from various other regions including Africa, the Caribbean, and Central and South America (Hartford Institute for Religious Research, Smith 2004).

Only 1/3 – 1/4 of U.S. Muslims are recent immigrants – the majority are U.S-born (Smith 2004). Despite having the same birthplace,

⁹ To give an idea of how the Muslim size compares to population breakdown within a few of the relevant racial/ethnic lines: .4% of the U.S. population (1.2 million) count themselves as Arab and .6% (1.7 million) count themselves as South Asian. Thirteen percent of Americans (36.4 million) count themselves as African American (U.S. Census Bureau, 2000).

there are many divisions between U.S. Muslim groups. Most American born children of immigrants retain important cultural ties to their ethnic community and homeland (even if they have never visited their ancestral countries). Similarly, the shared history of slavery and the civil rights struggle, as well as daily experiences with American racism, give African Americans a unique group narrative.

African American Muslims

The majority of African American Muslims today are orthodox Sunni Muslim. Although numbers are not available for a breakdown of all African American Islamic groups, it is estimated that the NOI has a following of only about 20,000 members nationwide (About.com 2005). Large-scale conversion by African Americans has played an important role in giving Islam the status of fastest-growing religion in the U.S. Many of these conversions are taking place in prison: approximately thirty percent of incarcerated African Americans are Muslims (Mujahid 2001).

African Americans have the lowest average per capita income of all Muslim ethnic groups in the U.S. The majority of African American mosques are located in low-income urban areas and many converts are from the inner-cities. Due to difficulties in obtaining jobs after prison sentences, the large population of jailed African Americans contributes to this group's standing as the most economically disadvantaged of all U.S.

Muslim groups. In states where felons are not allowed to vote after serving their time, the African American Muslim community suffers increased disadvantages.

The voting for African Americans has historically tended towards the Democratic Party. In all but three Presidential elections since 1968, more than 80% of African American voters have cast ballots for Democrats (Young 2008). Since African Americans account for up to 40% of U.S. Muslims, this groups plays a significant role in influencing the voting habits of the entire group.

South Asian American Muslims

South Asians make up the second largest ethnic group of U.S. Muslims. South Asian Muslims come from Afghanistan, Bangladesh, Nepal, Pakistan, Sri Lanka, and India. Immigration to the United States from South Asia began in the 19th century.¹⁰ These first South Asian Muslim immigrants worked as farm and factory laborers and were not highly educated. In the 1960s, after the liberalization of immigration laws, large numbers of highly-educated South Asians began arriving. Approximately 400,000 South Asian immigrants arrived between 1961

¹⁰ South Asian immigrant numbers were much smaller than those from eastern Asian countries. Of the 757,700 Asians allowed to enter the U.S. between 1891 and 1940, only 9,245 were from the Indian subcontinent (Afzal, 1991, p.3). The majority was composed of Hindus and Sikhs. The exact number of Muslims is unknown, but could be estimated at around 2,300 (or 24%) since that was the proportion of Muslims in the Indian subcontinent at that time (Afzal, 1991, p.3).

and 1988 (Afzal, 1991, p.3). Ninety percent of this group held college degrees or professional diplomas (Afzal, 1991, p.3). Once established, this wealthy group brought over poorer, less-educated relatives, and separate classes began to emerge.

Census 2000 figures show that 4.2% (11.9 million individuals) of the U.S. population (total of 281.4 million) identify themselves as Asian (U.S. Census Bureau 2000).

Although these class differences still exist, South Asian Americans have the highest socioeconomic standing of all Muslims in the United States (Leonard, p.5, 2003). 2000 figures show that South Asian American Muslims had the highest median household income, family income, and per capita income of any immigrant group. South Asians also had the highest percentage of members with a bachelor's degree or higher and the highest percentage of members in managerial and professional fields (Leonard, p.14, 2003). South Asian Muslims are also the least residentially segregated of all Muslim groups in the U.S.

South Asian Muslims play a very strong role in the both the religious and political spheres. South Asian Muslims are at the forefront of building mosques and organizing Muslims to address regional and national issues (Leonard, p.16, 2003). This is not only due to their high socioeconomic and educational levels, but also because even the newest immigrants have a familiarity with English and democratic processes (Leonard, p.14, 2003).

Middle Eastern American Muslims

Approximately one-fourth of American Muslims are from the Middle East. They come from Bahrain, Iraq, Jordan, Kuwait, Lebanon, Omar, Qatar, Saudi Arabia, Syria, United Arab Emirates, Yemen, Algeria, Egypt, Libya, Morocco, Sudan, Tunisia, Mauritania, and Palestinian territories. Muslims from these countries can be separated into four main groups – Arabs/Palestinians, Persians (mainly from Iran), Turks (primarily from Turkey), and Kurds.

Three-fifths of Arab Americans can trace their heritage back to one of three countries: Lebanon, Syria, and Egypt (U.S. Census, 2003, p. 2). Arabs are one of the wealthiest minority groups in the U.S. and have been found to donate the most money to political campaigns (Telhami, 2002, p.14). Arabs (I include Palestinians in this general grouping) constitute the largest and most-researched Middle Eastern ethnic group in the U.S.

The first significant group of Middle Eastern immigrants arrived in the U.S. in the early 19th century. These immigrants were not highly educated and they primarily worked as peddlers and merchants. The Middle Eastern immigrant population continued to grow over the years and these growing numbers began to strengthen individual country and regional affiliations. In 1956 a pan-Arab movement began to emerge after Egypt nationalized the Suez Canal. This pan-Arab feeling was cemented in the 1960s after the 1967 Arab-Israeli war.

Historically most Arab immigrants were Christian, not Muslim (Telhami, 2002, p.1). Trends indicate this is changing as increasing numbers of Muslim Arabs arrive in the United States (Camarota, 2002, p.3). Initially, pan-Arab groups included Christian Arabs and were not religious in scope (Leonard, p.12, 2003). As the number of Muslims in America increased, pan-Arab groups splintered into organizations based on specific ethnicities or sects. A separate Arab identity based on Islam began to emerge in the 1950s and 1960s under the guidance of Lebanese and other Arabic-speaking Muslim immigrants.

Due to their knowledge of Arabic, the language of the Qur'an, Arabs are the ones most often consulted in religious matters (Leonard, p.16, 2003). As a result, Arabs disproportionately form the majority of Imams and religious leaders in the American Muslim communities. However, since Middle Eastern immigrants generally do not come to America with the same knowledge of English and understanding of democratic processes as their South Asian counterparts (Leonard, p.14, 2003), levels of political activity are much lower for the South Asian community.

Other American Muslim Groups

In addition to the three major groups identified above, smaller ethnic Muslim groups include African Muslims (primarily North and West

Africans), American-born Muslims of European descent, Eastern European Muslims (i.e., Albanians), Central Asian Muslims (i.e., Kazaks), East Asian Muslims (i.e., Indonesians) and Latino Muslims (primarily from Mexico). Combined, these groups make up approximately 10% of the Muslims in the U.S.

Of these groups, the White American-born Muslims and Latino Muslims are unique because they are predominantly recent converts to Islam. The upsurge in the public's interest in Islam after 9/11 led to a dramatic rise in conversions to Islam. The media was especially eager to report on Anglo women's conversion, since Islam has been widely accused of misogyny. As a result, American-born White converts gained a disproportionate amount of publicity.

Latino Muslims are beginning to take over the public-interest spotlight but Latino conversion to Islam is not a new phenomenon. Smith notes that Islam has been a presence in Hispanic neighborhoods since the 1970s (1999, p. 66). Most of these first converts were of Puerto Rican heritage (most of whom were probably black) and joined African American mosques (Smith, 1999, p.66). There is now a concerted effort on the part to conduct Muslim outreach to the Hispanic community in the U.S, and Muslims are beginning to realize the importance of translating written texts into Spanish. Although many found it surprising that strongly Catholic Latinos would convert to Islam, Hispanics point to the

heritage of Muslim Spain to show that Islam is not foreign to their culture, language, and traditions.

Gender Issues

Islamic cultures, as with all societies, have social norms that differentiate roles for men and women (Hunter et al., 2004, p.680). Gender issues within Islam are being publicly discussed more and more within the Muslim community. One area of increasing debate is women's roles within mosques. Muslim women play an important role in building Muslim communities. In Detroit and Toledo, researchers documented women's roles in mobilizing efforts to build mosques (Leonard, p.64, 2003). Despite these efforts, women's participation is often very limited both by space delegated for the women's' section and by barriers against women in official positions. Leonard notes, "Women's service on boards and as imams is an issue more contested than their seating in mosques" (p.78, 2003). Most Muslims believe women cannot be Imams, but two women serve in this role in the New York State prison system (Leonard, p.79, 2003).

Accepted women's roles differ according to the cultural mores of each Muslim community. For example, studies show that African American mosques are the most open to women, South Asian mosques are

the most restricted, and Arab mosques fall somewhere in the middle (Bagby, p.21, 2004).

Whereas Islam requires men to join in group prayer at a mosque whenever possible, women have no such requirements. They can fulfill their religious requirements from the privacy of their homes. In order to establish a sense of community, Muslim women turn to women's groups. Mazumdar and Mazumdar note,

“women express their religious identity and solidarity with the women's community of believers by sponsoring women-centered congregational events, such as prayer meetings, sermons, group worship and celebration of significant holidays in the religious calendar, and life cycle rites. Religion provides the context, the setting and the opportunity to meet women outside of their immediate kin group and extend their ties into the women's community” (1999, p.166).

Another controversial issue, both within the community and in larger American public realm, is the issue of *hijab*, or the covering of one's hair, neck, and chest. For Americans, the stress on modesty and the covering of women's bodies is a very visible aspect in the assumed oppression of Muslim women. Even when Muslim women assert that they choose to wear hijab, Americans tend to see this as the result of blackmail by the Islamic religion and community. Muslim women also resent that the focus on Muslim women's clothing has taken precedence in public and private to the detriment of more pressing political, religious, and social issues.

The *hijab*, as a symbol of a woman's modesty, is closely tied to Muslim women's use of public space. Traditional Muslim gender roles define a clear separation between women's space (private – within the home) and men's space (public – outside of the home). As such, some Muslim women may not participate in outdoor activities (such as swimming) which require attire that may not fit within Islamic guidelines.

Fissures within the Muslim community

Muslim groups in the U.S. continue to struggle to overcome its many internal divisions. The previous discussion covered some of the fissures within the community. Disputes arise over the following issues: generational gaps, racial/ethnic divisions, gender relations, sectarian differences, language differences, and location of mosques (urban/suburban).

Friction between U.S. Muslim sects has been historically exacerbated by ethnic and racial tensions. Although the Qur'an espouses equality of all human beings, some level of racial and class hierarchy has historically existed in all Muslim countries. As a result, immigrant Muslims arriving in the U.S. automatically resisted integration with African American Muslims who were perceived as a low social stratum (Turner, 1999, p.171). Although some early immigrant groups welcomed African American Muslims into their religious communities, groups

largely remained separated by language, ethnicity, class, culture, and sectarian differences.¹¹

One reason for this is that immigrant and African American Muslims differ in how they react to the polarized racial atmosphere of the U.S. Whereas African American converts were generally happy to take on a new Muslim identity which included new names and distinctive ethnic attire that separated them from the dominant Christian culture, early immigrant Muslims attempted assimilation. It was common for them to Americanize their names, dress in Western clothes, and give up religious and cultural practices that would mark them as the “other” (Smith, 2004). As Turner notes, “close associations with African-American converts would have interfered with their agenda of assimilation into mainstream America” (1999, p.172).

As numbers of immigrants increased, and communities formed around shared national origin, mother tongue, and religious sect, immigrants began to look for a balance between maintaining their cultural and religious heritage becoming “American” (Smith, 2004). However, the focus on maintaining cultural heritage has often been so strong that African Americans felt pressured to let go of their own cultural identity to better assimilate into immigrant mosques. African Americans feel this attitude is very similar to the prejudice from the white Christian

¹¹ It should be noted that the tensions between the desire to assimilate and the nationalist/separatist language of black American Muslims would have been a huge obstacle to overcome.

mainstream, and they generally prefer to stay within the African American Muslim community.

Ethnic fissures have been augmented by other fractures within Muslim communities in the United States. Sunnis and Shi'ah (African American and immigrant alike) revile the NOI for its blasphemy in worshiping Fard as god and Elijah Muhammad as his prophet. The early 20th century Sunnis found these beliefs so sacrilegious they separated themselves by promoting a strict universalist ideology that placed Muslim identity above all racial and nationalistic identifications. This led to conflict between Sunni Muslims and black nationalistic groups (e.g., Moorish Science Temple, NOI) that began during the 1960s and continues until today (Nuruddin, 1998, p.279).¹²

As the American Muslim population increases, adherents have become more conservative than in the past. Muslim groups such as the Sufis and Ahmadis are increasingly marginalized by orthodox Muslim leaders (Leonard, p.21, 2003). One split has been between “modernizers” and “traditionalists” (Leonard, p.19, 2003). The traditionalists (sometimes referred to as supporters of “old-world” Islam) come into conflict with African American Muslims who have a more liberal view of women’s roles and gender relations. On the other hand, traditionalists (most of whom are immigrants) generally have little understanding or respect for

¹² The evolution of assimilation theories – from the “melting pot” idea of the 16th century to the more current ideas of “tossed salad” can inform our understanding of how Muslims have adapted to the U.S. and how they may integrate in the future. For a more thorough discussion, see (Bhikhu, 2000).

African Americans' role in the civil rights movement and its legacy of securing rights for religious and ethnic/racial minorities (Leonard, p.32, 2003).

Although integration efforts have always existed, the urgency to create a unified "American Muslim" community intensified after 9/11. National organizations of immigrant Muslims are making a concerted effort to include prominent African American Muslims on their boards and executive staff. Yet efforts to integrate have not achieved much success, and whereas there is some level of integration within immigrant Muslim organizations, African American Muslim movements remain relatively isolated (Leonard, p.16, 2003). A prime example of this is MANA (Muslim Alliance in North America). MANA was established as a voice for all indigenous, American-born Muslims regardless of ethnic/racial background. Unfortunately, true integration has not occurred at the membership level and the group has attracted a greater African American following.

One wonders whether racial and ethnic differences will begin to fade as U.S.-born Muslims share similar experiences within the United States. U.S.-born Muslims of all backgrounds have comparable experiences in school and in dealing with post-9/11 discrimination. To encourage this idea of a pan-American Muslim identity, some Islamic scholars and activists encourage the use of the term "indigenous Muslims" to refer to any Muslim born in the United States. Yet class barriers

continue to threaten true integration since the wealthier immigrants attend suburban mosques and the less wealthy African American Muslims attend neighborhood urban mosques.

Organizations Serving Muslim communities

Despite (or perhaps in response to) fissures within the Muslim community, the number of Islamic institutions has increased dramatically in the last decade. In America, Islamic organizations take three main forms: mosques, schools, and community/national organizations. The majority of Islamic organizations (including schools and community groups) are also connected in some way to a mosque. It is common to find an Islamic school and community organization working as an arm of a mosque to serve the various needs of its community. In contrast, national and community organizations that serve the needs of both Muslims and non-Muslims tend to renounce strict religious associations.

Mosques and Islamic Centers

In Muslim countries, mosques serve primarily as a place for congregational prayer and religious schooling. These religious institutions are headed by an Imam or Sheikh and are usually open 24 hours a day, 7 days a week to offer shelter for anyone who enters. In the U.S., mosques

are run differently. Few mosques are open 24 hours a day; most only open during daytime hours, or for the five prescribed prayers. Many mosques are governed by an elected board instead of being the sole responsibility of one Imam. In the U.S. mosques still are primarily oriented toward the five daily prayers, but through emulation of Churches and Synagogues, they also provide a place for Muslims to congregate socially. U.S. mosques often provide the only public space where Muslims can practice all aspects of their faith in a safe environment.

For immigrant Muslims, mosques became a place to pass on culture to the new generations. Mosques, especially in the past, offered space for social events such as weddings and cultural events. As mosques become more conservative, music and dancing are no longer a part of most of these social functions.

The Mosque Study Project identified 1,209 mosques in the United States (Bagby et al., p. 2, 2001), however some believe the number is closer to 2,000. This study estimates the total mosque membership at 2 million (Bagby et al., p.12, 2001). Although no one is certain how many Muslims are not affiliated with each mosque, these individuals are generally accepted as constituting the largest proportion (70-90%) of Muslims in America. The Bagby study identifies individuals not affiliated with a mosque as “unmosqued” Muslims. Few studies have targeted this group as they are almost impossible to identify without membership through a Muslim organization.

Mosques have multi-ethnic, multi-racial, and multi-generational membership. Mosques serve an ethnically diverse constituency; approximately 90% of mosques are attended by a mixture of South Asian Americans, African Americans, and Arab Americans (Bagby et al., 2001; p.3). The average mosque membership is comprised of 33% South Asians, 30% African Americans, and 25% Arab Americans (Bagby et al., 2001; p.3). However, this rosy picture of integration is tempered by the following statistics: whereas only 7% of mosques have membership comprised solely of one ethnic group, 25% have one dominant ethnic group that comprises 90% of the total number. In addition, The Mosque Project found that African American mosques are less likely to be integrated than immigrant mosques (Bagby et al., 2001; p.19).

Muslims' primary consideration in choosing a mosque is in finding one of the same sect (Sunni, Shi'ah, Sufi, etc). Most Muslims prefer, if possible, to attend prayers and functions that are in keeping with their specific religious beliefs. Thirty years ago, when the Muslim population was less numerous, any mosque was a rare luxury and would be attended by all. Whereas low numbers provided incentives to maximize membership by welcoming all Muslims, in today's context many mosques flourish by focusing on one type of follower (by sect, ethnic group, mother tongue, etc.).

Ethnic/racial separation within mosques is similar to divisions with Christian congregations. With both religions, there are several factors that

account for the separation. Personal preference based on similarity of backgrounds, language, and class is crucial in explaining these separations. Many South Asians prefer to speak in Urdu at their mosques, and incorporate unique cultural practices into the mosque rituals. This creates a barrier to those from other areas who do not speak the language or understand the customs. Language barriers may diminish as subsequent generations of American-born Muslims prefer to use English as their medium of communication both outside of and within mosques.

Class and location are other important, conflated factors that play into mosque divisions. Wealthier Muslims tend to move out of cities into suburban areas and urban mosques generally cater to lower-income Muslims. Wealthier Muslims own cars and have a greater ability to travel greater distances to attend a mosque of their sect and cultural community. Urban Muslims are more likely to attend mosques that are close by and easily accessible from their homes.

Cultural/Community Centers and Social Service Organizations

At the community level, most Islamic organizations (such as Islamic Centers) are coordinated closely with their local mosque. Other groups that serve Muslim communities are ethnic organizations, refugee rehabilitation services, and general community development and social service organizations. Immigrant Muslims often find it difficult to work

with secular organizations due to language barriers, cultural misunderstandings, and outright discrimination (Cainkar, 2003, p.10). As a result Muslim-based service organizations often find themselves dealing with more clients than they can handle.

Schools

Most Islamic education for children and youth takes place in the mosques: over 70% of mosques offer regular weekend religious schools and 20% have full time schools (Bagby et al., 2001, p.4). Nationwide, there are 200 full-time Muslim schools and 5 higher learning institutions and only 3% of Muslim children obtain a formal Islamic education (Mujahid 2001).¹³

National Muslim Organizations

An array of national Islamic organizations exists in America. Some disseminate religious information and news about Muslims around the world, some are political organizations concerned with anti-discrimination and advancing Islamic political agendas, and some are ethnic organizations geared toward networking. The largest of these national organizations have local chapters.

¹³In Chicago, it is estimated that less than 2% of Muslim children attend Islamic schools, despite the existence of such schools for over a decade. The earliest Muslim schools were established by the African American community (Leonard, 2003, p.112,).

Islamic national organizations that have a religious focus provide three primary services: spiritual growth, education, and outreach. These Islamic national institutions are split into two main categories: African American Islamic organizations and Immigrant-American Islamic organizations. The African American Islamic organizations are “major groups that developed indigenously without benefit of strong links to the historical Islamic world” (Leonard, p.17, 2003). Three examples of such organizations are the Ahmadis, Moorish Science Temple, and Nation of Islam (Leonard, p.144, 2003). Most of the largest and most well-known Islamic national organizations were formed by immigrant Muslims and include: the Federation of Islamic Associations (FIA), Muslim Student Associations (MSAs), Islamic Society of North America (ISNA), and the Islamic Circle of North America (ICNA) (Leonard, p.144, 2003).

ISNA and the MSAs are probably the two most influential Islamic national organizations in the U.S. These two groups support and promote a conservative interpretation of Islamic practices (Leila Ahmed, lecture, 2004). Historically, in 2007, ISNA (which was formed by the MSAs) elected a female convert to serve as president. As one of the most visible Muslim positions in the U.S., President Ingrid Mattson, PhD, serves as a catalyst for discussion and a new path for Muslims in the U.S. (Ali, 2007).

Organizations such as ISNA provide space for Muslims to gain experience in leadership positions and also bring together Muslims of

various social and cultural backgrounds (Leonard, p.121, 2003).¹⁴ MSAs also provide important leadership opportunities for young Muslim women who do not have similar options within mosques.

Whereas the religious-based organizations are split by ethnicity, Muslim political organizations are much more diverse. These organizations aim to increase overall Muslim participation in U.S. political processes. Members of these groups include African American and immigrant Muslims as well as “mosqued” and “unmosqued” Muslims (Leonard, 2003, p.17,). Some major Muslim political organizations are: American Muslim Alliance (AMA), American Muslim Council (AMC), Muslim Public Affairs Council (MPAC), Council on American-Islamic Relations (CAIR), and American Muslim Political Coordinating Council (AMPCC).

Funding

Post 9/11, the U.S. government has given increased attention to how U.S. Muslim groups are funded and to which international groups they have connections. In the past Muslim governments of Egypt, Saudi Arabia, Iraq, and Pakistan funded both the building of mosques and the supporting of Muslim groups within the U.S. Since the 1990-1991 Gulf War, many Muslim groups have distanced themselves from these funding

¹⁴ Leonard notes, “These creative and oppositional forms of acculturation are occurring among privileged Arab and South Asian youth – those who seem most adapted or assimilated – and not just among black youth in the inner city” (Leonard, p.122, 2003).

sources (Leonard, 2003, p.17,). Nevertheless many non-Muslim Americans point to this history of foreign funding as a reason to believe a majority of Muslim groups are involved in terrorist activities. The ensuing hysteria regarding this issue, along with Patriot Act restrictions, has led to a severe reduction in the amount of charity money given to Muslim organizations in the fear individual donors will also come under suspicion.

Problems with funding uncertainties cause problems for Muslims who wish to contribute their Islamically-required *zakat* money to Muslim organizations. *Zakat* is a percentage of an individual's net income and assets that must be given to the poor every year. Muslims often prefer to give their *zakat* to Muslim charitable institutions within the United States and abroad. Due to the U.S. government's refusal to provide a list of approved charities, Muslims have been fearful to give money because of personal liability in case the organization is suspected of supporting terrorism, as defined by the U.S. government.

Politics

Although immigrant Muslims have continued to work with political groups from their countries of origin, Muslims' success in the U.S., especially in politics, is watched closely by Muslims around the world. As Leonard notes, American Muslims' "dynamism, fresh approach, enlightened scholarship and sheer growth is their hope for an

Islamic Renaissance worldwide” (2003, p.122). Yet, political differences between African American and immigrant Muslims prevent a strong, unified Muslim political front.

African American Muslims played a pioneering role in bringing Islam to the American consciousness. This struggle started through African American Muslims’ fight for Muslim prisoners to have the ability to say the five daily prayers, consult with Imams or other Muslim clerics, and eat *halal* food (Islamically-approved foods prepared in a prescribed manner). As Muslims in prison secured these rights, it led to increased Muslim rights in greater American society (Leonard, p.8, 2003). These accomplishments seem to be taken for granted by Muslim immigrants (Leonard, p.8, 2003).

More recently immigrant Muslims, led by South Asian American Muslims, have taken the lead in advocating Islamic politics. Immigrant Muslim political activism is a recent phenomenon: early immigrant Muslims intended to return to their country of origin after earning money in the United State and they usually did not become involved in U.S. politics. They were also reluctant to become involved in politics because of the concern it was un-Islamic. However, during the 1980s Muslim leaders began making a concerted effort to dispel these concerns and draw Muslims into the U.S. political arena (Leonard, p.18, 2003). Muslim organizations began collaborating with Christian and Jewish groups, and emphasized similarities between the three religions (Leonard, p.18, 2003).

Today immigrant Muslims, due to their higher wealth and overall high professional status, have become influential in the U.S. political arena. Whereas African American Muslims focused on local and national politics, immigrant Muslims had more interest on foreign policy issues such as Palestine, Kashmir, and Kosovo. In fact, this split has led to the two groups supporting very different policies and campaigns. While African American Muslims overwhelmingly supported Al Gore, immigrant Muslims claimed credit for being a key swing voter block in electing President George W. Bush in 2000 (Leonard, p.20, 2003). Post 9/11, the immigrant-American Muslim community has turned its focus on domestic issues and this has become more aligned with African American Muslim political priorities.

Not all Muslims support an integrated U.S. Muslim community. Tayyab Mahmud believes that grouping all American Muslims together to form a unified political stance shadows differences in culture, class, race, and gender. Instead, Mahmud recommends Muslims align themselves with others with the same political objectives (Leonard, p.103, 2003). This is a minority viewpoint, because many Muslims want to their Islamic ideals to have primacy, and fear that these would be submerged if Muslims simply merged into existing political institutions.

Summary of Muslim Environmentalism

The above discussion provides insight into the various social and political forces that contribute to the stratified nature of today's U.S. Muslim community. Understanding these forces is a prerequisite to assessing the possibilities for meaningful Muslim participation in U.S. environmental activism. Following chapters provide other necessary tools for this endeavor: a review of the Islamic scholars' definition and explanation of Islamic Environmental ethics, a literature review of research on measuring and evaluating environmental behaviors and attitudes, methodology for the study, discussion of study results, and recommendations for future action.

Chapter 2

Islam's Environmental Ethic

American Muslim environmental activists can look to their religion to find ideological support for taking environmental action. The roots of an Islamic environmental ethic (as are the roots of all Islamic values and laws) are based in the Qur'an.¹⁵ For Muslims the Qur'an provides more than general moral guidelines: it offers concrete rules on all forms of human behavior, including social, political, penal, and environmental actions. The Qur'an is divided into 114 chapters (*surahs*), which are subdivided into verses. Approximately 500 verses discuss nature and give instruction on how Muslims should handle environmental matters (Masri, 1992, p.2).

Other important sources of Islamic guidance are *sunnah*, *hadith*, *fiqh*, and *shari'ah*. The *sunnah* is the Prophet Muhammad's actions and the term *hadith* refers to the text that recorded the Prophet's life. After the Qur'an, the *sunnah* provide the most important source of guidance for Muslims. Combined, the Qur'an and *sunnah* serve as guides for Muslims to achieve a "comprehensive social order" (Haider, 1984, p.175).

¹⁵ Because verses of the Qur'an were revealed to the Prophet Muhammad in Arabic, Muslims consider this to be God's chosen language. Any Qur'anic translations inevitably change the meaning of God's message and are therefore illegitimate. Translations may give readers an idea of God's intended message, but should not be provided upon to reveal the truth.

Shari'ah are the canonical laws of Islam based on the Qur'an and *sunnah*. *Fiqh* translates to understanding, comprehension, knowledge, and jurisprudence. An expert on *fiqh* (*Faqih*) can pass verdicts based on *shari'ah*. A literal translation of *shari'ah* is "source of water," and it is regarded as "the source of life in that it contains both legal rules and ethical principles" (Deen, 1996, p.1). In Islam, *shari'ah* is a term that covers both governmental and moral laws: there is no separation between church and state in Islam. A Muslim understands that even if she avoids punishment on earth for breaking a *shari'ah* "rule," she will certainly be called to task by God. Muslims see no reason to enact separate civil laws when God has provided detailed laws that govern all aspects of human life.

Islamic Environmental Literature

There are two primary types of texts that expound on Islam environmental values: religious texts and literature. The first analyze how nature and the environment are dealt with in the Qur'an, *hadith*, and secondary religious texts. These texts provide a comprehensive understanding of Islam's environmental ethic. Non-religious texts include poetry that attempt to explain God's grandeur the nature. This poetry

originates from many Muslim countries and is found in many traditions: Arabic, Persian, Turkish, and Sufism¹⁶.

Most Important Scholars on Islam's Environmental Ethic

Three of the most important scholars that have dealt with Islamic environmentalism are: Mawil Y. Izzi Dien, an Iraqi-born theologian; Al-Hafiz B.A. Masri, an animal rights activist born in India; and S.H. Nasr, an Iranian-born scholar of Science and Philosophy. These three authors have different environmental foci and goals.

Izzi Dien's writing focus primarily on nature conservation. Izzi Dien upholds the idea of humans' hierarchical superiority to other creatures; and he is enthusiastic about the promise of modern technology and 'sustainable development' (Hope and Young, 2000, p. 165). One criticism is that he never mentions "complex and politically sensitive issues as overpopulation, ozone depletion, climate change, or air pollution from fossil fuels such as oil, the major export of Saudi Arabia, and many other Middle Eastern countries" (Hope and Young, 2000; p. 163).

Masri's work advocates the need for Islamic laws to address modern-day animal rights abuse. He gives examples of Qu'ranic injunctions against harming/mistreating animals and nature. Similarly to

¹⁶ Sufism is the mystical branch of Islam, and Sufi poetry is most well-known for using nature as a metaphor for God's greatness. In the West, the most famous Sufis are the Whirling Dervishes found in North Africa and the Middle East. Hope and Young claim that Sufism is the Islamic path that best fits with an ecological ethic (Hope and Young, 2000, p. 160).

Izzi Dien, Masri holds the view that man holds a superior place in nature's hierarchy. In contrast to Izzi Dien, "Masri emphasizes that man is inferior to animals in many respects, that his only superiority lies in his spiritual power to differentiate between good and bad, and that we should learn to treat all life on earth homogeneously" (Hope and Young, 2000, p. 165). Masri advocates building an Islamic society that recognizes the inherent value of nature.

Seyyed Hossain Nasr is the most preeminent and most prolific Muslim author on environmentalism within Islam. In his work, Nasr uses Arabic, Persian, Turkish, and Sufi poetry to illustrate that Muslims have held a great love and respect for nature that preceded Western influence (Nasr, 2001; p. 220). Nasr believes that the environment is due to Man's disharmony with his environment and that "the crisis is the externalization of an inner malaise that cannot be solved without 'the spiritual rebirth of Western man.'" (Hope and Young, 2000, p. 168). Nasr feels knowledge must exist within a religious framework. For example, he believes one cannot believe in evolution and also hold a true appreciation of the sacred in nature. Instead, to hold a true Islamic environmental ethic, Muslims must understand that every aspect of nature is a reflection of God. Thus, when man finds the sacred in nature, he will also find it in himself.

As an extension of this worldview, Nasr believes humanity must observe its limits in power over the earth – and follow the limits set by God. He points to traditional Islamic architecture and technology that

exemplify a harmony with nature – an attempt to use nature as it exists, instead of changing it to fit human needs. For example, early Muslim cities contained streets and homes built to maximize use of wind for ventilation. Nasr believes this approach of working with nature has been lost due to the influence of Western civilizations, and Muslim countries must return to true *Shari'ah* law to support environmental practices.

Islam's Environmental Ethic

It is difficult to pinpoint an Islamic definition of “environment” because this word does not have a corollary in Arabic. According to Nasr, human's environment is God. In the Qur'an, God is known as the “All Encompassing” or *Muhit*, which some translate to mean the environment. For example, Nasr states: “The environmental crisis may in fact be said to have been caused by man's refusal to see God as the real ‘Environment’ which surrounds man and nourishes his life” (Nasr 2001, p. 219). More Western-influenced Islamic writers define the environment as everything external to the identified organism, including the biotic and abiotic. Some further divide the environment into four overlapping categories: natural, artificial, social, and psychological (Akhtar and Gul-e-Jannat, 1995, p. 21).

Although there are differing interpretations of the Islamic definition of the “environment,” there is little disagreement over its value

in Islam. The universe and all its elements are sacred because they were created by God. Nature “is a means through which God communicates with humanity” (Haq, 2001, p. 4). The universe and the bounty of the natural world act as symbols of God’s mercy and all of God's creation is in "continuous praise of the creator." (Deen, 1996, p.2). Authors Akhtar and Gul-e-Jannat write: The earth and its contents are all “living” – how else could they give testament to God’s greatness? Thus fire, water, air all have life, although humans may not understand how this is so (1995, p. 114).

God created the laws of nature with the "concept of the absolute continuity of existence." This continuity should not be broken (Deen, p.2, 1996). Destruction of any natural thing must be accounted for on the Day of Judgment.

Some authors advocate that Islam supports the idea of a “mother” earth. In their book, Akhtar and Gul-e-Jannat provide Qur’anic verses that indicate the earth is a sacred carpet from which humans should worship God. The authors refer to earth as “mother” and state that humankind’s obligations to its “mother” is to walk gently on her surface without pride (1995, p. 117). This idea of “mother” earth may be due to Western influence, as the idea of earth as “mother” is not found in the Qur’an.

Functions of the Environment

In the Qur'an, God is frequently described as having the power over all things. He is also often described as beneficent and merciful. Part of this mercy manifests itself in creation of the universe. The Qur'an gives three primary reasons for the creation of the universe. The foremost reason is to serve as signs of God's power and goodness. One author notes, "nature has no *meaning* without reference to God: without Divine purpose it simply does not exist." (Manzoor, 1984, p.161). Nature, as a symbol of God, is intended to guide humankind and also to test their faith and conduct.

Creation's second purpose is to serve God. The third purpose of creation is for the use of humans in their quest to serve God. God provided humans with the earth as a test to see how well they make use of it. The environment serves not only the present generation of humankind, but all ages, past, present, and future (Deen, 1996, p.2). The Qur'an also makes it a point to state that the earth is for the use of all creatures, not just humans (Timm, 1994, p.86).¹⁷

¹⁷ Timm notes that the early Islamic tradition focuses primarily on the word's creation for human purposes (Timm, 1994, p.86-87). Medieval scholar Ibn Taymiyah notes, "Allah in His wisdom created these creatures for reasons other than serving man, for in these verses He only explains the benefits of these creatures [to man]." (Deen, p.2, 1996).

Humankind's Role on Earth

According to Islam, humans are defined as those who are under obligation to God. God created Adam and Eve (equal halves) to act as his *khalifa*, or vicegerents, on earth (Haq, 2001, p. 4). According to the Qur'an, humankind willingly accepted the responsibility to act as God's vicegerents and be responsible for God's earth. Because humans accepted their role as *khalifa*, Islam mandates they must "act within the Creator's defined order of things, but never against it" (Ateshin, 1989, p.169). Nasr notes: "nothing is more dangerous for the natural environment than the practice of the power of vice-gerency by a humanity which no longer accepts to be God's servants, obedient to His commands and laws" (Nasr, 2001, p. 222.). Humans must act as a responsible agent of God when conducting activities upon the earth – they should not make decisions based on selfish desires. Each human will be called to account for their behavior on the Day of Judgment (Ateshin, 1989, p.169).

It is only this heavy moral responsibility that places humans in a superior position over animals and plants: natural creatures are not accountable, as are humans, for their actions (Haq, 2001. p. 9). Nature follows the order prescribed by God. Non-humans are blessed because they need not worry about making wrong decisions – they automatically enact God's wishes and remain within the natural boundaries God has set for them. As such, God's non-human creations are inherently *muslim*, or

those who have surrendered to God (Rahman, 1989, p.151). When looking at the relationship in this light, humans must treat all creation as part of the *ummah*. The *ummah* refers to the global community of Muslims. Muslims have specific responsibilities to this group and the *Shari'ah* sets boundaries on individualism and recognizes the rights of this larger community (Hope and Young, p. 187, 2000). The Qur'an enjoins Muslims to work together as an *ummah*, as this is the only way to achieve the ideal Islamic social and political order (Rahman, 1989, p.152).

Although humanity carries a position of superiority, they must realize the earth is only given to them in order to facilitate their duties toward God – humans do not have the right to “subdue” or claim “dominion” over God’s property (Haq, p. 9; 2001). Despite holding a position of responsibility, humans are still a part of nature. Any injury to the natural world is also an injury to humankind and more importantly is tantamount to a revolt against the Creator (Haq, 2001, p. 11; Manzoor, 1984, p.161).

Humans can partake of the earth’s bounty within the limits prescribed by Islam. Muslims are enjoined to “Enjoy the bounties of God’s provisions but do not over-indulge” (Manzoor, 1984, p. 159).

Another verse from the Qur'an states:

Eat of their fruit
In their season, but render
The dues that are proper
On the day that the harvest

Is gathered, But waste not
By excess: for Allah
Loveth not the wasters (An'am: 141) (Akhtar and Gul-e-Jannat,
1995, p. 127-128).

According to the Qur'an, God is both creator and sustainer of the universe. It is humankind's responsibility to participate in sustaining and caring for God's creation (Engineer, 2001, p.50). Humans must serve the needs of the earth – beautify it and keep it clean. (Akhtar and Gul-e-Jannat, 1995, p. 128). Cultivation also seems to play an important role in humankind's responsibilities to the earth: the Qur'an praises those who raise crops and plant trees and flowers. The Qur'an also frequently uses natural phenomena (thunder, rain, and clouds), animals, astronomical movements, etc. to explain God's mercy and greatness.

Responsibility towards Animals and Natural Resources

Islam's environmental ethic is based on the concept that all human relationships are established on justice (*'adl*) and equity (*ihsan*)" (Deen, p.2, 1996). The Prophet Muhammad instructed, "Verily Allah has prescribed equity (*ihsan*) in all things. Thus if you kill, kill well, and if you slaughter, slaughter well. Let each of you sharpen his blade and let him spare the suffering of the animal he slaughters." (Deen, 1996, p.2-3).

Islam gives Muslims the right to kill animals for food. If it is not an urgent need for human, animals must be respected and protected. The

Qur'an states, "There is not an animal on earth, nor a flying creature flying on two wings, but they are peoples unto you. (Surah 6:38)" (Deen, 1996, p.2). The prophet Muhammad is also noted as saying, "For [charity shown to] each creature which has a wet heart there is a reward." (Deen, 1996, p.2).

The injunction to eat only *Zabeeha* meat is one example of Islam's concern with protecting animal rights. The Qur'an states: "For every nation We have specified a rite (for slaughtering) so that they may take the name of Allah Ta'ala upon (the slaughter of) the animals granted to them as sustenance.' (Hajj 34)." ¹⁸

"Muslims are enjoined to slaughter their livestock by slitting the animal's throat in a swift and merciful manner, saying, " Bismillah Allah-u-Akbar" "In the name of God, God is Most Great." This is in acknowledgement that the life of this creature is taken by God's permission to meet one's lawful need for food. The animal is then bled completely."¹⁹ The process of *Zabeeha* is similar to that of the Jewish practice of *Shechita*. Both practices require that the animals are killed by a slitting the neck to cut off the flow of oxygenated blood to the brain, producing a quick and painless death (Gold, p. 6, 2007). *Zabeeha* goes one step beyond *Shechita* by requiring the severing of the major arteries and veins in the neck of the animal, as well as the esophagus and trachea. This must all be accomplished in one quick swipe of the blade.

¹⁸ <http://www.alinaam.org.za/fataawa/zabeeha.html>

¹⁹ <http://www.ehalal.org/zabiha.html>

Supporting the Qur'anic injunctions, the *hadith* show a general concern for animals, plants (cultivated and wild), and natural resources. There are many anecdotes of the Prophet prescribing humane behavior to both wild and domestic animals. One well-known example is the hadith that tells the story of a prostitute that was forgiven her sins for filling her shoe with water to quench the thirst of a dehydrated dog (Rahman, 1989, p.154). Such values are intimately incorporated into the general Islamic principles for justice and equity that must lead Muslim's decisions in all aspects of their lives.

The *Sunnah* documents the Prophet's insistence in sharing natural resources, especially that of water. Water is not created by Man, and therefore cannot be owned by Man (Haq, 2001, p. 17). All living beings have equal rights to water. Haq also notes the Hadith show that Muslim legal scholars developed the idea of land consecration in which some areas were designated as protected sanctuaries (Haq, 2001, p. 6).

Social Responsibility

Islam's emphasis on environmental ethics is closely tied to its emphasis on social justice. The Qur'an emphasizes social justice by prioritizing for dignity and rights of the elderly, disabled, orphaned, indigent, hungry, and exhortations to be fair in trading and against hoarding wealth (Haq, 2001, p.8). The Qur'an repeatedly emphasizes the

equality of all people, regardless of sex, race, or status. Each human life must be valued equally and treated without discrimination. This sense of equality and compassion extends to the natural world. Nasr notes: “It is pleasing in the eyes of God not only to be kind to one’s parents, but also to plant trees and treat animals gently and with kindness” (Nasr, 2001, p. 223). As God’s vicegerents, humans are obligated to treat all aspects of the world – both human and non-human – with respect and humility. Humans must promote peace, harmony, justice, and respect amongst all peoples (Akhtar and Gul-e-Jannat, 1995, p. 118). One way to accomplish this is through the equitable distribution of natural resources.²⁰

Muslim’s Responsibility to Seek Knowledge

The Qur’an notes that nature has therefore been created both orderly and knowable (Manzoor, 1984, p.156) and humans are encouraged to read Gods’ signs in nature and learn from them. Authors Hope and Young note, “Although each faith includes elements of both, Christianity tends to be a way of love, Islam a way of knowing through illumination. (p. 172, 2000). The pursuit of knowledge is as much a religious act as

²⁰ Ateshin notes, “A Muslim can only fulfill his role in the universe by becoming an active member of a community. He is never enjoined to withdraw from society in order to live the life of a hermit.” (Ateshin p.181).

The goals of an urban Islamic community must have both a community and a political authority. Ateshin states, “The presence of this political authority cannot be overlooked, as it is the institution which determines whether or not a community is justly administered and equipped with the necessary means to carry out its *ubudiyyah* in full.” (Ateshin p.181).

prescribed methods of worship such as prayers, fasting and charity (Akhtar and Gul-e-Jannat, p. 104, 1995). Sayings attributed to the Prophet include: “Seek knowledge from the cradle to the grave,” “One learned man is harder on the devil than a thousand ignorant worshipers,” “One hour’s meditation on the work of the Creator is better than seventy years of prayer,” “Who are the learned? They who practice what they know.” (Akhtar and Gul-e-Jannat, p. 106, 1995). The Qur’an states:

“Behold! In the creation
Of the Heavens and the Earth;
In the alternation
Of the Night and the Day;
In the sailing of the ships
Through the ocean
For the profit of mankind;
In the rain which Allah
Sends down from the skies.
And the life which it gives
To an Earth that is dead;
In the beasts of all kinds
That He scatters
Through the Earth;
In the change of the winds,
And the clouds which they
Trail like their slaves
Between the sky and the Earth;
Here indeed are Signs
For a people that is wise. (Baqara: 165)” (Akhtar and Gul-e-Jannat, p. 81, 1995).

Humankind’s knowledge can never be complete – it is only granted partially by God (Akhtar and Gul-e-Jannat, p. 105, 1995). The Qur’an states, “Of knowledge it only a little that is communicated to you. (Bani Israil: 85)” (Akhtar and Gul-e-Jannat, p. 105, 1995). Yet even with

this incomplete knowledge, through the study of nature humans learned to erect buildings, fly, and navigate by learning nature's lessons (Akhtar and Gul-e-Jannat, p. 122, 1995).

Islam and Science

The Qur'an's strong emphasis on humans' contemplation on nature as signs of God's power and mercy promotes a scientific mindset by encouraging humans to discover the intricacies of the natural world (Engineer, 2001, p 57). This scientific approach led Muslim civilizations to excel during the Middle Ages. Engineer states,

“God Himself has gifted humankind with the power of reason, so that it can assist Him in the process of creation. Thus it becomes the sacred duty of humankind to make the best possible use of intellect and to become a part of the divine process of creation. It is in fact Allah's will that humankind assists Him in the process of creation by preserving His creation through devising appropriate technology.” (2001, p.51)

In Muslim countries this technology is often used to the detriment of the environment. Nasr blames this on Muslims' willingness to follow Western scientific developments. He points out that in Islam, humankind's rights were never “absolutized,” whereas the Western world legalized such absolute rights (Nasr, p. 224, 2001).²¹ Muslims have

²¹ Nasr does not continue to discuss the practical effects of these differing legal systems and focuses instead on the differing philosophies instead. He does not blame the

followed this European model and have secularized science. Nasr considers this divorce of science from Islam is illegitimate and “believes that in the context of Islamic science, values must be judged in the light of the Qur’an, its teachings about nature and man’s role as the custodian of nature and the ultimate purpose of all knowledge” (Kirmani, 1989, p. 151-152).

Ateshin (1989) discusses the problems in ignoring the Islamic foundation of science. He notes the differences in meaning between “architecture” and “*imarah*.” Architecture is used in the west to mean the art of building technologically-advanced and aesthetic artifices. In contrast, *imarah* is defined as “the shaping of the built environment in order to make it more conducive to the sustenance and well-being of human life and [individual worship] (1989, p.168). If one implements the term according to its meaning, the outcomes will differ dramatically. Due to a lack of understanding of such issues, Muslims have followed Western paradigms, and accepted Western definitions, without realizing the consequences of these actions.

Islamic Environmentalism Compared to Other Religious Traditions

In the 1970s Lynn White Jr. wrote an influential but controversial article that blamed monotheistic religions in general and Christianity in

Christian or Jewish religions, but claims the environmental crisis stems from the rise of a secularized science that separated man from God.

particular for the current environmental crisis. Authors of many religious backgrounds responded to this article by showing how Christianity and Judaism can indeed provide a foundation for addressing critical environmental problems. Most Western authors did not include Islam in their discussions. One exception is Roger E. Timm's 1994 piece entitled, "The Ecological Fallout of Islamic Creation Theology." In this work, Timm directly responds to White's article by examining traditional Islamic attitudes toward the earth and its resources, and whether these lead to similar exploitative approaches to the natural environment.

Timm first examines the creation story explained in the Qur'an (Timm, 1994, p.84). He notes that both the Bible and the Qur'an state that God created the earth in six days and both texts teach that Adam (who was made from dust) named God's creations. Through these creation myths, both religious texts support a connection between God, Man, and Nature.

Other authors indicate that although a literal interpretation of the Qur'an supports a creation story similar to that of Christianity, a symbolic interpretation reveals that Islam's creation myth can also support evolution (Engineer, 2001, p. 48). Muslims who support evolution do so with one major caveat – they believe evolution occurred under God's guidance and is not a result of pure happenstance.

As in the Bible, the Qur'an indicates that human life is valued more highly than other animal and plant life forms. Hadith texts show that it is acceptable in Islam to kill animals that are detrimental to humans (i.e.,

rats and crows) (Timm, 1994, p.87). The Qu'ran also implies that human life is sometimes even more valuable than that of angels and *djinn*.²² Yet Timm points out this anthropomorphic attitude is counterbalanced by the Qur'an's insistence that all creation bears signs of God's power and grace and must be "treated with care and respect lest one show disrespect and ingratitude to its Creator" (Timm, 1994, p.87). God's sovereignty outweighs any "rights" humankind may have over the natural world. As such, Islam instills an intrinsic value of nature because it illustrates God's power. In contrast, Christian texts historically support the belief that humans were made in the image of God and that nature was meant to be subdued. In addition, many Christian writings describe the earth as a place of sin, corruption, and shame where earthly ties must be released in order to achieve a higher spiritual plane (Akhtar and Gul-e-Jannat, 1995, p. 127). Whereas Christianity may downplay caring for the environment due to a focus on individual spiritual preparation for the Day of Judgment, Islam stresses that human's treatment of God's creation will be one factor in determining whether Muslims enter paradise (Timm, 1994, p.89-90).

Many Islamic authors have encouraged those looking for a religious environmental ethic to turn to Islam instead of pantheistic religions. Nasr compares the Islamic value of nature to that of St. Francis of Assisi and the nature poetry of Irish monks (Nasr, 2001, p. 221). Despite historical links between the three monotheistic religions, Islam

²² *Djinn* (Arabic source of the English word genie) are supernatural beings that inhabit the earth. *Djinn* can be beneficial or malevolent, and the Qur'an warns humans to be wary of them.

offers a unique stance on environmental ethics. Unlike Christianity, Islam does not give humans the right to “subdue” or claim “dominion” over God’s property (Haq, 2001, p. 9).

Islam is the religion of balance, and while it promotes an inherent value to nature, one finds no justification in the Qur’an “to consider human existence in historical time a curse, or to deem nature as something opposed to grace, or to consider salvation as a process of the humbling of the natural by the supernatural” (Haq, 2001, p. 7). While Islam opposes the Christian ideal of isolating oneself from earthly matters as the sole way of attaining spiritual peace, Islam also rejects the spiritual beliefs of “deep ecologists”²³ who believe mankind is a blight on the earth. Islam offers a moderate alternative which promotes the idea that nature is a sacred gift for humankind’s use that must be cared for and not exploited.

Environment as a Means of Control

Some Muslims resist involvement in Western environmental movements because they see this as yet another form of Western hegemony intended to keep the Muslim world from developing. Environmentalists’ unmitigated support of population control mechanisms is viewed as a way of keeping Muslim populations low (Hope and Young,

²³ Deep ecology is the term given to environmentalists who believe in the inherent value of nature and recognize humanity as an equal part of the natural web. In practice, many deep ecologists seem to value preservation of nature over the security of humankind. This has brought some deep ecologists into conflict with various native groups including subsistence communities who depend on nature for survival.

2000, p. 162). One researcher notes, “While most of the ‘*uluma*’ (religious scholars) would not oppose Voluntary family planning on the part of individual families, most strongly oppose it when pushed as official policy. In other words, while ‘family planning’ is regarded as all right, ‘population control’ is largely condemned, primarily because it is seen as a Western bid to stop third world population growth” (Rahman, 1989, p.163).

Palestinians also point to environmental warfare conducted by the Israelis in the ongoing struggle over the creation of a Palestinian state. Nafez Assaily, a Sufi Palestinian heading the Palestinian Center for the Study of Nonviolence, is particularly concerned with the environmental impacts of war. According to Assaily, water is a crucial economic, political, and social problem for Palestinians. Assaily says, “I have seen Israelis digging artesian wells beside ordinary Palestinian wells, so the water table goes down and Palestinian wells dry up. I have seen Israelis cut off water to Palestinian villages. But they will see we have one land, one source of our water. We must share.” Hope and Young, p. 175, 2000). He also quotes the Prophet Muhammad as saying one must not misuse water, even if an ocean is available for use. He believes the way to solve water issues is through a water-sharing regional plan agreed upon by Jordan, Syria, Lebanon, and Israel/Palestine.

The loss of trees and farms is another problem for Palestinians. Israeli settlers uproot trees planted by Palestinians and Ariel Sharon’s wall

has separated many Palestinians from their farmland. Foliage became such an important issue for the Palestinians, that during the first intifadah, leaflets were passed out to urge Palestinians to plant trees as a symbol of the future. This was a symbolic issue for Palestinians. For the most part, it appears that environmental issues such as pollution have taken a backseat to the immediate pressures of the ongoing violence in that region of the world.

Gender Roles and Islamic Environmentalism

Muslim women are beginning to take the lead in Muslim grassroots environmental activism. Their environmental activism fits into the pattern noted by Mohai (1997, p.155) that women tend to show greater environmental concern than men regarding environmental issues that present local health and safety risks. In Karachi, feminist activist Farhat Naz Rahman works on issues that intertwine women's rights, human rights, and environmental preservation. Rahman notes that the poor deal essentially with environmentally rooted problems: illness, malnutrition, and more children than they can afford. She also notes that in Pakistan, environmental groups stay away from religion because leaders are so closely connected with political parties. Kenya's Dr. Yusuf Ali Eraj has given lectures on environmental issues to the United National Environmental Programme (UNEP) and the World Muslim League. She

focuses on linkages between poverty, energy, and population. She also discusses Islam's support of birth control.

Islam's Environmental Ethic in Practice

As with all other groups, Muslims practice environmental behaviors both as individuals, family units, and as communities. Although perhaps unintentional, they nevertheless have environmental benefits. For example, cleanliness is given a high priority in Islamic daily life. This ethic of cleanliness was espoused from the very beginning of Islam. Medieval Islamic cities were much cleaner than their European counterparts. Every Muslim town had public baths and fountains for washing and drinking. In addition, Muslim cities had strict inspection codes for meat and other perishable food items – they all had to be covered with muslin to ward off flies and dust (Akhtar and Gul-e-Jannat, 1995, p. 139).

Early Muslim communities were also noted for their humane behaviors towards animals. In the 13th century, Muslim jurist Izz ad-din ibn Abd as-Salam created a bill of rights for animals” (Hope and Young, 2000, p. 161). European travelers to Muslim countries also noted that Muslims treated even their beasts of burdens with kindness. However, it has been noted that this sympathy for animals seemed to lessen

dramatically after Muslim communities came into contact with modern Western influence.

It is not only behavior towards animals that has changed in the last two hundred years; many environmental values and behaviors did not continue into modern Muslim life. When looking at the environmental condition of most Muslim countries, most would not think the Islamic view of the environment differs from modern Western environmental thought. Many Islamic scholars blame Muslim countries' environmental problems on Western colonialism and hegemony. Colonization by the West exacerbated environmental degradation by dismantling of Islamic governments

Most Muslim scholars also acknowledge that modern-day environmental degradation can also be traced to internal problems, despite many recent movements to return to conservative Muslim practices and reject Western influences (Nasr, 2001, p. 217). Nasr explains that two of the "loudest" voices from the Islamic world: fundamentalist reformers and modernists have overshadowed traditional Muslim communities who continue to live in harmony with nature (Nasr, 2001, p. 226-227). As the environmental crisis looms larger, the voice of this marginalized group is becoming stronger.

The Muslim world's value of nature, like Shinto-Buddhist Japan and the Navaho nation, were overshadowed by financial incentives to join the capitalist economy. Nasr does not discuss the economic and political

factors which prevented Muslims from paying greater attention to their own traditional teachings concerning the environment and instead compares it to Western over-consumption and general claims that although Muslims have not always conducted themselves in the highest moral fashion, they have not raped and pillaged to the same extent as those in the West. Yet even pre-contact with the modern West, Muslim actions resulted in negative environmental repercussions. When Islam spread through the Mediterranean, significant ecological change followed. Since Islam prohibits the consumption of pork and alcohol, sheep and goats replaced pigpens and vineyards. The grazing patterns of these animals had negative impacts on the areas' green spaces (Timm, 1994, p.91).

Nasr states: "the Islamic world is not totally Islamic today and much that is Islamic lies hidden behind the cover of Western cultural, scientific, and technological ideas and practices emulated and aped to various degrees" (Nasr, 2001, p. 217). Nasr is not the only one to criticize current Muslim leaders. Timberlake believes the environmental crisis in Muslim countries is due to leader's separation from their Islamic roots and uncritical acceptance of Western technology. Timberlake also points to undemocratic governments as another reason for environmental problems. He says, "It is worth noting that almost all Muslim nations have authoritarian regimes. None have regimes which could truly be described as 'Islamic.' A leadership divorced from its people will be divorced from

the environment of the people.” (Timberlake, 1984, p.133). Timm agrees with this analysis:

“Because of this influence and a concomitant secularization of their societies, the leaders of Muslim nations may be alienated from their religious roots, and the support in the Islamic worldview for caring for the natural environment may have little power to overcome the lure of Western technology and its frequently negative effects on the environment” (Timm, 1994, p.91).

As Muslim countries become more dependent on Western financial systems, the exodus of rural residents to cities increased environmental problems (Nasr, 2001m p. 229). Such “cultural dislocations” resulted in Muslims leaving behind the environmental ethic with which they once conducted their lives in a rural setting. Ateshin (1989) describes the growth of mega-cities around the world, and especially in Muslim countries, as causing increased difficulties for individual worship according to the tenets of Islam while also exacerbating social and environmental problems for entire communities.

Even wealthy Muslim countries are trying to develop in such a rapid timeframe that Western models have taken precedence over the development of any indigenous, Islamic and environmental, paradigms. The following statistics reveal the depth of the problem: in some urban areas the number of vehicles doubles every year and populations double every four years (Timberlake, 1984, p.130). Even wealthy countries find

it difficult to implement sustainable development that could keep pace with such rapid threats.

Timm offers an additional explanation for the pollution and environmental damage in Muslim countries: he places the blame on the large numbers of impoverished Muslims. Timm notes, “in situations where primarily the poor cause and suffer from environmental degradation, people of wealth, power, or prestige are seldom affected by ecological problems and have little incentive to support efforts to protect the environment” (Timm, 1994, p.91).²⁴

Examples: Environmentalism in Muslim Countries

Cairo, Egypt

The Arab world’s first Green Party took root in Egypt. Egypt’s Green Party received official recognition in 1990 – after three years of being in existence. Egypt’s Green Party supports the following goals:

- ◆ Educating people on their environmental rights
- ◆ Establishing new environmental value system
- ◆ Mobilizing community participation

²⁴ Hope and Young provide no support for the statement: “most Muslims seem only vaguely aware of the depth of the ecological crisis, and perceive only a few of the problems” (Hope and Young, p. 162, 2000).

- ◆ Sustainable development
- ◆ Advocating peace in the Middle East, and condemning proliferation of nuclear, chemical, and biological weapons

Despite these ideals, members believed a Green Party movement has little chance of success in Egypt where so many U.S. military dollars flow in to fight Islamic fundamentalist threats. Such funding makes it almost impossible to create a widespread movement to reduce military spending, reduce dependence on oil, and promote equal rights to environmental resources (Hope and Young, 2000, p. 180).

Approximately 10% of Green Party members are women. One female Green Party member noted that women could “demonstrate that a clean environment begins at home, and urge teachers to include environmental lessons at school.” (Hope and Young, 2000, p. 179-180).

One Green Party member, Dr. Hassan Ragab created a community on an island in the Nile that is home to 300 Egyptians who practice traditional agriculture and technology. Ragab notes, “The government is one of the biggest destroyers of our environment. When it wants to build a drainage plant, it looks for land – like a public park. Its army has built barracks on land of some of the most precious gardens in the city, uprooting people and trees. It allows cement and steel factories near Cairo. Their pollution kills trees – and children.” (Hope and Young, 2000, p. 177). Ragab believes the government should place more stringent air pollution

regulations and encourage environmentally conscious behaviors like planting trees, gardening, and focusing on renewable energy.

Regarding the Egyptian government's role on Environmental issues, there appears to be a discrepancy between what is on the books, and what is acted upon. Rice notes that the initial impetus for the Egyptian government to develop environmental policies was from the encouragement of foreign funding (2006, p.273). Critics claim that the Egyptian government's approach to the environment, "appears passive, dedicated to temporary solutions and not focused on the roots of Egypt's environmental crisis" (Rice, 2006, p.273).

Scholar's Recommendations

Every author who discusses Islamic environmental values offers recommendations on how Muslims should move forward. Islamic scholars call on Muslim countries to abandon their dependence on Western models of development and look to approaches based on Islamic thought and tradition. One author proposes a model for an ideal Islamic city and an ideal Muslim society by identifying five "ailments" of the Western (and consequently the Muslim) world that are the result of a separation and denial from religion and spirituality. They are:

- "a) Every great idea has its abominable version very close to it,
- b) Breakdown of comprehensivity and unity,"

- c) Denial of the divine source of ethics,”
- d) Man-centered selfish view of nature,” and
- e) Our aesthetic is devoid of meaning” (Haider, 1984, p.172-173).

Islam acknowledges that God gave humans the intellect and freedom to choose their actions. Man can “establish a society that is resonant with God’s schema and thus be an Islamic society or he can reject God, become law unto himself, pursue selfish power, abandon justice and slowly become the ailing antithesis of Islam” (Haider, 1984, p.174). Haider proposes:

“Instead of a Bill of Rights of Man we need a Matrix of Mutual Rights and Expectations among God, man and nature. God has rights over man, man has duties towards God, men have rights over each other, man has expectations from and rights over nature and nature must be give due rights over man.” (Haider, 1984, p. 204).

Manzoor (1984) calls for Muslim countries to abandon Western models of science and development and turn to Islamic ethics and the principles of *shari’ah*. Nasr (2001) sees dialogue based on belief in the Divine as a way of bridging the gap between Islam and the West. Nasr describes two suggestions for Muslim countries:

- I. Disseminate “the perennial wisdom of Islam concerning the natural order, its religious significance and intimate relation to every phase of man’s life in this world.” (Nasr, 2001, p. 231).

II. Increase the awareness of “*Shari’ah* teachings concerning ethical treatment of the natural environment and extend their field of application whenever necessary according to the principal of the *Shari’ah* itself. Muslims should understand the religious significance of laws protecting the environment, not view them as controversial measures enacted by the government as often happens in the West (Nasr, 2001, p. 231).

According to Nasr, the West will have a less difficult time in addressing its environmental problems because they are a result of Western countries’ own environmental and economic problems. Muslim countries, on the other hand, must deal with the technological and economic challenges from abroad as well as from within. Yet, both Nasr and Manzoor promote the idea of using the Islamic environmental principles to form the foundation of information-sharing that will ultimately better the entire global environment.

Muslim Environmentalism in the U.S.

Currently, Muslim environmentalism in the United States is reserved to small, local programs scattered across the country. The Arab American Community Center for Economic and Social Services (ACCESS) in Dearborn, Michigan has been working on local

environmental issues for over a decade. Their goal is to combine community education, community-based research, and advocacy for environmental health and environmental justice for their predominantly low-income, Arab community (ACCESS.com, 2008.)

Another small-scale Muslim environmental effort is taking place in Chicago – Tacqwa Eco-Food. The program, which is part of a nonprofit organization called Faith in Place, has the goal of returning worship back into the entire process of food production...[by promoting] sustainable farming practices and encourage faith communities to become consumers of locally and sustainably raised food (taqwaecofood.org, 2008.) This initiative to connect Muslims with locally raised, organic, farmers who can slaughter the animals per Islam's *zabeeha* requirements. This program has been in place for over five years and works to increase Muslim's understanding of eating locally and buying organically raised food.

The Nation of Islam, headed by Minister Louis Farrakhan, runs a program entitled "Muhammad Farms" based in Georgia. Although this farm, which covers less than two square miles, primarily serves the local market, the goals are national. The farm was created to meet the Nation of Islam's goal of "developing a sustainable agricultural system that would provide at least one meal per day, according to the teachings of the Most Honorable Elijah Muhammad for the 40 million black people in America (muhammadfarms.com, 2008).

To move toward a national Islamic environmental movement, Muslims will need to leverage the religious values discussed throughout this chapter while facing the practical challenges of knitting together this diverse and widespread group. Emphases on environmental behaviors from the Qur'an, *Sunnah*, *Hadith*, and *Shari'ah* will be very important in giving a Muslim environmental movement religious legitimacy. These religious texts provide a spiritual and moral basis for environmental action. The historical and present-day environmental experiences from Muslim countries will also shape how Muslim Americans identify important environmental issues and also how they tackle them. As authors Hope and Young note, "It is impossible to consider the possibilities for a full-fledged Islamic environmental ethic without considering the political, economic, and historical aspects of Islam as a living community. This is true of all religions – but particularly true of Islam, which is seen as a way of life."(2000, p. 186).

If the American Muslim community can agree on a unified environmental platform, and commit to its advancement, American Muslims could become environmental leaders for the Muslim world. Hope and Young explain the possibilities: "The potential is enormous. If the disparate forces of Islam, the world's fastest growing religion, were to get together and take off, it could become a leader in the ecospiritual movement." Hope and Young, p. 186, 2000). Yet to meet this potential, the U.S. Muslim community will need to work together to overcome the

internal schisms and distrust so the entire community to come together and put the force of its inter-ethnic, diverse strength behind these important issues.

Chapter 3

Pro-Environmental Behaviors

Before exploring the results of my study which examines how Islamic environmental values are practiced in everyday life, I would like to review existing research regarding environmental behavior and outdoor recreation. Although most of this literature is not specific to Muslims, it allows me to demonstrate general patterns in identifying causes of environmental behaviors and outdoor recreation.

Private and Public Pro-Environmental Behavior

Researchers study environmental behaviors (referred to here as Pro-Environmental Behaviors) to better understand human nature and to guide environmental policies and programs. Pro-Environmental Behaviors are actions that have beneficial consequences on the natural environment regardless of the intent (e.g., the individual may conduct the activity primarily to save money, conform to social norms, *or* benefit the environment). Examples of Pro-Environmental Behaviors include recycling, membership in environmental organizations, reducing energy and natural resource consumption, buying eco-friendly products, joining

an environmental organization, and working on environmental issues in one's community. Some researchers define Pro-Environmental Behaviors to also include political environmental activism (e.g. contacting elected officials about environmental issues or considering environmental platform when voting) (Theodori et al, 1998, p. 98; Van Liere & Dunlap, 1981, p. 188) In Hines et al's oft-cited meta-analysis of 128 studies, the authors do not describe how they define Pro-Environmental Behaviors and the reader is left to assume they accepted the breadth of definitions from the variety of disciplines they included in their review (education, sociology, natural sciences, etc.) (1986, p.3.)

Such all-inclusive definitions assume a certain level of crossover, that a person who undertakes one type of Pro-Environmental Behavior is more likely to participate in other types of pro-environmental activities (Schultz et al., p.118-119). Yet the evidence supporting this is ambiguous. Participation in general Pro-Environmental Behaviors are not shown to consistently predict one particular type behavior such as recycling or consumption patterns (Schultz et al, p.119). While some studies have found correlations between certain types of Pro-Environmental Behaviors (Tilkidou & Delistavrou, 1996), others have found that predicting one type of pro-environmental behavior does not necessarily predict another type (Olli et al, 2001, p. 188; Oskamp et al, p.119).

To better understand relationships between these variables, this study differentiates between "general" Pro-Environmental Behaviors

(measures that include a variety of behaviors) and “specific” Pro-Environmental Behaviors (that focus on one type of activity such as buying environmentally friendly products). This study further defines Pro-Environmental Behaviors as “private”, home-based behaviors; and uses the term Environmental Activism to refer to “public,” group-oriented behaviors and civic activities that promote community-wide environmental benefits. This paper considers activities such as recycling²⁵ and consumption as fitting into the first category, while membership in environmental organizations and participation in community-wide activities fall in the second category. These categorizations have been used in previous studies to explore how environmental behaviors may differ due to traditional socialization patterns in which women have been steered towards home-based duties while men take on a public role as the breadwinner (Hunter et al, 2004; Mohai, 1992, Tindall, Davies, and Mauboules, 2003; Zelezny, Chua, and Aldrich, 2000).

Environmental Concern

Just as there is no consensus on how to define or measure Pro-Environmental Behaviors, there are many competing ways of understanding “environmental concern.” Environmental concern refers to

²⁵ Although recycling can also take place in the public sphere (as in throwing cans/bottles into recycling bins in public places), this study assumes that the largest quantities of materials are recycled from the home.

how people think about, or assesses, actions that have environmental consequences. Environmental concern can either indicate a specific opinion that directly determines intentions or a general value orientation (Fransson and Gärling, 1999, p.370; Kaiser et al., 1999, p. 1-3).

Though researchers have assumed environmental concern plays a strong role in predicting Pro-Environmental Behaviors, studies have shown only a weak to moderate relationship between the two variables (Bamberg, 2003; Hines et al., 1986; Fransson & Garling, 1999; Oskamp et al., 1991)

While some studies found a positive correlation between behavior and environmental concern (Schahn and Holzer, 1990), others show no such correlation (Van Liere and Dunlap, 1981).²⁶ In their review of 128 studies, Hines et al found a corrected correlation coefficient of 0.347 (SD = .224) between general environmental concern and Pro-Environmental Behaviors (1986, p.4).²⁷ Schultz et al. found that although the relationship between general environmental concern and recycle appears to be diminishing over time as recycling becomes more convenient, there is a continued significant relationship between recycling and concern for specific related issues (1995, p. 107). In all, general environmental

²⁶ Van Liere and Dunlap's 1981 article showed that Pro-Environmental Behaviors should not be included in measures of environmental concern because the 8-item behavioral scale did not correlate with other measures of environmental concern regarding pollution, natural resources, environmental regulation, and governmental spending on the environment (p. 666).s

²⁷ This was compared to only an average correlation of -.151 to .162 (SD = .84 to .200) for individual sociodemographic variables (p.5).

concern explains at most 10% of the variance of specific environmental behaviors (Bamberg, 2003, p.21).

Part of the inconclusive results may be because some researchers use Pro-Environmental Behaviors as a way to measure environmental concern. Both the New Environmental Paradigm and the Ecological Attitude Scales use environmental behaviors as one of the factors determining environmental concern (overviews of these studies can be found in Van Liere and Dunlap, 1981; Dunlap, 1980; Fransson and Gärling 1999).

Outdoor Recreation

Outdoor Recreation has been defined as, “any form of experience pursued during leisure time in which an individual engages (physically and/or mentally) from choice because of personal enjoyment and satisfaction which it brings directly to that person.” (<http://www.cnr.uidaho.edu/css287/Behavioral%20Definition2003.pdf>)

The relationship between environmentalism and outdoor recreation has interested researchers since the 1970s. Most of this research focused on the relationship between outdoor activities and environmental concern, not on the relationship with Pro-Environmental Behaviors (Cordell et al., 2002; Tarrant and Green, 1999, p. 17; Theodori et al., 1998, p.97; Ewert et al., 2005, p.227).

This research regarding outdoor activity and environmental concern showed inconclusive relationships, but there is stronger evidence supporting a relationship between outdoor activity and Pro-Environmental Behaviors. The most influential of these studies was published by Theodori, Luloff, and Willits' in 1998. These authors conducted bivariate analyses to compare the behaviors of individuals who participated in different types of outdoor activities. They found that individuals who participated in outdoor activities that resulted in activities that focused on nature appreciation (e.g. hiking, camping, etc.) were significantly more likely to conduct Pro-Environmental Behaviors than their counterparts who participated in outdoor activities that consumed natural resources (hunting, fishing, etc.) Theodori et al., 1998, p.105). Subsequent studies showed similar findings. Tiesl and O'Brien found that participation in forest-based outdoor recreation has a significant positive association with environmental behaviors (Tiesl and O'Brien, 2003, p.519). Tarrant and Green found that "participation in appreciative Outdoor Recreational Activities mediates the environmental attitude-behavior relationship, while participation in motorized and/or consumptive activities does not appear to" (Tarrant and Green, 1999, p.25). Their conclusion was that recreational activity, mediated by environmental attitudes, does impact Pro-Environmental Behaviors.

Pro-Environmental Behaviors

Pro-Environmental Behaviors are the product of many variables which interact with each other in unknown ways (Hines et al., 1986/1987, p.6). To better understand these variables, Hines, et al. established five primary categories of factors related to Pro-Environmental Behaviors:

- ◆ **cognitive variables:** factors related to knowledge of the environment or a related issue
- ◆ **psycho-social variables:** factors related to individual personality characteristics including perceptions of self and others, locus of control, attitudes, and personal responsibility
- ◆ **demographic variables:** factors related to the demographics of the studied population
- ◆ **experimental variables:** factors based on interventions and classroom strategies
- ◆ **situational variables:** factors such as economic constraints and incentives, social pressures, and opportunities

This paper focuses on demographic and psycho-social variables. The social aspects are examined in combination with both demographics and psychological factors. This chapter's literature review examines the

following sub-categories in greater detail:

- ◆ **Sociodemographic variables**

- ◆ Age
- ◆ Education
- ◆ Income
- ◆ Race/Ethnicity
- ◆ Gender

- ◆ **Psycho-Social Variables**

- ◆ Religious Participation

An assessment of these variables will help identify the factors most likely to affect Pro-Environmental Behaviors, Environmental Activism, and Outdoor Recreation. This will help us better understand the relationship between these variables for Muslim women in the U.S.

1. Sociodemographic Variables' Influence on Pro-Environmental Behaviors

Sociodemographic variables have received substantial academic attention in the search for predictors of environmental behavior. Nonetheless, researchers have not made much progress (either empirically

or theoretically) in clarifying the relationships between these variables and environmental behavior or activism (Olli et al. 2001, p.183).

The overlap of measures of environmental concern and environmental behavior makes it difficult to understand which studies considered the impact of sociodemographics on behavior separately from the impacts of concern. Below I summarize the literature that focuses explicitly on the sociodemographic impacts on environmental behaviors. Studies that evaluate only environmental concern without also examining behaviors were omitted.

◆ **Age**

Studies show differing results when assessing the correlation of age to Pro-Environmental Behaviors. Van Liere and Dunlap's meta-analysis found inconclusive evidence for a relationship between age and general Pro-Environmental Behaviors (1980, p. 186-187). Baldassare and Katz found that older residents were more likely to participate in Pro-Environmental Behaviors (1992, p. 607-608), but Hines et al.'s meta-analysis of 10 studies found a weak negative relationship, signifying younger individuals are more likely to report that they conducted Pro-Environmental Behaviors than older individuals (Hines et al., p.5). Olli et al. also found similar results and concluded, "it has not been possible to establish consistent significant correlations between age and environmental

behaviors (Olli et al., 2001, p.184). Schultz et al's review of research on recycling behavior and age also showed inconclusive results in determining both the direction and the correlation of age to recycling (p.108).

Any positive correlation between age and Pro-Environmental Behaviors is most likely attributed to a cohort effect. Stern et al. found that age differences in environmental behavior were likely due to:

“both value differences rooted in formative experience and changes in beliefs resulting from different information. This line of thinking implies that the same scientific information will affect environmental concern differently for different cohort and age groups.” (Stern et al., 1993, p.341).

Olli et al. also support that age is consistently related to Pro-Environmental Behaviors through a cohort effect. The authors note,

“The fact that the effect of old age does not decrease when attitudes and participation are included in the regression ... leads us to conclude that the correlation between age and environmental behavior is an effect of generational experiences (i.e., a cohort effect) rather than an age effect.

Research on age and environmentalism must therefore take into account that environmental behavior is not necessarily rooted in a corresponding concern, at least not in the way it is often measured in empirical studies.” (Ollie et al, 2001, p.200).

Cohort effects are important because social norms of certain age groups may have greater influence on Pro-Environmental Behaviors than the age itself. For example, the cohort raised during the depression may conduct more Pro-Environmental Behaviors for financial and savings reasons as opposed to environmental concerns or values (Olli et al., 2001, p.184). This is in keeping with early studies that show older individuals are more likely than younger ones to participate in recycling (Johnson, Bowker, and Cordell, 2004, p.180).

◆ **Education**

The correlation between education and Pro-Environmental Behaviors is also unclear (Fransson and Gärling, 1999, p.375; Olli et al., 2001, p. 185). In an analysis of 11 studies, Hines et al. found only a weak correlation (of .185) between education and environmental behaviors (Hines et al., p.5). Baldassare and Katz found no significant relationship between education and Pro-

Environmental Behaviors (1992, p.607-608). Van Liere and Dunlap identified two studies that revealed a significant positive relationship between education and environmental behavior and one study that showed a very tenuous relationship (1980, p.186-187). Baldassare and Katz's regression analysis did not show a correlation between education and an overall measure of Pro-Environmental Behaviors (1992, p.608).

The evidence is mixed even when one moves from examining general environmental behaviors to specific actions. Johnson, Bowker, and Cordell found that postsecondary education was a much stronger predictor of four specific environmental behaviors: recycling, reading environmental material, membership in environmental organizations, and nature activities (2004, p.180). Tilikidou and Delistavrou conducted ANOVA analysis which showed a significantly positive relationship between higher education and a three types of Pro-Environmental Behaviors: recycling, post-purchase Pro-Environmental Behaviors (e.g. fixing broken items, donating old clothes), and environmental activism (2008, p.66). Yet Baldassare and Katz's 1992 study found that education did *not* predict recycling, water conservation, buying eco-friendly products, or reducing car usage (p.607-608). This leaves us with no consistent correlation patterns between education and Pro-Environmental Behaviors.

◆ **Income**

Income has only been weakly correlated to Pro-Environmental Behaviors (Fransson and Gärling, 1999, p.375; Olli et al., 2001, p. 185). Van Liere and Dunlap's 1980 meta-analysis did not find any research that examined both income and environmental behaviors. Olli et al. found an inverted income effect in which those with higher incomes were least likely to conduct general Pro-Environmental Behaviors (Ollie et al., 2001, p.200). Hines et al. found only a .162 average correlation between income and Pro-Environmental Behaviors (p.5).

There is also mixed evidence for the link between income and specific environmental behaviors. Clark et al.'s study found that higher incomes were associated with participation in a green-energy program in which members paid increase costs for sustainable energy (2003, p.245). Schultz et al.'s literature review cites four studies (Jacobs et al., 1984; Vining and Ebreo, 1990; Oskamp et al., 1991;, and Gamba and Oskamp, 1994) that found a consistent, positive correlation between income and recycling (Schultz et al, 1995, p.108). In contrast, Baldassare and Katz found that income did not predict recycling, water conservation, buying eco-friendly products, or reducing car usage (1992, p.607-608). Thus there is no conclusive connection between income and Pro-Environmental Behaviors.

◆ Urban/Non-Urban Residence

Over the past thirty years, studies have found no consistent relationship between Urban/Non-Urban residence and Pro-Environmental Behaviors (Fransson and Gärling, 1999; Van Liere & Dunlap, 1980; Bogner & Wiseman, 1997). In their survey of 3,523 students, Bogner and Wiseman conducted one-way Analysis of Variance (ANOVA) to examine differences in Pro-Environmental Behaviors between rural, urban, and suburban children. Results showed no significant differences in actual behavior between the groups (Bogner & Wiseman, 1997, p.117).

Olli et al. found that urban residents were less likely than their suburban/rural counterparts to take part in either general or specific Pro-Environmental Behaviors. The researchers measured general environmental behaviors by a general composite scale, and measured individual behaviors by five scales for the following behavior types: responsible consumerism, resource conservation, use of nature, nontoxic, and waste handling (2001, p. 192).

These inconclusive results may be explained by the theory posits that any differences between urban and rural populations may be diminishing due to mass communication, standardized education, increased mobility and increasingly similar lifestyles (Bogner and Wiseman, 1997, p.112).

◆ Race/Ethnicity

Ethnic groups are subcultures that have particular behavioral characteristics that set them off from the society's mainstream culture (Parker & McDonough p. 157, 1999). Intuitively one would expect these factors influence Pro-Environmental Behaviors, but until the 1990s there was little research on multicultural differences in environmental attitudes and behavior. Not one study included in Van Liere's well-read 1980 review of environmental concern literature examines links between Pro-Environmental Behaviors and race or ethnicity.

Early research indicated that racial and ethnic differences in environmental concern were more significant than other sociodemographic variables (Mohai, 1997). Subsequent studies have shown further support for the relationship between race/ethnicity and environmental behavior. One of these most influential studies is Johnson, Bowker, and Cordell's examination of the 2000 National Survey on Recreation and the Environment (2004). Their research found that ethnicity influenced environmental activism even after controlling for socioeconomic factors and NEP scores. In addition, the study found that differences between ethnic groups were just as important as white/minority differences.

Johnson, Bowker, and Cordell use data from the 2000 National Survey of Recreation and Environment (NSRE) and conducted logit

equations to determine the total, direct, and indirect ethnic impacts on Pro-Environmental Behavior (2004, p.165). They hypothesized that race and ethnicity would have indirect effects on environmental behaviors as a result of the beliefs held by those individuals. Therefore regardless of race and ethnicity, an individual scoring higher on the NEP would be more likely to participate in Pro-Environmental Behaviors (Johnson, Bowker, and Cordell, p.168-169, 2004). Yet the study's results showed that even when different ethnic groups scored the same on the NEP, they held different levels of Pro-Environmental Behaviors. Blacks and foreign-born Latinos were significantly less likely than Whites to recycle (Johnson et al., 2004, p.172). The authors concluded that, "the direct, ethnic effect for these groups is much more powerful than the effect mediated through the NEP." (Johnson, Bowker, and Cordell, p.177, 2004). One acknowledged problem with their study is that the measure of environmental behavior and activism may not correlate with the types of environmental issues most important to minorities.

Eisler et al. found significant differences in a self-reported general Pro-Environmental Behaviors (mean calculated from 3-point scale of 20 questions) across four countries (U.S., Germany, Switzerland, and Japan) (2003, p. 93-98). One can extrapolate that at least a portion of the differences can be explained due to ethnic/cultural differences between countries.

A few studies have attempted to understand the relationship between race/ethnicity and specific Pro-Environmental Behaviors. In Schultz et al's 1995 overview of effects on recycling behavior, the researchers were only able to uncover one study that examined race/ethnicity and recycling. This was an early study by Howenstine in 1993 which reported only percentages as results of a survey of 574 Chicago college students' self reported recycling behaviors: 28% of Asians, 28% of Blacks, 12% of Hispanics, and 51% of Whites claimed to recycle (p.93). This data implies a difference exists between the recycling behaviors of each ethnic/racial group, but since the researcher he failed to consider other possible third variables such as parental education, income, or occupation, it is impossible to draw any real conclusions on the impact of race (Schultz et al., 1995, p.108).

Minority groups often act on their environmental concerns in different ways than the mainstream culture (Pfeffer and Stycos, p.70, 2002). For example, African Americans may participate in more environmental justice issues than Whites due to the history of racial discrimination in this country. As such, African Americans are more likely to act on their environmental concerns by addressing housing issues, neighborhood crime, workplace health and safety, hazardous waste disposal, and access to quality, outdoor recreation opportunities (Johnson, Bowker, and Cordell, p. 179; Taylor, 2000).

This review shows that although evidence indicates race and ethnicity influence Pro-Environmental Behaviors, the nature of this correlation is unclear for each group and further research is needed.

Some information can be gained by the large body of racial/ethnic research in the field of recreational behavior. Driven by a desire to identify potential inequalities in recreational services, researchers have examined the intersection between race/ethnicity and outdoor recreational behavior for more than 30 years (Floyd, 1993, p.6; Ho et al., 2005, p. 284.) Washburne led this research through his 1978 study of the underrepresentation of African Americans in wilderness recreation. Washburn identified two hypotheses for understanding inequitable participation by African Americans. The first vein of research has been regarding the theory that racial/ethnic differences have been due primarily to socioeconomic and resource differences. The second vein of research has converged around the hypothesis that the differences are due to differing values (Washburn, 1978).

Based on the premise that ethnic variation in outdoor recreational behavior would be better explained by combining both theories, Floyd et al. conducted a survey of Whites and Latinos in Arizona (1993). Results showed that the least acculturated Mexican Americans (based on English abilities, non-Mexican friends, etc.) behaved most similarly to whites regarding outdoor behaviors (Floyd et al., 1993, p. 15).

A body of research has also delved into intra-ethnic differences. Carr and Williams conducted a survey of park usage for Whites and Latinos (1993). Their study found differences in location and meanings attributed to outdoor activities based on the varying levels of acculturation (p.26-29).

In a qualitative study of 15 south Asian teens living in Canada, Tirone (1999) identified racism (attributed to skin color and traditional clothing) and lack of understanding/tolerance of customs such as Ramadan as having important negative impacts on outdoor leisure behavior (p.3). The impact of racism has also been identified by Stodolska and Livengood (2004, 2006) as creating disincentives for Muslims to participate in leisure behaviors with non-Muslims.

Ho et al. conducted a survey of 1570 minority respondents living in the Atlanta, Georgia and Philadelphia, Pennsylvania metropolitan areas. Multivariate analyses did not show statistically significant gender differences in relation to frequency of park visitation (Ho et al., 2005, p. 295.) In regards to racial/ethnic differences, Ho et al. found that although Whites and Hispanics reported higher frequencies of park visitation than Chinese, Japanese, Korean, or African Americans, these differences were not statistically significant (Ho et al., 2005, p.295.)

◆ **Gender**

Until the 1990s, few studies investigated the relationship between gender and Pro-Environmental Behaviors. Van Liere and Dunlap's 1980 study analyzed articles between 1968 and 1978 to review findings about the relationships between environmental concern and eight sociodemographic variables. Of the 21 articles examined, only seven²⁸ considered gender as an independent variable. Of these seven articles, only two analyzed pro-environmental behaviors (See Arbuthnot & Lingg, 1975 and Van Liere and Dunlap, 1978). Table 2 below shows that each had conflicting results: whereas Van Liere and Dunlap found women were somewhat more likely than men to conduct pro-environmental behaviors, Arbuthnot & Lingg found the opposite (cited in Van Liere & Dunlap, 1980, p.186-187).

Table 2. Van Liere & Dunlap (1981) Pearson's R for Pro-Environmental Behaviors and Gender

Study & Dependent Variable	Gender
Arbuthnot & Lingg, 1975	
Recycling index	-.11
Van Liere & Dunlap, 1978	
Personal behavior scale	.21
Public behavior scale	.07

²⁸ These seven studies are (Arbuthnot & Lingg, 1975, Grossman & Potter, 1977; Hornback, 1974; McEvoy, 1972; Murch, 1974; National Wildlife Federation, 1972; Van Liere & Dunlap, 1978)

In a meta-analysis conducted for 1971 and 1986, Hines et al. identified four different studies that included gender as an independent variable (p.6).²⁹ The meta-analysis of these studies found a correlation coefficient of only .075 with a standard deviation of .084 (p.6), therefore not showing a gender difference regarding Pro-Environmental Behaviors.

Despite these early studies that did not show a gender difference, evidence is mounting that shows women are more likely than men to conduct Pro-Environmental Behaviors. Van Liere & Dunlap's 1976 survey of 806 Washington State residents found a positive relationship between gender and an 8-item Environmental Behavior Scale (1980, p.666). In a New Zealand study, 455 University students were asked to indicate how often they engaged in eight specific Pro-Environmental Behaviors in the last year.³⁰ The alpha coefficient was .77, and the average score was 3.40 (S.D.=.73), with women (m=3.45; S.D.=.72) scoring significantly higher than men (m=3.24; S.D.=.73), $t(453)=2.82$, $p < .01$ (Milfont and Duckett, 2003, p. 291).

In their study of 2,160 English and Spanish-speaking undergraduate students from 14 countries in Europe, North America, and South America, Zelezny et al. found that women generally reported more Pro-Environmental Behaviors than men. Eisler et al. found significant differences between males' and females' self-reported Pro-Environmental

²⁹ Hines et al. do not provide citations for these four studies.

³⁰ looked for ways to reuse things, recycled newspaper, recycled cans or bottles, encouraged friends of family to recycle, purchased products in reusable or recyclable containers, picked up litter that was not your own, composted food scraps, conserved gasoline by walking or bicycling

Behaviors within each of four countries (U.S., Germany, Switzerland, and Japan) and also found differences in gender between these countries (2003, p. 93-98).

One limitation to all of the above studies (both past and recent) is the lack of clear information on how the researchers defined Pro-Environmental Behaviors.

Specific Environmental Behaviors

Whereas gender differences for general Pro-Environmental Behaviors remains mixed, research regarding specific environmental behaviors shows more consistent gender differences (Tindall et al., 2003, p.910). In keeping with findings that show women are more concerned and knowledgeable about environmental issues that are connected to the home (Schahn and Holzer, 1990), research indicates that women conduct more private-sphere environmental behaviors than their male counterparts. Hunter et al. used results from the 1993 International Social Survey to explore gender differences in specific groups of environmental behaviors across 22 countries (2004, p.678). Their study found substantial support for the hypothesis that women engage in more private-sphere environmentally-oriented behaviors when compared with public-sphere behaviors (Hunter et al., 2004, p.688). Hunter et al.'s multivariate analysis showed that in 11 of the 22 countries studied, women had

statistically significant higher levels of private environmental behaviors than public behaviors (2004, p.689). Hunter et al. found that although men also conduct more private environmental behaviors than public ones, they still participate in fewer private behaviors than women (Hunter et al., 2004, p.689).

Baldassare and Katz evaluated four environmental behaviors practiced in the home: limiting driving to reduce air pollution, purchasing environmental safe products, recycling, and conserving water (1992, p. 606). These questions were coded into an overall environmental practices scale. Demographic analyses showed that the women in their sample were more likely to participate in these environmental behaviors than their male counterparts (Baldassare and Katz, 1992, p. 607-608).

In their study of Norwegians, Olli et al. assessed 16 private, individual Pro-Environmental Behaviors in the following categories: responsible consumerism, resource conservation, use of nature, nontoxic, and waste handling (Olli et al, 2001, p. 192). Results showed women generally reported more Pro-Environmental Behaviors than men (p. 194). The study found that women perform almost one environmental act more than men when controlling for the other variables in the model (Olli et al., p. 197). The authors note the gender effect is:

“not restricted to areas directly connected to household tasks, and the effect is not weakened by the introduction of attitudes, knowledge, and participation as explanatory variables. This is in slight contrast to previous results, but the present findings may stem from the fact that more private

and household behaviors are included in the present analysis, whereas more public behaviors are included in other studies.” (Olli et al., 2001, p.200).

Similar results were obtained by Tindall et al. in their survey of Canadian environmental activists. These researchers found that although both men and women conducted more private Pro-Environmental Behaviors than public ones, women were significantly more likely than men to participate in higher levels of private Pro-Environmental Behaviors, even after controlling for age, income, and education (Tindall et al, 2003, p.919-920). However, Tindall et al. found no statistically significant difference in the means between women and men’s participation in public Pro-Environmental Behaviors (Tindall et al, 2003, p.919). Their results showed that after controlling for age, education, income, and length of membership in the environmental organization, women were not more active in the movement than men (Tindall et al, 2003, p.923).

When considering more specific private Pro-Environmental Behaviors, most research focuses on recycling. Schultz et al.’s examination of five studies between 1975 and 1994 found no correlation between gender and recycling (Schultz et al., p.108). The authors note, “Five studies that studied the relationship between gender and recycling were unanimous in finding no significant relationship. Thus, men and women are equally likely to recycle.” (Schultz et al, p. 108). Johnson, Bowker, and Cordell’s more recent study contradicts this assessment with

the finding that women were more likely than men to recycle household products (Johnson, Bowker, and Cordell, 2004, p.180). This difference in results may be due to time frame, as Schultz et al. considered studies from the mid-1970s through the early 1990s whereas Johnson, Bowker, and Cordell's study was conducted in the early 2000s. Gender differences in recycling may have changed over time, but with so few studies to consider, it may simply be a matter requiring more research to arrive at a solid conclusion about gender's impact on recycling.

The above review shows that when considering "public" environmental behaviors such as participating in demonstrations or Volunteering, few studies have shown any significant gender differences (Hunter et al., 2004, p.678-9). However, most recent research indicates women are more likely to conduct "private" environmental behaviors within the household sphere (i.e., recycling, energy conservation, etc.). One explanation is that women are more likely to conduct private behaviors because they are more often in charge of the home.³¹ As Tindall et al. note, many Pro-Environmental Behaviors,

"such as taking public transit, recycling, or using a reusable mug, can be undertaken through daily routines at work and in the home, people with an environmental conscience can do them with relatively few extra costs. Thus [Pro-Environmental Behaviors] unlike activism, is generally not constrained by biographical availability. Because women on average do a disproportionate share of domestic work, and since much [Pro-

³¹ In addition, private tasks are generally easier to accomplish (take less effort and resources) and can be incorporated into daily life. Many private environmental behaviors also have direct financial benefits such as lower electric bills.

Environmental Behaviors] occur in domestic work, women's position in the division of labor may reinforce their engagement..." (Tindall et al, 2003, p.913).

Summary of Sociodemographic Impacts

This literature review shows that the impact of sociodemographic factors depends on the type of pro-environmental behavior studied. The literature examined above shows inconclusive evidence for each sociodemographic variable considered (gender, age, education, income, and race/ethnicity), and dispels the idea that there is one type of individual (i.e., young, white, middle class) that is most likely to conduct Pro-Environmental Behaviors. Only in the cases of gender and race/ethnicity does the literature indicate a consistent correlation with Pro-Environmental Behaviors. Whereas race and ethnicity appear to have a consistent relationship regardless of the type of environmental behavior studied (general or specific), gender is more strongly connected with "private" Pro-Environmental Behaviors that are conducted individually and within the home.

2. Psycho-Social Variables

Although researchers have spent much energy evaluating sociodemographic traits, these variables explain only about 10% of environmental actions (Bamberg, 2003, p. 22; Olli et al, p.195).

Researchers have begun to search for other variables explaining Pro-Environmental Behaviors and environmental activism. One area of interest is psycho-social factors. These variables incorporate the social and psychological characteristics that influence an individual's choices. Psychological factors such as attitudes and beliefs and social factors such as community norms have been found to influence both specific Pro-Environmental Behaviors (both specific and general) [e.g., recycling, consumption, energy conservation, choice of travel mode] (Nordlund and Garvill, 2002, p.742) and environmental activism.

The psycho-social variables of interest to this study relate to religious participation. Few studies of Pro-Environmental Behaviors and environmental activism have directly examined these variables and the following interdisciplinary review summarizes the most relevant research in various academic fields.

◆ **Religious Participation**

Another psycho-social factor of environmental behavior and activism is religious participation. Gardner & Stern's 1996 study showed that even in countries where the dominant religion has Pro-Environmental beliefs and attitudes, severe environmental damage has occurred. The authors believe that counteracting outside influences created situations in

which the religious environmental beliefs were trumped (Nickerson, p.84, 2003).

Religion may play a role in helping individuals overcome the belief that an individual's contribution will not have any meaningful impact on the greater environmental problems facing the world. Religious teachings can emphasize that a) the free rider approach is not useful since God knows what you have failed to do and will accordingly hold you accountable b) your efforts will not go unnoticed, as God keeps account of everything. Therefore, religion provides an incentive for every individual to conduct these activities – regardless of others' actions, and regardless of impact on outcomes.

Religious participation reflects both the psychological factors of beliefs and attitudes as well as the social factors of community norms. Religious participation is important because, as Mazumdar and Mazumdar note, “At the macro societal level, religion, particularly nonWestern nonChristian religions, continues to dominate the lives of its believers both men and women.” (Mazumdar & Mazumdar, 1999, p.160).

Fifty years ago scholars began to claim that secularization and rationalization eroded the structural base of religion (Mazumdar & Mazumdar, 1999, p.160). This is currently being refuted as both Western and Non-Western countries are facing strong internal pushes to return to a religious foundation in politics, education, and other spheres of life. As

religion becomes more and more important on the political front, the impacts of religion on all spheres of action are being examined.

Environmentalists are now looking for ways to connect religious beliefs to environmental issues. Many Americans currently make strong connections between environmental values and religious and moral beliefs, but this was not always the case (Clayton and Opatow, p.4, 2003). It was not until the late 1990s that environmental issues moved from the margins to join mainstream liberal religious ideals of peace and justice (Beyer, p. 262, 2001). Evidence of this attitude shift is illustrated by a survey by the Henry J. Kaiser Family Foundation conducted in 2000 that showed 64% of voters agreed “protecting the environment is a moral issue involving beliefs about what is morally right or wrong.” (Clayton and Opatow, p.4, 2003). Additional research indicates people of different classes and backgrounds around the world share this view that morality and the environment are connected (Clayton and Opatow, p.4, 2003).

Yet, just as mainstream environmental concern has not been decisively linked to environmental behavior, religious-based environmental concern also has not been directly linked to action (Hunter and Toney, 2005).

Religious Participation and Political Activism

Throughout U.S. history, religious institutions played an important role in mobilizing political activism. Churches were instrumental in advancing the civil rights movement and have taken an active role in promoting the recent conservative political movement. Religious institutions, like other societal rule-makers, partake in the socialization process that teaches individuals about each religious community's socially acceptable values, to learn the vocabulary to communicate these principles, and to prioritize them (Fransson and Garling, 1999., p. 374). Attendees of religious services are exposed to political cues and messages, both from the religious leaders who may advocate or condemn certain issues and other members who discuss various issues amongst themselves (Schlozman, Burns, and Verba, 1994, p.967). This religious forum for discussion often places political issues in a moral light, thereby encouraging discussion about whether the individual should support or condemn the political issue being discussed.

In addition to influencing attitudes and values, religious institutions provide leadership, fundraising capacity, networks, and space for organizational and administrative activities. These institutions also provide information about Volunteer opportunities, help organize such activities, and provide support and encouragement to participants. In this way, religious institutions help members develop skills to participate not

only in political actions (Arp and Boeckelman, 1997, p.256), but also in other forms of activism (Schlozman, Burns, and Verba, 1994, p.967).

Individuals are most likely to participate in activities in which other people they know participate (Williams, p.54, 2000). Therefore it is not surprising that religious activity is a strong predictor of Volunteering and also increases an individual's chances of being invited to Volunteer (Musick et al., 2000, p. 1543). Volunteers who are recruited by others tend to give more time than those who Volunteered through their own initiative: those who were *asked* to participate contributed an average of 20 more hours per year than those who began Volunteering without a specific request (Musick et al., 2000, p. 1550).

Musick et al. note that the literature on social movements delineates the crucial role that social networks play in mobilizing activism (Musick et al., 2000, p. 1541). Studies show that most individuals who Volunteer do so because individuals in their social networks provide the information and incentive to donate their time (Musick et al., 2000, p. 1541). In this way, religious communities provide their members with information and incentives to Volunteer for those causes that are promoted by this institution.

Racial/Ethnic Differences

Existing research indicates that religious participation and its impact on activism differs by racial and ethnic groups. For example, studies show that African Americans are more likely to be church members than whites (Musick et al., 2000, p. 1545). Although church attendance predicts Volunteering for both African Americans and whites, the impact is stronger on African Americans (Musick et al., 2000, p. 1554-1555).

African American political activity has been greatly influenced by regular religious regular church attendance (Arp and Boeckelman, 1997, p.255). African Americans are more likely than whites to develop civic skills in their church (Musick et al., 2000, p. 1545). Studies also found that in regards to Volunteering, African Americans are more likely than whites to place great importance on the recommendations of a church, union, or other organization to which they belong (Musick et al., 2000, p. 1544).

Racial differences also impact the level and type of activism. African-American churches are more socially active than white churches and become involved in different types of social activism (Musick et al., 2000, p. 1545). African Americans are more likely than whites to Volunteer for their churches and for community-action groups, work-related organizations, and political groups (Musick et al., 2000, p. 1558).

In contrast, whites are more likely to Volunteer for issues regarding youth, education, the environment, and the arts (Musick et al., 2000, p. 1558). Arp and Boeckelman contend that this difference is because each group has different issues which are most salient to them (p.257). African American and white churches focus their social activism in different ways. White congregations are more likely to focus on youth recreation, anti-abortion campaigns, and refugee aid programs. African American congregations are more likely to target civil rights issues, meal services, community development, and public education about illness (Musick et al., 2000, p. 1563).

Arp and Boeckelman's study found that African American church members are more likely to be more environmentally active (e.g., advocating environmental issues to elected officials, mobilizing and rallying around environmental problems) than non-members. For whites, church attendance had no impact on environmental activism (Arp and Boeckelman, 1997, p.261).

African Americans are more likely than whites to not have been asked to Volunteer (Musick et al., 2000, p. 1543) and churches may be one of the few places where African Americans are consistently encouraged to Volunteer their time. Social pressure from church officials and peers may also serve as a strong incentive to Volunteer. This may explain the findings that although church attendance is positively correlated to Volunteering, the strength of religious belief had no impact

(Musick et al., 2000, p. 1551). There is also evidence to indicate that frequent church attendance may actually inhibit Volunteering for secular causes, but more so for whites than for blacks” (Musick et al., 2000, p. 1559).

Although researchers have extensively documented the church’s role integrative and mobilizing role in African American communities, recent trends indicate this is diminishing. Educated, middle class blacks are leaving the church because it is no longer the only path to professional advancement while the urban poor are increasingly converting to Islam (Musick et al., 2000, p. 1563). As increasing numbers of African Americans convert to Islam, they bring their previous church’s norms of social activism to their mosques. As a result, African American mosques are more socially active than mosques with predominantly immigrant members (Bagby et al).

Gender Differences

Differences in religious participation are not restricted to racial and ethnic differences; gender also plays a role in how an individual participates in religious activities. In the United States, women make up the majority of participants in Christian activities and institutions (Leonard, p. 94, 2003). Women are more likely to attend religious service regularly and more likely to donate time and money to religious-based

activities (Schlozman, Burns, and Verba, 1994, p.970; Musick et al., 2000, p. 1547).

The majority of women's participation has tended more towards grassroots community activity, organizing, and protesting (Schlozman, Burns, and Verba, 1994, p.964). The level of women's activism has been often been overlooked since most research on political activism focuses on voting and other electoral activities.

Women's roles have been traditionally focused in the home while men's roles were centered in the public arena (Schlozman, Burns, and Verba., 1994, p. 963). As such, participation in Voluntary organizations gave women more resources and support for Volunteering than it provided for men (Musick et al., 2000, p. 1540). Religious institutions may be the only path for activism for some women, especially Muslims.

As Muslim women are often encouraged to practice all aspects of their religion from home, without ever attending a mosque, women find other means of communal gathering. Mazumdar and Mazumdar note,

“Although women in these societies may be excluded from institutionalized religion, it is through their active participation and role in domestic religion that their religious identity is formed, experienced and expressed” (1999, p.165).

Some research shows that church attendance has a positive impact on conventional forms of political Volunteering (e.g., voting), but a negative impact on unconventional activities (e.g. picketing for an environmental cause) (Musick et al., 2000, p. 1559).

In sum, religious participation has been shown to be a factor in political activism, but more research needs to be done to clarify how religious participation influences different types of environmental activism. Furthermore, when considering religious participation and environmental activism, the impacts of gender and race/ethnicity seem to be important mediators and should be included as variables in future research.

Summary of Psycho-Social Variables

The psycho-social factors of neighborhood perceptions and religious participation have been shown to impact environmental behaviors and activism. Although there is no significant base of research considering either independent variable and Pro-Environmental Behaviors, the existing research shows a connection to environmental activism. Further research should also include an analysis of gender and race/ethnicity, as these factors seem to influence the impact of these factors.

Chapter Summary

This literature review synthesizes previous research regarding sociodemographic and psycho-social variables and their impacts on both specific and general Pro-Environmental Behaviors and environmental activism. An evaluation of the research on each of these categories showed that gender, race, and ethnicity are the only sociodemographic variables that have most consistently shown support for a correlation to Pro-Environmental Behaviors. Gender differences are most likely in “private” not “public” environmental behaviors. And although research shows a correlation between race/ethnicity and Pro-Environmental Behaviors, the research does not arrive at a consensus regarding the strength or direction of this correlation.

Additionally, we have seen that religious participation and leadership through religious institutions may play a role in environmental activism, but the impacts of gender and race/ethnicity must be considered as they are important mediators of this relationship. We also see that gender and race/ethnicity are important factors in determining levels and types of Outdoor Recreation Activities.

Based on the findings of this chapter, and the knowledge of Muslim history and Islamic Environmental Ethics that I discuss in Chapters 1 and 2, I put forth the following issues that should be considered to better

understand the environmental behaviors and Outdoor Recreational Activities behaviors of Muslims living in the U.S.:

1. Due to strict Islamic guidelines for gender differences, and the consistent gender differences found within studies of environmental behavior in the West, gender must be considered as a key factor in understanding environmental behavior and outdoor activism of Muslims living in the U.S. In addition to male-female comparisons, it would be beneficial to understand the differentiation within each gender.
2. Muslims are not one homogenous group; cultural traditions and community history play an important role in how Muslims across the globe live their lives. Certain aspects of these traditions continue to influence values and lifestyles for Muslims in the U.S., even as Western education, work environment, and social life make their mark. Thus race/ethnic differences will play an important role in understanding U.S. Muslim environmental and outdoor behavior.
3. Islam's emphasis on wise use of resources combined with financial incentives indicate a potential for increased Muslim participation in behaviors that reduce resource consumption. This may be

especially true for older individuals, where some research indicates there are tendencies for increased behavior (Baldassare and Katz, 1992, p. 607-608.)

4. Mosques, which play a primary role as a convener of Muslims in the U.S., will play an important role in teaching Islam's environmental ethic and in encouraging environmental activism. It is therefore important to pay attention to the types of social and environmental behaviors supported by these institutions as indicators for potential institutional-based activism specific to Islamic environmental values.

The following chapter will translate these ideas into testable hypotheses, while also describing the study methodology, and giving an overview of the sample studied.

Chapter 4

Research Methods and Sample Profile

In this chapter, I provide an overview of my methodology including survey development and data collection. I also provide a brief profile of my sample including breakdowns for the variables analyzed in Chapter 5: Sociodemographics, Religious Behavior, Pro-Environmental Behaviors, Environmental Activism, and Outdoor Recreational Activities.

Although discussed more thoroughly in the previous chapter, brief definitions of how these terms are used in this paper are as follows:

Pro-Environmental Behaviors –private actions that have beneficial consequences on the natural environment regardless of the intent (e.g., the individual may recycle primarily to save money, conform to social norms, *or* benefit the environment).

Environmental Activism – refers to public activities and advocacy that aim to leverage environmental benefits through group activity and civic processes.

Outdoor Recreational Activities – Activities that individuals undertake outside of a structured building, which puts them in contact with open space and nature, for the purposes of leisure.

I conducted an empirical study to understand how Muslim women in the U.S. participate in daily environmental activities. I chose to focus on women for several reasons. First, I had increased access to this population as I am a Muslim woman and found it easier to connect with this group. Second, Chapter 3's literature review showed evidence that gender has a relationship to all three dependent variables: Pro-Environmental Behaviors, Outdoor Recreational Activities, and Environmental Activism. Therefore, I felt it would be interesting to focus on differences within this gender, specifically in relation to race/ethnicity, other sociodemographic variables, and religious participation.

Third, as women take on a larger share of housework than their husbands, (Greenstein, 2000, p. 322; Tindall et al., 2003, p. 926-927)³², they may be considered a primary actor in home-based environmental behaviors. Tindall et al. conducted a survey of 381 environmental activists; their multiple regression analysis (as reported in Table 3 below) found women were significantly more likely than men to conserve energy, buy organic produce, use environmentally friendly cleaning supplies, reuse or mend items instead of throwing them away (Tindall et al., 2003,

³² This is true even when women are the primary breadwinners (Greenstein, 2000, p. 322; Tindall et al., 2003, p. 926-927)

p.920)

Table 3: Tindall et al's (2003) Results of Pro-Environmental Behaviors by Gender

Type of activity	Women (n = 194) % Yes	Men (n = 177) % Yes
Conserve energy.	94.3 _a	88.7 _a
Buy organic produce.	72.2 _a	62.2 _a
Use environmentally friendly household cleaning products	90.7 _b	81.9 _b
Regularly reuse or mend things instead of discarding them.	93.8 _a	86.4 _a

aSignificant at p.05.

bSignificant at p.01.

These decisions impact the entire household, reinforcing women's role in influencing how their families participate in environmentally-friendly behaviors.

To gain a more specific understanding of Muslim women's environmental behaviors, this paper will investigate the following hypotheses based on the findings of the literature review:

H1 (a): Pro-Environmental Behaviors that reduce consumption (e.g., conserving water, electricity, energy, gas, & repairing broken items) will be more frequently conducted by Muslim Women who are older, have higher levels of education, are working, and own their own homes. Urban/rural location will not be a factor for these behaviors.

H1 (b): Pro-Environmental Behaviors (e.g., recycling, or purchasing green or organic products) that require special resources such as city-wide programs or access to stores that sell the appropriate products, will be more frequently conducted by Muslim women who are younger, are students, and live in urban areas.

H1 (c): Outdoor Recreation Activities will be conducted more frequently by Muslim women who are young, more educated, students, and who live in rural/suburban locations.

H1 (d): There will be a relationship between race/ethnicity and participation in Pro-Environmental Behaviors, Environmental Activism, and Outdoor Recreational Activities.

H2 (a): Women who report they more frequently participate in Pro-Environmental Behaviors and environmental activism are more likely to attend mosques that conduct a high number of social service and environmental activities.

H2 (b): Women who are younger, more educated, students, and who live in urban areas are more likely to attend mosques that conduct a high number of social service and environmental activities.

Sampling

The survey was conducted from March through December of 2003. My intention was to conduct a snowball sample of Muslim women aged 18 and older living in the Detroit and Chicago metropolitan areas. My goal was to obtain as diverse a sample as possible (diversity by race, class, and age). I began to recruit respondents in person at various Muslim events in the city of Chicago. I personally distributed paper surveys (with golf pencils) at events such as Islamic lectures, Jummah prayers, community events, and Muslim Student Association gatherings. I approached women and explained the purpose of my survey. Several women refused, indicating that they were not Muslim or not over the age of 18. The majority completed the survey on-site, returning the survey to me at the end of the event.

Muslim women soon asked me to email the survey so they could complete the survey at their own convenience. I took down their email addresses and sent them a copy of the survey in Microsoft Word format. I also emailed the survey to personal contacts in the Chicago and Detroit areas. When respondents emailed their survey to me, I replied with a thank you and a request for them to forward my survey to other Muslim women over the age of 18.

One respondent who completed the electronic version of the survey suggested that I create a web-based survey to make it easier for respondents. In response, I developed a web-based survey and began to use this as my primary survey vehicle. I then posted this web survey at various Chicago and Detroit-based list serves (such as CAMP, University of Michigan MSA, and various other Muslim groups).

Due to the enthusiasm of my participants who forwarded the web link to their friends and relatives, the survey quickly grew to become an international sample with 330 from the U.S., 112 from Canada, and a handful of other responses from the U.K. and other countries.

One problem with this methodology is that I cannot calculate a response rate because I do not know the gross number of individuals reached by email dissemination. The individuals that responded may have unique characteristics (i.e., they like to fill out web surveys, they check their email more often, have more free time, etc.) that are different from those that did not respond. Since this is an exploratory study, and I am not attempting to make generalizations about all Muslim women living in the U.S., I feel that this bias does not greatly hinder the usefulness of the project.

A second concern is that the survey was completed in three different formats: paper (n = 70), Microsoft word (n = 36), and web-based (n=225). Since the questions remained the same, and the response type (multiple choice, open-ended, scale) remained the same, I believe it is

reasonable to evaluate all responses together. As this is an exploratory study, I believe the value of including the largest number of surveys outweighs any gains from analyzing the surveys in three separate groups.

The third concern of this sampling methodology is that the emphasis on internet surveys and my reliance on personal contacts resulted in an oversampling of South Asians and of middle to upper middle class respondents. Another reason for the over sampling of South Asians is that Chicago is home to the largest concentration of Indian Muslims in the U.S. (Azfal, 1991, p.5).

Survey Design

I followed the example of previous researchers and conducted a self-completed survey to maximize sample size and evaluate a greater number of behaviors than would be otherwise possible (Olli et al, 2001, p.188). The survey asked 35 questions with six sub-groupings:

1. Sociodemographic Traits
2. Group Perceptions
3. Political and Environmental attitudes
4. Understanding of Environmental Concepts
5. Neighborhood Perceptions
6. Pro-Environmental Behaviors
7. Environmental Activism

8. Outdoor Activities

9. Religious Behavior, Mosque Type, and Peer Perceptions

Many of the questions used in this study were adapted from the 2002 Detroit Area Study survey instrument. Due to space limitations, this paper provides the statistical analyses for only the following categories (further analyses of additional data will occur in later papers):

Independent Variables

- Sociodemographics
- Religious Behavior, Mosque Type, and Peer Perceptions

Dependent Variables

- Pro-Environmental Behaviors
- Environmental Activism
- Outdoor Activities

Sociodemographics

There were six sociodemographic traits surveyed: race/ethnicity, age, education, employment status, residential location (urban/rural), and home ownership status. The information was collected as follows:

- Race/ethnicity was determined by asking respondents, “Which of the following best describes your ethnicity?” and

asking them to check the appropriate box. Although respondents were given 9 categories to choose from, I was able to collapse responses into three categories: Middle Eastern Heritage, Asian Heritage (predominantly South Asian), and Other.

- Age was collected by asking the year of birth, and the response was then used to calculate age.
- Education level was collected by asking respondents to choose from the following education levels:
 - Some High School/High School³³
 - Some College
 - College Degree
 - Graduate Degree.
- Urban/Non-urban residence was collected by asking respondents to check one box. The results were coded “1” for urban, “0” for suburban/rural.
- Home ownership was collected by asking respondents to check one box. The results were coded 1 for home owners, and 0 for renters and others.

³³ Respondents were given two separate categories for “Some High School” and “High School,” but after reviewing the final responses, I collapsed both of these into one category labeled, “High School.” Refer to the full survey in the Appendix to see the question format.

Sociodemographic Profile

The respondents for this survey were 331 Muslim females between the ages of 18 and 62 with 92.1% falling between the ages of 18 and 34. Table 4 provides a detailed breakdown this information. The average age of respondents was 26. Just over half of the respondents (51.7%) claimed affiliation with Asian heritage; 22.5% claimed Middle Eastern heritage, and 25.8% fell into the third category (“other”) which includes European Americans, Native Americans, and those of mixed heritage that marked more than one response in the survey.

The sample is highly educated, with 87.2% of respondents aged 25 and older holding a bachelor’s degree or higher, as compared to 26.2% of the general population of US women (US Census Bureau, 2006). “Other” has a higher percentage of renters (63.0%) compared to 40.3% and 38.0% within the Middle Eastern and Asian categories respectively. The “Other” category also had more respondents aged 35 and over (16.3% compared to 2.8% and 6.1% in Middle Eastern and Asian subgroups.)

Almost half of all respondents (48.8%) are enrolled in college or graduate school, compared with 9.9% of the general population of U.S. women aged 18 and older (US Census Bureau, 2006). This high number of respondents who are still in school probably explains why less than half of the sample are employed (42.6%), compared to 67.2% of the general

population of U.S. women between the ages of 20 and 65 (US Census Bureau, 2006).

Most respondents (61.6%) live in suburban or rural areas. Since most respondents were under the age of 33, it would be expected that home ownership levels would be fairly low. Yet a surprising 54.3% responded that they own their homes. This is probably attributed to the sample's high number of college students. These respondents are probably not yet on their own and are reporting that their permanent home is owned (by their parents) and not rented.

Because this was not intended to be a national survey, I have not included regional location as a variable in my empirical analyses in Chapter 5. Nevertheless, I include the breakdown here (see last row of Table 4) to provide the reader with a better understanding of the sample population. The sample was regionally biased with over half of the respondents (54.4%) coming from the Midwest. This bias is due to my location in Chicago during the course of this study and reflects the location of my personal networks. The high percentage of Midwest respondents is not proportional with the true distribution of Muslims in the U.S., as the Bagby et al's (2001, p. 3-5) study estimated only 29% of Muslims live in this region. Western states were under-represented in the study, making up only 6.9% of the total, which is far below Bagby et al's estimated Muslim population in that area (15%). The percentage of respondents from the Northeast was less than half (14.5%) of the total

respondents as compared to Bagby et al's estimate of 30%. The percentage of respondents from the South (24%) was similar to Bagby et al's estimated percentage of Muslims in this area (26%).

In summary, the sociodemographic profile of the 331 respondents of this survey shows that the respondents (all females over the age of 18) tend to be young (under the age of 35), well-educated, from the Midwest. They are split into two primary ethnic groups: Middle Eastern and Asian heritage and are more likely to live in suburban/rural areas. Respondents are nearly equally split between renters and homeowners, and most are either students or employed.

Race and Ethnicity

Because race and ethnic differences are an important piece of this paper's analysis of Muslim environmentalism, I have provided a further breakdown of socio-demographic variables by race in Table 5. This table shows that the sociodemographic breakdowns between the three Racial/Ethnic categories are fairly similar. Only a few differences jump out. First, "Other" have a higher percentage of renters (63.0%) compared to 40.3% and 38.0% within the Middle Eastern and Asian categories respectively. The "Other" category also had more respondents aged 35 and over (16.3% compared to 2.8% and 6.1% in Middle Eastern and Asian subgroups).

The finding that a slightly older group has less likelihood of owning their own home is consistent with US Census Bureau (2000) data that shows that African American and Latino groups (the primary components of the “Other” group) on average fall into lower socioeconomic categories than their Asian and Middle Eastern counterparts.³⁴

³⁴ See Chapter 1 for a more detailed overview of socio-economic differences between these groups.

Table 4: Sociodemographic Breakdown

Sociodemographic Traits	Number of Respondents (n)	%
Race/Ethnicity		
Middle Eastern	73	22.5
Asian	168	51.7
Other	84	25.8
Age		
18-24 years	144	45.1
25-34 years	150	47.0
35+ years	25	7.8
Educational Attainment		
High school or less	23	7.0
College degree	204	62.4
Graduate or professional	100	30.6
Occupational Status		
Students	159	48.8
Currently employed	134	41.1
Other	33	10.1
Residential Location		
Urban	126	38.4
Suburban/Rural	202	61.6
Homeownership	171	54.3
Homeowner	144	45.7
Renter		
Region		
Midwest	180	54.4
South	80	24.2
Northeast	48	14.5
West	23	6.9

Table 5: Sociodemographic Breakdown by Ethnic Group

Sociodemographic Traits	Middle Eastern	Asian	Other
	n (%)	n (%)	n (%)
Age			
18-24	36 (50.0%)	76 (46.1%)	30 (37.5%)
25-34	34 (47.2%)	79 (47.9%)	37 (46.3%)
35+	2 (2.8%)	10 (6.1%)	13 (16.3%)
Education			
High School	7 (9.6%)	8 (4.8%)	7 (8.4%)
Some college	18 (24.7%)	41 (24.4%)	27 (32.5%)
Bachelor's Degree	24 (32.9%)	63 (37.5%)	31 (37.3%)
Graduate or Professional Degree	24 (32.9%)	56 (33.3%)	18 (21.7%)
Employment			
Working Full/ Part time	25 (34.2%)	72 (43.1%)	36 (42.9%)
Student	39 (53.4%)	79 (47.3%)	40 (47.6%)
Other	9 (12.3%)	16 (9.6%)	8 (9.5%)
Urban/Rural			
City	29 (39.7%)	52 (31.0%)	42 (50.0%)
Suburbs/Rural	44 (60.3%)	116 (69.0%)	42 (50.0%)
Home Ownership			
Own	43 (59.7%)	98 (62.0%)	30 (37.0%)
Rent	29 (40.3%)	60 (38.0%)	51 (63.0%)

Religious Behavior, Mosque Type, and Peer Perceptions

Religious Behavior, mosque type, and peer perceptions are the Psycho-Social variables (as discussed in the previous chapter) that this study considers as having possible relationships to Muslim women's participation in Pro-Environmental Behaviors, Environmental Activism,

and Outdoor Recreational Activities. A salient Islamic environmental ethic would be reflected not only in stated beliefs, but in action. To explore this idea further, the survey collected information in the following areas:

1. Regular mosque participation
2. Mosque's level of social and environmental activism
3. Perceptions of the Muslim community's environmental behavior

Mosque Participation

As discussed in Chapter 1, Islam does not mandate mosque attendance for women. In countries with significant, or dominant, Muslim populations, women do not need a central place, such as a mosque, to find a religious community. This is not the case in the United States where Muslims make up less than 1% of the total population and must seek out communal places for socializing and worshiping with others who follow their same religious beliefs.

When asked, "Do you regularly attend a mosque?" just over half of the sample responded in the affirmative. This indicates that a significant number of young, highly educated Muslim women will not be reached through mosque communications and activities. It is assumed, then, that

mainstream activities engaged via school or work may have an increased impact on their understanding and encouragement in engaging in Pro-Environmental Behaviors, Environmental Activism, and Outdoor Recreational Activities.

Table 6: Distribution of Mosque Attendance and Mosque Location

Mosque Details	Number of Respondents <i>n</i>	Percentage <i>%</i>
Mosque attendance		
Yes	183	56.1
No	143	43.9
Mosque Location		
Urban	116	37.3
Non-Urban (suburban/rural)	195	62.7

Table 6 shows the difference in respondents' mosque locations. This information helps to paint the larger picture of Muslim women living in the U.S. so we can better interpret the results of this study. Table 6 shows that most (62.7%) of respondents attend suburban/rural mosques. This matches almost exactly to the percentage of respondents (61.6%) who reside in suburban/rural locations.

Mosque Participation of Social and Environmental Activism

In addition to collecting data on individual respondent's environmental behaviors and activism, the survey collected information on their mosque's participation in social and environmental activism. Table 7 shows that in keeping with the results of other studies (Bagby et al., 2001) mosques are more likely to participate in social activism than in environmental activism.

Table 7: Mosques' Social and Environmental Activism

Social and Environmental Activism	Number of Respondents <i>n</i>	Percent Yes
Projects with other mosques or Muslim groups	218	67.1
Projects with non-Muslim religious groups	203	62.7
Social service activities (food pantry, homeless shelter, etc.)	174	53.5
Neighborhood clean-up or beautification	67	20.9
Hosted or taken part in an environmental lecture, workshop, or conference	40	12.5
Taken action to address an environmental problem in the community	33	10.3
Taken part in an environmental campaign	15	4.7

Perceptions of the Muslim Community's Level of Activism

The literature review in Chapter 3 shows that participation in a religious community can encourage members to take action on issues that are supported and promoted by their religious leaders and institutions. To understand if Muslims may feel a sense of peer-pressure to participate in activist behaviors, the survey asked respondents: "In your opinion, to what extent are Muslims in your community active in addressing social/environmental issues?" Their responses were coded on a scale of 1 – 4, with 4 being "Very Active."

As shown in Table 8 below, only 7.4% of respondents stated they believed Muslims in their community are "Very Active" in addressing social issues, and *no* respondents believe Muslims in their community are "Very Active" on environmental issues. These results show that Muslim have low self-perceptions about their community activism in both social and environmental areas, despite reporting higher levels of mosque activism, especially in regards to social activism. These results may indicate nonexistent social pressure from respondents' religious community to participate in such activities.

Table 8: Muslim Perceptions of Group Activism

Perceived Level of Group Participation	Muslim Social Activism		Muslim Environmental Activism	
	n	%	n	%
Not active at all	26	8.0	153	47.5
Not very active	164	50.6	152	47.2
Active	110	34.0	17	5.3
Very active	24	7.4	0	0

Pro-Environmental Behaviors

This study measured personal Pro-Environmental Behaviors by asking the following eight questions:

1. How often do you keep the thermostat turned down in winter to save energy?
2. How often do you have broken items fixed instead of buying new ones?
3. How often do you turn off lights to save electricity?
4. How often do you take steps to conserve water? (by turning of the tap when you brush your teeth, reduce watering your lawn, etc.)
5. How often do you take steps to conserve gasoline? (by using public transportation, walking, or car-pooling?)
6. How often do you save materials for recycling?
7. How often do you buy a product specifically because you think it is better for the environment?
8. How often do you choose to buy foods that are organically grown? (foods grown without pesticides or chemicals)

The survey asked one additional question in this section aimed at understanding the frequency of purchasing *zabeeha* meat, or meat slaughtered under Islamic regulations. The question was asked:

9. How often do you choose to buy *zabeeha* meat?

Participants were asked to rate their participation in these nine environmental behaviors by ranking them from Never (1), Rarely (2), Sometimes (3), Often (4), and Always (5).³⁵ The survey results are presented in Table 9 which shows the detailed breakdown. This table lists the behaviors from with the least frequent to most frequent responses of “Never.” The responses range from 1.5% to 15.7% of respondents reporting they “Never” participate in these personal Pro-Environmental Behaviors.

When considering the inter-correlation between these variables, the researcher found an alpha of .711 for all variables except buying Zabeeha meat. It was reasonable for this behavior to be separated, since Muslims consider this as a religious duty rather than an optional environmental behavior.

³⁵ To determine whether these items were measuring the same single one-dimensional construct (in this case, personal environmental behaviors), I conducted Chronbach’s alpha coefficient of reliability. The results of all nine variables were .675. When removing the data regarding the purchase of zabeeha meat was excluded, the Chronbach’s alpha increased to .711.

Although “Conserve Gas” initially appeared to have a low correlation with other variables, once it was removed from the grouping the alpha fell to .708. This and other experimental sub-groupings of these behavioral variables showed an alpha of less than .70, indicating that the eight pro-environmental behavior variables (not including Buy Zabeeha meat) measure the same underlying construct.

Readers will note that the first three, in which less than 3% of respondents “Never” participate in these behaviors, are activities that are easy (i.e., requiring few resources or special initiatives), convenient, and also provide financial savings for participants. Yet these results show that ease and financial savings are not the only determinants of environmental behaviors: nearly 10% of respondents “Never” take steps to conserve Energy (in the form of turning down the thermostat, for example), yet one could claim that although this behavior is easy to accomplish (not taking much time or effort), and saves money, it requires a sacrifice of comfort. It may be for similar reasons that even more respondents (almost 12%) “Never” take steps to conserve gas usage through automobile use.

While 10% and 16% of respondents respectively report that they “Never” purchase Green or Organic products, less than 5% report that they “Never” purchase *Zabeeha* meat, which can be more expensive, and less convenient to purchase, than that of standard meats that are more widely available.

Table 9: Pro-Environmental Behavior Frequency

	Often/ Always		Rarely/ Sometimes		Never	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Conserve Water	202	61.4	122	37.1	5	1.5
Conserve Electricity	270	82.1	52	15.8	7	2.1
Fix Broken Items	158	47.9	164	49.7	8	2.4
Buy Zabeeha Meat	253	76.7	62	18.8	15	4.5
Recycle	196	59.6	107	32.5	26	7.9
Conserve Energy	136	41.8	158	48.6	31	9.5
Buy Green Products	85	25.9	210	64	33	10.1
Conserve Gas	58	17.6	232	70.5	39	11.9
Buy Organic	80	24.4	196	59.8	52	15.9

When comparing this survey’s results to those of the general U.S. population, the behavior of Muslim women’s outdoor recreational behavior follows the same trends as that of the mainstream U.S. residents.³⁶ A 2007 Gallup Poll found that 89% of Americans reported that they engage in some level of recycling (Dunlap, 2007). In this study, 91.1% of respondents reported they recycle. Tarrant and Green’s study found that just over one third of respondents “often” recycle; similarly, 31.9% of our respondents said they “often participate in recycling.

A survey of high school students found that 65% reported “frequently” taking steps to conserve water (Arscott et al., 2007). This compares to the 61% of our respondents who “often or always” take steps to conserve water. The Gallup poll found that 85% of respondents took

³⁶Due to methodological differences, it is difficult to show statistical proof that the percentage of responses is equal between both groups. The comparison of these figures only provided to show that the behavior of Muslim women living in the US is not completely different from that of the general population.

steps to reduce energy use (Dunlap, 2007), compared with 91% of this study's respondents.

Another study found that 32% of Americans buy organic products occasionally (Gardyn, 2002), compared with 31% of respondents in our study who report they sometimes purchase organic foods. A Harris Poll conducted in 2007 found that 50% of all Americans purchase organic foods at least some of the time (Harris, 2007). Our study found that 55.8% of respondents sometimes, often, or always purchase organic products.

Tarrant and Green's (1999) study found that just over one third of respondents "often" purchase environmentally friendly items. Approximately one-fourth (22%) of our respondents said they often buy environmentally friendly products. Gallup's 2007 poll found that 70% of Americans purchase products that are better for the environment at least once in the preceding 12 months (Dunlap 2007), compared to 89.9% of respondents of this survey who report some level of frequency in purchasing these products.

Overall, the respondents from this survey seem to have the same level of recycling as the general U.S. population (approximately 90% recycle some items and about one-third recycle regularly). There also seem to be similar percentages of respondents who take steps to conserve water (61-65%) and energy (85-91%). Similar percentages of respondents also report purchasing organic foods at least some of the time (31-32%).

The biggest difference found was in purchasing products that are better for the environment; respondents of this study seem to be much more likely to purchase these types of products (90% vs. 70%). Further research that compares statistically valid samples sizes will be necessary to explore whether this is an actual difference or simply due to methodological differences.

Environmental Activism

Individual Environmental Activism was evaluated in two ways. First, respondents were asked, “Do you belong to any environmental organizations?” This survey found that 8.2% of respondents reported in the affirmative, which is in keeping with studies that show less than 10% of the general U.S. population reports they are members of environmental organizations (Roots, 2004, p.626).

To further understand individual Environmental Activism, this study asked respondents to rate their willingness to give time or money and membership in an environmental organization. Respondents had four choices ranging from “Not at all willing” to “Very willing” that were coded from 1 – 4 respectively.

A majority of respondent said they would be “Somewhat Willing” or “Very Willing” to give time or money (77% and 85% respectively) to community environmental improvement. This shows a strong interest and

openness to environmental activism at the individual level, although as shown in Table 7, there is less happening at the institutional level of the mosques.

Table 10: Willingness to Give Time or Money to Environmental Project

Measurement Scale	Willingness to Give Time		Willingness to Give Money	
	n	%	n	%
Not at all willing	4	1.2	14	4.2
Not very willing	46	13.9	60	18.1
Somewhat willing	164	49.5	188	56.8
Very willing	113	34.1	66	19.9

Outdoor Recreation

Originally, I suspected that my sample’s participation in outdoor recreational behaviors would be limited due to Islam’s strict guidelines for women regarding clothing and participation in mixed-gender spaces and activities. I thought these injunctions may inhibit recreational participation in the U.S. where most public spaces are mixed-gender. To better understand the levels and types of outdoor recreational activities, the survey asked women to check a box if they participated (within the last 12 months) in each of the following 16 types of outdoor activities. The list of activity types, and response frequencies, are shown below in Table 11.

Table 11. Outdoor Recreational Activity

Activity Type	<i>n</i>	% Yes
Walking/Hiking	305	92.7
Spent time outdoors	281	85.4
Picnics	256	77.8
Jogging/Running	179	54.4
Spectator	133	40.4
Gardening	116	35.3
Swimming	106	32.2
Badminton/tennis	81	24.6
Team Sport	79	24.0
Yard games	77	23.4
Biking/Mountain Biking	72	21.9
Roller blading/skating	50	15.2
Sailing/boating	39	11.9
Golfing	17	5.2
Fishing/Hunting	14	4.3
Other	11	3.3

Respondents' mean score for outdoor activities is 4.6, indicating that respondents on average participated in four to five types of activities in the past 12 months. Compared to similar studies of the general female population in the U.S., Muslim women of our demographic seem to participate in more of certain outdoor activities than the general population. Whereas 93% of respondents participated in "walking" as a form of recreation within the last 12 months, only 83% of National Survey of Recreation and the Environment (NSRE) 2001 respondents fell into this category. Also, whereas 78% of this survey's respondents stated they went for a picnic at least once in the last year, only 55% of NSRE respondents reported this behavior (Cordell; Green; and Betz, 2002).

Chapter Summary

This survey was a snowball sample of adult Muslim women living in the U.S. The survey was conducted in 2003 and resulted in more than 440 responses from across the world. This paper analyzes only the 330 survey responses from within the United States.

These 330 respondents represent a very specific group of Muslim women. They are young (over 90% under the age of 35) and well educated (87% hold a bachelor's degree or higher). Nearly 50% of respondents were enrolled in an undergraduate or graduate program. Just over half of respondents are from Midwestern states and 61% live in suburban or rural areas. Respondents fall into two primary ethnic groups: Middle Eastern and South Asian.

The sample reports strong participation in both Pro-Environmental Behaviors (between 24% to 61% "Always" or "Often" participate in each of the nine behaviors surveyed) and Outdoor Recreational Activities (on average, respondents participated in between 4 and 5 types of outdoor activities in the last 12 months). Muslim participation in Environmental Activism is much lower. Less than 10% are members of environmental organizations.

Just over 40% of respondents believe that the general Muslim community is "Very Active" or "Active" in social justice issues, but only

5.3% believed they were similarly active on environmental issues. This indicates that there is not much Muslim peer pressure to participate in environmental behaviors and activities and there may be a need for increased Muslim leadership on environmental issues.

The following chapter (Chapter 5) details the results of ANOVA and Chi-square analyses to further examine the findings in this chapter and the relationships between the identified sociodemographic and psychosocial variables and our three dependent variables: Pro-Environmental Behaviors, Environmental Activism, and Outdoor Recreational Activities.

Chapter 5

Results

The preceding four chapters provided an overview of Muslim history and demographics in the U.S., demonstrated evidence of an environmental ethic within Islam, provided a literature review of studies that examined relationships between sociodemographic and psycho-social factors and Pro-Environmental Behaviors, Environmental Activism, and Outdoor Recreational Activities. Chapter 4 described the survey methods while offering an overview of initial results. This sets the stage to evaluate the results of the statistical analyses of survey data as presented in this chapter.

Following will be a detailed description of the analyses conducted to address the following hypotheses:

H1 (a): Pro-Environmental Behaviors that reduce consumption (e.g., conserving water, electricity, energy, gas, & repairing broken items) will be more frequently conducted by Muslim Women who are older, have higher levels of education, are working, and own their own homes. Urban/rural location will not be a factor for these behaviors.

H1 (b): Pro-Environmental Behaviors (e.g., recycling, purchasing green or organic products, and purchasing *zabeeha* meat) that require special resources such as city-wide programs or access to stores that sell the appropriate products, will be more frequently conducted by Muslim women who are younger, are students, and live in urban areas.

H1 (c): Environmental Activism (e.g., membership in environmental organizations, willingness to contribute to community environmental projects) that involves a connection to a larger community, will have increased support from Muslim women who are younger, are students, and live in urban areas.

H2 (a): There will be a relationship between *Race/Ethnicity* and participation in Pro-Environmental Behaviors, Environmental Activism, and Outdoor Recreational Activities.

H3 (a): Outdoor Recreation Activities will be conducted more frequently by Muslim women who are young, more educated, students, and who live in rural/suburban locations.

H4 (a): Women who are younger, more educated, and students; and those who live in urban areas, are more likely to attend mosques that conduct a high number of social service and environmental activities.

H4 (b): There will be differences between respondents' racial/ethnic background and their mosques' level of participation in different types of social service and environmental activities.

Pro-Environmental Behaviors

To assess the relationship between Pro-Environmental Behaviors and sociodemographic variables, I used one-way ANOVA analyses and Tukey post-hoc comparisons. This allowed me to compare the means of each Pro-Environmental Behavior with each demographic trait. The Pro-Environmental Behaviors were measured on a scale of 1 – 5, with 1 coded for “Never” and 5 coded for “Always.” Tables 13 - 18 provide the detailed results of the ANOVA analyses that I discuss below.³⁷

Of the nine Pro-Environmental Behaviors studied, conserving water and fixing broken items were the only dependent variables not significantly related to any socio-demographic level under consideration. All of the other Pro-Environmental Behaviors had at least one significant relationship with a sociodemographic trait. Table 12 provides a visual representation of the areas where significant differences were found.

³⁷ Please note, as opposed to inserting one large table that compared the results of all Pro-Environmental Behaviors the tables are provided to allow the reader to compare results of similar Pro-Environmental Behaviors. They do not necessarily follow the same order as the

Table 12: Significant Behavior Differences per Sociodemographic Traits

Sociodemographic Traits	Conserve Water	Conserve Gasoline	Save Electricity	Save Energy	Fix Broken Items	Recycle	Buy "Green" Products	Buy Organic	Buy <i>zabeeha</i>
Race/Ethnicity		X					X	X	X
Age			X	X					
Education			X				X		
Employment		X		X					
Urban/Non-Urban		X		X		X			
Own/Rent		X				X		X	

◆ Race/Ethnicity

As shown in Table 13, the ANOVA analyses uncovered significant relationships between Racial/Ethnic groups and four Pro-Environmental Behaviors: “Conserve Gasoline,” “Buy ‘Green’ Products,” “Buy Organic Products,” and “Buy *zabeeha*”. For the first three behaviors, the Racial/Ethnic group named “Other” (including African Americans, Latinos, and others) were more likely to report higher rates of participation than those of “Asian” and “Middle Eastern” heritage. However this pattern did not carry through to the third category, buying *zabeeha* meat, in which South Asians reported they more frequently purchase this type of food than their counterparts.

Below I provide a more detailed explanation of the significant results ($p \leq .05$) for *Race/Ethnicity* and the four Pro-Environmental Behaviors:

Race/Ethnicity Differences in Conserving Gasoline: Respondents who affiliated with “Other” heritage were significantly more likely ($M = 2.89$) to take steps to reduce driving than those of “Middle Eastern” ($M = 2.51$) and “Asian” heritage ($M = 2.51$). $F(2, 322) = 4.416, p = .013$.

Race/Ethnicity Differences in Buying “Green” Products: Respondents who affiliate with “Other” heritage are more likely to buy green products

($M = 3.04$) than those with “Middle Eastern” heritage ($M = 2.64$), $F(2, 322) = 3.118, p = .046$. Although the “Other” group also reported greater rates of participation than the “Asian” ($M = 2.79$) the difference was not statistically significant.

Race/Ethnicity Differences in Buying Organic Products: Respondents who affiliated with “Other” heritage are more likely to buy organic products ($M = 3.07$) than those with “Asian” heritage ($M = 2.49$). $F(2, 320) = 8.409, p = .000$. Although the “Other” group also reported greater rates of participation than the “Middle Eastern” group, ($M = 2.70$) the difference was not statistically significant.

Race/Ethnicity Differences in Buying *zabeeha* Meat: Respondents of “Asian” ($M = 4.43$) and “Other” heritage ($M = 4.14$) more frequently purchase *zabeeha* meat than those with “Middle Eastern” heritage ($M = 3.63$), $F(2, 322) = 13.773, p = .000$.

The ANOVA results show that respondents who affiliate with the “Other” ethnic group (comprised primarily of African American Muslims with some who are also Latino and Caucasians) more frequently take steps to conserve gasoline, buy organic products, and buy green products than their Asian and Middle Eastern counterparts. One explanation is that the Muslim women of Middle Eastern and Asian heritage share cultural

differences that may play a role in the behavioral differences. Since these two groups are also more likely than the “Other” to be immigrants or first-generation immigrants, their mutual immigrant experience may also be a factor. Further research will be necessary to uncover the underlying causes of this relationship, but it is clear that racial/ethnic divisions result in differences in Pro-Environmental Behaviors.

The ethnic/racial differences in the buying of *zabeeha* meat have a more clear explanation. It is likely that the differences in behavior stem from contrasting interpretations of the Islamic law that governs permissible foods (see SoundVision 2007 for a more detailed discussion on this issue). Middle Eastern Muslims are more likely to follow the interpretation that livestock slaughtered by Christians, Jews, or other “People of the Book,” may be eaten if the words “In the name of God” are recited by the Muslim before eating. Other groups (including South Asians) are more likely to take a stricter view that the prayer must be said just before the slaughter, and additional protocol must be followed, which would only occur if the animal is slaughtered and the meat prepared following the Muslim guidelines.

◆ **Age**

As illustrated in Table 14, Age was only a significant factor in reducing electricity and energy use:

Age and “Save Electricity”: The “35+” age group ($M = 3.96$) was significantly more likely to take steps to conserve household energy usage than the “25-34” age group ($M = 3.22$) and the “18-24” age group ($M = 3.01$). $F(2, 311) = 6.777, p = .001$. Differences between the “18-24” age group and the “25-34” age group were not statistically significant.

Age and “Save Energy”: Taking steps to conserve energy use in the home seems to increase with age, but the only significant difference was between the “18-24” age group, ($M = 3.01$) and the “25-34” age group ($M = 3.22$). $F(2, 311) = 6.777, p = .001$. The oldest age group, “35+” reported the highest frequency of participation ($M = 3.96$), but the difference was not statistically significant.

These findings are in keeping with studies from Baldassare and Katz (1992) and others who also found that older individuals were more likely to participate in Pro-Environmental Behaviors.

Researchers such as Olli et al. advise us to keep in mind that the differences found here may have more to do with a cohort effect than with age in itself (2001, p. 184). For example, these older respondents may have shared immigrant or hardship experiences that lead them to conduct these activities for financial and savings reasons as opposed to environmental concerns or values.

Unlike some studies that found older individuals are more likely to participate in recycling (Johnson, Bowker, and Cordell, 2004, p.180), this study's results did not show age differences in recycling behavior.

◆ Education

Significant differences between education levels showed up in conserving electricity use and buying green products. Table 15 provides the detailed results.

Education and “Save Electricity”: Respondents with bachelor's degrees ($M = 4.29$) were significantly more likely to take steps to conserve electricity than those with high school ($M = 3.74$) or some college ($M = 3.88$). $F(3, 321) = 4.673, p = .003$. There were no significant differences between those with some graduate school experience and the other groups.

Education and “Buy ‘Green’ Products”: Respondents with Graduate degrees ($M = 2.99$) and Bachelor's degrees ($M = 2.90$) were more likely to buy green products than those with only up to high school educations ($M = 2.30$). $F(3, 321) = 3.906, p = .009$.

This study's results fit into the mixed finding of previous research. Tilikidou and Delistavrou's ANOVA analysis revealed a significantly

positive relationship between higher education and a three types of Pro-Environmental Behaviors: recycling, post-purchase Pro-Environmental Behaviors (e.g. fixing broken items, donating old clothes), and environmental activism (2008, p.66).

This study, along with Baldassare and Katz's 1992 study, found that education did was *not* correlated to recycling, water conservation, or reducing car usage. Unlike Baldassare and Katz's findings, this study found a relationship between education levels and buying Green products.

The reader will notice that where one may expect age and education to have the same patterns for each behavior, as they often map to the same underlying construct, this did not happen in this study. Age and education were both resulting in significant differences for only one behavior: Conserving Electricity Use. Age also showed a significant relationship to Conserving Energy Use, but education was not a significant factor. And whereas education had a significant relationship with Buying Green Products, age was not shown to have a significant role. This indicates that in those two areas, there is no likely intermediary effect.

Table 13: ANOVA Results, Race/Ethnicity by Environmental Behaviors

Sociodemographic Traits	Conserve Water (turn off tap)			Conserve Gasoline (use public transportation)			Save Electricity (turn off lights)			Save Energy (lower thermostat)		
	n	Mean	SD	n	Mean	SD	n	Mean	SD	n	Mean	SD
Race/Ethnicity												
Middle Eastern	73	3.77a	1.09	73	2.51b	0.97	73	4.05a	1.07	71	3.07a	1.03
Asian	167	3.75a	0.93	168	2.51b	0.97	167	4.07a	0.92	168	3.18a	1.17
Other	84	3.69a	0.94	84	2.89a	1.13	84	4.2a	0.80	82	3.29a	1.29
	F (2, 321) = .143, p = .867			F (2, 322) = 4.416, p = .013			F (2, 321) = .713, p = .419.			F (2, 318) = .689, p = .503		

Note: Within each category, means that do not share subscripts differ at $p < .05$ in the Tukey comparison

Table 13 Continued: ANOVA Results, Race/Ethnicity by Environmental Behaviors

Sociodemographic Traits	Fix Broken Items (instead of throwing away)			Recycle			Buy "Green" Products (better for the environment)			Buy Organic Food (no pesticides or chemicals)			Buy <i>Zabeeha Meat</i>		
	n	Mean	SD	n	Mean	SD	n	Mean	SD	n	Mean	SD	n	Mean	SD
Race/Ethnicity															
Middle Eastern	73	3.37a	0.87	73	3.53a	1.29	73	2.64a	1.01	73	2.70ab	1.05	73	3.63b	1.26
Asian	168	3.30a	0.93	168	3.68a	1.20	167	2.79ab	0.98	167	2.49a	1.06	168	4.43a	0.99
Other	84	3.46a	0.91	84	3.38a	1.33	84	3.04b	1.07	83	3.07b	1.05	84	4.14a	1.14
	F (3, 322) = .870, p = .420			F(2, 324) = 1.607, P = .202			F (2, 322) = 3.118, p = .046			F (2, 320) = 8.409, p = .000			F (2, 322) = 13.773, p = .000		

Note: Within each category, means that do not share subscripts differ at $p < .05$ in the Tukey comparison

Table 14: ANOVA Results, Age by Environmental Behaviors

Sociodemographic Traits	Conserve Water (turn off tap)			Conserve Gasoline (use public transportation)			Save Electricity (turn off lights)			Save Energy (lower thermostat)		
	n	Mean	SD	n	Mean	SD	n	Mean	SD	n	Mean	SD
Age												
18-24	144	3.63a	0.99	144	2.64a	0.98	143	3.98a	0.94	141	3.01 _a	1.15
25-34	149	3.77a	0.97	150	2.6a	1.09	150	4.19ab	0.92	150	3.22 _b	1.19
35+	25	4.12a	0.88	25	2.48a	0.87	25	4.44b	0.65	23	3.96a _b	0.83
	F (2, 315) = 2.889, p = .057			F (2, 316) = .265, p = .767			F (2, 315) = 3.669, p = .027			F (2, 311) = 6.777, p = .001		

Note: Within each category, means that do not share subscripts differ at $p < .05$ in the Tukey comparison

Table 14 Continued: ANOVA Results, Age by Environmental Behaviors

Sociodemographic Traits	Fix Broken Items (instead of throwing away)			Recycle			Buy "Green" Products (better for the environment)			Buy Organic Food (no pesticides or chemicals)			Buy <i>Zabeeha Meat</i>		
	n	Mean	SD	n	Mean	SD	n	Mean	SD	n	Mean	SD	n	Mean	SD
Age															
18-24	144	3.38a	0.93	144	3.57a	1.18	143	2.69a	1.01	144	2.61a	1.08	144	4.14a	1.16
25-34	150	3.32a	0.87	150	3.59a	1.34	150	2.89a	1.01	149	2.76a	1.06	150	4.23a	1.12
35+	25	3.36a	1.08	25	3.44a	1.26	25	3.12a	0.88	25	2.88a	1.13	25	4.12a	1.17
	F (2, 316) = .135, p = .874			F(2, 318) = .158, p = .854			F (2, 315) = 2.614, p = .075			F (2, 315) = 1.068, p = .345			F (2, 316) = .292, p = .747		

Note: Within each category, means that do not share subscripts differ at $p < .05$ in the Tukey comparison

Table 15: ANOVA Results, Education by Environmental Behaviors

Sociodemographic Traits	Conserve Water (turn off tap)			Conserve Gasoline (use public transportation)			Save Electricity (turn off lights)			Save Energy (lower thermostat)		
	n	Mean	SD	n	Mean	SD	n	Mean	SD	n	Mean	SD
Education												
High School	23	3.48a	1.16	23	2.65a	1.07	23	3.74a	1.176	22	3.05a	1.05
Some college	86	3.59a	0.96	86	2.72a	0.93	85	3.88a	0.993	84	3.01a	1.05
Bachelor's	118	3.80a	0.97	118	2.46a	1.07	118	4.29b	0.786	116	3.33a	1.27
Graduate/Prof.	98	3.86a	0.93	99	2.71a	1.04	99	4.16ab	0.9	99	3.21a	1.16
	F (3, 321) = 1.829, p = .142			F (3, 322) = 1.509, p = .212			F (3, 321) = 4.673, p = .003			F (2, 317) = 1.313, p = .270		

Note: Within each category, means that do not share subscripts differ at $p < .05$ in the Tukey comparison

Table 15 Continued: ANOVA Results, Education by Environmental Behaviors

Sociodemographic Traits	Fix Broken Items (instead of throwing away)			Recycle			Buy "Green" Products (better for the environment)			Buy Organic Food (no pesticides or chemicals)			Buy <i>Zabeeha Meat</i>		
	n	Mean	SD	n	Mean	SD	n	Mean	SD	n	Mean	SD	n	Mean	SD
Education															
High School	23	3.48a	0.73	23	3.22a	1.31	23	2.30a	0.77	23	2.22a	0.95	23	3.74a	1.21
Some college	86	3.33a	1.00	86	3.64a	1.15	85	2.67ab	1.11	86	2.63a	1.23	86	4.19a	1.18
Bachelor's	118	3.27a	0.90	118	3.49a	1.31	118	2.90b	1.02	117	2.77a	1.06	118	4.34a	0.94
Graduate/Prof.	99	3.46a	0.88	99	3.71a	1.24	99	2.99b	0.91	98	2.78a	0.96	99	4.10a	1.25
	F (3, 322) = .974, p = .405			F(3, 325) = 1.251, p = .291			F (3, 321) = 3.906, p = .009			F (3, 320) = 2.005, p = .113			F (3, 322) = 2.128, p = .097		

Note: Within each category, means that do not share subscripts differ at $p < .05$ in the Tukey comparison

Table 16: ANOVA Results, Employment by Environmental Behaviors

Sociodemographic Traits	Conserve Water (turn off tap)			Conserve Gasoline (use public transportation)			Save Electricity (turn off lights)			Save Energy (lower thermostat)		
	n	Mean	SD	n	Mean	SD	n	Mean	SD	n	Mean	SD
Employment												
Working	134	3.78a	1.02	134	2.5a	1.05	134	4.19a	0.91	132	3.27a	1.20
Student	158	3.66a	0.96	159	2.78a	1.00	158	4.00a	0.96	157	3.03a	1.14
Other	33	3.91a	0.84	33	2.3a	0.95	33	4.24a	0.79	32	3.69a	1.03
	F (2, 322) = 1.061, p = .347			F (2, 323) = 4.503, p = .012			F (2, 322) = .1909, p = .150			F (2, 318) = 4.838, p = .009		

Note: Within each category, means that do not share subscripts differ at $p < .05$ in the Tukey comparison

Table 16 Continued: ANOVA Results, Employment by Environmental Behaviors

Sociodemographic Traits	Fix Broken Items (instead of throwing away)			Recycle			Buy "Green" Products (better for the environment)			Buy Organic Food (no pesticides or chemicals)			Buy <i>Zabeeha Meat</i>		
	n	Mean	SD	n	Mean	SD	n	Mean	SD	n	Mean	SD	n	Mean	SD
Employment															
Working	134	3.34a	0.95	134	3.61a	1.28	134	2.88a	0.96	132	2.69a	1.03	134	4.09a	1.23
Student	159	3.39a	0.88	159	3.59a	1.22	158	2.80a	1.05	159	2.65a	1.10	159	4.20a	1.12
Other	33	3.24a	0.97	33	3.30a	1.33	33	2.67a	1.05	33	2.88a	1.19	33	4.36a	0.82
	F (2, 323) = .392, p = .676			F(2, 325) = .840, p = .433			F (2, 322) = .638, p = .529			F (2, 321) = .590, p = .555			F (2, 323) = .864, p = .422.		

Note: Within each category, means that do not share subscripts differ at $p < .05$ in the Tukey comparison

Table 17: ANOVA Results, Urban/Non-Urban Residence by Environmental Behaviors

Sociodemographic Traits	Conserve Water (turn off tap)			Conserve Gasoline (use public transportation)			Save Electricity (turn off lights)			Save Energy (lower thermostat)		
	n	Mean	SD	n	Mean	SD	n	Mean	SD	n	Mean	SD
Urban/Non-Urban												
City	124	3.67a	1.07	125	2.82a	1.10	125	4.12a	0.95	122	2.97a	1.21
Suburbs/Rural	202	3.78a	0.91	202	2.49b	0.96	201	4.09a	0.91	200	3.32b	1.12
	F (1, 324) = .945, p = .332			F (1, 325) = 8.612, p = .004			F (1, 324) = .083, p = .773			F (1, 320) = 7.028, p = .008		

Note: Within each category, means that do not share subscripts differ at $p < .05$ in the Tukey comparison

Table 17 Continued: ANOVA Results, Urban/Non-Urban Residence by Environmental Behaviors

Sociodemographic Traits	Fix Broken Items (instead of throwing away)			Recycle			Buy "Green" Products (better for the environment)			Buy Organic Food (no pesticides or chemicals)			Buy <i>Zabeeha Meat</i>		
	n	Mean	SD	n	Mean	SD	n	Mean	SD	n	Mean	SD	n	Mean	SD
Urban/Non-Urban															
City	125	3.28a	0.89	125	3.34a	1.25	125	2.90a	1.06	124	2.75a	1.15	125	4.13a	1.16
Suburbs/Rural	202	3.40a	0.93	202	3.71b	1.24	201	2.77a	0.98	201	2.65a	1.03	202	4.20a	1.13
	F (1, 325) = 1.352, p = .246			F(1, 326) = 6.595, p = .011			F (1, 324) = 1.434, p = .232			F (1, 323) = .635, p = .426			F (1, 325) = .332, p = .565		

Note: Within each category, means that do not share subscripts differ at $p < .05$ in the Tukey comparison

Table 18: ANOVA Results, Homeownership by Environmental Behaviors

Sociodemographic Traits	Conserve Water (turn off tap)			Conserve Gasoline (use public transportation)			Save Electricity (turn off lights)			Save Energy (lower thermostat)		
	n	Mean	SD	n	Mean	SD	n	Mean	SD	n	Mean	SD
Homeownership												
Own	170	3.78a	0.97	171	2.39a	0.91	170	4.06a	0.92	170	3.26a	1.18
Rent	143	3.67a	0.97	142	2.94b	1.09	143	4.18a	0.87	140	3.12a	1.17
	F(1, 311) = .917, p = .339			F(1, 311) = 24.358, p = .000			F(1, 311) = 1.317, p = .252			F(1, 308) = 1.049, p = .307		

Note: Within each category, means that do not share subscripts differ at $p < .05$ in the Tukey comparison

Table 18 Continued: ANOVA Results, Homeownership by Environmental Behaviors

Sociodemographic Traits	Fix Broken Items (instead of throwing away)			Recycle			Buy "Green" Products (better for the environment)			Buy Organic Food (no pesticides or chemicals)			Buy <i>Zabeeha Meat</i>		
	n	Mean	SD	n	Mean	SD	n	Mean	SD	n	Mean	SD	n	Mean	SD
Homeownership															
Own	171	3.43a	0.94	171	3.70a	1.26	170	2.76a	0.97	170	2.56a	1.03	171	4.24a	1.10
Rent	143	3.27a	0.90	142	3.40b	1.215	142	2.90a	1.074	142	2.83b	1.14	143	4.04a	1.24
	F(1, 312) = 2.375, p = .124			F(1, 312) = 4.554, p = .034			F(1, 310) = 1.516, p = .219			F(1, 310) = 4.676, p = .031			F(1, 325) = .332, p = .565		

Note: Within each category, means that do not share subscripts differ at $p < .05$ in the Tukey comparison

- **Employment**

The ANOVA analyses (shown in Table 16) found that employment status had a significant relationship with two Pro-Environmental Behaviors:

Employment and “Conserve Gasoline”: “Students” were significantly more likely ($M = 2.78$) to take steps to conserve energy use than the “Working” group ($M = 2.50$) and the “Other” group ($M = 2.30$), $F(2, 323) = 4.503$, $p = .012$. Differences between the “Other” group and the “Working” group were not statistically significant.

Employment and “Save Energy”: Respondents who fell into the “Other” category (retirees, unemployed, stay at home mothers, etc.) was significantly more likely ($M = 3.69$) to take steps to conserve energy use than the “working” group ($M = 3.27$) and the “student” group ($M = 3.03$), $F(2, 318) = 4.838$, $p = .009$. Differences between the “Student” group and the “Working” group were not statistically significant at $p < .05$.

These results for “Conserve Gasoline” and “Save Electricity” may be a function of respondents’ time constraints and financial incentives. “Others,” who are not students or employed, report taking steps to reduce electricity use more frequently than the other groups. It may be that this

group has more time to pay attention to these measures. Or perhaps they have a stronger need to obtain the monetary savings that result from employing more frequent steps to conserve electricity. “Students” more frequently took steps to reduce gasoline consumption than the other categories. This may be due to having increased options as most educational institutions have access by public transportation.

- **Urban/Non-Urban**

As shown in Table 17, respondents’ city or suburban/rural residential location was significantly related to electricity conservation, gas conservation, and recycling.

Urban/Non-Urban Residence and “Save Energy”: Respondents living in “suburban/rural” areas ($M = 2.97$) were significantly more likely to take steps to conserve energy than those living in the “city” areas ($M = 3.32$). $F(1, 320) = 7.028, p = .008$.

Urban/Non-Urban Residence and “Conserve Gasoline”: Urban residents are significantly more likely to take steps to reduce gasoline use ($M = 2.82$) than residents in suburban/rural locations ($M = 2.49$). $F(1, 325) = 8.612, p = .004$. This finding may be due to increased alternatives to vehicle use found in urban areas. When residents perceive they have no

other options for transportation, they may feel unable or unwilling to make an increased effort reduce gasoline consumption.

Urban/Non-Urban Residence and “Recycle”: A one-way ANOVA showed significant differences in frequency of recycling between urban and rural locations: $F(1, 326) = 6.595, p = .011$. Suburban/rural residents are significantly more likely to recycle ($M = 3.71$) than urban residents ($M = 3.34$). One explanation for this may be that the many Chicago-based respondents skewed the survey; and many city residents choose not to participate in the City of Chicago's notoriously ineffective “blue bag” recycling program (Dumke, 2006).

◆ Homeownership

Significant differences were revealed between homeownership status and “Conserve Gasoline,” “Recycle, and “Buy Organic.”

Homeownership and “Conserve Gasoline”: Renters ($M=2.94$) were significantly more likely to take measures to drive less than homeowners ($M=2.39$). $F(1, 311) = 24.358, p = .000$.

Homeownership Status and Buying Organic: Renters ($M = 2.83$) are more likely to purchase organic products than homeowners ($M = 2.56$). $F(1, 310) = 4.676, p = .031$.

Homeownership Status and Recycling: Homeowners ($M = 3.70$) are more likely to recycle than renters ($M = 3.40$). $F(1, 312) = 4.554, p = .034$.

As homeowners tend to have higher incomes and more stable lifestyles than renters, it seemed likely they would engage in more frequent Pro-Environmental Behaviors. However, although homeowners recycle more often, renters in this study participate more frequently in Conserving Gasoline and Buying Organic Products.

Summary of Sociodemographic Relationships with Pro-Environmental Behavior

As illustrated in Table 12, the survey results show mixed results for my hypotheses. Whereas I hypothesized:

H1 (a): Pro-Environmental Behaviors that reduce consumption (i.e., conserving water, electricity, energy, gas, & repairing broken items) will be more frequently conducted by Muslim Women who are older, have higher levels of education, are working, and own

their own homes. Urban/rural location will not be a factor for these behaviors.

The ANOVA analyses showed differences in behavior only for the following variables:

- Save Electricity: Age & Education
- Save Energy: Age & Urban/Rural
- Save Gas: Ethnicity, Employment, Urban/Rural, & Own/Rent

Similarly, there was only partial support for my second hypothesis:

H1 (b): Pro-Environmental Behaviors (e.g., recycling, or purchasing green or organic products) that require special resources such as city-wide programs or access to stores that sell the appropriate products, will be more frequently conducted by Muslim women who are younger, are students, and live in urban areas.

Recycle: Urban/Non-Urban & Own/rent

Buy Green: Race/Ethnicity & Education

Buy Organic: Race/Ethnicity & Own rent

Buy *zabeeha*: Race/Ethnicity

Finally, as shown above, there is strong support for the final hypothesis concerning the relationship with *Race/Ethnicity*, although it does not hold true for every Pro-Environmental Behavior evaluated:

H2 (a): There will be a relationship between *Race/Ethnicity* and participation in Pro-Environmental Behaviors, Environmental Activism, and Outdoor Recreational Activities.

Of the seven Pro-Environmental Behaviors studied, four showed significant differences between respondents' racial/ethnic affiliations and their frequency of behaviors. As the "Other" racial group showed higher levels of participation, future research that would include greater numbers of African American, Latino, and Caucasian Muslims may help tease out the source of the difference.

The mixed results for this study indicate the need to further pursue minority and religious groups to fully understand motivations and behavior choices. By including comparisons of buying *zabeeha* meat into these analyses, this study shows how participation rates for a behavior supported by an Islamic ethic have high participation rates despite inconveniences of limited availability and potentially higher prices. Finding a way to leverage the religious values into other Pro-Environmental Behaviors may result in higher rates of participation amongst Muslims living in the U.S.

Environmental Activism

To understand Muslim women's Environmental Activism, this study conducted one-way ANOVA analyses and Tukey post-hoc comparisons to assess respondents' willingness to give time or money and membership in an environmental organization. Respondents were asked two questions concerning willingness to participate:

1. How willing would you be to work with other people in your community to improve the environment by spending 2 hours a week on environmental projects?
2. How willing would you be to work with other people in your community to improve the environment by contributing money?

A majority of respondents reported they would be "Somewhat Willing" or "Very Willing" to give time or money for community improvement. ANOVA analyses (shown in Table 19) found no differences between the sociodemographic variables identified and either willingness to give time or money.

To understand actual levels of participation, the survey asked respondents, “Are you a member of an environmental organization?” The responses show that 8.2% of respondents report they are members of an environmental organization, which is in keeping with previous research that show less than 10% of the general U.S. population report they are members of environmental organizations (Rootes, 2004, p.626). To further assess differences between sociodemographic characteristics, I conducted Chi-squares analyses (as shown in Table 20). The results show a significant relationship between environmental membership and age, where women aged 35 and older were more likely to join environmental organizations than their younger peers.

Summary of Sociodemographic Relationships with Environmental Activism

The results of the Environmental Activism analysis do not support my first hypothesis concerning Environmental Activism:

H1 (c): Environmental Activism (e.g., membership in environmental organizations, willingness to contribute to community environmental projects) that involves a connection to a larger community, will have increased support from Muslim women who are younger, are students, and live in urban areas.

Not only were there no differences in participation between age employment/student status and urban/non-urban residence, there was an opposite age relationship than the one predicted: the oldest age group, women aged 35 and older, were significantly more likely to be members of environmental organizations.

This irregular finding may be attributed to small the low number of respondents aged 35 and over ($n = 25$, only 7.8% of the total sample), making it more likely that the responses are not truly representative of the general group of U.S. Muslim women aged 35 and older. Further research with a random sample will be necessary to reveal the true results.

This analysis also does not support the second hypothesis:

H2 (a): There will be a relationship between *Race/Ethnicity* and participation in Pro-Environmental Behaviors, Environmental Activism, and Outdoor Recreational Activities.

I found it interesting that although no racial/ethnic differences were found for Environmental Activism, there were significant differences for several Pro-Environmental Behaviors (Purchasing Green & Organic Products, Reducing Gas Consumption, and Buying *zabeeha* meat). Whereas these Pro-Environmental Behaviors can be conducted within the “private” sphere, Environmental Activism requires connections with a larger

community. Further research will be needed to understand which other factors, if not sociodemographics, may play a role in why women choose to support, and participate in, these broader Pro-Environmental activities.

This section demonstrates that Muslim women show a strong willingness to participate in local environmental projects but few are members of environmental organizations. As such, this group has the potential to move beyond Pro-Environmental Behaviors and become more involved in environmental activism. Muslim religious institutions - Mosques - may be one pathway for bringing about increased activism. The following section assesses the current state of Mosque participation in environmental activities while also analyzing Muslim self-perceptions about group activism.

Table 19: ANOVA Results, Sociodemographics by Willingness to Invest in Community Environmental Projects

Sociodemographic Traits	Willingness to Give Money			Willingness to Give Time		
	n	Mean	SD	n	Mean	SD
Ethnicity						
Middle Eastern	73	2.92 _a	0.88	73	3.22 _a	0.67
Asian	168	2.89 _a	0.72	168	3.11 _a	0.73
Other	84	3.01 _a	0.67	83	3.30 _a	0.68
	F (2, 322) = .727, p = .484			F (2, 321) = 2.23, p = .109		
Age						
18-24	144	2.93 _a	0.74	143	3.19 _a	0.72
25-34	150	2.89 _a	0.77	150	3.17 _a	0.71
35+	25	3.12 _a	0.6	25	3.12 _a	0.67
	F (2, 316) = 1.000, p = .369			F (2, 315) = .111, p = .895		
Education						
High School	23	2.78 _a	0.85	23	3.39 _a	0.78
Some college	86	2.84 _a	0.72	85	3.15 _a	0.68
Bachelor's	118	3.03 _a	0.79	118	3.18 _a	0.71
Graduate/prof	99	2.93 _a	0.67	99	3.16 _a	0.71
	F (3, 322) = 1.403, p = .242			F (3, 321) = .745, p = .526		
Employment						
Working	23	2.78 _a	0.85	133	3.14 _a	0.65
Student	86	2.84 _a	0.72	159	3.19 _a	0.75
Other	118	3.03 _a	0.79	33	3.24 _a	0.75
	F (2, 323) = 1.541, p = .216			F (2, 322) = .314, p = .731		
Urban/Non-Urban						
City	125	2.91 _a	0.75	125	3.26 _a	0.67
Suburbs/Rural	202	2.94 _a	0.74	201	3.13 _a	0.73
	F (1, 325) = .114, p = .735			F (1, 324) = 2.466, p = .117		
Homeownership						
Own	171	2.99 _a	0.69	170	3.14 _a	0.71
Rent	143	2.85 _a	0.79	143	3.25 _a	0.71
	F (1, 312) = 3.138, p = .077			F (1, 311) = 2.116, p = .147		

Note . Within each category, means that do not share subscripts differ at $p < .05$ in the Tukey comparison.

Table 20: Chi-squares Results, Sociodemographics by Joining an Environmental Organization

Sociodemographic Traits	Joined Environmental Org		
	n	%Yes	Adjusted Residual
Ethnicity			
Middle Eastern	5	6.8	-0.30
Asian	12	7.1	-0.40
Other	9	10.7	0.90
	X2(2, N = 319) = 1.140, p = .566.		
Age			
18-24	7	4.9	-1.30
25-34	11	7.3	-0.02
35+	7	28.0	3.60
	X2(2, N = 319) = 15.890, p = 000.		
Education			
High School	1	4.3	-0.70
Some college	6	7.0	-0.40
Bachelor's Degree	6	5.1	-1.20
Graduate/Prof	14	14.0	2.00
	X2(3, N = 319) = 6.572, p = .087		
Employment			
Working	14	10.4	1.00
Student	11	6.9	-0.50
Other	1	3.0	-1.00
	X2(2, N = 326) = 2.458, p = .293		
Urban/Rural			
City	15	11.9	1.40
Suburbs/Rural	12	5.9	-1.10
	X2(1, N = 332) = 3.654, p = .056		
Home Ownership			
Own	12	7.0	-0.40
Rent	13	9.0	0.50
	X2(1, N = 315) = .432, p = .511		

Note. Within each category, means that do not share subscripts differ at $p < .05$ in the comparison.

Religious Participation

Before delving into a discussion of the sample's mosque-sponsored environmental activities, it is useful to assess respondents' understandings of Islam's environmental ethic. This survey asked respondents, "What does Islam say about the environment?" In their narrative response, 57.0% ($n = 188$) stated that caring for the environment was a form of religious duty; 29.5% ($n = 97$) stated that Islam demands the preservation and/or protection of the environment, and 20.3% ($n = 67$) stated Islam says to respect/honor the environment. These responses show that respondents already have a religious framework which would support an Islamically-oriented environmental movement.

To understand the number of respondents affiliated with a religious community, the survey respondents to check "yes" if they attend a mosque regularly. (One must remember that mosque attendance at mosques is not required for women: Muslim females may fulfill their religious obligations without ever stepping foot into a religious institution. So although this question is not a perfect measure of religiosity, it provides evidence of ties to a religious institution that could impact decision-making.) Over half (56.1%) of respondents regularly attend a mosque.

A majority of respondents (62.7%) attend suburban or rural mosques, with the remaining attending mosques in urban areas. Naturally, most respondents attend a mosque in the area where they live: 84.2% of

suburbanites attend suburban mosques, and 70.8% of urban dwellers attend urban mosques. More urban dwellers attend non-urban mosques than vice versa.

The survey asked a series of seven questions (as listed in Table 7) to determine respondents' awareness of their mosque's social and environmental activities. These survey allowed respondents to choose one answer: "yes", "no", or "don't know" for each activity. The "no" and "don't know" responses were coded as 0 because in both cases respondents were not gaining any environmental leadership from their mosque. The "yes" responses were coded with a one. I then calculated a "Mosque Score" by summing the total responses for each of the seven categories. If a respondent checked "yes" for each category, indicating their mosque participated in all five activities, that individual's mosque score would be a 7. If a respondent checked "no" or "don't know" for all five activities, her mosque score would be 0.

The following graph shows how many of respondents' mosques participated in multiple behaviors listed above. It shows that 50% (n = 133) of respondents' mosques only participate in 1 to 2 of the seven social and environmental activist activities and 42% (n = 112) participate in 3-4 activities. The number drops dramatically for 5-7 activities: only 7.9% of respondents (n = 21) respondent that their mosques conduct nearly all of the activities listed.

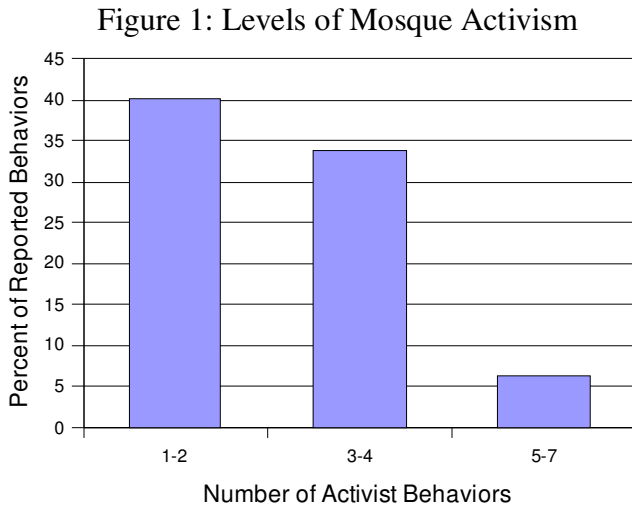


Table 20 shows the results of the one-way ANOVA analyses and Tukey post-hoc comparisons to determine differences in mosque participation by respondents' sociodemographic traits. The outcomes do not support either hypothesis:

H4 (a): Women who are younger, more educated and students; and those who live in urban areas, are more likely to attend mosques that conduct a high number of social service and environmental activities.

H4 (b): There will be differences between respondents' racial/ethnic background and their mosques' level of participation in different types of social service and environmental activities.

None of the sociodemographic factors were found to have significant relationships as compared to any of the others. As I noted in

Chapter 1, mosques tend to recruit members who come from the same racial/cultural backgrounds and who share similar sociodemographic characteristics. The finding that respondents' sociodemographics do not show significant differences in mosque's behavior indicates institutional behavior across a range of mosques is similar.

A minority of mosques (8%) are showing leadership in social and environmental activism by participating in almost all of the seven activities considered. Further research is recommended to identify these mosque and explore ways of sharing their expertise and experience with other mosques to increase overall Muslim environmental activism.

Table 21: ANOVA Results, Evaluating Sociodemographics by Mosque
 Activism

Sociodemographic Traits	Sum of Mosque Participation in Activism		
	n	mean	SD
Ethnicity			
Middle Eastern	73	2.45a	1.83
Asian	164	2.22a	1.50
Other	77	2.34a	1.62
	F(2, 313) = .550, p = .577		
Age			
18-24	140	2.47a	1.72
25-34	145	2.21a	1.48
35+	23	2.09a	1.56
	F(2, 307) = 1.237, p = .292		
Education			
High School	22	2.18a	1.68
Some college	83	2.51a	1.66
Bachelor's	114	2.20a	1.62
Graduate/Prof	96	2.2813	1.52
	F(2, 314) = .639, p = .590		
Employment			
Working	130	2.17a	1.50
Student	152	2.48a	1.74
Other	33	1.91a	1.18
	F(2, 314) = 2.403, p = .092		
Urban/Rural			
City	116	2.27a	1.69
Suburbs/Rural	200	2.32a	1.56
	F(2, 315) = .079, p = .779		
Home Ownership			
Own	168	2.46a	1.60
Rent	135	2.11a	1.63
	F(1, 302) = 3.451, p = .064		
<i>Note</i> . Within each category, means that do not share subscripts differ at $p < .05$ in the Tukey honestly significant difference			

Outdoor Activities

This section of the survey, which asked respondents to report on recreational behavior, was used to understand the frequency and types of outdoor behavior of Muslim women living in the U.S. Of the 16 outdoor activities listed, Muslim women on average completed between four and five activities in the past 12 months (see Table 11 in Chapter 4).

I conducted ANOVA analyses and Tukey post-hoc comparisons to compare means of the total number of activity types for which respondents participated in the last twelve months. One-way ANOVA analysis was chosen because the analysis considers an independent categorical variable (socio-demographic) with a continuous variable, the number of activity types conducted in the past 12 months. Table 22 below shows the results of these analyses.

▪ Race/Ethnicity

The “Other” ethnic group ($M = 4.00$) participated in significantly fewer outdoor activity types than the “Asian” group ($M = 4.86$). $F(2, 322) = 4.155$, $p = .017$. Comparisons between the Middle Eastern group ($M = 4.73$) and the other two groups were not statistically significant at $p < .05$. The responses of “Asian” and “Middle Eastern” respondents were similar, and both reported a higher number of activity types than those in

the “Other” category. However, the difference was significant only between “Other” and “Asian” respondents.

- **Age**

Significant differences were found across the three age ranges (18-24, 25-34, and 35+), $F(2, 316) = 7.815, p = .000$. The youngest age group, “18-24” ($M = 5.09$) participated in significantly more types of outdoor activities than the “25-34” group ($M = 4.38$) and the “35 +” age group ($M = 3.36$) groups.

- **Employment**

The one-way ANOVA also showed significant differences in activity types between employed groups, $F(2, 323) = 7.412, p = .001$. The “Other” group (incorporating those who were not students or employed) ($M = 3.36$) participated in significantly fewer outdoor activity types than the “Working” group ($M = 4.46$) or the “Student” group ($M = 4.97$). Differences between the “Working” group and the “Student” group were not statistically significant at $p < .05$.

Table 22: ANOVA Results, Evaluating Sociodemographics by Outdoor Recreational Activities

Sociodemographic Trait	Outdoor Recreational Activity Score		
	<i>n</i>	Mean	SD
Ethnicity			
Middle Eastern	73	4.73ab	2.155
Asian	168	4.86a	2.342
Other	84	4.00b	2.239
	F (2, 322) = 4.155, p = .017.		
Age			
18-24	144	5.09a	2.438
25-34	150	4.38b	1.979
35+	25	3.36b	2.797
	F (2, 316) = 7.815, p = .000		
Education			
High School	23	5.61a	2.675
Some college	86	4.71a	2.415
Bachelor's	118	4.46a	2.194
Graduate/Prof.	100	4.48a	2.204
	F (3, 323) = 1.790, p = .149		
Employment			
Working	134	4.46a	2.253
Student	159	4.97a	2.365
Other	33	3.36b	1.597
	F (2, 323) = 7.412, p = .001		
Urban/Non-Urban			
City	126	4.47a	2.283
Suburbs/Rural	202	4.71a	2.309
	F (1, 326) = .843, p = .359		
Homeownership			
Own	171	4.71a	2.341
Rent	144	4.47a	2.275
	F (1, 313) = .860, p = .355		

Note. Within each category, means that do not share subscripts differ at $p < .05$ in the Tukey comparison.

Summary of Outdoor Recreational Activities

The ANOVA analyses showed significant differences in the following sociodemographic categories: “Race/Ethnicity,” “Age,” and “Employment.” This fully supported my first hypotheses (H2 a) and partially supported my second hypothesis (H3) a:

H2 (a): There will be a relationship between *Race/Ethnicity* and participation in Pro-Environmental Behaviors, Environmental Activism, and Outdoor Recreational Activities.

H3 (a): Outdoor Recreation Activities will be conducted more frequently by Muslim women who are young, more educated, students, and who live in rural/suburban locations.

In consideration of Race/Ethnicity, respondents who affiliated with “Asian” heritage participated in more types of Outdoor Recreational Behavior than those who affiliate with the “Other” group. Younger respondents were indeed found to participate in more types of outdoor activities than their older counterparts. And students participated in significantly more types of Outdoor Activities than “Others,” but not significantly more in comparison to those who are working full- or part-

time. There were no significant differences found between residential location.

Conclusion

Results of this survey show that Muslim women living in the U.S. regularly participate in both Pro-Environmental Behaviors and Outdoor Recreational Activities. Comparisons with national surveys shows that Muslim women living in the US conduct Pro-Environmental Behaviors at the same or higher levels as the general U.S. population. Respondents were shown to report high levels of willingness to participate in community environmental projects and rates of membership in Environmental Organizations compare to those of the general population.

A more detailed discussion of the results and their implications for understanding U.S. Muslim environmentalism will follow in the next chapter.

Chapter 6

Conclusion

Although it may come as a surprise to many Westerners, there is a solid foundation for an environmental ethic within the Islamic tradition. This environmental ethic has not translated into much visible Muslim environmental activism in the U.S. This study set out to gain a better understanding of existing levels of Muslim environmentalism and to identify areas with the most potential for boosting environmental activism within the community.

Chapter 1 introduced Muslims in the United States: their religious beliefs, inter-ethnic divisions, and history within the context of this country. In Chapter 2, I provided an overview of the basis for an Islamic Environmental Ethic as found in religious texts, religious traditions, and in environmental programs and challenges in Muslim countries. Chapter 3 gave a literature review on Pro-Environmental Behaviors, Environmental Activism, and Outdoor Recreational Activities. Chapter 4 provided research methods and Chapter 6 discussed the mixed support for my hypotheses:

H1 (a): Pro-Environmental Behaviors that reduce consumption (e.g., conserving water, electricity, energy, gas, & repairing broken items) will be more frequently conducted by Muslim Women who are older, have higher levels of education, are working, and own their own homes.

H1 (b): Pro-Environmental Behaviors (e.g., recycling, purchasing green or organic products, and purchasing *Zabeeha* meat) that require special resources such as city-wide programs or access to stores that sell the appropriate products, will be more frequently conducted by Muslim women who are younger, are students, and live in urban areas.

H1 (c): Environmental Activism (e.g., membership in environmental organizations, willingness to contribute to community environmental projects) that involves a connection to a larger community, will have increased support from Muslim women who are younger, are students, and live in urban areas.

H2 (a): There will be a relationship between race/ethnicity and participation in Pro-Environmental Behaviors, Environmental Activism, and Outdoor Recreational Activities.

H3 (a): Outdoor Recreation Activities will be conducted more frequently by Muslim women who are young, more educated, students, and who live in non-urban/suburban locations.

H4 (a): Women who are younger, more educated and students, and those who live in urban areas, are more likely to attend mosques that conduct a high number of social service and environmental activities.

H4 (b): There will be differences between respondents' racial/ethnic background and their mosques' level of participation in different types of social service and environmental activities.

The results showed partial, but strong support for H1 (a), H1 (b), H2 (a), and H3 (a). The results show weaker support for H1 (c), and no support for H4 (a) and H4 (b).

The statistical analyses identified the following significant relationships:

- Save Electricity: Age & Education
- Save Energy: Age & Urban/Non-Urban
- Save Gas: Race/Ethnicity, Employment, Urban/Non-Urban, & Own/Rent
- Recycle: Urban/Non-Urban & Own/Rent
- Buy Green: Race/Ethnicity & Education
- Buy Organic: Race/Ethnicity & Own/Rent
- Buy Zabeeha: Race/Ethnicity
- Membership in Environmental Organizations: Age
- Outdoor Recreational Activities: Race/Ethnicity, Age, & Employment

Of all of the sociodemographic traits, Race/Ethnicity had the greatest number of relationships: significant correlations to four Pro-Environmental Behaviors and Outdoor Recreational Activities. These results support previous research that shows race and ethnicity have an important relationship with environmentalism.

Age, Urban/Non-urban residence, and Homeownership each had significant relationships with three variables. Age was significantly related to one Pro-Environmental Behavior, one measure of

Environmental Activism, and with the sum of Outdoor Recreational Activities. Urban/Non-urban residential location and Owning/Renting a home were each were significantly related to three Pro-Environmental Behaviors.

Education and Employment each had two significant relationships. Education is significantly related to two Pro-Environmental Behaviors. Employment status had a significant relationship with one Pro-Environmental Behavior and Outdoor Recreational Behavior.

The relationships discovered above have had differing support from previous research. This paper's analyses will add value to this field of research by adding data for a very specific minority group. Perhaps even more interesting than the significant relationships in the dependent variables discussed above, is the lack of relationships with the variables below:

- Save Water
- Repair Broken Items
- Willingness to Donate Money
- Willingness to Donate Time
- Mosques' Social and Environmental Activism

Perhaps the lack of relationship is because there may be other sociodemographic measures, such as household income, that would have

more significant relationships with the above variables. Also, as other authors have noted (Mohai, 1985; Taylor, 1989), there are other variables such as personal efficacy and availability of resources that may play a greater role than sociodemographics in predicting behavior.

Of most interest is that none of respondents' sociodemographic traits had a relationship with their mosques' social and environmental activism. As previous studies have found (e.g., Bagby 2004, Bagby et al., 2001), mosques tend to attract individuals of similar backgrounds who share sects, native languages, and cultural traditions. It would be reasonable, therefore, to assume that if any mosque differences in activism occur along racial/ethnic lines, this would show up in the analyses conducted. In the absence of this, it appears that the institutional behavior across a range of mosques is similar.

A minority of respondents (8%) reported that their mosques participated in almost all of the seven activities surveyed. Further research is recommended to identify these mosque and explore ways of sharing their expertise and experience with other mosques to increase overall Muslim environmental activism.

Summary

This study shows that young, well-educated Muslim women participate in the full range of environmental activities. They appear to engage in Pro-Environmental Behaviors at least as frequently (if not more so) than the general American public. Their participation in outdoor recreational activities and their willingness to participate in public Pro-Environmental Behaviors do not seem to be impacted by traditional Muslim norms of female seclusion.

Although these women are engaging in environmental behaviors at least as frequently as other Americans, they believe that as a group, Muslims are not taking much action on environmental issues. This feeling is substantiated by the low number of respondents who report that their mosques participate in higher levels of environmental activism (i.e., participating in an environmental campaign vs. holding an environmental lecture). This illustrates the untapped potential for mosques to build on the religion's existing environmental ethic and develop an environmental agenda that incorporates the unique strengths of this multi-ethnic, multi-racial community.

When reviewing the history of Muslims in the U.S., it is probable that the Muslims who immigrated post-1947 faced many barriers to political efficacy that have been identified in other groups. Taylor provides a summary of the efficacy barriers that have faced other minorities in the U.S.,

“Blacks show low levels of political efficacy and often fail to recognize advocacy channels—two traits that could greatly hamper the individual’s and group’s ability to become politically active. Not only do blacks lack monetary resources, but they sometimes lack knowledge of the political system, and expertise in the issues they need to tackle. Nonetheless, they may have enough moral resources to succeed because of the ties they have with other blacks. In addition to greater material and knowledge resources, blacks need to perceive that they are efficacious, and that advocacy channels are open to them before they become more politically active.” (1989, p.200).

As the Muslim community grows to include more second- and third-generation family members, and assuming similar or increased levels of educational attainment, the Muslim community will have access to not only the monetary resources, but will have incorporated more knowledge of the political system that is passed down through families and institutions such as Mosques.

The progression to increased private Pro-Environmental Behaviors can also be facilitated through an activity that Muslims already make an effort to undertake: purchasing *zabeeha* meat. By supporting the purchase of *zabeeha* meat from organic farmers, mosques can develop a link between individuals' environmental behaviors and religious behavior. One group, Chicago-based Taqwa Eco-Food, is already facilitating this type of partnership.³⁸ This can also grow into communal activism if the mosque creates a committee that advocates organic processes to those involved in the husbandry of those animals.

³⁸ You can find out more information at: http://taqwaecofood.org/taqwa_ordering.html

The growth of such environmentalism within mosques, and groups such as ACCESS, Tacqwa Eco-Foods, and Muhammad Farms; will help Muslims “walk the talk” of the environmentalism embedded within their religion. In addition, it will help develop Muslim leadership on issues that are gaining increasingly more political attention throughout the world. This type of leadership will be critical in helping Westerners understand the depth of Islam while showing commitment to working with other groups to improve global conditions.

Appendix A

Consent Form and Survey Instrument

Assalamualaikum!

My name is Jumana Vasi. I am a graduate student at the University of Michigan and I am conducting a study to find out how Muslim sisters feel about social and environmental issues in their communities. This study is for my Master's thesis project, and is not funded by any private organization. The survey questions ask about your opinions on various social and environmental issues and your related activities.

All responses will be strictly confidential. You will not be identified in any reports on this study and your name will not be associated with any records. Your participation in this survey is Voluntary. You may refuse to participate in this study. You may also refuse to answer any individual questions.

By completing this survey, you are giving your consent to participate in this study.

The survey will take about 10-15 minutes to complete. There are no right or wrong answers, so please be as open and as forthright as possible. If you want a copy of the summary results, you can contact me at the email address below. Inshallah, analysis of the data will be presented at conferences and published in magazines or journals.

Thank you for your participation - I truly appreciate it! Please copy and save this information for your records.

Wassalam,
Jumana Vasi

Masters Candidate
School of Natural Resources & Environment
University of Michigan

Should you have any questions regarding your rights as a participant in this research, please contact the Behavioral Sciences Institutional Review Board, 1040 Fleming Building, 503 Thomson Street, Ann Arbor, MI 48109.

Survey Instrument (Text from Web Survey)

Q.1) In your opinion, what are the three most important problems facing this country today?

Please choose three responses.

1. National Security
 2. Foreign policy
 3. Economy
 4. Campaign Finance
 5. Taxes
 6. Social Security
 7. Health Care
 8. Education
 9. Gun Control
 10. Population growth
 11. Civil Rights
 12. Morality/ethics
 13. Abortion
 14. Environment
- Other:

Q.2) To what extent do you favor the policy issues listed below?

Please choose the best response.

a) Cuts in the income tax

4. Strongly favor
3. Somewhat favor
2. Somewhat oppose
1. Strongly oppose
0. Don't know

b) Support for affirmative action for minorities

4. Strongly favor
3. Somewhat favor
2. Somewhat oppose
1. Strongly oppose
0. Don't know

c) Providing universal health care

4. Strongly favor
3. Somewhat favor

2. Somewhat oppose
1. Strongly oppose
0. Don't know

d) Tougher laws to protect the environment

4. Strongly favor
3. Somewhat favor
2. Somewhat oppose
1. Strongly oppose
0. Don't know

Q.3) People use the term environment to mean many different things. What does the term environment mean to you?

(narrative space)

Q.4) What environmental problems, if any, directly or indirectly affect your (and your family's) health or overall quality of life?

(narrative space)

Q.5) Check the box that best corresponds with how serious a problem you feel each of the following is in your neighborhood:

[Choose from: 1. Very Serious Problem 2. Somewhat Serious Problem 3. Not a Very Serious Problem 4. Not a Problem at All]

1. Crime
2. Abandoned or boarded up houses
3. Bad odors or smells
4. Problems with litter or garbage
5. Problems with rats, mice, or roaches
6. Lack of trees and other vegetation

Q.6) Check the box that best corresponds with how you rate each of the following situations in your neighborhood:

[Choose from: 5. Very Good 4. Good 3. Adequate 2. Poor 1. Very Poor]

- 0 Not Sure/ Don't Know
1. Social atmosphere in general
2. Friendliness of neighbors

3. Race relations
4. The environment in general
5. Air quality
6. Water quality
7. Neighborhood upkeep
8. Quality of parks and playgrounds
9. Alternatives to motor vehicle use, such as public transportation, bicycling or walking

For each question below, choose the appropriate response:

Q.7) How often do you keep the thermostat turned down in winter to save energy?

5. Always
4. Often
3. Sometimes
2. Rarely
1. Never

Q.8) How often do you have broken items fixed instead of buying new ones?

5. Always
4. Often
3. Sometimes
2. Rarely
1. Never

Q.9) How often do you turn off lights to save electricity?

5. Always
4. Often
3. Sometimes
2. Rarely
1. Never

Q.10) How often do you take steps to conserve water? (by turning of the tap when you brush your teeth, reduce watering your lawn, etc.)

5. Always
4. Often
3. Sometimes
2. Rarely
1. Never

Q.11) How often do you take steps to conserve gasoline? (by using public transportation, walking, or car-pooling?)

5. Always
4. Often
3. Sometimes
2. Rarely
1. Never

Q.12) How often do you save materials for recycling?

5. Always
4. Often
3. Sometimes
2. Rarely
1. Never

Q.13) How often do you buy a product specifically because you think it is better for the environment?

5. Always
4. Often
3. Sometimes
2. Rarely
1. Never

Q.14) How often do you choose to buy foods that are organically grown? (foods grown without pesticides or chemicals)

5. Always
4. Often
3. Sometimes
2. Rarely
1. Never

Q.15) How often do you choose to buy zabeeha meat? (meat slaughtered in the Islamic way)

5. Always
4. Often
3. Sometimes
2. Rarely
1. Never

Q.16) In which of the following outdoor activities have you participated in the last year?

Choose ALL that apply.

1. Walking/hiking
2. Jogging/running
3. Bicycling/mountain biking
4. Roller blading/roller skating
5. Swimming
6. Golfing
7. Badminton/tennis
8. Sailing/boating
9. Fishing/Hunting
10. Yard games (croquet, darts, etc.)
11. Participated in a team sport (soccer, Volleyball, baseball, etc.)
12. Attended a formal or informal sporting event (as a spectator)
13. Gardening
14. Picnics
15. Spent time outdoors to enjoy the weather/scenery/sunset
16. Other:

Q.17) How often do you visit parks?

4. Often
3. Sometimes
2. Rarely
1. Never

Q.18a) Do you belong to any environmental organizations?

1. Yes
0. No

Q. 18b) If yes, which ones?

1. (narrative space)
2. (narrative space)
3. (narrative space)

Q.19a) Do you belong to any women's groups?

1. Yes
0. No

Q. 19b) If yes, which ones?

1. (narrative space)

2. (narrative space)

Q. 20) What do you think are the most pressing problems facing Muslim women in America today?

(narrative space)

Q.21) Do you regularly attend a mosque?

1. Yes
0. No

Q.22) Is your mosque located in the city or the suburbs?

1. City
2. Suburbs

Q.23) Has your mosque participated in any in any of the following activities in the last year? Please check the appropriate box for each of the following activities.

	1	0	2
	Yes	No	Not Sure

1. Projects with other mosques or Muslim groups
2. Projects with non-Muslim religious groups
3. Social service activities (food pantry, homeless shelter, etc.)
4. Neighborhood clean-up or beautification
5. Hosted or taken part in an environmental lecture, workshop, or conference
6. Taken action to address an environmental problem in the community
7. Taken part in an environmental campaign

Q.24) How willing would you be to work with other people in your community to improve the environment by spending two hours a week on environmental projects?

4. Very willing
3. Somewhat willing
2. Not very willing
1. Not at all willing

Q.25) How willing would you be to work with other people in your community to improve the environment by contributing money?

4. Very willing
3. Somewhat willing
2. Not very willing
1. Not at all willing

Q.26) In your opinion, to what extent are Muslims in your community active in addressing social issues?

4. Very active
3. Active
2. Not very active
1. Not active at all

Q.27) In your opinion, to what extent are Muslims in your community active in addressing environmental issues?

4. Very active
3. Active
2. Not very active
1. Not active at all

Q.28) What does Islam teach about caring for the environment?

(narrative space)

DEMOGRAPHICS:

Q.29) In what year were you born?

**Q.30) Which of the following best describes your ethnicity?
(Choose ALL that apply)**

1. African American
 2. Arab American
 3. Central Asian American
 4. East Asian American
 5. European American
 6. Hispanic American
 7. Native American
 8. South Asian American
- Other:

**Q.31) What is the highest level of education you have completed?
(Choose the best response)**

1. Less than high school
2. Some high school

3. Completed high school
4. Some college
5. Bachelors degree
6. Graduate or professional degree

**Q.32) Which one of the following best describes you: Are you ...?
(Choose the best response)**

1. Working in a full or part-time paid position
 2. Self-employed
 3. Unemployed and looking for work
 4. A student
 5. Primarily conducting home duties
 6. Retired
- Other:

Q.33) Do you live in the city or suburbs?

City
Suburbs

Q. 34) Where do you live? City and State:

Q.35) Do you own or rent your home/apartment?

Own
Rent

Thank you very much for your participation!!!!

If you need to contact me - you can click on the following email....

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