

New York City and the Post 9/11 Era: Labor Market Outcomes for Arabs and Muslims

by

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Abstract

This study builds on prior research that examined labor market outcomes for Arab and Muslims post 9/11. Using integrated public use micro-data samples from both the 2000-year Census and American Community Survey I found that Arab, Afghani, Iranian and Pakistani men have lower wage premiums in the year 2000 and 2011 than non-Hispanic whites in the New York City metropolitan area. This wage differential decreased in magnitude in the decade between the two years of focus. I have also chosen to study the demographic profiles and ancestry of Arabs and Muslims in the New York City metropolitan area to better understand the socio-economic makeup of the city's Middle Eastern and Muslim population.

Chapter 1- Introduction:

Research shows that in the years following the terror attacks of September 11th there was a severe rise in anti-Muslim and anti-Arab hate crimes across the country.¹ Government legislation and the American media reflected the rising sentiment of unease that grew in response to the terrorist actions and motivations. “Arab” and “Muslim” became conflated and understood as one in the same, and Samuel Huntington’s “Clash of Civilizations” resurfaced to depict a divide between Islam and the West. As the United States braced itself for a protracted conflict with the Middle East it seemed to equally forget its long and rich historical connection with the region. As reflected in the bills and legislation put forth following the attacks Middle East migrants were framed as potential security threats; a view in stark contrast to the economic and cultural contributors that they have been since the 1800s.

At first glance, it seems ironic that the first wave of Middle East migration consisted predominately of Syrian-Lebanese Christians.² As the modern day depiction of the Arab world is increasingly characterized as homogenously Islamic, the diversity in both religion and ethnicity gets overpowered by dominant stereotypes and misconceptions. Many of these migrants came to the United States with intentions of returning home after becoming economically stable, but many more found themselves assimilating and fighting the racial battles of the early 1900s.³ American whiteness was evolving and expanding to include those that had previously been outliers. The characteristic aspects of most Middle East immigrants at the time, such as light skin, Semitic identities and richly Christian heritages helped bolster their case in court.

Ultimately these wins allowed the categorization of the Syrian-Lebanese to be legally defined as

¹ Welch, Michael. "Hate Crimes as Backlash Violence." In *Scapegoats of September 11th Hate Crimes & State Crimes in the War on Terror*, 62-80. New Brunswick, N.J.: Rutgers University Press, 2006.

² Abdelhady, Dalia. "The Sociopolitical History of Arabs in the United States: Assimilation, Ethnicity, and Global Citizenship." *Biopsychosocial Perspectives on Arab Americans*, 2013, 17-43.

³ Dalia, Sociopolitical History of Arabs, 18.

“Caucasian” and permitted further generations to be incorporated into the fabric of white society⁴. This is not to say that all Middle Eastern immigrants and their children experienced the privileges that came with being a white American, but the knowledge of racial categorization helps to contextualize the societal borders in which these migrants were able to lay their foundations.

While a legal framework illustrates where the Arabic-speaking diaspora was beginning to integrate into American society it does not speak to the cultural, ethnic, and historical factors that contributed to the diversity in assimilation experiences. The desire to fully integrate into the United States varied largely by immigrant waves. These waves coincided with tumultuous developments in the Middle East and legal restrictions on immigration into the country. While the first group of immigrants from the then Ottoman Empire found themselves closely aligned with their religious and cultural heritage, a desire to more fully identify as “American” nearly drove second-generation immigrants away from this connection completely. In the 20th century, the budding conflict in Israel and Palestine coincided with a developing sense of Arab nationalism, and soon many Middle East immigrants found themselves identifying more closely with their ancestral roots. This identification precipitated greater political involvement and a more dedicated interest in creating cultural and ethnic social associations, such as the Federation of Syrian and Lebanese clubs. In 1951, this specific group was able to generate enough momentum to merit a meeting with President Harry Truman.⁵

This narrative is mentioned to provide a snapshot of the historical context that existed for the Arabic-speaking diaspora in the United States before the terror attacks of September 11th. Like the other immigrant groups that helped to found this country, migrants from the Middle

⁴ Dalia, Sociopolitical History of Arabs, 17-43.

⁵ ibid

East have a rich cultural and historical connection in America. The American government and people, however, lost sight of this relationship immediately following the attacks as evident in the encroaching legislation that targeted peoples from the region. This history's relevance to the study is twofold. Firstly, it serves to lay a foundation for understanding how Middle Easterners fit into the fabric of American society. This allows for a more striking juxtaposition of Arab and Muslim social standing in the United States. An examination of their history in the U.S places an emphasis on the acrimonious increase in discrimination following the immediate aftermath of the attacks on 9/11, despite a rich history of American citizenship and assimilation. Additionally, the study's analysis of more recent legislation and media as it relates to Arabs and Muslims in the United States fits into the question that I intend to explore in this study; mainly, how has their shifted perception in the American psyche affected labor market outcomes in relation to potential discriminatory practices? Acknowledging and explaining changes in policy and media depictions lays the backdrop for understanding the factors that could entice a shift in economic opportunities for those with Middle East ancestry.

The Patriot Act was a first step in implementing institutionalized discrimination for Arabs, Muslim, and Southeast Asians in the United States. Pushed through Congress in the weeks following the attacks, the 342-page document had far reaching consequences on American civil liberties, but evoked a public response characterized by solidarity and patriotism.⁶ The sentiment that stopped the Antiterrorism Act five years earlier was replaced by a stoic acceptance and ambivalence towards changes in the US intelligence apparatus.⁷ The American media reported on the subsequent War on Terror and domestic legislation with a significant pro-US bent, glossing over the specifics of the Patriot Act and United States operations abroad. Given

⁶ Adolian, Lisa, and Harold Takooshian. "The USA Patriot Act: Civil Liberties, The Media, and Public Opinion." *Fordham Urban Law Journal*, 2003, 1-27.

⁷ Abdolian, Takooshian, Civil Liberties, 2.

the severity and devastation of the attacks and the dramatic shift in the American perception of security, media outlets were wary of casting any antiterrorism legislation in a negative light⁸.

While the US media avoided covering the specifics of the Patriot Act legislation, judicial processes, power, and the definition of terrorism shifted greatly. The federal government redirected its focus from prosecution to prevention and set in motion a change in domestic surveillance that would have previously been considered an unconstitutional overstep of powers. This is not to say that prosecution was no longer a priority; in fact, Attorney General John Ashcroft was given authority to prosecute federal crimes that previously fell under the jurisdiction of a number of different agencies. The list of what constituted an “act of terror” expanded to include almost any violent act against public officers and property, effectively increasing the power and scope of Bush’s domestic assault on terrorism⁹.

In January of 2003, Patriot Act legislation allowed the initiation of a program that mandated that certain non-immigrants must register with the United States Immigration Services (INS).¹⁰ This mandate was an extension of an INS program that was initiated on November 5th, 2002, that required men and boys from “Iran, Libya, Sudan, Syria and Iraq to report to the INS to be documented, photographed, and interrogated or else face criminal prosecution and deportation.”¹¹ Following this implementation, the National Entry-Exit Registration System (NSEERS) was put in place to target individuals from 25 Arab, Muslim, and South East Asian countries. The only country on the list not from a country with a significant Muslim population was North Korea. The guidelines stipulated mandatory registration for:

⁸ ibid

⁹ Abdolian, Takooshian, *Civil Liberties*, 20.

¹⁰ Bazian, Hatem. "National Entry-Exit Registration System: Arabs, Muslims, and Southeast Asians and Post-9/11 “Security Measures”." *Islamaphobia Studies Journal* 2, no. 1 (2014): 83-97.

¹¹ ibid

1. Male citizens or nationals of Saudi Arabia and Pakistan with a deadline of March 21, 2003.
2. Male citizens or nationals of Bangladesh, Egypt, Indonesia, Jordan or Kuwait were given a deadline of April 25, 2003.
3. Male citizens or nationals over 16 years of age from Iran, Iraq, Sudan, Syria, and Libya (Group 1) and Afghanistan, Algeria, Bahrain, Eritrea, Lebanon, Morocco, North Korea, Oman, Qatar, Somalia, Tunisia, United Arab Emirates the deadline was January 10, 2003.

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As a result of significant lobbying and political pressure, Congress was forced to remove North Korea from the list in addition to any reference to it in the INS directive.¹³ This program and many others like it show that the government intended to discriminately watch for the enemy within – a group they designated to be Arab or Muslims.

The NSEERS program was one of the many legislative initiatives that targeted populations deemed to be national security risks. Its effects were not, however, limited solely to these minorities. United States citizens around the country were victims of the encroaching Patriot Act powers. The sharing of intelligence between federal agencies and the gathering of the intelligence itself was widely broadening in scope. Surveillance and wiretap authority, sneak-and-peek searches, Internet tracking, and accessing private records suddenly became much easier.¹⁴ With the increased ability of these tools and the expansion of information sharing between agencies the line began to blur between foreign intelligence gathering and domestic criminal cases. While the Central Intelligence Agency (CIA) is unable to conduct surveillance of

¹² *ibid*

¹³ *ibid*

¹⁴ Abdolian, Takooshian, *Civil Liberties*, 20.

residents on American soil, the Federal Bureau of Investigation (FBI) can utilize its apparatus to collect and relay domestic information.

In addition to government initiated policies that targeted specific religions and nationalities, the media set out on a path to vilify and stereotype these same groups. In the late 20th and early 21st century American films have reflected the most pressing global political concerns and fears. The end of the Cold War and the dissolution of the USSR were accompanied by a departure of films depicting Russian villains and enemies, replaced by a gradual acceptance of the Arab antagonist. This shift is embodied by a meeting two months after September 11th between representatives of the major Hollywood Studios, the head of the actors union, the long time president of the MPAA Jack Valenti, and President George W Bush's political advisor, Karl Rove. Anticipating the potential backlash, Rove insisted that Hollywood err against dramatizing the war against terrorism and discussed ways "to promote a good image of the integration of American Muslims into American society."¹⁵ The commitment was echoed hollowly as rhetoric in both television and film reflected a deep mistrust of the "terrorist."

At the same time, sympathetic dramas appeared on a number of television shows presenting "positive" representations of Arabs and Muslims. In a publication of the journal *American Quarterly*, Evelyn Alsutany identifies this developed practice as "simplified complex representations." She argues that these representations are a symbol of the "postrace" era, and work to "challenge or complicate earlier stereotypes yet contribute to a multicultural or postrace illusion."¹⁶ The notion of simplified complex representations manifests in a number of ways. The pigeonholing of Muslim Americans into either the patriotic American or the victimized

¹⁵ Valantin, J. (2005). *Hollywood, the Pentagon and Washington: The movies and national security from World War II to the present day* (p. 90). London: Anthem.

¹⁶ Alsutany, E. (2013). Arabs and Muslims in the Media after 9/11: Representational Strategies for a "Postrace" Era. *American Quarterly*, 65(1), 161-169.

Americans is repeatedly evident throughout shows such as *24* and *The West Wing*, furthered by the rarity of seeing a Muslim or Arab-American play a significant role unrelated to terrorism. Similar tactics are employed in news reporting that reports on Islam or the Middle East in contexts solely related to religion or terrorism. Ultimately, Alsutany clearly outlines the way in which society has chosen to condemn, stereotype, or sympathize with the Muslim.

Government policies and media representation of Arabs and Muslims illustrated a growing discomfort in American society. The increased numbers of employment discrimination complaints post 9/11 echoes this sentiment. The reports have decreased since an initial spike in the years immediately following the attacks but continue to arrive in disproportionately higher volumes than other groups and at a higher rate than pre 9/11 years.¹⁷ The American Arab Anti Discrimination Committee reported receiving 10 complaints a week between 2003 and 2007 and indicated that the incidences were received from both public and private sector employment.

Organizations have been proactively seeking to curtail this discriminatory practice. The Equal Employment Opportunity Commission aggressively fights discrimination in the workplace and has helped prosecute a number of anti-Arab and anti-Muslim cases across the country. Furthermore, the Department of Homeland Security has claimed to end the NSEERS program and delist the 25 countries. However, the legacy of this mistrust in Arab and Muslims living in the United States has not been short lived. The stream of narratives heard from individuals from these groups echoes a continued struggle against discrimination and profiling that casts a shadow on government practices and civilian behavior.

It is undoubtedly hard to prove discrimination in the labor market. It is possible, however, to identify patterns that may have resulted from a culture of prejudice and discriminatory policies

¹⁷ Irish, Hussein, ed. "Report on Hate Crimes And Discrimination Against Arab Americans 2003-2007." *American Anti-Discrimination Committee Research Institute*, 2008.

both in the public and private sector. In my research, I aim to quantify this effect for those who may identify as Arab or Muslim living in the New York metropolitan areas using an economic analysis of labor market outcomes. These specific outcomes are an object of focus because income, jobs and wages are strongly correlated with social mobility and inequality, and can reflect a dearth of opportunity. Given the prior research that showed a steep decline in Arab and Muslim wages following 9/11, a continued pattern of inequity in economic outcomes may be a precursor to a prolonged unequal social status. It is important to analyze and address the long-term effects that discrimination may be having in order to rectify and reverse its consequences.

The null hypothesis, or the prevailing hypothesis this study seeks to explore, would predict that under “equal treatment” wages would match a worker’s marginal product.¹⁸ Given current data constraints, it is impossible to estimate what skills workers are bringing into the market. However, using a host of variables including expected experience and level of education and controlling for key factors such as occupation, the model will account for potential confounders for the racial wage gap. Differences in earnings after controlling for these variables will lead us to reject the null hypothesis that assumes racial differences have no impact on discrimination. Exploring this hypothesis will lend better insight into the experiences of Middle Easterners living in the United States. There has been a constant stream of news articles, Hollywood movies, and legislation that reflects American society’s understanding of the region and its people. It is beneficial to see how the proliferation of these ideas and stereotypes has revealed themselves quantitatively in the lives of its targets. It is an undisputed fact that discrimination for Middle Easterners following 9/11, and a lack of understanding on the topic allows for the proliferation of

¹⁸ Gwartney, James. "Discrimination and Income Differentials." *American Economic Association* 60, no. 3 (1970): 396-408.

such behavior and consequences. Choosing to study the long-term effects of in the labor market may provide an impetus to enact policy that guards against future discrimination.

It is important to make the distinction between Arab and Muslim, and define what constitutes someone from the Middle East. Arab cannot be conflated with Muslim, as many who reside in predominantly Arab countries come from richly historical Christian communities. However, American society makes little distinction between the ethnic or religious groups that finds their origins in the Middle East or Southeast Asia. For the purpose of this study, I have chosen to use the countries that the United States Census uses to identify those with Middle East or Arab ancestry, in addition to including those from Afghanistan, Iran, and Pakistan. I am confident that these designations will capture the effects that discrimination has had on both Muslim and Arab Americans in the United States, in addition to those who have been wrongly perceived and punished for their mistaken identity. I will designate this group from here on in as those with Middle East origins, or Middle Easterners. I will not include the overarching term Middle East Americans in this paper as many of those included in this study do not have American citizenship.

In this study, I will look at a number of key variables to determine what effect discrimination may have on labor market outcomes, while seeking to answer a few different questions. Have wages shifted in a noticeable pattern that is not mimicked by non-Hispanic white comparison group? Is there a noticeable shift in wage patterns between 2000 and 2011? Have the hours Arabs and Muslims worked changed significantly in relation to the comparison group? These questions will get at the root of what economic changes discriminatory practices may have inspired in the post 9/11 era.

I am choosing to look for patterns in occupational choices post 9/11 for a few specific reasons. Firstly, occupational outcomes are an endogenous variable that is decided by the individual in question. Exogenous variables, such as the state one lives in or the gender with which one is born, is “not systematically affected by changes in the other variables of the model, especially by changes in the endogenous variables.”¹⁹ Choosing to study the occupational choices of Middle Easterners in the United States will provide a metric with which to determine potential effects of changes since the September 11th attacks. Secondly, investigating these outcomes provides a way to measure labor outcomes by using a comparison group. Statistical analyses are one of the most common ways to quantify inequality, and economic occupations and outcomes provide a vehicle in which to analyze it. By comparing Arabs and Muslims to – for example – non-Hispanic whites I will be able to paint a picture of what type of changes are happening, or not happening, for this group. This paper will not seek to prove labor market discrimination through complex economic analysis and regressions. Instead, I will use an economic framework to prove that there are distinguishable patterns in labor market outcomes for Middle Easterners that have arisen at least in part because of discrimination post 9/11.

¹⁹"Endogenous and Exogenous Variables." Endogenous and Exogenous Variables. Accessed December 11, 2015. http://academic.reed.edu/economics/course_pages/red_spots/endogenous_and_exogenous_v.htm.

Chapter 2- Literature Review:

This literature review will begin by discussing books and articles that have examined discrimination and its institutional foundations. I will then transition into a more specific analysis of the causes and effects of labor market discrimination on minority groups. In doing this, I seek to situate my research into the literature that has previously explored labor market discrimination along the lines of race and gender. I will conclude by exploring the most recent studies that have focused on Arab and Muslim discrimination in the workplace and the effects this may have had on earnings and occupation.

I will take a look at the common terminology and definitions used to answer this question in the language of sociologists, then economists. These two disciplines build upon each other and work to answer different aspects of the same question. Sociologists study society, social institutions and social relationships and seek to explain discrimination utilizing tools that stratify behavior along lines of factors such as socioeconomic status, race and ethnicity. Economists, however, operate under the assumption that actors behave rationally and seek to maximize utility. Thus, in seeking to maximize profits firms and institutions would neither act upon their prejudice nor proliferate discrimination. Since quantitatively this does not always hold true, the use of economics to first identify and then prove that a disparity exists is fundamental in examining discrimination. Utilizing both sociology and economic disciplines will provide a nuanced insight into the cultural and economic factors driving the disparities in wages.

Social Context of Discrimination:

In discussing the sociological underpinnings of discrimination, I aim to answer a few specific questions: how has the literature defined discrimination up until to this point and what do sociologists identify as its major causes? In a study published in 2008 in *The Annual Review*

of *Sociology*, Devah Pager and Hana Shepard define discrimination as “unequal treatment of persons or groups on the basis of their race or ethnicity.” They further break this down into a definition that distinguishes between differential treatment and disparate impact. They explain that:

Differential treatment occurs when individuals are treated unequally because of their race. Disparate impact occurs when individuals are treated equally according to a given set of rules and procedures but when the latter are constructed in ways that favor members of one group over another. (p.182)

This definition reflects the changing interpretation of discrimination that has become more widely acknowledged in the post civil-rights era. Signs that read “whites-only” have been removed yet remain relevant in systems of structural inequality that work to proliferate this underlying idea. Disparate impact encompasses this practice and contributes to the definition a wider range of behavior than what is assumed in differential treatment.

Disparate impact takes form in what Pager and Shepard describe as institutional or structural discrimination. While loosely defined throughout sociological literature, they highlight three of its distinct conceptualizations. Firstly, they identify “a legacy of historical discrimination,” which, as its name suggests, underlies the history of discrimination against minority groups. Secondly, they discuss the “contemporary state policies and practices” that “systematically disadvantage certain groups.” A relevant example is the concentration of minority groups in under-performing schools and the legal structures that proliferate funding disparities between these and schools attended by predominantly white children.²⁰ Lastly, they highlight the “accumulation of disadvantage,” which “draws our attention to how the effects of

²⁰ Pager, Devah, and Hana Shepherd. "The Sociology of Discrimination: Racial Discrimination in Employment, Housing, Credit, and Consumer Markets." *Annual Review of Sociology* 34 (2008): 181-209.

discrimination in one domain or at one point in time may have consequences for a broader range of outcomes.” As illustration, minority students at the previously mentioned under-funded schools may perform worse than their white counterparts in the labor market. Their disadvantage in schooling and thus disadvantage in the workforce is symbolic of this “accumulation” of disadvantage proposed by Pager and Shepard.²¹ In looking at the cause of this discrimination, they say that it “may be motivated by prejudice, stereotypes, or racism, but the definition ... does not assume any unique underlying cause.”²² This motivation builds upon their notion of differential and disparate impact, further connecting “disparate impact” to their notion of structural or institutional discrimination.

Joe Feagin and Douglas Eckberg offer a similar interpretation for the causes of discrimination in their article published in the 1980 edition of the *Annual Review*. They specify a form of race-ethnic discrimination that “consists of the practices and actions of dominant race-ethnic groups that have a differential and negative impact on subordinate race-ethnic groups.”²³ While not explicitly pinpointing the motivation or source of discrimination, this definition moves a step closer in the direction of understanding how, in relation to race, discrimination can become engrained in society and its institutions.

Feagin and Eckberg make a connection between institutionalized racism and institutional discrimination. Their definition of racism is “a belief that race is the primary determinant of human traits and capacities and that racial differences produce an inherent superiority of a

²¹ibid

²²ibid

²³ Feagin, Joe R., and Douglas Lee Eckberg. "Discrimination: Motivation, Action, Effects, and Context." *Annual Review of Sociology* 6 (1980): 1-20.

particular race.”²⁴ In practice, it could be defined as simply as racial prejudice or discrimination. Institutionalized racism, however, has a more nuanced definition and recent academic history.

Institutional racism first surfaced in 1967 in association with the rise of the Black Power Movement and alongside discussions of Civil Rights in America.²⁵ In Stokely Carmichael’s book *Black Power*, the term is introduced “to account for attitudes and practices that led to racist outcomes through unquestioned bureaucratic procedures.” A key distinction between racism and institutional racism was that, “while individual racism could be seen and heard, institutional racism was a more subtle process that could not be reduced to the acts of individuals.”²⁶ Institutional discrimination can be seen as both a byproduct and application of this practice, which is defined by Feagin and Eckberg as having two distinct characteristics.

According to Feagin and Eckberg, institutional discrimination has two key components: organizational embeddedness and its motivation. Embeddedness refers to “the organizational environment, to the size and complexity of the relevant social unit. Size and complexity can vary from actions of a single individual to the routine practices of many individuals in a large organization.”²⁷ In modern society, institutionalized racism is manifested in formal and informal rules and the practices of bureaucratic institutions. Bureaucratic institutions are a reflection of modern day values and are a defining factor of contemporary society²⁸. Consequentially, their indispensable role allows the infusion of prejudices to create discriminatory gaps in equality.

The motivation underlying institutionalized discrimination can be both intentional and unintentional. Intentional motivation can include: prejudice-motivated, conformity-motivated,

²⁴ <http://www.merriam-webster.com/dictionary/racism>

²⁵ Carmichael, Stokely, and Charles V. Hamilton. *Black Power; the Politics of Liberation in America*. New York: Random House, 1967.

²⁶ Murji, K. "Sociological Engagements: Institutional Racism and Beyond." *Sociology*, 2007, 843-55.

²⁷ Feagin, Eckberg, Discrimination and motivation, 1-20.

²⁸ *ibid*

and gain-motivated discrimination. The first form of discrimination can include any prejudicial bias, such as race, ethnicity or religion. The second form can be characterized by conformity to others' expressed prejudices. In bureaucracies, this is institutionally manifested by the presence of certain discriminatory "standard operating procedures." Thirdly, gain motivated discrimination can be seen as a power tool to help certain groups maintain political and economic power. When directed towards a minority group, the motivation can have less to do with prejudices as much as a desire to maintain certain privilege.²⁹ Unintentional discrimination is defined by not having a direct or conscious intention to harm, but is dangerous in its potential to proliferate intentional discrimination.

How is discrimination measured, and what tools can be used to quantify its impact? According to Pager and Shepard, the most common approach to studying discrimination is an investigation of outcomes between certain groups.³⁰ In the context of the labor market, this can be applied by exploring inequalities in employment statistics, wage differentials, hours worked during the week, and a host of other variables related to the economic outcomes of labor. Additionally, investigating the changes in laws and legal definitions can provide a different lens with which to measure discrimination. Claims and complaints filed with organizations that monitor discrimination abuses, such as the Civil Rights Commission or the Equal Employment Opportunity Commission, also serve as a useful resource for evaluating patterns and changes.

Taking a closer and look at the more specific roots of employment discrimination, Professor of Sociology Barbara Reskin explains that, "we need to move beyond demonstrating that employment discrimination exists, and investigate why it persists in work organizations. To do this, we need to expand our conceptualization of discrimination to recognize that it occurs as

²⁹ ibid

³⁰ ibid

a result of non-conscious cognitive processes, as well as from the deliberate negative treatment of people of color and white women.”³¹ While my particular study will not examine these non-conscious cognitive processes, Reskin’s point is important to contextualize and discuss.

In her research, Reskin identifies work place discrimination as having roots in habitual cognitive processes that categorize individuals into ingroups and outgroups. This categorization is followed by behavior characterized by the way which they would treat the group more generally. Race and sex are two immediate identifiers that Reskin argues are ways in which people are automatically stratified. Stereotyping, attribution bias and evaluation bias are a consequence of this grouping. Attribution bias is “the way in which people explain their own behavior and that of others,³²” while evaluation bias is the bias one carries when they judge or assess someone’s worth or value.

Reskin’s research pushes back against the commonly assumed notion that “most discrimination results from the purposive actions by dominant group members who seek to preserve and expand their privileges.”³³ She contends that “dominant group members benefit from such discrimination,” and that “the salience of race and sex in contemporary society and in cognitive processes such as categorization and stereotyping allows most dominant group members to benefit without having to take any action.”³⁴ Her conclusion, however, highlights a deficiency in this line of reasoning and states that, “the recognition that discrimination often stems from universal cognitive processes may make organizations less resistant to charges of discrimination and more receptive to modifying their employment practices to remove the effect of cognitive biases against people of color and women.” In regards to employment

³¹ Reskin, Barbara F. "The Proximate Causes of Employment Discrimination." *Contemporary Sociology*, 2000, 319.

³²<http://studysites.sagepub.com/northouse6e/study/materials/reference/reference8.2.pdf>

³³ Reskin, Proximate Causes, 327.

³⁴ *ibid*

discrimination against Middle Easterners, Reskin's research speaks to the notion of conscious or sub-conscious cognitive processes that may have been triggered by depictions of and attitudes towards Arabs and Muslims after the attacks of September 11th.

Discrimination in the Labor Market:

The next section will focus primarily on discrimination in the labor market, beginning with a theoretical framework and then moving to examine its empirical manifestation. I will begin with a summary of Gary Becker's *Economics of Discrimination*, a definitive and highly discussed examination of how and why discrimination persists in the workplace.

Becker's 1957 work laid the foundation for a quantitative study of discrimination and minority earnings in the labor force. A late professor of Economics and Sociology at the University of Chicago, Becker was one of the first researchers to broach the subject of the economic impact of racial discrimination. At the time of his research the Civil Rights movement was beginning to gain traction; Becker is quoted as saying that "most economists did not think racial discrimination was economics, and sociologist and psychologists generally did not think I was contributing to their fields."³⁵ Becker's work, while highly debated, was groundbreaking in that it laid the foundation for factoring in race into the study of economics and society.

His theoretical underpinnings explained that society could have a "taste for discrimination" originating from three main sources: employers, coworkers, and consumers.³⁶ Most simplistically, this "taste" explained that, although not rational or optimal, firms and consumers might choose to discriminate because of their own personal preferences or feelings.

³⁵ Murphy, Kevin. "How Gary Becker Saw the Scourge of Discrimination." Capital Ideas. December 12, 2014. Accessed December 11, 2015. <http://www.chicagobooth.edu/capideas/magazine/winter-2014/how-gary-becker-saw-the-scourge-of-discrimination>.

³⁶ Becker, *Economics of Discrimination*, 25.

While Becker's original analysis sought to isolate and quantify each individual contribution of these sources of discrimination, subsequent empirical research often attempts to estimate their total effect on earnings. This is largely due to the difficulty in quantifying the effect of discrimination; is it possible to determine whether or not the group being discriminated against is in fact equal to the group that is preferred? If they are not, it is reasonable to assume that the market is simply seeking equilibrium, excluding those that are not competitive. This concern is at the root of critiques of labor market discrimination literature. In response, many researchers look for ways to statistically equalize groups and search for mechanisms that help to explain any subsequent difference in employment or earnings. In the following section I will analyze a number of studies that utilizes this technique and expand upon Becker's original work.

Highlighting a study that focuses on income differentials, I seek to identify how wage inequality is measured and its relative importance in determining labor market discrimination. In James Gwartney's *Discrimination and Income Differentials* he focuses specifically on the income differential for blacks and white. The methodological framework he utilizes is standard practice for most studies focused on discrimination, so I will discuss the most relevant points in detail. He begins by stating a rule that holds true for almost all studies that attempt to analyze differences in racial or ethnic populations. He explains that, "when measuring employment discrimination, the relevant comparison is between individuals of similar productive capacity who differ only in color."³⁷ Many studies attempt to achieve this comparison by incorporating a plethora of control variables. In actuality, it is virtually impossible to avoid omitting a variable that accounts for some difference, no matter how miniscule, between the two groups. However, many studies utilize a number of key variables that diminish this gap, such as education level,

³⁷ Gwartney, *Income Differentials*, 396-408.

age, and occupation. After seeking to equalize both groups, in this case Blacks and Whites, the income differential is broken down into two parts:

(a) a differential resulting from differences in productivity factors not directly related to employment discrimination, and (b) a residual unaccounted for by differences in productivity factors and which may result largely from employment discrimination³⁸.

This can be simplified by terming (a) as the explained differential and (b) as the unexplained differential. Using Gwartney's study as an example, his analysis of the black and white wage gap differential includes control variables for quantity of education, scholastic achievement, region, age, and city-size distributions. After controlling for these factors, it is possible to determine empirically which portion is the explained differential – the portion of the differential that can be attributed to the listed variables – and the unexplained differential, or in other words the residual effect of factors not accounted for. This unaccounted for residual is where researchers turn to find the potential impact of discrimination. Looking more closely at the productivity factors, Gwartney explains that the:

magnitude of the income differences resulting from differences in productivity factors will give some indication of the possible intensity of color discrimination in education and in other areas not related to employment discrimination.³⁹

Essentially, this highlights a difficulty in specifying which aspect of discrimination the wage differential can be attributed to; does greater weight fall upon discrimination in the labor market, or discrimination in school-funding for districts with high populations of minority students?

These questions, however, are nearly impossible to estimate.

³⁸ *ibid*

³⁹ *ibid*, 396

In seeking to estimate the black to white income ratio Gwartney identifies three criteria relevant in choosing his productivity factors. Firstly, he states that the only factors he chose were those that were “generally recognized as determinants of money income, or as closely correlated with income.”⁴⁰ This includes variables that account for factors such as education level or level of scholastic achievement. Second, he chooses *not* to include factors that are directly related to employment discrimination. For instance, a control for state or region was taken into account because of the large concentration of non-whites in the low-income south despite the seemingly weak relation to income. Conversely, occupational choices stratified along racial lines were not included because that could be a direct and residual result of employment discrimination. Therefore, the analysis was not adjusted to account for this difference. Lastly, he states that “factors were either considered simultaneously, or chosen where the apparent relationship with other factors was one of independence.” For rationalization of his own research, he explains that:

even though low earnings are associated with youth, the factor of age is utilized in explaining the income differential only if the relatively low incomes are not the result of such other factors as size of cities or the regional distribution of population, with which both low earnings and age might also be correlated.

Essentially, this criterion explains that variables were chosen at the same time because of their relationship to one other and to income. Otherwise, the variable was chosen if it did not have a dependent relationship with the other variables; for instance, age was included because the distribution of ages in the sample size did not depend upon the size of the city or the regional distribution of its population.

While Gwartney’s study had many different analyses and iterations, his conclusion found that the percentage of white to non-white earnings was estimated between 83.9 and 92.8 of total

⁴⁰ *ibid*, 398

earnings for whites. in the North of the United States, and between 68.4 and 78.1 percent in the South. Although the results are interesting in and of themselves, these findings illustrate how an econometric inquiry into racial wage disparities can yield significant results. Gwartney's framework for identifying variables of interest and methods of analysis provide insight into how research can be properly carried out and legitimized.

Gwartney's study illustrates the disparities in wages between blacks and whites but does not approach the theoretical considerations of discrimination and its sources. In seeking to answer these questions I turn to Altoni and Blank's definitive work *Race and Gender in the Labor Market*.

Published in 1999, Altoni and Blank's work is a comprehensive framework that helps piece together the quantitative and theoretical aspects of employment discrimination. As many researchers characterize discrimination differently, it is important to specify Altonji and Blank's working definition. They explain that labor market discrimination is:

a situation in which persons who provide labor market services and who are equally productive in a physical or material sense are treated unequally in a way that is related to an observable characteristic such as race, ethnicity, or gender. By 'unequal' we mean these persons receive different wages or face different demands for their services at a given wage.⁴¹

While relatively similar to previously stated definitions, an important clarification is made when they identify "an observable characteristic such as race, ethnicity, or gender" as a causal factor for discrimination. This is a crucial step in determining why certain groups are treated differently. Addressing this point specifically, Altoni and Blank highlight a deficiency in their research and previous literature as of 1999. They mention that – in their own study – "race" was

⁴¹ Altonji, Blank, *Race and Gender*, 3143-3259

strictly limited to either “black” or “white,” citing the dearth of empirical work on minority groups. Specifically, they say that there is:

...even less empirical work looking at other racial groups, such as Asian Americans or American Indians. In part, this reflects a lack of data on these groups. However, the widespread availability of Census data and an increase in the race/ethnic categories in a host of datasets makes this excuse increasingly inadequate.

They move on to request that future research fill the gap in research that is becoming increasingly inexcusable.

Altoni and Blank analyze the wage gaps for males and females, blacks and whites, and combinations of the groups. Importantly, they begin by providing summary statistics for the variables of interest that they include such as education level and level of experience. The rationalization behind each variable of interest falls directly in line with Gwartney’s explanation for determining what is and is not necessary to include. Moving forward, the two additional and most important takeaways from Altoni and Blank’s work are their methodology and theoretical framework.

The analyses and conclusions most relevant to this study are the estimations of the simple models for wage determination. They employ a stepwise regression that includes four models. Model 1 has no controls and identifies the immediate wage gaps between groups of interest, while Model 4 uses all the controls in the analysis. Models 1 through 4 add controls as the analysis progresses. This helps to illustrate what specific factors affect the wage gaps relative to other variables. For instance, in Table 4 of *Race and Gender in the Labor Market* Altoni and Blank begin Model 1 focusing on wages with no controls for their target groups: Blacks, Hispanics, and Females. By Model 3 the original wage gap is reduced by the effects of controls

for education, experience, region and occupational characteristics. By removing occupational characteristics from Model 2, it was possible to more clearly see what impact that those factors had on the wage gap. In conclusion, Altoni and Blank found substantial differences in the black and white and male and female differential.

A key aspect of their theoretical framework is the distinction between “current labor market discrimination” and “pre-labor market discrimination.” The latter carries the more conventional understanding of discrimination, such as firing minority employees or actively choosing not to hire someone based off of prejudices. Pre-labor market discrimination, such as housing segregation or educational access, is different in part because its effects on the labor market are more difficult to pinpoint. For example, an African-American from a low socio-economic status who feels like they are unlikely to gain entry into a profession is less likely to obtain the skills necessary to compete for the job.⁴² These feelings may be a result of a disparity in school funding, providing the individual fewer opportunities to learn productive skills that could be applied in the workforce. The relationship between current and pre-labor market discrimination is an important consideration to keep in mind.

Altoni and Blank use Glen Cain’s equation to illustrate how discrimination materializes in the workforce. In Cain’s *The Economic Analysis of Labor Market Discrimination: A Survey* he provides a theoretical economic framework and quantitative illustration of racial and gender discrimination⁴³. In its simplest form, the equation,

$$Y = X\beta + \alpha Z + e$$

⁴² Dávila, Alberto, and Marie T. Mora. "Changes in the Earnings of Arab Men in the US between 2000 and 2002." *Journal of Population Economics J Popul Econ*, 2005, 587-601.

⁴³ Cain, Glen G. "Chapter 13 The Economic Analysis of Labor Market Discrimination: A Survey." *Handbook of Labor Economics*, 1986, 693-785.

letting Y equal wages, shows how wages are determined empirically. X is a vector for productivity that is determined by a number of productivity characteristics, such as an advanced understanding in computer programs or a skill in public speaking. The β is the vector for related coefficients, which is a measure of how strongly the predictor variable affects the outcome variable. In this case the predictor variable is the characteristics of productivity, and the outcome variable is wages. Z is a discrete variable, either 1 or 0, which equals 1 if the individual is a member of the minority group. If the α is less than 0, that minority group is discriminated against in the labor market.⁴⁴

In conclusion, Altoni and Blank find that:

There are substantial differences between male/female differentials in the labor market and black/white or Hispanic/white differentials. Male/female wage differentials remain greater than those of minority men versus white men and the decomposition of those differentials is different.⁴⁵

After controlling for a host of variables with different iterations of analyses, they find that there is still a substantial difference in wages between minorities and whites. The decomposition referenced is a break down of the wage gap, a tool economists use to better identify which proportion of income differentials can be attributed to certain variables. Explained clearly by the *Stata Journal*, the decomposition technique functions:

to divide the wage gap between...men and women into a part that is explained by differences in determinants of wages, such as education or work experience, and a part that cannot be explained by such group differences.⁴⁶

⁴⁴ Ibid, 3145

⁴⁵ Altonji, Blank, Race and Gender, 3143-3259.

⁴⁶ Jann, Ben. "The Blinder–Oaxaca Decomposition for Linear Regression Models." *The Stata Journal* 8, no. 4 (2008): 453-79.

Altoni and Blank explain that this division resulted in a different return for each variable, such as education or work experience, across the groups measured, meaning that – for instance – a black male may have a different return on a higher education level than an equally educated Hispanic male.

The United States and the Middle East:

An important question to answer is: why Muslims and Arabs? While a minority group, Arab and Muslim experiences have largely been excluded from research that looks to analyze discrimination. However, given America's more recent history with domestic terrorism and a growing sense of xenophobia, those with Middle East ancestry have increasingly been the victims of prejudicial action⁴⁷. As stated by previous researches, it is important to acknowledge the expanding definitions of race and ethnicity and explore the contrasting experiences amongst groups.

In the *USA Patriot Act: A Policy of Alienation*, a study published in *The Michigan Journal of Race and Law*, Arab and Muslim exclusion is traced using legislation passed immediately following the terror attacks on September 11th. Trailing the attacks on 9/11 the Patriot Act was passed providing the United States security apparatus powerful and encroaching rights allowing them to monitor potential domestic threats. As a result, those that matched the nativity profile of the terrorists found themselves under increasing surveillance. The study looks at specific cases, including Abdallah Higazy an Egyptian graduate student, and Arab construction workers who were aggressively interrogated despite insurmountable evidence of their innocence⁴⁸.

⁴⁷ Bazian, NSEERS, 83-97

⁴⁸ Wong, Kam. "The USA Patriot Act: A Policy of Alienation." *Michigan Journal of Race & Law*, (2006): 2-44.

A little over a week after the September 11th attacks, three Arab construction workers were stopped by the New York Police Department for a minor traffic violation and were found in possession of construction plans to a public school. The men suffered a prolonged detention despite later being confirmed as employees authorized to carry the documents. Months later on December 17th, 2001, Higazy – a graduate student in engineering – was arrested and questioned by the FBI for having inside information or direct involvement about the attacks on September 11th. His arrest was triggered by a pilot's radio found in his hotel room left by a previous resident. Despite passing a voluntary lie detector test, the FBI continued to coercively question Higazy without the presence of a lawyer. Incidences such as these reflect the growing discomfort with Arabs and Muslims in the United States.

Arab and Muslim Discrimination:

In Davila and Mora's 2005 study they aimed to quantify the short-run change in earnings for Arab men in the years immediately following 9/11. Their study analyzed the wages of the Middle Eastern Arab, Afghan, Iranian, and Pakistani men in comparison to non-Hispanic whites. Specifically, this sample included men between the ages of 25 and 40 who worked at least 20 hours per week and for 32 weeks or more in the survey year⁴⁹. Their hypothesis was predicated on the idea that those who resembled the nativity profiles of the terrorist would potentially see a dip in wages and earnings.

Their conceptual underpinnings had two theories. Firstly, they proposed that given Becker's "taste of discrimination," employers, employees and consumers negatively impacted the wages for Arab men. The theory argues that because of this taste for discrimination brought on by the terror attacks and subsequent visibility of the minority group, the relative wages of

⁴⁹ Davila, Mora, Changes in Earnings, 587-601.

Arabs were likely to fall in proportion to the geographic or occupational concentration of the population.⁵⁰

Their second conceptualization focused on the labor-market discrimination that was “rooted in information.” They explain that:

In this model, employers predict the productivity (and liability) of a worker on the basis of the expected relative performance of the workers’ population. Applying this framework to the events of 9-11, employers might have expected an increase in the frequency of government-sponsored workplace inspections (and employee detentions or deportations) following 9-11 if they hired workers with potential terrorist ties⁵¹.

They go on to say that given the perceived relationship between Arab men and terrorists after the attacks on September 11th, firms could have attempted to divert the risk of the cost by offering jobs to Arab men at lower wages. This would result in downward pressure for Arab wages, at least in the short run.

Davila and Mora’s study is relevant in this instance for a number of reasons. Firstly, their source of data is the 2000 and 2002 Census. Presumably, then, for the year 2000 my results should closely mirror their findings. This provides a benchmark with which to test my methods and analysis for the initial year, ultimately providing a stronger foundation for the subsequent year’s analysis. Secondly, their conclusions show that there was a significant decline for Arab men’s wages. With this finding they emphasize two key points: the decline is most likely a result of short-run decreases, and the declines were most apparent in areas with high concentrations of Arabs. As I move forward I will test both of these assumptions using a longer run analysis and a metropolitan area that has one of the highest relative population of Arabs.

⁵⁰ *ibid*

⁵¹ *ibid*, 588

Kaestner et. al's 2006 study titled *Labor Market Effects of September 11th on Arab and Muslim Residents of the United States* builds upon the research of Davila and Mora. In their study they more closely investigate "whether September 11th affected the employment, earnings, and residential mobility of first and second generation immigrants from countries with predominantly Arab or Muslim populations."⁵² They cite the findings from Davila and Mora's research as evidence for a potential short term decline in wages and list it as motivation for pursuing further analysis. As opposed to the American Community Survey, Kaestner et. Al draw from the 1998 to 2004 Current Population Survey monthly outgoing rotation group files. As mentioned in Chapter 2, the CPS and ACS survey differ on a number of fronts, most notably being the significantly smaller sample size in the CPS but more comprehensive coverage of wages and employment.

The theoretical framework motivating this study is in large part similar to that of Davila and Mora. While not explicitly stated, Becker's employer, employee, and customer "taste of discrimination" appears once again. Kaestner et al explain how these three potential avenues of prejudice may have adversely affected wage outcomes. Firstly, employers may have hired less or fired more Arabs or Muslims than they would have prior to 9/11. Employees could have decreased cooperation, potentially harming the productivity of Arab and Muslim coworkers, or, lastly, customers could have shied away from interactions where they would have to do business with those they perceived to have the same profiles as the terrorists. They conclude with saying that, "in sum, greater prejudice toward Arab and Muslim persons may have resulted in a decrease

⁵² Kaushal, Neeraj, Robert Kaestner, and Cordelia Reimers. "Labor Market Effects of September 11 The on Arab and Muslim Residents of the United States." *Journal of Human Resources* 2006, 275-308.

in the demand for Arab and Muslim labor, which would have lowered their wages and may have reduced their employment (or hours) depending on the elasticity of supply of labor.⁵³”

The study uses multivariate regression analysis to search for “causal” estimates of the effect of the September 11th terror attacks⁵⁴. The regressions are done using a difference-in-differences (DD) framework. This procedure uses a similar comparison group to eliminate potential exogenous confounders that could bias the analysis. They explain that:

The identifying assumption of the DD procedure is that in the absence of the September 11th attacks, persons in the comparison group would have had labor market experiences similar to those of Arabs and Muslims. Therefore, we can use pre- to post-September 11th changes in labor market outcomes of the comparison group to eliminate the effect of unmeasured factors from the pre- to post-September 11th changes in labor market outcomes of Arabs and Muslims.

The comparison groups used for the DD and certain underlying assumptions of the regressions differ from Davila and Mora. Firstly, as their analysis is focused exclusively on first and second generation immigrants, their first comparison group includes first and second generation immigrants, excluding those from the target group (all countries in the Middle East and North Africa with the additions of Bangladesh, Pakistan, and Indonesia) and India, Mexico Central America, the Caribbean and what the CPS defines as “other Africa.” The theoretical framework behind the countries – with the exception of India – was rooted in the dissimilarities between immigrants from these countries and the profiles of those in the target group. India was excluded due to their 12 percent Muslim population and the increased report in hate crimes for Indians and

⁵³ Ibid, 277

⁵⁴ ibid, 301

Sikhs post 9/11. The second comparison group consisted of US born citizens excluding those in the target group and first and second generation Asian Indians.

Departing from Davila and Mora, Kaestner et al put greater emphasis on intrastate migration and changes in employment and hours worked per week. They indicate that “the wage and employment changes we obtain would be a combination of migration and local labor market effects.” Consistent with other studies, they find that 9/11 was associated with a decrease in wages for Arab and Muslim men, and that there was potential evidence for those changes to be short-lived. Their findings also seem to indicate that the attacks prompted a decrease in intrastate migration, leading to the conclusion that the changes in wages and earnings coupled with the increase in prejudice reduced the gains from mobility.

Chapter 3 - Research Methods:

To help identify labor market outcomes I will statistically analyze data from the American Community Survey (ACS) and the decennial census. According to the census website, “the ACS is an ongoing survey that provides vital information on a yearly basis about our nation and its people.”⁵⁵ Both are compulsory and mandated by law to be filled out to the fullest of the respondents’ ability, although this is very loosely enforced. The census dates back to the 1800’s and has been fundamental in helping to determine what areas of the country are most in need of resources, in addition to providing a wealth of information on societal and economic change in the United States.

There are important differences between the ACS and census survey in its purpose, methodology and quantitative returns. The purpose of the decennial census is to provide population counts for Congressional apportionment. The ACS functions more specifically as a measure of socio and economic characteristics.⁵⁶ It was first implemented after the 2000 census to account for the gap in information that developed between the decennial censuses, and uses a smaller sample size to yield its estimates.

Census 2000 provides a number of samples to choose from depending on the purposes of the researcher. I will be using the 5% sample, which provides a 1-in-20 national random sample of the United States population. This will deliver the most accurate estimates possible for the year, as this relative percentage will yield more in-depth results than the 1% sample. As can be guessed, the 1% uses a 1-in-100 national random sample. While the data is lighter and has a shorter wait time for statistical analyses it would not provide as accurate a baseline for comparison to the data I will be using for later years.

⁵⁵ <https://www.census.gov/programs-surveys/acs/about.html>

⁵⁶ *ibid*

The ACS survey offers single year estimates for the population at a 1-in-100 national random sample rate. As mentioned before, it helps fill in gaps of information that exist between the decennial surveys and, when compared to the 5% census, can offer different quantitative results. 2008, however, was the first year that the Census Bureau offered multi-year files for the ACS samples. This multi-year data combines either 3 or 5-year samples that document 3% and 5% of the population respectively. Thus, I will be using the 5-year 2007 to 2011 sample for my analyses in order to provide the closest estimates possible to the original baseline 2000 decennial census. There are key differences, however, that should be noted between single year and multi-year files.

The multi-year files contain all of the previously released single-year files in the designated ranges. One key difference is that the inflation rate is set to the dollar for the last data year. This means that in the 2011 5-year sample, the wage of U.S residents in 2007 will be skewed by the inflation rate of 2011. Another difference is that variables not available in all of years are excluded for the whole sample. This posed a particular problem for me in choosing data. While I would like to use the most recently available 2012 5-year sample, the variable that accounts for metropolitan area changed delineations after the being conducted in 2011. A last relevant change is the coding scheme for variables. For the most part, the 2000 census data carries a consistent coding scheme throughout all of the data. It was important for me to bear in mind when looking at the multi-year data that variables and their coding changed throughout the years.

I obtained this data from the Integrated Public Use Microdata Series (IPUMS) that provides census microdata for social and economic research. This data is made available through

the University of Minnesota Population Center website⁵⁷. The sources of this data are the surveys conducted by the United States Census Bureau, but as IPUMS states on their website, in their collection they “harmonize variables as closely as possible with previous data releases.”⁵⁸ They go on to report that “this often results in new variable names, codes, and labels. Variables reporting dollar values have been pre-standardized to constant dollars; original IPUMS values are not adjusted, and users must apply the Census Bureau-provided adjustment factor manually.”⁵⁹ Importantly, IPUMS adds additional geographic variables that I was able to take advantage of, such as the metropolitan area classification. All of these factors were important to keep in mind when I was both coding the data and running my analyses.

In narrowing down my definition of what constitutes someone that was Arab or Muslim I looked to U.S government legislation that referenced Arabs, Muslims or Southeast Asians. Specifically, I checked the NSEER registration list to see what countries were designated as a threat to security immediately after September 11th. This provided a starting point for determining who would potentially be facing discrimination in the United States. I then moved beyond that to countries with large Muslim populations who could, to an American, be mistaken for an Arab. Lastly, I was constricted by the constraints of the data and limited to what the Census and ACS listed as an option on the census under the “ancestry” variable. The variables I used to determine this ancestry were ANCESTR1 and ANCESTR2. The former allows respondents to pick from a host of countries that they self-report as their first ancestry or ethnic origin. The latter indicates a respondent’s second choice.

The countries that I have included in my analyses’ test group are: Algeria, Egypt, Morocco, Iran, Iraq, Jordan, Lebanon, Syria, Turkey, Yemen, Palestine, Afghanistan, and

⁵⁷ *ibid*

⁵⁸ *ibid*

⁵⁹ *ibid*

Pakistan. Additionally, the ACS includes “Middle Eastern”, “Arab”, and “Other Arab” categories that have also been added. I have not specifically included countries from the Gulf States, Libya, or Tunisia, as it is not listed as a category on the census – it is likely, however, that these respondents indicated their Arab ancestry in the broader categories listed above. To state explicitly, if a respondent indicated an ancestry from any of the above countries they were coded as a member of the target group. If they did not list this ancestry there were coded into the control group – non-Hispanic whites. The target group was not limited by race; those who indicated ancestry from Middle Eastern countries were not restricted from the sample if they did not also identify as white.

After narrowing down the countries for my test group, I chose further to parse the data by citizenship and age. Researchers vary on their usage of age parameters for the labor force. I chose to limit my analyses to those aged 16 to 65, a commonly used metric. Those who did not fall into this group were dropped from the sample.

For citizenship designations I used two categories: immigrant and native. The ACS provides a variable that reports the citizenship status of all respondents. The four options available are: N/A, born abroad of American parents, naturalized citizen, or not a citizen. For the vast majority of respondents, N/A indicated that they were either born on American soil or on American territory, such as the U.S Virgin Islands or Puerto Rico. Thus, I included a small number of naturalized citizens in the group that I designated as native. This category was coded as N/A and born abroad of American parents. Immigrant was coded as naturalized citizen or not a citizen. Neither variable indicates the time that a respondent spent in the United States; it simply states whether or not they have American citizenship.

In addition to the American Community Survey there is the Current Population Survey (CPS). Both are administered by the census but cover different sample sizes and are used for different analytical purposes. The ACS is best discussed in comparison to the CPS. In regards to the latter, the census explains that:

because of its detailed questionnaire and its interviewing staff trained to explain labor force concepts and answer questions, the CPS is a high quality source of information used to produce the official monthly estimates of employment, unemployment, and the unemployment rate for the nation and states. It is also a source of information on other labor force topics such as actual hours of work and duration of unemployment.⁶⁰

This survey is a useful source for determining patterns and trends of the labor force across the country. It is not used, however, for more specific data on a local level given its relatively small sample size of 100,000 households. Additionally, as opposed to the ACS, the CPS is not compulsory and can be filled out at will. The census explains that the ACS is:

the largest household survey in the United States. The ACS provides single-year labor force estimates for geographic areas with a population of 65,000 or more (this includes the nation, all states and the District of Columbia, all congressional districts, approximately 800 counties, and 500 metropolitan and micropolitan statistical areas, among others) and 3-year estimates for geographic areas with a population of 20,000 or more (this includes the nation, all states and the District of Columbia, all congressional districts, approximately 1,800 counties, and 900 metropolitan and micropolitan statistical areas, among others).⁶¹

⁶⁰ <https://www.census.gov/hhes/www/laborfor/laborguidance092209.html>

⁶¹ *ibid*

In comparison to the CPS the ACS has a far larger sample size of roughly 300 million and covers a much wider array of the population. For this reason, there are number of specific analytical purposes that the ACS can be used for. It includes but is not limited to examples such as these:

- to characterize small geographic areas for which CPS (or Local Area Unemployment Statistics Program) estimates are not available, and for comparisons among such areas and between such areas and larger ones;
- to provide information on socioeconomic characteristics of the labor force that are not collected in the CPS, or for geographic areas below the level for which the CPS can provide this information;
- to produce tabulations of finely detailed categories, or extensive cross-tabulations of multiple characteristics of the labor force for any geographic area, including the nation, for which the CPS sample size is insufficient to produce reliable estimates;
- to study rare characteristics of common population groups, or characteristics of uncommon population groups⁶²

Since the population size of those with ancestry from the Middle East is relatively small, the ACS is the best survey to use for my purposes.

For this study I used the data analysis software STATA to clean and analyze my data. I began by collecting the data from the 2000 census and parsing out three initial variables. I restricted the analysis to the labor force ages of 16-65 and dropped from the sample all those who were outside of this. The first variable, mideast, coded any respondent that listed their ancestry from test group 1 (Egypt, Morocco, Iran, Iraq, Jordan, Lebanon, Syria, Turkey, Yemen, Palestine, Afghanistan, and Pakistan, Middle Eastern, Arab, or other Arab) as a 1, and anyone

⁶² ibid

who did not as a 0. Because the 2000 census did not include Algeria as a respondent option it is not included in the first analysis. I have assumed, however, that this group has been captured in the Middle Eastern, Arab, or other category. The other two variables, immigrant and native, were explained previously.

The statistical returns for the data need to be weighted before any tabulation could be done. I am using the perwt variable to weight my analysis. This means that, while the survey does not include all 300 or so million people in the United States, an analysis can still return accurate and representative samples of the population. In STATA I have used frequency, or fweights, which indicates the number of times the observation was observed. All of my statistics will be interpreted with this weighted estimate.

The initial summary of these results left me with a population of 49,778,052 respondents in the 2000 Census. Out of this group 728,932 were of Middle East ancestry, which accounted for approximately 1.46 percent of the population. This closely mirrored the percentage of Middle Easterners in the entire population, not only in the workforce, which was 1.43 percent. In the Middle East population 52,583 or roughly 7% out of all respondents listed the countries in target group 1 as their second ancestry while the rest indicated it as their first. The three countries that accounted for the highest volume of respondents in the first ancestry category were Iran, Pakistan and Lebanon at 21, 17, and 14 percent respectively. In the second ancestry categories the countries shifted to Lebanon, Syria, and Turkey at 34, 15, and 10 percent respectively. In looking at the immigrant and native populations in the mideast variable immigrants outnumbered natives nearly 4-to-1. This statistic was reversed for the non-Middle Eastern population.

After coding the data in this way and running the initial summary statistics I began coding the variables for education, race, occupation and income. For education, respondents

were able to pick from 11 options ranging from “no schooling completed” to “doctoral degree.” Many times the census provides two options for categorical variables. In this instance I made a choice between using the “educ” variable or the more detailed “educd” variable. In some instances the former will suffice, as it lists respondents choices on a simpler scale ranging from kindergarten to grade 12. As my analysis will be closely examining the role education may play in the occupational outcomes for Middle Easterners, it was important that I used the more detailed version.

Sample Size and Key Variables:

Here, I will discuss the variables that I chose to include in the analysis in more specific detail. In this discussion I will explain why specific variables were chosen and how they were coded and factored into the regressions. Additionally, I will clearly state the restrictions on the sample size and the datasets used.

Sample:

The samples I am using are the Census 5% and the ACS 5-year samples from 2008-2011. I restricted the data to the male labor force population. This meant that all those who did not fall between ages 16 and 65 were excluded from the sample. The sample was then further restricted to the New-York metropolitan area using the *metarea* variable for the 2000 Census and ACS, which changes delineations over time. This aspect will be explained in further detail when discussing the metro-area variable.

Additionally, respondents were dropped according to occupational status and number of weeks worked per year. The sample was restricted only to those who reported an occupation and indicated that they had worked a minimum of one week throughout the year.

Comparison Group:

The comparison group I am using for my analysis is non-hispanic whites. This meant that I kept all respondents who listed their race as white and their ethnicity as not Hispanic for comparison.

Target Group:

As stated earlier, the ANCESTR1 and ANCESTR2 variables were used to isolate those who I identified as Arab or Muslim. This *mid-east* variable was a 0 if the person was white and 1 if they were Arab or Muslim of any race.

Race/Ethnicity:

For both the Census and ACS data the *race* variable has seven options: white, black/negro, Japanese, other Asian or Pacific Islander, Other race-nec, two or more major races, or three or more major races. Given these parameters I created five dummy variables: black, Asian, two or more major races, and other. Included in the *Asian* category is other Asian or Pacific Islander and Japanese; the *other* variable includes Other race-nec and three or more major races.

The only control for ethnicity I am using in my sample is the variable for whether or not someone is Hispanic. The variable in the Census and ACS is titled *hispan* and provides five options for respondents: Not Hispanic, Mexican, Puerto Rican, Cuban, or Other. The variable used in my analysis is a dummy that codes all those non-hispanic as a 0 and those who are as a 1.

Metropolitan Area:

The metropolitan area used for this analysis is New York and the surrounding neighborhoods. New York is the city of focus for two reasons: it is the city where the attacks on September 11th occurred, and it has the second largest population of Arabs behind Dearborn,

Michigan. Given these circumstances, there is a likelihood that long term effects of discrimination on the labor market – if there were any – would be noticeable at the epicenter of the American tragedy. I have chosen the metropolitan area designation as a unit of analysis because it captures not only the city, but the surrounding areas that may harbor commuters and those whose economic stability depends on work in the city.

This delineation for the 2000 Census was New York-Northern New Jersey-Long Island. The CMSA, or Consolidated Metropolitan Statistical Area includes neighborhoods New York, New Jersey, Connecticut and Pennsylvania. The CMSA designation is:

U.S. government classification term for an area consisting of two or more overlapping or interlocking urban communities (known as primary metropolitan statistical areas) with a total population of at least one million.⁶³

Inside these CMSA are smaller Primary Metropolitan Statistical Areas (PMSA). This specification is important to keep in mind, as the Office of Budget Management (OMB) – the government organization that oversees population tracking – recently changed the delineations with relevance to this study.

The OMB updated the delineations for MSA and CMSA in 2003. This update includes modifications for the New York metropolitan area – it has maintained the New York-Northern New Jersey-Long Island name but now only includes statistical areas in New York, New Jersey and Pennsylvania.

Independent Variables:

⁶³ http://www.allbusiness.com/barrons_dictionary/dictionary-consolidated-metropolitan-statistical-area-cmsa-4964546-1.html

Level of English:

The English-speaking variable – *speaking* – allows respondents to choose from 5 potential options: 1) Does not speak English, 2) Yes, speaks only English, 3) Yes, speaks very well, 4) Yes, speaks well, 5) Yes, but not well. From this, I created a new variable that categorizes a respondents speaking ability into two categories: 1) not fluent or 2) fluent. To be coded into category an individual had to respond with either a 2, 3, or 4 in the *speaking* variable. All others were coded into the not fluent group. This variable was an important indicator to include, as many of the *midwest* respondents were immigrants and thus did not have native levels of English speaking ability. This potentially could affect their wages and the occupations pursued.

Years in the United States:

Years in the United States is included as a measure of assimilation which could have a significant effect on an individuals' ability to find work equivalent to their ability. The Census and ACS code the variable in 5 year increments from 0 to 21. Higher than 21 years is coded as 21+ and all native-born citizens are coded as not applicable.

Education:

As stated earlier, the Census and ACS provides a number of options to choose from for education level. I have taken these options and coded them into 5 separate variables: Less than high school, high school, some college, college, and Master's degree or higher. Including precise controls for education is consequential for this analysis. As education levels are a crucial determinant of wages and incomes, differences in such levels may not necessarily reflect discrimination.

Potential Experience:

In addition to controls for education, a measure for potential experience is useful in gauging what skills an individual may be bringing to a job. An accepted consensus for coding the “potential experience” variable is age – education – 6. The rationale behind the schematic is that individuals work for their entire adult lives, and thus the formula helps to quantitatively determine this value.

As stated in *Race and Gender in the Labor Market*, “this variable is commonly used because many datasets lack information on actual experience.” The authors go on to say, however that “it is a poor proxy for experience among women, who are more likely to leave the labor market during their child-bearing years.⁶⁴” Highlighting this problem, Randall Filer’s study *The Usefulness of Predicted Values for Prior Work Experience in Analyzing Labor Market Outcomes for Women* estimates that the amount that:

potential experience overstates actual experience varies systematically with other variables, such as race and education, possibly leading to biased estimates of the coefficients on these other variables in female wage equations. This is a potentially serious concern for the large number of studies that use the Census or the Current Population Survey (which lack measures of actual experience) to examine gender differences in the occupational structure of wages⁶⁵.

As potential experience is such a consequential control variable and the Census has yet to include proper proxies for actual experience, I have chosen to exclude women from my sample in order to return unbiased estimates.

Dependent Variables:

⁶⁴ Altonji, Blank, *Race and Gender*, 3143-3259.

⁶⁵ *ibid*

Income/Wages:

The Census and ACS list their definition of income (*incwage*) as such:

INCWAGE reports each respondent's total pre-tax wage and salary income - that is, money received as an employee - for the previous year. The censuses collected information on income received from these sources during the previous calendar year; for the ACS and the PRCS, the reference period was the past 12 months. Sources of income in INCWAGE include wages, salaries, commissions, cash bonuses, tips, and other money income received from an employer. Payments-in-kind or reimbursements for business expenses are not included⁶⁶.

From this variable I took the self-reported responses and used it to create a variable titled *logwage*, which is the log of all reported incomes. Logarithmic transformations are useful in that they help standardize the changes in percentages when using variables for linear regressions. They are generally used in regressions models where “a non-linear relationship exists between the independent and dependent variables.” Furthermore, “using the logarithm of one or more variables instead of the un-logged form makes the effective relationship non-linear, while still preserving the linear model.⁶⁷” Essentially, this allows the dependent variable – wages – to be transformed into a variable that can function and yield translatable results in the linear regression model.

Usual Hours Worked Per Week/Weeks Worked per Year:

The “Usual Hours Worked per Week” (*uhours*) and “Weeks Worked per Year” (*weeks*) variables are self-explanatory in that they document how many hours per week and weeks worked per year individuals say they worked in the past 12 months. Following the theoretical

⁶⁶ <https://usa.ipums.org/usa/>

⁶⁷ *ibid*

framework explained in Chapter 2, utilizing measures for *uhours* and *weeks* helps to determine whether or not there was any noticeable shift in the labor market for the control or target group post 9/11.

The Census allows respondents to include any number between 1 and 99 in the *uhours* variable. From this, I coded the variable into four roughly equivalent groups. For the *weeks* variable, the majority of respondents were grouped into the last of four categories (50-52 weeks). Given this weight, I created a dummy variable that coded all those who worked less than 50-52 weeks as a 0 and all those who did, as a 1.

Ordinary Least-Squares Regressions:

To illustrate the relationship between the dependent and independent variables, I utilized Ordinary Least-Squares (OLS) regressions. OLS regressions are used to test the relationship between a continuous response variable (Y-dependent) and a continuous explanatory variable (X-independent). In other words, the regression is a:

generalized linear modelling technique that may be used to model a single response variable which has been recorded on at least an interval scale. The technique may be applied to single or multiple explanatory variables and also categorical explanatory variables that have been appropriately coded⁶⁸.

I used this technique to analyze the relationship between the dependent and independent variables stated above.

⁶⁸ Hutchinson, G.D. "Ordinary-Least-Squares Regression." *The SAGE Dictionary of Quantitative Management Research*, 2011, 224-28.

Chapter 4-Results:

PART I: Summary Statistics

Table 1: Summary Statistics for Middle Easterners and Non-Hispanic Whites in 2000 and 2011

<u>2000</u>			<u>2011</u>	
% MESA:	%NHW		% MESA:	%NHW
9.74	3.29	<u>Education:</u>	8.38	2.79
26.67	30.10	Less Than High School	24.64	26.50
15.78	19.17	High School	16.99	18.71
27.80	26.81	Some College	29.46	31.06
20.01	19.42	College	20.55	20.94
		Master's Degree or Higher		
		<u>Race:</u>		
0.81	0	Black	1.68	0
56.83	100	White	68.63	100
21.31	0	Other Asian or Pacific Islander (non Japanese)	25.30	0
19.87	0	Two or More Major Races	3.80	0
1.18	0	Other	0.52	0
		<u>Citizenship:</u>		
17.26	86.17	Native	20.14	85.41
43.90	7.29	Naturalized Citizen	51.70	8.41
38.85	6.54	Not A Citizen	28.15	6.18
		<u>Years in the United States:</u>		
16.71	85.56	Not Applicable	18.64	84.64
31.22	4.91	0 to 10 years	22.25	3.99
31.28	3.14	11 to 20 years	27.19	4.84
20.78	6.37	21+ years	31.92	6.53
		<u>Income:</u>		
30,800	48,200	Median Income	41,790	62,909
75,955	2,137,033	Total Weighted Observations	93,544	1,963,964

This table is the summary statistics for working age males with MESA ancestry in the New York metropolitan area in the years 2000 and 2011. As for all my analyses and tables, the data is restricted to those between the ages of 16 and 65. The column on the left indicates the key variables that are used in my analyses, while the columns to the right detail the relative percentages. In the “Education” category the most noticeable differences between the two groups are the “Master’s Degree or Higher” and the “Less than high school” indicators. Non-Hispanic Whites (NHW) are, on average, less likely to have stopped receiving schooling before finishing high school. This gap in additional schooling remains until the tertiary-education level, which yields a higher relative percentage for Middle East and South East Asians (MESAs). This difference could be a result of the high portion of MESA immigrants; those that are able to migrate and establish themselves in the United States may have relatively higher levels of advanced schooling given the resources necessary to substantiate such a move. This difference subsides in 2011.

The “Race” category provides interesting results, and is best looked at in conjunction with the “Ancestry” table below.

Table 2: MESA Ethnic Background in 2000

<u>Country of Ancestry:</u>	Ancestry 1 %	Ancestry 2 %	Total Frequency	Total Percentage
Pakistani	26.34	4.38	19,887	25
Egyptian	18.57	8.89	14,327	18
Turkish	11.96	13.91	9,664	12
Arab	10.02	6.02	7,796	10
Lebanese	7.34	28.45	6,978	9
Iranian	8.33	4.36	6,443	8
Syrian	5.77	19.74	5,350	7
Moroccan	3.07	3.85	2,498	3
Palestinian	1.94	3.68	1,643	2
Afghan	1.91	0.89	1,475	2
Jordanian	1.85	0	1,377	2
Yemeni	0.98	2	842	1

Middle Eastern	1.03	0.62	799	1
Iraqi	0.7	1.89	619	1
Assyrian/Chaldean/Syriac	0.19	1.34	211	<1

Table 2 shows that Pakistanis are the most prevalent ethnic group for MESAs in the New York metropolitan area with approximately 25% of the entire sample size. This is followed next by Egyptian, Turkish and the general “Arab” group with 18%, 12% and 10% respectively. In reference to the “Race” category in Table 1, “White” has a clear majority with 56.83% of the entire sample size for MESAs. Surprisingly, this is followed next by a nearly equal split between “Other Asian or Pacific Islander” and “Two or More Major Races.” In looking at the relationship between “Ancestry” and “Race,” I ran a tabulation that examined which ethnicities were identifying with which race. Less than one percent of Blacks were fully accounted for by Egyptian, Moroccan, Lebanese, and “Arab” respondents. The large percentage of “Other Asian or Pacific Islanders” respondents was primarily the result of Pakistanis, who accounted for more than 95% of all respondents in the category. The respondents for the “Two or More Major Races” indicator was split relatively evenly amongst all potential MESA countries.

Table 3 outlines the top 13 occupations for the male working force in the New York Metropolitan area according to the 2000 Census. While the table speaks for itself and is best used for analysis in comparison to trends from later years there are a few highlights to take into account. Firstly, there are many shared similarities between the groups. First-line supervisors, drivers, and retail workers occupy many of the top spots. Secondly, the first few occupations account for a relatively higher percentage for the target group than the control group suggesting that there may be less diversity in occupational paths for the former group.

Table 3: Top Occupations in 2000 for MESAs and NHWs

MESAs		Non-Hispanic Whites	
<i>Occupation</i>	<i>Percent</i>	<i>Percent</i>	<i>Occupation</i>
Retail Salespersons	5.44	2.55	Drivers/Sales Workers and Truck Drivers
Taxi Drivers and Chauffeurs	5.07	2.44	FLS* of Gaming Workers
FLS of Retail Sales Workers	4.86	2.4	Retail Salespersons
Cashiers	3.39	2.21	Grinding, Lapping, Polishing Tool Setters
Physicians and Surgeons	2.99	2.09	FLS of Retail Sales Workers
Drivers/Sales Workers and Truck Drivers	2.78	1.99	Securities, Commodities and Financial Services Sales Agents
Security Guards and Gaming Surveillance Officers	1.91	1.94	Lawyers
Cooks	1.89	1.94	Chief Executives
Grinding, Lapping, Polishing Tool Setters	1.8	1.83	Sales Representatives, Wholes and Manufacturing
Sales Representatives, Wholes and Manufacturing	1.75	1.81	Police and Sheriff's Patrol Officers
FLS of Gaming Workers	1.71	1.73	Elementary and Middle School Teachers
Janitors and Building Cleaners	1.59	1.66	Financial Managers
Chief Executives	1.54	1.54	Marketing and Sales Managers
Waiters and Waitresses	1.51	1.4	Janitors and Building Cleaners

*FLS: First-Line Supervisors

Table 4 is an extension of Table 3, documenting the occupations for Middle Easterners 10 years later. The occupations in focus account for roughly 40% of all occupations for the target group.

Table 4: Top Occupations for MESAs

MESAs	
<i>Occupation</i>	<i>Percent</i>
Taxi Drivers and Chauffeurs	5.56
FLS of Retail Sales Workers	5.19
Retail Salespersons	4.96
Cashiers	4.05
Physicians and Surgeons	3.51
FLS of Gaming Workers	2.84
Grinding, Lapping, Polishing Tool Setters	2.77
Drivers/Sales Workers and Truck Drivers	2.17
Chief executives and legislators	1.98
First-Line Supervisors of Non-Retail Sales	1.58
Sales Representatives, Wholesale and Manufacturing	1.51
Waiters and Waitresses	1.41
Cooks	1.36
Financial Managers	1.33

Part II: Regression Results

The regressions sought to answer whether or not there was a statistically significant change in labor market outcomes for Middle Easterners in comparison to non-hispanic whites. The three target outcomes used to answer this question were the income, usual hours worked per week and weeks worked per year variable. The tables below illustrate the impact that the relevant controls have on the respective outcomes, in addition to the change in effect over time.

It is important to address the sample size in this model. A subset of observations recorded in the “incwage” variable (income) were coded as 0. These were not, however, respondents that indicated having no occupation. It is likely that those that indicated that they had an occupation but recorded their income as 0 did not work during the year, but still identified an association to their occupation. This is confirmed using the WKSWORK2 and empstat variable, which documents hours worked during the last year and employment status. The majority of respondents that had an income of 0 had worked significantly less than 50-52 weeks per year and

had indicated an employment status of “not in the labor force.” Likely these individuals had worked odd jobs in an occupation that they indicated on the census form, but did not work often enough to qualify as being employed or to make an income. There is a chance that these individuals were pushed out of the workforce due to discrimination, so to account for this effect I took the log of all incomes plus one.

Table 5: OLS Estimates for Wage Differences Between MESAs and NHWs in 2000 and 2011

	Model (1)	Model (2)	Model (3)	Model (4)	Model (5)	Model (6)	Model (7)
	<u>2000</u>						
mid-east	-0.596***	-0.495***	-0.571***	-0.506***	-0.507***	-0.433***	-0.386***
	(0.054)	(0.074)	(0.053)	(0.073)	(0.073)	(0.071)	(0.073)
R2	0.00	0.00	0.01	0.01	0.01	0.12	0.12
N	104688	104688	104688	104688	104688	104688	104688
	<u>2011</u>						
mid-east	-0.603***	-0.470***	-0.585***	-0.471***	-0.491***	-0.315***	-0.291***
	(0.052)	(0.061)	(0.052)	(0.060)	(0.060)	(0.057)	(0.060)
R2	0.00	0.00	0.01	0.01	0.02	0.12	0.12
N	98837	98837	98837	98837	98837	98837	98837
Race	No	Yes	No	Yes	Yes	Yes	Yes
Education	No	No	Yes	Yes	Yes	Yes	Yes
Experience	No	No	No	No	Yes	Yes	Yes
Occupation	No	No	No	No	No	Yes	Yes
Years in US	No	No	No	No	No	No	Yes
English Proficiency	No	No	No	No	No	Yes	Yes

The results in Table 5 show that a model with no controls in both 2000 and 2011 yield significantly lower wages for Arabs and Muslims. This difference – while ultimately remaining negative – fluctuates as controls are added. There is a decrease in the magnitude in the final model, suggesting that in the decade between the two focus years the wage gap between the two groups has decreased by nearly 10%.

Table 6 looks specifically at the hours worked per week using controls identical to Table 5. The data does not substantiate any significant pattern or changes in either 2000 or 2011. Table 7, however, analyzes weeks worked per year and – similar to Table 5 – suggests a slight decline in the magnitude of the disparity between Arabs and Muslims and non-hispanic whites. Data for the year 2000 indicates that the former group worked nearly 6% less than the latter, a number that decreases to 1.5% in 2011.

Table 6: OLS Estimates for Differences in Hours Worked per Week Between MESAs and NHWs

	Model (1)	Model (2)	Model (3)	Model (4)	Model (5)	Model (6)	Model (7)
				<u>2000</u>			
midwest	-0.001	-0.007	0.001	-0.006	-0.005	-0.004	-0.014
	(0.006)	(0.008)	(0.006)	(0.008)	(0.008)	(0.008)	(0.008)
R2	0.00	0.00	0.00	0.00	0.02	0.09	0.09
N	104688	104688	104688	104688	104688	104688	104688
				<u>2011</u>			
midwest	0.002	0.004	0.003	0.004	0.003	0.016*	0.003
	(0.006)	(0.007)	(0.006)	(0.007)	(0.007)	(0.007)	(0.007)
R2	0.00	0.00	0.00	0.00	0.03	0.12	0.12
N	98837	98837	98837	98837	98837	98837	98837
Race	No	Yes	No	Yes	Yes	Yes	Yes
Education	No	No	Yes	Yes	Yes	Yes	Yes
Experience	No	No	No	No	Yes	Yes	Yes
Occupation	No	No	No	No	No	Yes	Yes
Years in US	No	No	No	No	No	No	Yes
English Proficiency	No	No	No	No	No	Yes	Yes

Table 7: OLS Estimates for Differences in Weeks Worked per Year for MESAs and NHWs

	Model (1)	Model (2)	Model (3)	Model (4)	Model (5)	Model (6)	Model (7)
				<u>2000</u>			
mideast	-0.094***	-0.077***	-0.090***	-0.076***	-0.072***	-0.074***	-0.055***
	(0.007)	(0.010)	(0.007)	(0.010)	(0.009)	(0.009)	(0.009)
R2	0.00	0.00	0.01	0.01	0.02	0.07	0.07
N	104688	104688	104688	104688	104688	104688	104688
				<u>2011</u>			
mideast	-0.017**	-0.018**	-0.014*	-0.017*	-0.014*	-0.014*	-0.015*
	(0.006)	(0.007)	(0.006)	(0.007)	(0.007)	(0.007)	(0.007)
R2	0.00	0.00	0.00	0.00	0.02	0.06	0.06
N	98837	98837	98837	98837	98837	98837	98837
Race	No	Yes	No	Yes	Yes	Yes	Yes
Education	No	No	Yes	Yes	Yes	Yes	Yes
Experience	No	No	No	No	Yes	Yes	Yes
Occupation	No	No	No	No	No	Yes	Yes
Years in US	No	No	No	No	No	No	Yes
English Proficiency	No	No	No	No	No	Yes	Yes

Chapter 5-Discussion:

I examined whether or not outcomes have changed on a number of key variables, in addition to looking at patterns for occupational choices among Arabs and Muslims. The results showed a high concentration of Middle Easterners in roughly 13 occupations. In 2000, these occupations accounted for nearly 40% of all occupations in the New York City metro area compared to the little over one-quarter for non-Hispanic whites. While there are a number of competing hypotheses that could explain this disparity, I think it likely comes down to population size; there are more non-Hispanic whites than Middle Easterners, thus increasing the range of occupations that the former group might occupy. This does not, however, account for the occupational choices that Middle Easterners choose.

In looking at a comparison in trends between 2000 and 2011, of note are three specific changes. While taxi drivers and chauffeurs move slightly to take the top spot, there is also an increase in physicians and surgeons, chief executives and legislators, and financial managers. These more lucrative career choices may suggest an increase in socioeconomic status, or perhaps a decrease in structural or societal barriers preventing entry into these career paths.

The summary statistics in Part I of the Results chapter yield interesting results in regards to race and education. In the year 2000, Middle Easterners were at every level of education slightly more educated than non-Hispanic whites. The largest difference was at the “less than High School” level, with Middle Easterners 4 points higher in the category and non-Hispanic whites in both 2000 and 2011. Overall, the conclusions that can be drawn from these observations suggest that Middle Easterners and non-Hispanic Whites are entering the labor force with nearly the same education levels.

The shift in identification in the race category provides insight into the social identity development of Arabs and Muslims in the United States. In 2000 nearly 60 % of the individuals identified as White. This was followed by close to 40% identifying as Other Asian or Pacific Islander or Two or More Major Races, split almost evenly between the two. Ten years later, the proportion identifying as white jumps close to 70%, followed by Other Asian or Pacific Islander at 24%. The Two or More Major Races category dropped precipitously to 4.1%. There was no corresponding change in ancestry identification that could account for the difference, leading to the conclusion that those who indicated ancestry from a country in the Middle East had a shift in the perception of their racial identity. Further analysis shows that Pakistanis accounted for nearly 100% of the Other Asian category in both 2000 and 2011, meaning that the shift in identity was primarily for those from Arab countries. This aspect of the research could yield more nuanced and in-depth study.

Table 2 showed the ancestry breakdown by country of origin. The countries with the most identifiers were Pakistan, Egypt and Turkey, followed closely by a more general “Arab” designation. These four categories accounted for more than 50% of all Middle Easterners in the study.

Part II of the Results chapter looked specifically at the regressions for the outcome variables. The first question I sought to answer was whether or not Middle Easterners made less than non-Hispanic whites after controlling for race, education, experience, English proficiency and years spent in the United States. In Table 2, the initial regression with no controls shows that there is a significant premium for whiteness, with Middle Easterners making almost 60% less on average in 2000. After controlling for race there is a significant decrease in the magnitude of difference, yet not equally reflected when only controlling for education. This pattern was

mirrored in 2011, in addition to the significant role that both occupation and experience played in influencing outcomes. Model (6) shows that – after controlling for race, education, experience occupation and language proficiency – the difference in wages is -43% in 2000 and -31% in 2011. In 2000, this disparity decreases to -39% in Model (7) after controlling for years in the United States and -30% in 2011. This suggests that time spent in America could be a relevant indicator for wage differentials, as those who have spent more time in the United States may have better language ability or an increased propensity to assimilate into the work environment.

The regressions in Table 6 did not yield significant results, with the exception of Model (6) for 2011. In 2000 the trends suggest that Middle Easterners might have on average worked slightly less hours per week than non-Hispanic Whites; this trend is reversed in 2011. The results in Table 7 were the most significant in 2000 and suggest that Arabs and Muslims worked slightly less than 52 weeks on average compared to non-Hispanic whites, with the differential decreasing slightly in 2011.

There are a few key takeaways that help to answer the original question of differences in wages for Arabs and Muslims. Firstly, there is a noticeable difference in wage premium between this group and non-Hispanic whites. This differential decreases from 2000 to 2011 after controlling for a number of key indicators. There was a noticeable difference on the usual hours worked per work variable in 2000, but this dissipated in 2011 and did not yield a useful comparison. Trends in occupation suggested that there was an increase in the percentage of individuals in more lucrative and competitive careers.

These results while interesting in and of themselves are best looked at in relation to the previous research examining labor market outcomes and wage premiums for Arabs and Muslims

post 9/11; specifically, Davila and Mora's 2005 study which looked at the changes in earnings of Arab men from 2000 to 2002.

As mentioned previously, Davila and Mora utilized American Community Survey data to look for trends of potential discrimination for Arabs and Muslims in the immediate aftermath of the attacks on 2001. Using similar controls, they found that there was a steep increase in the magnitude of the differential between wages for Arab men and non-Hispanic whites, increasing from -15% to -58% from 2000 to 2002. While not examined using a metropolitan level unit of analysis, they noted that earnings fell the most for Middle Eastern Arab Men in states with the highest population of Arab Americans. My study took the second most populated metropolitan area for Arab Americans and looked to see if there was a continued wage disparity.

Consistent with Davila and Mora, I found that there was a negative differential for Arabs and Muslims in the year 2000. Instead of increasing in magnitude, however, as it did in 2002, my research shows that by 2011 it has decreased by nearly 10 points. Table 7 supports this finding and suggests that the negative differential in weeks worked per year between the two groups has also decreased between 2000 and 2011. This suggests that – while there continues to be a wage disparity between Arabs and Muslims and non-Hispanic whites – it has decreased. This is perhaps due to reduced exposure in the media and consequently a decline in a desire to retaliate against those who share a similar nativity profile to the attackers on September 11th.

Chapter 6-Conclusion:

This thesis explored labor market outcomes for Middle Easterners in the New York metropolitan area in the post 9/11 era using integrated public-use microdata from the Census and American Community Survey. Analyses of 2000 and 2011 show that the negative differential between Arabs and Muslims and non-Hispanic whites decreased in magnitude between the decade in focus. Additionally, there was a decrease in the differential for weeks worked per year. This suggests that the initial backlash illustrated in prior research may have subsided, allowing a new climate where Arabs and Muslims can regain an economic footing. Ultimately, this research shows that the initial short-run effects of labor market discrimination experienced in the immediate aftermath of the September 11th attacks may have subsided and returned to levels that are significantly better than those before the attacks. It is important to keep in mind, however, that the more recent wage differential – while smaller than 2000 – still leaves a significantly lower premium on wages for Arabs and Muslims than non-Hispanic whites.

There is not conclusive evidence to determine that the wage differentials for Arabs and Muslims can be contributed solely to labor market discrimination. The patterns suggest, however, that discrimination may play a key role in determining the wage premium for Arabs and Muslims, especially during times of increased media exposure and government scrutinization.

Future research could further explore the impact that an increase in hate-rhetoric and negative media attention has on the economic stability of Middle Easterners using census data released in 2014, 2015 and 2016. This may lead to a better understanding of the socioeconomic impact of an anti-Arab and anti-Muslim climate, in addition to informing policy that may help to correct its consequences.

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