Economics
The Open-Access, Open-Assessment E-Journal

Discussion Paper
No. 2014-46 | November 13, 2014 | http://www.economics-ejournal.org/economics/discussionpapers/2014-46

The Impact of Corruption on Apprehension Level of Immigrants: A Study of the United States Immigration

Bilol Buzurukov and Byeong Wan Lee

Abstract
This paper demonstrates the effects of country-level corruption on the illicit behavior of individuals when in a foreign country. Using cross-sectional data from 104 different countries over the period of 2009–2011, the authors measured how people from these countries act and behave differently outside their home countries. Their findings reveal some evidence that individuals coming to the United States from more corrupt countries are more likely to be apprehended than individuals from less corrupt countries.

JEL F22 D73 K42
Keywords Immigration; corruption; apprehension

Authors
Bilol Buzurukov, ✉ Department of Economics and Finance, Yeungnam University, Gyongsan, 712-749, Republic of Korea, bilolkhon@gmail.com
Byeong Wan Lee, Department of Economics and Finance, Yeungnam University, Gyongsan, 712-749, Republic of Korea, bwlee@yu.ac.kr

Citation Bilol Buzurukov and Byeong Wan Lee (2014). The Impact of Corruption on Apprehension Level of Immigrants: A Study of the United States Immigration. Economics Discussion Papers, No 2014-46, Kiel Institute for the World Economy. http://www.economics-ejournal.org/economics/discussionpapers/2014-46

Received October 11, 2014 **Accepted as Economics Discussion Paper** November 10, 2014
Published November 13, 2014

1 Introduction

Corruption is the cancer of the society,[1] which puts every possible obstacle towards humanity to confront with. Thus, it leads the nations into the darkness and humiliates their rights. The unpleasant nature of corruption distorts the economic and the social life of the country, which makes people suffer from hardship and injustice. The definitions given by World Bank "The abuse of public office for private gain" and Transparency International "The abuse of entrusted power for private gain" show how important the role of the public officers and bureaucrats are in the society, who have the power to make decisions on behalf of the entire nation. One may feel curious why the gap among countries is so wide in terms of economic performance and lifestyle. The majority of the economists and social scientists agree upon the corruption being one of the main factors for the existence of this gap, for example, Mauro (1995) and Wei (1999) explain how corruption negatively affects the economic growth. Their findings show that the reduction of corruption level significantly increases the economic growth of the country. There are dozens of excellent academic works proving how corruption distorts the economy and how it leads the country into misery and poverty [e.g., Mauro (1995); Gupta et al., (1998); Tanzi (1998); TI (2008)].

There is almost consensus that corruption negatively affects the country's economy[2] and its people, but how it has an effect on individuals' actions and behavior while stationing outside of their home countries is an empirical question that has not found its clear explanation. Are the people from corruption-ridden countries more likely to be involved in illegal practices due to the country's corruption level where illegal practices as bribery is a common way of life? Or? Are the people from less corrupt countries less likely to be involved in illegal practices due to somehow absence of corrupt practices within the country? There is no perfect answer for these questions because every nation has people who are honest and dishonest. Like the complexity of measuring the nature of corruption, it is also difficult to measure the ratio of honesty and dishonesty of people. According to Dimant et al., (2013a), they argue that persistent corruption in a country makes corrupt behavior a general attitude among citizens and those emigrants from a corruption-ridden country may carry some of this attitude into their destination country.

[1]The statement of the President of the World Bank James D.Wolfensohn, "People and Development", Annual Meetings Address, October 1, 1996.

[2] However, a number of evidences shows that corruption serves as "greasing the wheels" of the economy in particular circumstances (See, Dreher and Gassebner (2013), Meon and Sekkat (2005), Meon and Weill (2010), Leff (1964), Huntington (1968)).

To shed more light on this issue, we investigate the effect of country corruption level (corruption level in a country of origin) on abnormal behavior of individuals in a destination country. For this purpose, we found it to be a meaningful effort to analyze the relationship of apprehension level of immigrants with regard to country's corruption level, which has not been addressed in earlier literature.[3] In our regression analysis, we mainly apply seven sets of explanatory variables hypothesizing that the particular variables may have more general effect on individuals' behavior (based on their country background) while being abroad, such as; corruption (CI), wealth (GDP), human capital (EDU), population growth (EMPL), immigration stock (IMGR), homicide rate (HMCD), and prostitution (PRST).[4] To check the strength of explanatory variables affecting the dependent variable (the ratio of apprehended immigrantss (APPR)), we performed regression on Standardized Variables in section V, which indicates that WEALTH has the strongest impact on APPR, following CPI, EDU, EMPL, IMGR, HMCD, and PRST respectively. As the main objective of this paper is to investigate the effect of country's corruption level on apprehension level of immigrants, we perform multi-front regression analysis to shed light on this relationship. For example, the regression results of CI in the pooled sample (Table 3) come out to be highly significant with the expected positive signs, meaning immigrants from corruption-ridden countries are more likely to be apprehended in the United States. The numerical example shows that if El Salvador (CI=65) could reduce its corruption level to that of Saudi Arabia (CI=55), the average number of apprehended Salvadorians in the United States could be reduced to about 89 people. According to National Immigration Forum (2013), on average, the US government spends over $5 million on immigration detention expenses per day, or daily $160 per detained immigrant. Moreover, TRAC-Immigration (2013), reports that Immigration and Customs Enforcement (ICE) data (fiscal year 2012) estimates that around 70 percent of detained immigrants spend about one month in detention centers. In fact, the calculations reveal how the apprehension of immigrants (due to abnormal behavior) is costly to the United States' economy. As Dimant (2014) notes "Corruption is more likely to impede economic prosperity, as deviant behavior always causes costs, the misallocation of goods and services and eventually leads to a downfall of market principles." Furthermore, we would like to

[3] A similar approach was applied by Fisman and Miguel (2007), they used parking violations among United Nations diplomats living in New York City as a proxy variable for corruption, which measures home country corruption norms as an important predictor of propensity to behave corruptly among diplomats in a foreign country.

[4] Please, refer to section 3 for the descriptions of the variables.

point out that the choice of the United States for our empirical work was due to the accessible data and the existence of various nations in its territory.

The paper is organized as follows: Section II discuses opinions and some historical facts about the United States immigration. Section III reviews some related literature. Section IV introduces our main data and variables, and their calculation methods. The following section (Section V) represents the econometric strategy. The last section provides some concluding thoughts.

2 Opinions and Facts

The United States is a unique country that hosts the most number of foreign born-population, where people are eager to go with various objectives.[5] The United States is the land of immigrants and has a long immigration history. The United States immigration history justifies that some nations arriving to the dreamland were more vulnerable to perform corrupt practices. By arrival of Irish in 1830-1860's the crime rate sharply increased in the United States. Native-born Americans regarded the Irish immigrants as substantial contributors to high rates of crime and pauperism and as perhaps unsuited for life in American society, especially in the cities. A generation later, however, Americans fretted about the Chinese then with Italian "problem" [e.g. Moore and Vedder (2000)]. These historical facts tell us that the arrivals of some nations were indeed the reason for increase in criminal practices in the United States. Spenkuch (2011) reports that almost three quarters of Americans today believe that immigration increases crime rates in the country; the author finds that a 10 percent growth in the share of immigrants leads to approximately 1.2 percent increase in the property crime, while the rate of violent crimes remains essentially unaffected.

On the other hand, national studies have reached the conclusion that foreign-born immigrants are less likely to commit crimes than the native-born [e.g. Immigration Policy Center (2008)]. According to the survey results of Ruben and Walter (2007), the incarceration rate of native-born adults is 2.5 times greater than that of foreign-born men. The foreign-born were less likely to be in prison for property and assault offenses [e.g. Butcher and Anne (1999)]. Although, the facts show that the share of incarcerated immigrants is smaller than natives, it should not be regarded as something justifiable because every single illegal act has its negative effect on economy and

[5] According to the United Nations report "Trends in International Migrant Stock: The 2013 Revision," the United States has the largest number of immigrants (45,785,090) in the world with the share of 19.8 percent of the total number of immigrants.

the society. According to National Immigration Forum (2013), in fiscal year 2014, the Department of Homeland Security (DHS) of the United States requested approximately two billion dollars in funding immigration for immigration detention centers, which has significant burden on taxpayers' shoulders. Moreover, Ruben and Walter (2007) connected higher rates of immigration in the 1990s and 2000s with a nationwide drop in crime rates. According to their findings, the rates of violent crime and property crime in the United States have declined to 34.2 percent and 26.4 percent respectively, even though the number of illegal immigrants has doubled to 12 million since 1994. In addition, Robert (2008) reported that first-generation immigrants in some states were 45 percent less likely to commit violence than third-generation Americans. Furthermore, Cynthia and Elizabeth (2008) argue that immigration either decreases violent crime rates or has no effect. The literature consistently finds that immigration has a negative effect on crime, particularly homicide rate [e.g. Jacob and Ramiro (2007)].

Moreover, according to national surveys, the western country with the highest percentage of citizens who feel immigration is a problem is the United Kingdom (62 percent), followed by 50 percent in the United States. In modern-day U.S. economy, most of the anti-immigration groups see immigrants as the competitors in the labor market. According to Aaron (2011), immigrants are the ones who take away natives' jobs and lower their wages by offering productive and cheap labor. On the contrary to other major immigrant-receiving countries, immigrants in the U.S. tend to be strongly attached to the labor force and typically experience low unemployment. Nevertheless, they are also more likely to work in low-wage and low-status occupations. Even among highly skilled immigrants, skill underutilization is widespread. Borjas (1987) recorded that the labor supply of immigrants had significantly lowered the earnings of the U.S. native-born men. A one percent point increase in the fraction of immigration in an SMSA reduced the wages of less-skilled natives by roughly 1.2 percent [e.g. Altonji et al., (1991)].

On the other hand, the arrival of immigrants had positive and very significant contribution to the U.S. economy and its image. Immigrants bring a "brain gain" of innovation and creativity that outweighs real or imagined costs. Throughout the nation's history, immigrants have enriched economic, intellectual, social, and cultural life in the United States in a number of fundamental respects [e.g. Darrell (2010)]. Darrell (2010) reported that five of the eight American citizens who received Nobel Prizes in sciences in 2009 were immigrants and foreign-born often outperform natives in terms of exceptional contributions to science. It was recorded that 25.3

percent of the technology and engineering businesses launched in the United States during 1995-2005 had a foreign-born founder. According to the Kauffman Index of Entrepreneurial Activity, immigrants over the past decade have displayed a high level of entrepreneurial spirit. Over 2006-2008, they were twice as likely as native-born to start new businesses [e.g. Robert (2013)].

Furthermore, the empirical studies indicate that nations' migration is not equal in terms of education and skills. Dimant et al., (2013b) demonstrate robust evidence that corruption is among the push factors of migration, especially for skilled migration. They argue that skilled individuals make migration decisions due to lower the returns to education, widespread inequality, the lack of social advancement, and the absence of favorable working and living conditions in corruption-ridden countries. Moreover, Haque and Jahangir (1999) reported that the number of highly skilled emigrants from African countries with high corruption level had been significantly increasing over years because of poor wage policies that have prompted migration of talent. By examining the relationship between corruption and the emigration rate of those with high, medium and low levels of educational attainment, Cooray and Schneider (2014) found that corruption increases the emigration rate of those with high levels of educational attainment, whereas the emigration rate of those with middle and low levels of educational attainment, increases at initial levels of corruption and then decreases beyond a certain point due to income inequality, which reduces their ability to emigrate beyond a certain point. According to Ariu and Squicciarini (2013), highly skilled people are more likely to move abroad (outflow) when the corruption level in the country is high, moreover, this phenomena results in less inflow of highly skilled immigrants from outside.[6]

People's vision of the world has broadened with the advent of global media such as television and the Internet. Those thinking about going elsewhere can see what the alternatives are and appear to have fewer inhibitions about resettling, especially when conditions in their home country are not very favorable for economic or political reasons [e.g. Darrell (2010)]. The absence of basic needs and justice in the country serves as the main push factor of the immigration and the existence of those missing needs and justice serves as the main pull factor of the immigration. Thus, it is not obvious that people from corrupt countries try to look for absent opportunities in other countries where it is easy to find.

[6]These findings serve as a support for our findings (explaining the negative relation between literacy rate and apprehension level) in section four.

3 Literature Review

We have found very scarce literature that studies illicit behavior of immigrants in a destination country due to corrupt environment in the country of origin (Dimant et al., (2013a), Fisman and Miguel (2007), Alesina et al., (2013)). Dimant et al., (2013a) report very informative and robust evidences that corruption might migrate to the destination country along with the individuals emigrating from corruption-ridden countries. They applied a comprehensive dataset consisting of annual series on migration flows and stocks into OECD countries from 207 countries of origin for the period 1975-2011. Their regression results for pooled sample (including all countries) show insignificant outcomes, though the results turn out to be weakly significant with the expected sing only when the immigration variable is lagged by five periods. However, the regression results for the specified sample (including countries with a level of corruption that is higher than the average) show very significant outcomes when it is lagged by one period, moreover, the coefficient value affecting corruption increases with increasing lag structure. The results for specified sample indicate that immigration from highly corrupt countries increases the corruption level in the destination country. The authors conclude that general migration does not have a significant effect on the destination country's corruption level, while immigration from corruption-ridden countries significantly increases the corruption level in the destination country. Base on their findings they note that a persistent corruption in a country makes corrupt behavior a general attitude among citizens and that emigrants from a corruption-ridden country may carry some of this attitude into their destination country.

Furthermore, Fisman and Miguel (2007) applied very interesting approach to measure the corrupt behavior of foreign individuals in New York City. As a proxy variable for illicit behavior of individuals, they used parking behavior (unpaid parking violations)[7] of United Nations officials in Manhattan, who had diplomatic immunity from parking enforcement actions until 2002. Considering the fact of having diplomatic immunity of United Nations diplomats, the authors hypothesize the unlawful parking actions of diplomats as the cultural norms, which indicate corrupt behavior of diplomats. Thus, they interpret diplomats' behavior as reflecting their underlying propensity to break rules for private gain when enforcement is not a consideration. Their findings showed that diplomats from corruption-ridden countries

[7] From November 1997 to the end of 2002 in New York City, diplomats accumulated over 150,000 unpaid parking tickets, resulting in outstanding fines of more than $18 million.

accumulated significantly more unpaid parking violations before the enactment of confiscating diplomatic license plates of violators in 2002. After enforcement authorities acquired the right to confiscate diplomatic license plates of violators, the unpaid violations of United Nations officials sharply decreased.[8] The authors consider cultural norms and legal enforcement as the key factors in determining the corruption decisions of government officials.[9] They find a strong positive correlation between the number of diplomatic parking violations and the corruption level of home country, which suggests that corruption norms in the country of origin are an important predictor of inclination to behave corruptly among diplomats. Moreover, their findings prove that diplomats from low-corruption countries behave remarkably well even in the absence of legal consequences, whereas those from high-corruption countries commit many violations.

Moreover, Alesina et al., (2013) examines second-generation immigrants' (from different cultural backgrounds) gender treatment attitudes, who were born and raised in the United States and Europe. They find that immigrants' historical background (cultural beliefs and norms), which has developed due to influence of institutions, policies and markets in the country of origin, is associated with unequal gender treatment even though they face the same labor market, institutions, and policies. Their findings give evidence that unlike institutions, policies and markets, cultural norms and beliefs are internal to the individual. Even though, the individuals remain their external (corrupt) environment behind their beliefs and values move along with them no matter where they go. The analysis of Alesina et al., (2013)'s work provides additional evidence that immigrants might export some of their corrupt behavior into the destination country.

Though there is limited number of literature that studies possible migration of corrupt behavior of individuals into the destination country, they provide valuable and robust evidences that corruption is imported into the host country along with the arrival of some corrupt immigrants.

Based on reviewed literature, we found that our approach in studying corrupt behavior of immigrants somehow follows the methodologies applied in earlier literature [Dimant et al., (2013a), Fisman and Miguel (2007)]. However, our approach has significant differences from two available sources. Dimant et al., (2013a)'s analysis (migration of corrupt behavior) provide

[8] The parking violations dropped by over 98 percent after enforcement was introduced in 2002.
[9] There are thousands of government officials from 149 countries around the world, stationing in New York City.

general facts without specifying any type of corrupt behavior that might influence the increase of corruption level in the host country, while Fisman and Miguel (2007) apply a particular hypothetical measure of corrupt behavior (the number of unpaid parking violations of United Nations diplomats) of immigrants that specifies a channel of individuals' illicit behavior. Unlike Dimant et al., (2013a), we concentrate our analysis on a particular country with a specific hypothetical measure of corrupt behavior (the ratio of apprehended immigrants in the United States, which might comprise several corrupt behaviors of immigrants leading to corrupt practices at once) similar to Fisman and Miguel (2007). Even though we applied quite different sets of data for our regression analysis, our findings strongly support the findings of earlier findings (see, empirical analysis in section 5).

4 Data and variables

This paper applies cross-sectional data from 104 countries; nevertheless, the data coverage varies in the sub-regressions for less and more corrupt country divisions. The data coverage is restricted to 104 countries due to the availability of data for the sample period over 2009-2011, the countries with missing data are not included in the dataset. The data employed for the regression analysis represent the averages of each variable for the sample period 2009-2011.

4.1 Dependent Variable

The ratio of Apprehended[10] Immigrants[11] (APPR)

The immigration data for the United States comes from two different sources: the United States Department of Homeland Security (DHS) and Migration Policy Institute (MPI). The objective of these organizations is to develop, analyze, and publish statistical information needed for policymaking and intelligent management of international migration in the United States. They serve as a decision-support function by producing annual core reports on immigrants by legal and illegal status and by conducting quantitative studies and research on immigration.

This paper uses two sets of immigration data for the calculation of APPR; the number of Foreign-Born Population (FBP) and the number of Apprehended Foreign-Born Population (AFBP) by Country of Origin. The term foreign-born (immigrants) refers to people residing in

[10]The term apprehended refers to the arrested foreigners in the territory of the United States.
[11]The term Immigrants refers to all of the foreigners residing in the United States.

the United States who were not United States citizens at birth. The foreign-born population includes naturalized citizens, lawful permanent residents, certain legal non-immigrants, those admitted under refugee or asylum status, and persons illegally residing in the United States.[12]

The data for the number of Foreign-Born Population (FBP) by country of origin is obtained from Migration Policy Institute (MPI) of the United States. The FBP had been published decimally since 1960's; fortunately, starting from 2006, the MPI has been publishing annual data. In total, the MIP provides annual data for 140 countries and territories, however, due to the missing data for some countries over some years we reduced the number of countries to 107. Moreover, we reduced the sample data for 104 countries by excluding three extreme countries (Mexico, Honduras, and Guatemala) in terms of apprehension level due to the outlier problems in our regression analysis. A country with missing data was not included in the dataset.

The data for the number of Apprehended Foreign-Born Population (AFBP) by Country of Origin was obtained from the U.S. Department of Homeland Security (DHS). The DHS provides annual data for 176 countries and territories. Unfortunately, the AFBP data does not specify the type of illegal and criminal practices; therefore, this paper uses the total number of apprehended immigrants in general. If there was possibility to obtain detailed data by type of illegal activities[13], we could have results that are more precise because some illegal practices have nothing to do with corruption.

For descriptive and regression analysis we made up a new set of data "the ratio of AFBP to FBP by each country," in other words APPR.

$$\mathrm{APPR(A.t)} = \frac{\mathrm{AFBP(A.t)}}{\mathrm{FBP(A.t)}} * 100{,}000 \qquad (1)$$

Where, APPR is the ratio of apprehended foreigners for country A in year t, AFBP (A.t) the number of apprehended foreign-born population for country A in year t, FBP (A.t) the number of foreign-born population for country A in year t. The ratio of APPR is multiplied to 100,000 for the sake of using the data in LOG form. For example, in year 2011 there were 162875 Argentineans in the territory of the United States and 397 of them were apprehended in the same year, so the calculation result for Argentina is:

[12] Defined by the US Census Bureau.

[13] Warner (2005) reports the types of illegal practices that aliens commit in the United States: illegal crossing the border, felony, sex crimes, drug offences, theft, drunk-driving offences, murder, gambling, forgery, counterfeiting, document fraud, etc.

$$\text{APPR}(\text{Argentina}.2011) = \frac{\text{AFBP}(\text{Argentina}.2011)}{\text{FBP}(\text{Argentina}.2011)} * 100.000 = \frac{397}{162875} * 100.000 = 240$$

The obtained number means that out of 100,000 Argentineans 240 of them were apprehended in 2011. The numbers used for regression analysis represent the averages for the sample period, 2009-2011.

4.2 Explanatory Variables

4.2.1 Corruption Index (CI)

Since 1995, Transparency International (TI), a non-governmental organization that monitors corporate and political corruption worldwide, has been publishing the corruption perception index (CPI) to measure the perceptions of corruption in the public sector for different countries around the globe. The CPI is the aggregated data from different sources of corruption related data that are produced by a variety of independent and well-known institutions. The aim of the CPI is to provide a more reliable picture of the perceived level of corruption around the world than would any of the other sources taken independently [e.g. Saisana and Saltelli (2012)].

The number of countries, the surveys used and the perceptions of individuals included in the CPI have been changed over years. Therefore, TI warns that year-over-year comparison of the CPI for some countries can be ambiguous due to the different calculation methodologies and the different surveys used. During 18 years of publishing the CPI, in total, 188 countries and territories have been included in the CPI data set. Since the APPR data is limited to 104 countries, respectively we reduced the CPI data to 104 countries out of 188. The CPI index ranks countries from 0 to 10 range, 10 represents an entirely clean country while zero indicates a country with extremely high corruption level.

We transposed the scale of the CPI ranking score from 10-0 to 0-100 range for the sake of easy interpretation of the results:

$$CI = (10\text{-}CPI)*10 \qquad (2)$$

In our modified CI index, a high number indicates a high level of corruption.

4.2.2 Other Variables

Besides CI, we applied six other explanatory variables, which may reflect the general effect on individuals' behavior in performing illegal practices while stationing abroad. The GDP is applied to measure the WEALTH of countries; hypothesizing people from wealthier countries are less likely to perform illegal practices. Recent studies have proved that, on average, richer countries are perceived to be less in practicing corruption than poorer countries [e.g. Kaufmann (2004); Serra (2006); Treisman (2007)). The Human Capital (EDU) is the average total schooling years of people aged 15 and over, which measures the literacy rate of the immigrants based on their country of origin. The correlation between corruption and literacy rate is about –0.570, which proves countries with higher literacy rates are less corrupt. However, the regression results perform contrary relation between literacy rate and the dependent variable (APPR), which we shed light on this issue in the following chapters. The population growth (EMPL) measures the expected competition in the labor market. The spatial regression analysis [e.g. Hooghe et al., (2010)] shows that unemployment has a strong and significant impact on increase in crime rates. The International Immigrant Stock (IMGR) measures the immigrants' acquaintance with the immigration laws, meaning people coming from countries with higher immigration stock are more familiar with the immigration laws. The Homicide Rate (HMCD) measures the estimations of unlawful homicides purposely inflicted because of domestic disputes, interpersonal violence, violent conflicts over land resources, inter-gang violence over turf or control, and predatory violence and killing by armed groups (World Bank). As it was noted earlier [e.g. Dimant et al., (2013a)] emigrants from a corruption-ridden country may carry some of their immoral attitudes into their destination country. Although, the U.S. Homeland Security Officers closely inspect the criminal history of arriving immigrants, they are not always able to get 100% valid information for each immigrant. The problem of valid information is most likely related to immigrants coming from poor and developing countries where the international information share systems are not properly established. As HMCD data is highly correlated with CI, using original numbers seem to be problematic due to collinearity. Thus, we transformed the actual data into dummy variables, which significantly reduced the problem of multicollinearity. The Prostitution (PRST) represents the legality of prostitution laws by country, the prostitution is legally allowed in 44 countries out of total 104 countries in our sample.[14] Using the data for National Arrests for

[14]Please, refer to Appendix 1 for more detailed description and measurement of the variables and the data sources.

Prostitution and Commercialized Vice, 2001-2010[15] we found that the number of arrests for prostitution was relatively high in states with the largest foreign-born population.[16] California with the largest number of foreigners appears to be in the first rank (on average, 12,920 people were arrested due to prostitution) following by Texas (7,279), Florida (6,424), Nevada (4,503), Illinois (4,114), Pennsylvania (2,502), etc. These numbers indicate that states with larger foreign population have higher prostitution rates.

The Page Act of 1875 was the first restrictive federal immigration law prohibiting entry of immigrant women who would engage in prostitution. Based on these facts, we expect that people coming to the United States from countries where prostitution is legally allowed by law are more likely to practice prostitution due to probability of higher earning chances.

4.2.3 Sub-variables

Since apprehension level is not directly observable phenomenon, there might be infinite number of reasons for apprehension. Therefore, in the sub-regression analysis, we further apply some additional variables to test the outcomes more precisely. We used Alesina et al., (2003)'s Fractionalization Indexes to demonstrate the effect of countries' ethnic, linguistic, and religious diversity on immigrants' apprehension level. The actual data was collected in 2003, we found this data to be applicable for our regression analysis because nation's ethnicity, religion and linguistic do not reasonably change over short period. Furthermore, the Fractionalization Indexes are used as dummy variables, which too reduced the problem of making errors. Moreover, we applied Theft (THEFT), Alcohol Consumption (ALCH), Regional, and Income Group Dummies in the sub-regressions (See Appendix 1 for description of variables) for more rigorous analysis of the results.

5 Empirical Strategy

5.1 Simple linear regression

To demonstrate the rough relationship between the ratio of apprehension level of immigrants and corruption level, we perform a simple log-linear regression analysis (Table 1). For the sake of rigorous testing of the outcomes, we fairly divide the countries into two groups by using the

[15]Source: Bureau of Justice Statistics, "Arrest Data Analysis Tool".

[16]Seven states with the largest number of foreign-born population are California, New York, Florida, Texas, Pennsylvania, New Jersey and Illinois, comprising about 44% of the U.S. population as a whole.

median score, Less Corrupt Countries (LCC) and More Corrupt Countries (MCC). The median CI score for 104 countries in our sample is 64.30345, which is the simple mean of 64.23678 (Bulgaria) and 64.37011 (Greece).

Table 1

Results of simple log-linear regression

Dependent variable: Ln(APPR)

	Pooled Sample	Less Corrupt Countries	More Corrupt Countries
C	2.641484***	2.689381***	12.29969**
	(0.0000)	(0.0000)	(0.0407)
Ln(CI)	0.669198***	0.646999***	-1.571209
	(0.0000)	(0.0002)	(0.2541)
R-sq	0.226193	0.239219	0.02593
Adj R-sq	0.218607	0.224004	0.006449
D stat	2.215571	2.140048	1.855542
F-stat	29.8159***	15.72196***	1.331017
Prob	(0.000000)	(0.000234)	(0.25411)
Obs	104	52	52

Notes: *, **, and *** indicate significance levels at 10%, 5%, and 1%. Numbers in parentheses are the p values.

The results for the pooled sample regression, indicates that CI has positive relation with APPR with highly significance level (1%). The results for the Less Corrupt Group also show quite similar results as the Pooled Sample, while the outcomes for the More Corrupt Group are not significant in any acceptable significance level. These results indicate that country corruption level significantly influences the apprehension level of immigrants in general, especially, for immigrants from less corrupt countries.

5.2 Model Specification

Since it is difficult or even impossible to come up with the exact functional form of measuring the nature of apprehension, the paper forms the model as log-linear model. To choose between linear and log-linear regression models we applied a test introduced by MacKinnon, White, and Davidson (MWD test).[17] The results of MWD test supports the choice of log-linear model, meaning the log-linear model is appropriate model for our regression analysis.

$$\text{Ln(APPR)} = \beta_0 + \beta_1\text{Ln(CI)} + \beta_2\text{Ln(WEALTH)} + \beta_3\text{Ln(EDU)} + \beta_4\text{Ln(EMPL)} - \beta_5\text{Ln(IMGR)} + \beta_6\text{Ln(HMCD)} + \\ + \beta_7\text{Ln(PRST)} + \varepsilon, \quad (4)$$

Where, Ln() – natural logarithm function, APPR – the ratio of apprehended immigrants, CI – corruption level, WEALTH – gross domestic product, EDU – human capital, EMPL – population

[17] Please, refer to Appendix 3 for testing the functional form of regression: choosing between linear and log-linear regression models.

growth, HMCD – homicide rate, and PRST – prostitution.[18]The readers are advised to refer to Appendix 1 for the description of additional variables in sub-regression analysis.

Furthermore, to avoid the regression specification error in our regression model, we applied Ramsey's RESET Test,[19] to check whether the included variables belong to the model or not. The F-values for all of the included variables are significant in acceptable significance levels, meaning our model is properly specified. We do not find any significant reason for the application of simultaneous-equation models in our regression analysis, because the cause-and-effect relationship between the apprehension level of immigrants and the included explanatory variables is unidirectional, meaning the apprehension of level of immigrants may not cause endogeneity bias.

5.3 Regression on Standardized Variables

To start with, it would be insightful if we check the impact of the various explanatory variables on the dependent variable (APPR). For this purpose (Table 2), we perform regression on Standardized Variables to check which explanatory variables have stronger impact on the dependent variable. The standardized variables were derived using the formula [20] for Standardized Variables. Since, the standardized variables are equal on basis (it does not matter in what unit the dependent and independent variables are measured), one can directly compare the coefficients obtained from the OLS. Therefore, the coefficients can be used as a measure of relative strength of the explanatory variables; the larger coefficients are more relative to explain the dependent variable.

The coefficients for standardized variables were derived by running the following regression:

$$\mathrm{APPR}_i^* = \beta_1^* \mathrm{CI}_i^* + \beta_2^* \mathrm{GDP}_i^* + \beta_3^* \mathrm{EDU}_i^* + \beta_4^* \mathrm{EMPL}_i^* + \beta_5^* \mathrm{IMGR}_i^* + \beta_6^* \mathrm{HMCD}_i^* + \beta_7^* \mathrm{PRST}_i^* + u_i^* \quad [21] \qquad (5)$$

Where, variables with "*" sign represent standardized variables. "The advantage of using standardized variables, for standardization puts all variables on equal footing because all standardized variables have zero means and unit variances."[22]

[18]Note, since the right transformation of the data improves the empirical results, the variables were transformed in such a way that they are appropriate to use for the log model.

[19]Please, refer to Appendix 6 for the regression specification error test (Ramsey's RESET Test).

[20]To derive the standardized variables, one should subtract the mean value of the variable from its individual values and divide the difference by the standard deviation of that variable.

[21] Note: the regression on standardized variables does not include the intercept because it is always equals to zero.

[22]Damodar N. Gujarati "Basics Econometrics" fourth edition © The McGraw−Hill Companies, 2004 page# 215.

Table 2

Regression on Standardized Variables

Dependent variable: APPR

	[2-1]	[2-2]	[2-3]	[2-4]	[2-5]	[2-6]	[2-7]
CI	0.299329*** (0.0012)	0.272967*** (0.003)	0.301906*** (0.0012)	0.298661*** (0.0013)	0.290285*** (0.002)	0.294821*** (0.0016)	0.252016*** (0.0083)
WEALTH	-0.37631*** (0.0001)	-0.37371*** (0.0001)	-0.37557*** (0.0001)	-0.37986*** (0.0001)	-0.37434*** (0.0001)	-0.36875*** (0.0002)	-0.35994*** (0.0002)
EDU	0.268662*** (0.0078)	0.269476*** (0.007)	0.266281*** (0.0088)	0.272033*** (0.0075)	0.26948*** (0.0079)	0.26603*** (0.0089)	0.260337** (0.0103)
EMPL	0.263868*** (0.0021)	0.229855*** (0.008)	0.271728*** (0.0023)	0.260666*** (0.0026)	0.257994*** (0.003)	0.24618** (0.0131)	0.213634** (0.0389)
IMGR	-0.24743*** (0.0082)	-0.24457*** (0.0082)	-0.24559*** (0.0091)	-0.24218** (0.0105)	-0.24419*** (0.0095)	-0.23588** (0.0175)	-0.21067** (0.0333)
HMCD	0.223696** (0.0106)	0.187997** (0.0335)	0.220981** (0.0123)	0.227826** (0.0101)	0.212766** (0.0185)	0.226491** (0.0104)	0.150274 (0.1106)
PRST	0.165963** (0.0333)	0.174699** (0.0239)	0.162378** (0.0397)	0.157431* (0.0508)	0.164454** (0.0357)	0.167893** (0.0325)	0.155539* (0.0536)
ETH	-	0.144653* (0.073)	-	-	-	-	0.216299** 0.0214
LING	-	-	-0.02717 (0.7238)	-	-	-	-0.1198 0.1781
RLG	-	-	-	-0.03305 (0.6619)	-	-	-0.03104 0.6882
THEFT	-	-	-	-	0.041986 (0.6068)	-	0.059681 0.4645
ALCH	-	-	-	-	-	-0.0349 (0.72)	-0.04474 (0.6496)
R-sq	0.520012	0.535899	0.520639	0.520973	0.521342	0.520658	0.550151
Adj R-sq	0.490322	0.502058	0.485686	0.486044	0.486439	0.485706	0.496365
D- stat	1.985874	2.023138	1.992343	1.980617	1.964469	1.983892	2.048469

Notes: *, **, and *** indicate significance levels at 10%, 5%, and 1%. Numbers in parentheses are the p values. The standardized values were obtained from logged values of the variables.

The rank of explanatory variables by the strength of their impact on the dependent variable shows ([2-1], Table 2) that the WEALTH explains APPR the most, following CPI, EDU, EMPL, IMGR, HMCD, and PRST respectively. As we can see from the regression results, with all other variables held constant, one standard deviation increase in the standardized WEALTH leads, on average, to approximately -0.37631 standard deviation decrease in the standardized APPR. Similarly, holding the other variables constant, one standard deviation increase in the standardized CI, on average, leads to roughly 0.299329 standard deviation increase in the standardized APPR. From the results, we can conclude that corruption indeed has strong impact on the immigrants' apprehension level in the United States.

As you noticed from the results, the EDU has positive sign and it is highly significant in 1% level, meaning immigrants coming from countries with higher literacy rate are more likely to be apprehended. Logically, it is against once expectations because literate people are in fact less involved in criminal practices than illiterate people. Fortunately, we found somehow convincing solution to this puzzle. As we noted earlier Dimant et al., (2013a) reports that the ratio of highly skilled immigrants from corruption-ridden countries is higher than countries with lower corruption. According to a study by Ariu and Squicciarini (2013), their results also indicate that highly skilled people are more likely to move abroad if their origin country is highly corrupt. - These findings explain the reason why people coming to the United States from countries with higher literacy rate are more likely to be apprehended. According to these facts, the immigrants visiting the United States from countries with higher literacy are relatively less educated and have fewer skills than the immigrants from corruption-ridden countries. The interpretation of the results tells us that holding the other variables constant, one standard deviation increase in the standardized EDU, on average, leads to approximately 0.268662 standard deviation increase in the standardized APPR.

The population growth (EMPL) also demonstrates very significant impact on the change in apprehension level. Holding the other variables constant, one standard deviation increase in the standardized EMPL (significant in 1% level), on average, increases the standardized APPR by 0.263868 standard deviation. As for the international immigrant stock (IMGR), it has negative sign in 1% significance level, indicating with all other variables held constant, one standard deviation increase in the standardized IMGR leads, on average, to approximately -0.24743 standard deviation decrease in the standardized APPR. The homicide rate (HMCD) shows that it has positive relation with the APPR in 5% significance level, holding the other variables constant, one standard deviation increase in the standardized HMCD, on average, leads to roughly 0.223696 standard deviation increase in the standardized APPR. The prostitution (PRST) has relatively less strength on influencing the apprehension level among the explanatory variables. It is significant in 5% level with positive sign, holding the other variables constant, one standard deviation increase in the standardized PRST, on average, leads to 0.165963 standard deviation increase in apprehension level.

The sub-regression models demonstrate similar results as model [2-1]. In Model [2-2], the Ethnic Fractionalization (ETH) is significant in 10% level, indicating holding the other variables

constant, one standard deviation increase in ETH, on average, leads to 0.144653 standard deviation increase in the apprehension level. The rest of sub-variables applied in sub-regressions do not show any significant results in any acceptable significance levels. Model [2-7] regresses the explanatory variables with the all remaining sub-variables, the results are pretty similar for the most outcomes in the Model [2-1] except HMCD which appears to be insignificant.

5.4 Tests for biasness of the results

The regression results for the models have been rigorously checked for any possible bias outcomes, using all the available test tools (EVIEWS 5, etc). To check whether the residuals are normal distributed, we applied Jarcue-Bera test. As the results[23] indicate the residuals are normally distributed in each model (the p-values of Jarcue-Bera test are higher than 5% in each model, meaning our residuals are normally distributed). To check whether the models suffer from Heteroskedasticity problem, we used White's Heteroskedasticity Test, fortunately, (the Obs*R-sq and its p-values are higher than 5% for each model, meaning our models do not suffer from heteroscedasticity problem) the test results showed the homoscedasticity of the variances.

Since the collinearity problem is almost unavoidable obstacle in empirical works, we were somehow able to avoid multicollinearity problem among the explanatory variables by transforming some variables into dummy variables.[24] The high collinearity between the explanatory variables causes larger variances and covariances, which makes the regression difficult to precisely estimate. In Appendix 5, we discussed the variance-inflating factor (VIF), to check whether the models are affected by multicollinearity.

5.5 Multiple Regression Analysis

We apply the Ordinary Least Squares (OLS) method for estimating the regression analysis. Since there is no significant reason to believe that immigrants' apprehension level may cause the endogeneity bias, we do not extend our empirical work by applying the Two Stage Least Squares (TSLS) method. In our models, the dependent variable APPR is expressed as a linear function of the explanatory variables. Our assumption is that the cause-and-effect relationship between apprehension level and the included explanatory variables is unidirectional. The explanatory variables are the cause and the dependent variable (APPR) is the effect. As we discussed above,

[23] Please, refer to Appendix 4 for the residuals test results.

[24] For example, the transformation of Homicide Rate data into dummy variables significantly decreased the collinearity problem between CI and MHCD.

according to the MWD test, the log-linear model is the right model for conducting our regression analysis.

Table 3

Results of log-linear model
(pooled sample)

Dependent variable: LOG(APPR)

	[3-1]	[3-2]	[3-3]	[3-4]	[3-5]	[3-6]	[3-7]
LOG(CI)	0.421175***	0.384082***	0.424802***	0.420237***	0.408451***	0.414833***	0.354604***
	(0.0013)	(0.0032)	(0.0012)	(0.0013)	(0.0022)	(0.0017)	(0.0086)
LOG(WEALTH)	-0.15817***	-0.15708***	-0.15786***	-0.15966***	-0.15734***	-0.15499***	-0.15129***
	(0.0001)	(0.0001)	(0.0001)	(0.0001)	(0.0001)	(0.0002)	(0.0003)
LOG(EDU)	0.690154***	0.692245***	0.684038***	0.698813***	0.692257***	0.683393***	0.668767**
	(0.0081)	(0.0073)	(0.0092)	(0.0078)	(0.0082)	(0.0093)	(0.0107)
LOG(EMPL)	2.657087***	2.314584***	2.736236***	2.62484***	2.597931***	2.478973**	2.15124**
	(0.0023)	(0.0083)	(0.0025)	(0.0028)	(0.0032)	(0.0136)	(0.0400)
LOG(IMGR)	-0.13518***	-0.13362***	-0.13417***	-0.13231**	-0.13341***	-0.12887**	-0.1151**
	(0.0085)	(0.0086)	(0.0095)	(0.0109)	(0.0099)	(0.0181)	(0.0343)
LOG(HMCD)	0.189539**	0.159291**	0.187239**	0.193038**	0.180278**	0.191907**	0.127328
	(0.0111)	(0.0344)	(0.0128)	(0.0105)	(0.0191)	(0.0108)	(0.1126)
LOG(PRST)	0.128586**	0.135355**	0.125809**	0.121976*	0.127418**	0.130082**	0.12051*
	(0.0342)	(0.0247)	(0.0407)	(0.0520)	(0.0367)	(0.0334)	(0.0550)
LOG(ETH)	–	0.111138*	–	–	–	–	0.166184**
		(0.0745)					(0.0221)
LOG(LING)	–	–	-0.021	–	–	–	-0.09259
			(0.7252)				(0.1805)
LOG(RLG)	–	–	–	-0.02546	–	–	-0.0239
				(0.6635)			(0.6898)
LOG(THEFT)	–	–	–	–	0.034629	–	0.049223
					(0.6087)		(0.4670)
LOG(ALCH)	–	–	–	–	–	-0.02679	-0.03435
						(0.7214)	(0.6514)
Constant	-9.9261**	-8.31739*	-10.2669**	-9.76608**	-9.64104**	-9.06388*	-7.36236
	(0.0319)	(0.0734)	(0.0307)	(0.0361)	(0.0392)	(0.0831)	(0.1724)
R^2	0.520012	0.535899	0.520639	0.520973	0.521342	0.520658	0.550151
Adjusted R^2	0.485013	0.496817	0.480272	0.480634	0.481034	0.480292	0.490831
D -stat	1.985874	2.023138	1.992343	1.980617	1.964469	1.983892	2.048469
F –stat	14.85788***	13.71211***	12.89758***	12.91482***	12.93393***	12.89853***	9.274186***
	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)
Obs.	104	104	104	104	104	104	104

Notes: *, **, and *** indicate significance levels at 10%, 5%, and 1%. Numbers in parentheses are the p values.

In Table 3, the estimation results of the log-linear regression for the pooled sample show that almost all the included explanatory variables turn out to be significant in 1-10% levels with the expected signs in each model. As the results show [3-1], holding the other variables constant, the elasticity of APPR with respect to CI is about 0.42, suggesting that if corruption level goes up by 1 percent, on average, the ratio of the apprehended immigrants goes up by about 0.42 percent. In models [3-1]-[3-7], the average coefficient of CI is 0.404026, meaning by holding the other variables constant, if the mean corruption level increases by 1 percent, on average, the mean ratio

of apprehended immigrants goes up by about 0.40 percent. Let us consider the following numerical example, if El Salvador (CI=65) reduces its corruption level to that of Saudi Arabia (CI=55), the average number of apprehended Salvadorians in the United States could be reduced to about 89 people. These results support our expectation that corruption level in a home country has significant effect on its people's unlawful practices while being abroad.

Table 4

Results of log-linear model (Less corrupt countries)

Depenent variable: LOG(APPR)

	[4-1]	[4-2]	[4-3]	[4-4]	[4-5]	[4-6]	[4-7]
C	-16.7193**	-13.8246*	-15.594**	-17.3186**	-16.7828**	-15.925*	-10.6152
	(0.0206)	(0.0581)	(0.0376)	(0.017)	(0.0221)	(0.053)	(0.2181)
LOG(CI)	0.352684**	0.321066*	0.334916*	0.358434**	0.349498**	0.348519**	0.304901*
	(0.0355)	(0.053)	(0.0507)	(0.0327)	(0.0432)	(0.0412)	(0.0751)
LOG(WEALTH)	-0.1883***	-0.17898***	-0.18868***	-0.18637***	-0.18903***	-0.18452***	-0.16143**
	(0.0019)	(0.0028)	(0.002)	(0.0021)	(0.0022)	(0.0038)	(0.0113)
LOG(EDU)	0.796914	0.744753	0.75121	0.908754	0.797504	0.817878	0.924872
	(0.198)	(0.2221)	(0.2317)	(0.1486)	(0.2029)	(0.1973)	(0.1447)
LOG(EMPL)	4.260627***	3.66388***	4.081091***	4.303791***	4.277486***	4.067957**	2.837968
	(0.0017)	(0.0078)	(0.0035)	(0.0016)	(0.002)	(0.014)	(0.1022)
LOG(IMGR)	-0.26624***	-0.25777***	-0.27766***	-0.27248***	-0.26657***	-0.26147***	-0.27083***
	(0.0028)	(0.0033)	(0.0026)	(0.0023)	(0.0031)	(0.0048)	(0.0051)
LOG(HMCD)	0.172883	0.164249	0.17618	0.20389	0.166769	0.176416	0.262323
	(0.1991)	(0.2155)	(0.1946)	(0.1399)	(0.2672)	(0.1986)	(0.1039)
LOG(PRST)	0.106069	0.104894	0.103379	0.08667	0.107185	0.105246	0.056244
	(0.1912)	(0.1894)	(0.2067)	(0.2955)	(0.1962)	(0.2001)	(0.5093)
LOG(ETH)	–	0.131613	–	–	–	–	0.174987*
		(0.1285)					(0.0809)
LOG(LING)	--	–	0.052961	–	–	–	0.070007
			(0.5601)				(0.5424)
LOG(RLG)	–	–	–	-0.08806	–	–	-0.17122*
				(0.2934)			(0.0757)
LOG(THEFT)	--	–	–	–	0.011879	–	-0.05637
					(0.9236)		(0.6757)
LOG(ALCH)	--	–	–	–	–	-0.02443	-0.05019
						(0.8359)	(0.6685)
R^2	0.587327	0.609155	0.59061	0.597907	0.587416	0.587743	0.641692
Adjusted R^2	0.521674	0.53644	0.514445	0.523099	0.510656	0.511044	0.531444
D -stat	2.226939	2.210325	2.257447	2.164559	2.228306	2.236727	2.140215
F –stat	8.945978***	8.377261***	7.754292***	7.992549***	7.652644***	7.662977***	5.820419***
	(0.000001)	(0.000001)	(0.000002)	(0.000002)	(0.000003)	(0.000003)	(0.000012)
Obs	52	52	52	52	52	52	52

Notes: *, **, and *** indicate significance levels at 10%, 5%, and 1%. Numbers in parentheses are the p values.

To be more specific, it would be fair if we divide the total sample observations in two groups, Less Corrupt Countries and More Corrupt Countries, because treating different countries in one group may not present some important outcomes.

The regression results for Less Corrupt Countries (Table 4), suggest similar outcomes with the Pooled Sample analysis, while some variables turn out to be insignificant. In models [4-1]-[4-7], the average elasticity of APPR with respect to CI is about 0.34, by holding the other variables constant, if the mean corruption level goes up by 1 percent, on average, the mean ratio of apprehended immigrants increases by about 0.34 percent. For instance, if Bahamas (CI=28) reduces its corruption level to that of Singapore (CI=8), the average number of apprehended Bahamians in the United States could be reduced to about 60 people.

Table 5

Results of log-linear model (More corrupt countries)

Depenent variable: LOG(APPR)

	5-1	5-2	5-3	5-4	5-5	5-6	5-7
C	-0.62813	-0.76673	-0.9897	-0.56877	1.44265	-0.50964	0.213691
	(0.9388)	(0.9256)	(0.9049)	(0.9456)	(0.8667)	(0.9518)	(0.9815)
LOG(CI)	-1.34697	-1.17913	-1.37922	-1.3466	-1.5237	-1.32298	-1.23945
	(0.3409)	(0.4103)	(0.3341)	(0.3466)	(0.2893)	(0.3676)	(0.4159)
LOG(WEALTH)	-0.1487**	-0.14933**	-0.14673**	-0.14986**	-0.14571**	-0.1482**	-0.13871**
	(0.0155)	(0.0155)	(0.018)	(0.021)	(0.0182)	(0.0178)	(0.0388)
LOG(EDU)	0.40401	0.424387	0.388833	0.403903	0.387984	0.401639	0.388441
	(0.2022)	(0.1838)	(0.2252)	(0.2076)	(0.2231)	(0.2125)	(0.2385)
LOG(EMPL)	2.489676*	2.329394	2.619403*	2.480244*	2.204833	2.443223	2.18493
	(0.0816)	(0.107)	(0.0739)	(0.0881)	(0.1341)	(0.1224)	(0.2073)
LOG(IMGR)	-0.05473	-0.06175	-0.05425	-0.05326	-0.04995	-0.05227	-0.06322
	(0.4751)	(0.4251)	(0.4826)	(0.511)	(0.5171)	(0.5367)	(0.4827)
LOG(HMCD)	0.148444	0.112934	0.14924	0.149094	0.140707	0.149335	0.073103
	(0.1413)	(0.3022)	(0.1426)	(0.14630	(0.1662)	(0.1465)	(0.5328)
LOG(PRST)	0.143897	0.162171	0.126913	0.141916	0.125002	0.145249	0.126364
	(0.164)	(0.1274)	(0.2439)	(0.1942)	(0.2385)	(0.1717)	(0.2968)
LOG(ETH)	–	0.082362	–	–	–	–	0.160822
		(0.408)					(0.1937)
LOG(LING)	–	–	-0.04677	–	–	–	-0.1146
			(0.5995)				(0.3074)
LOG(RLG)	–	–	–	-0.00586	–	–	0.014554
				(0.9505)			(0.8832)
LOG(THEFT)	–	–	–	–	0.073715	–	0.071086
					(0.4143)		(0.4527)
LOG(ALCH)	–	–	–	–	–	-0.00828	-0.01041
						(0.9423)	(0.9321)
R-sq	0.366914	0.377029	0.371008	0.366972	0.376764	0.366992	0.406148
Adj R-sq	0.266196	0.261128	0.253986	0.249199	0.260813	0.249223	0.223424
D stat	1.917539	1.899408	1.930379	1.91665	1.887395	1.917988	1.919749
F-stat	3.64298***	3.253014***	3.170413***	3.115932***	3.249335***	3.116207***	2.222741**
Prob	(0.003491)	(0.005527)	(0.006516)	(0.007265)	(0.005568)	(0.007261)	(0.029949)
obs	52	52	52	52	52	52	52

Notes: *, **, and *** indicate significance levels at 10%, 5%, and 1%. Numbers in parentheses are the p values.

However, the outcomes for the More Corrupt Countries (Table 5) do not represent significant results that support our view because the coefficients of CI are insignificant with the opposite

signs in each model while the rest of the coefficients are lower in significance or insignificant at all. Our results for More Corrupt Countries group contradicts the findings of Dimant et al., (2013a), their analysis shows that the immigrants' flow from more corrupt countries is associated with significant increase in OECD countries' corruption level. However, our results show that the flow of immigrants specifically from more corrupt countries do not significantly influence to the corruption level of the United States. Based on our findings we conclude that Dimant et al., (2013a)'s robust evidences might be applicable for some OECD countries, but not particularly to the United States.

Table 6

Results of log-linear model (Regional Dummies)

Depenent variable: LOG(APPR)

	[6-1]	[6-2]	[6-3]	[6-4]	[6-5]	[6-6]	[6-7]
C	-10.6148**	-9.26189**	-7.95994	-9.04243*	-9.69231**	-10.1333**	-10.1297**
	(0.0188)	(0.039)	(0.1155)	(0.066)	(0.0356)	(0.0288)	(0.0295)
LOG(CI)	0.33255**	0.419253***	0.435099***	0.404881***	0.444069***	0.415339***	0.418138***
	(0.0108)	(0.0009)	(0.001)	(0.0026)	(0.0008)	(0.0015)	(0.0014)
LOG(WEALTH)	-0.15458***	-0.12568***	-0.15461***	-0.15959***	-0.1606***	-0.15959***	-0.15583***
	(0.0001)	(0.0019)	(0.0001)	(0.0001)	(0.0001)	(0.0001)	(0.0001)
LOG(EDU)	0.735151***	0.432118	0.688033***	0.699995***	0.685323***	0.748069***	0.641344**
	(0.004)	(0.1069)	(0.0084)	(0.0077)	(0.0084)	(0.0053)	(0.0185)
LOG(EMPL)	2.884308***	2.649748***	2.223148**	2.475988***	2.59819***	2.647392***	2.741484***
	(0.0008)	(0.0017)	(0.0231)	(0.008)	(0.0028)	(0.0024)	(0.0019)
LOG(IMGR)	-0.17451***	-0.0943*	-0.1195**	-0.14157***	-0.13567***	-0.1346***	-0.13176**
	(0.001)	(0.0681)	(0.0265)	(0.0076)	(0.0081)	(0.0088)	(0.011)
LOG(HMCD)	0.159521**	0.078275	0.167014**	0.20182**	0.189941**	0.204656***	0.212029**
	(0.0293)	(0.3427)	(0.0325)	(0.0101)	(0.0107)	(0.0074)	(0.0108)
LOG(PRST)	0.085912	0.075781	0.139196**	0.132416**	0.1245**	0.136367**	0.125438**
	(0.1592)	(0.219)	(0.0246)	(0.0311)	(0.0398)	(0.0262)	(0.04)
LOG(EAP)	-0.2143**	–	–	–	–	–	–
	(0.0121)						
LOG(LAC)	–	0.238814***	–	–	–	–	–
		(0.0085)					
LOG(ECA)	–	–	-0.07764	–	–	–	–
			(0.3455)				
LOG(MENA)	–	–	–	0.057643	–	–	–
				(0.592)			
LOG(NORTHA)	–	–	–	–	0.366648	–	–
					(0.2022)		
LOG(SA)	–	–	–	–	–	0.126296	–
						(0.3227)	
LOG(SSA)	–	–	–	–	–	–	-0.07544
							(0.5285)
R-sq	0.550926	0.553955	0.524511	0.521469	0.528204	0.524955	0.522026
Adj R-sq	0.513109	0.516394	0.48447	0.481172	0.488474	0.484951	0.481775
D stat	1.982504	1.903976	1.941967	1.969022	2.003717	1.961786	1.978982
F-stat	14.56829***	14.74789***	13.09927***	12.94054***	13.29478***	13.12262***	12.96944***
Prob	(0.00000)	(0.00000)	(0.00000)	(0.00000)	(0.00000)	(0.00000)	(0.00000)
obs	104	104	104	104	104	104	104

Notes: *, **, and *** indicate significance levels at 10%, 5%, and 1%. Numbers in parentheses are the p values.

As we noted earlier, specification of countries into less and more corrupt countries reveals some additional informative results. The comparison of results shows that our expectations seem to be more applicable for less corrupt countries rather than more corrupt countries.

In Table 6, we apply regional dummies to test whether people coming from specific regions are more likely to be apprehended or not. We divided countries into seven regional groups according to World Bank's regional division.[25] The regression results reveal that two regions (out of seven) have significant impact on apprehension level. The Models [6-1]-[6-2] indicate that people from East Asia and Pacific (significant in 5% level) are less likely to be apprehended in the United States, while people from Latin America and Caribbean (significant in 1% level) are more likely to be apprehended. The numerical comparison also confirms that the average (2009-2011) number of apprehended immigrants from LAC (57,708) is about 7.4 times more than the apprehended immigrants from EAP (7,849) in our sample. Note that this ratio (7.4) could be much higher if we include some countries with extremely high number of apprehended people from LAC, which were not included in our country samples to avoid outliers.

Table 7

Results of log-linear model (Income Group Dummies))				
Depenent variable: LOG(APPR)				
	[7-1]	[7-2]	[7-3]	[7-4]
C	-8.62149*(0.0608)	-9.44934**(0.0393)	-9.93221**(0.0312)	-9.30986**(0.0451)
LOG(CI)	0.284956**(0.0494)	0.399269***(0.0021)	0.368144***(0.0066)	0.400893***(0.0023)
LOG(WEALTH)	-0.13686***(0.0008)	-0.17039***(0.0000)	-0.15805***(0.0001)	-0.15374***(0.0001)
LOG(EDU)	0.715029***(0.0056)	0.487671*(0.0837)	0.617364**(0.0198)	0.685926***(0.0085)
LOG(EMPL)	2.425666***(0.005)	2.808886***(0.0012)	2.759594***(0.0016)	2.516919***(0.0041)
LOG(IMGR)	-0.10375**(0.0497)	-0.14206***(0.0055)	-0.13404***(0.0089)	-0.12486**(0.0164)
LOG(HMCD)	0.179617**(0.0147)	0.18225**(0.0137)	0.170645**(0.0238)	0.200149***(0.0078)
LOG(PRST)	0.136946**(0.0228)	0.127851**(0.0335)	0.125356**(0.0384)	0.135206**(0.0267)
LOG(HI)	-0.177988*(0.0547)	–	–	–
LOG(LI)	–	-0.19166*(0.089)	–	–
LOG(UMI)	–	–	0.084185(0.1944)	–
LOG(LMI)	–	–	–	0.081213(0.2621)
R-sq	0.538402	0.534484	0.528491	0.526356
Adj R-sq	0.49953	0.495283	0.488785	0.486471
D stat	2.005	1.955106	1.95972	2.006026
F-stat	13.85083	13.63435	13.31012	13.1966
Prob	(0.00000)	(0.00000)	(0.00000)	(0.00000)
obs	104	104	104	104

Notes: *, **, and *** indicate significance levels at 10%, 5%, and 1%. Numbers in parentheses are the p values.

[25] Please, refer to Appendix 1 for the description of the regional and income group variables.

Using the same methodology (Table 7), we divide countries into four income groups, such as, high-income (HI), low-income (LI), upper-middle-income (UMI), and lower-middle-income (LMI) groups to check whether there is any association of income with apprehension level of immigrants. We divided countries into income groups based on World Bank's income group division.

As we expected, the regression results perform some informative outcomes. The coefficients for high-income (HI) and low-income (LI) countries are significant at 10% level with negative sign, suggesting people coming from these two income group countries are less likely to be apprehended in the United States while upper middle income (UMI) and lower middle income (LMI) group countries do not show any acceptable significant results.

Based on the above findings, we can conclude that corrupt environment of a country has significantly negative effect on individuals' behavior, which makes them to perform their home gained immoral experiences in a foreign country, by causing them being apprehended due to the results of those experiences. To our best knowledge, the effect of corruption in this manner has not been pointed out in earlier literature.

6 Conclusion

This paper analyzes the apprehension level of immigrants based on the corruption level of their country of origin. The empirical results come out to be very notable, indicating that individuals coming to the United States from corruption-ridden countries are more likely to be apprehended than individuals from less corrupt countries. For example, if El Salvador (CI=65) reduces the corruption level to that of Saudi Arabia (CI=55), the average number of apprehended Salvadorians in the United States could be reduced to about 89 people.

From the conducted empirical work, we can conclude that the apprehension level of foreign nations abroad might significantly increase if the corruption level in their home countries is high. Since the results support our expectations, it would be worth mentioning that countries with higher level of corruption might improve/decrease their citizens' behavior towards corrupt practices in a foreign country by curing the disease of corruption within the country.

Finally, considering all the findings, we suggest that countries' corruption level is the fact that has to be seriously controlled by each country whether it is less corrupt or more.

Acknowledgments We are grateful to Farruh Ishmanov, Dong Geun Han, Jung Hee Park, Jeun Seok Wang, and Giovanni B. Ramello for their useful comments and helpful suggestions. Furthermore, we would like to express our gratitude to all the organizations and the individuals publishing their data online for our convenience.

Appendix 1: Description of variables

	Meaning	Measurement Method	Source of Data
APPR	Ratio of Apprehended Immigrants by Country of Origin in the US territory	The number of apprehended foreign-born population for country A divided to the total number of foreign-born population of the same country multiplied to 100,000 (the value is multiplied to 100,000 to fit the log model)	The data for the number of Foreign-Born Population (FBP) by Country of Origin was obtained from Migration Policy Institute (MPI) of the United States. Data source: http://www.migrationpolicy.org/programs/data-hub The data for the number of Apprehended Foreign-Born Population (AFBP) by Country of Origin was obtained from U.S. Department of Homeland Security (DHS). Data source: http://www.dhs.gov/yearbook-immigration-statistics-2012-enforcement-actions Table#34.
CI	Corruption Perception Index Corruption Level of a Country	The data was calculated by Transparency International, the CPI is the aggregated data from different sources of corruption related data that are produced by a variety of independent and well known institutions.	Transparency International annual publications. Data source: http://cpi.transparency.org/cpi2013/results/ .
WEALTH	GDP (current US$)	Numbers are in millions	World Bank (World Development Indicators) http://data.worldbank.org/indicator/NY.GDP.MKTP.CD
EDU	Human Capital	Average total schooling years of people aged 15 and over.	Barro Robert and Jong-Wha Lee, "A new Data Set of Educational Attainment in the World". Data Source: http://www.barrolee.com/data/dataexp.htm
EMPL	Competition in the Labor Market	Population growth (annual %), Growth Of Labor Force	World Bank (World Development Indicators). Data Source: http://data.worldbank.org/indicator/SP.POP.GROW/countries
IMGR	International Migrant Stock	The number of people born in a country other than that in which they live	World Bank (World Development Indicators). Data Source: http://data.worldbank.org/indicator/SM.POP.TOTL
HMCD	Homicide Rate	10 for countries with numbers above sample average, 1 for others	UNODC(United Nations Office on Drugs and Crime). Data Source: https://www.unodc.org/unodc/en/data-and-analysis/homicide.html World Bank (World Development Indicators). Data Source: http://data.worldbank.org/indicator/VC.IHR.PSRC.P5
PRST	Prostitution	10 for countries where prostitution is legal by law, 1 for others	Maps of World (Human trafficking statistics and facts). Data Source: http://www.mapsofworld.com/poll/should-prostitution-be-legalized-text.html
ETH	Ethnic Fractionalization index	10 for countries with numbers above sample average, 1 for others	Alberto Alesina et al. (2003) "Fractionalization", Journal of Economic Growth, 8: 195–222.
LING	Linguistic Fractionalization index	10 for countries with numbers above sample average, 1 for others	Alberto Alesina et al. (2003) "Fractionalization", Journal of Economic Growth, 8: 195–222.
RLG	Religious Fractionalization index	10 for countries with numbers above sample average, 1 for others	Alberto Alesina et al. (2003) "Fractionalization", Journal of Economic Growth, 8: 195–222.
THEFT	Losses due to theft, robbery, vandalism, and arson (% sales)	10 for countries with numbers above sample average, 1 for others	World Bank (World Development Indicators). Data Source: http://data.worldbank.org/indicator/IC.FRM.CRIM.ZS
ALCH	Alcohol Consumption	10 for countries with numbers above sample average, 1 for others	World Health Organization
Regional Dummies			
EAP	East Asia & Pacific	10 for countries in East Asia & Pacific, 1 for others	According to World Bank
ECA	Europe & Central Asia	10 for countries in Europe & Central Asia, 1 for others	According to World Bank
LAC	Latin America & Caribbean	10 for countries in Latin America & Caribbean, 1 for others	According to World Bank
MENA	Middle East & North Africa	10 for countries in Middle East & North Africa, 1 for others	According to World Bank
NORTHA	North America	10 for countries in North America, 1 for others	According to World Bank
SA	South Asia	10 for countries in South Asia, 1 for others	According to World Bank
SSA	Sub-Saharan Africa	10 for countries in Sub-Saharan Africa, 1 for others	According to World Bank

	Meaning	Measurement Method	Source of Data
Income Group Dummies			
HI	high income	10 for countries with high income, 1 for others	According to World Bank
LI	low income	10 for countries with low income, 1 for others	According to World Bank
LMI	lower middle income	10 for countries with lower middle income, 1 for others	According to World Bank
UMI	upper middle income	10 for countries with upper middle income, 1 for others	According to World Bank

Appendix 2: Descriptive Statistics

	#Obs.	Mean	Median	Std.Dev.	Min	Max
Dependent Variable						
APPR	100	276.0382	196.3126	280.7083	19.82366	2206.915
Explanatory Variables						
CPI	100	56.59777	64.30345	22.30286	6.124397	85.94302
WEALTH	100	442115.9	104818.1	966088.4	477.8414	6081240
EDU	100	85.91154	90.7	24.74285	23	126.8
EMPL	100	110.6643	110.5284	9.948665	89.27036	148.422
IMGR	100	80.54611	34.95777	111.4582	0.510723	701.7967
HMCD	100	3.596154	1	4.097167	1	10
PRST	100	4.894231	1	4.480634	1	10
ETH	100	5.673077	10	4.518446	1	10
LING	100	4.980769	1	4.49159	1	10
RLG	100	5.846154	10	4.508394	1	10
THEFT	100	3.855769	1	4.20914	1	10
ALCH	100	5.5	5.5	4.521792	1	10
EAP	100	2.384615	1	3.262936	1	10
ECA	100	4.028846	1	4.273324	1	10
LAC	100	3.163462	1	3.864477	1	10
MENA	100	1.951923	1	2.781282	1	10
NORTHA	100	1.086538	1	0.882523	1	10
SA	100	1.519231	1	2.108608	1	10
SSA	100	1.865385	1	2.666068	1	10
HI	100	4.201923	1	4.329577	1	10
LI	100	1.951923	1	2.781282	1	10
LMI	100	2.990385	1	3.753303	1	10
UMI	100	3.855769	1	4.20914	1	10

Appendix3: Testing the functional form of regression: choosing between linear and log-linear regression models

To choose between the linear regression model and the log-linear model we applied a test introduced by MacKinnon, White, and Davidson (MWD test).

Our null (H0) and alternative (H1) hypotheses are as following:

H0: Linear Model: APPR is a linear function of regressors (CPI, WEALTH, EDU, EMPL, IMGR, HMCD, and PRST).

H1: Log–Linear Model: lnAPPR is a linear function of logs of regressors (CPI, WEALTH, EDU, EMPL, IMGR, HMCD, and PRST).

The procedures of the MWD test:

1. Estimate the linear model and obtain the estimated APPR values - E(APPR).
2. Estimate the log–linear model and obtain the estimated lnAPPR values - E(ln(APPR)).
3. Obtain Z1 = ln(E(APPR)) −E(ln(APPR)).
4. Regress APPR on regressors (CPI, WEALTH, EDU, EMPL, IMGR, HMCD, and PRST) and Z1 obtained in Step 3. We reject H0 if the coefficient of Z1 is statistically significant by the usual t test.

The results of the regression in Step 4:

APPR= -388.18 + 3.179CPI – 0.000033WEALTH + 1.498EDU + 1.973EMPL - 0.126MGR +30.607HMCD + 16.4171PRST – 133.4797Z1									
t-stat	(-0.977)	(2.222)	(-1.232)	(1.158)	(0.649)	(-0.464)	(4.857)	(2.785)	(-2.235)
Prob	(0.331)	(0.0287)	(0.2208)	(0.2495)	(0.5178)	(0.643)	(0.0000)	(0.0065)	(0.0277)

Since, the coefficient of Z1 is statistically significant in 5% level we reject H0, meaning the log-linear model is appropriate model for our regression analysis.

5. Obtain Z2 = antilog [E(ln(APPR))− E(APPR)]
6. Regress ln(APPR) on the logs of regressors (CPI, WEALTH, EDU, EMPL, IMGR, HMCD, PRST) and Z2. Reject H1 if the coefficient of Z2 is statistically significant by the usual t test.

Log(APPR)= -9.32 + 0.39log(CPI) – 0.14log(WEALTH) + 0.69log(EDU) + 2.52log(EMPL) - 0.13log(IMGR) + 0.20log(HMCD) + 0.11log(PRST) – 0.34log(Z2)									
t-stat	(-2.063)	(3.163)	(-3.757)	(2.754)	(2.998)	(-2.804)	(2.760)	(1.849)	(-1.776)
Prob	(0.0418)	(0.0021)	(0.0003)	(0.0071)	(0.0035)	(0.0061)	(0.0069)	(0.0674)	(0.0788)

Since, the coefficient of Z2 is not statistically significant in 5% level we do not reject H1, meaning the log-linear model is appropriate model for our regression analysis.

Appendix 4: Residuals Test

Dependent Variable: LOG(APPR)							
	Model-1	Model-2	Model-3	Model-4	Model-5	Model-6	Model-7
Explanatory Variables							
LOG(CPI)	o	O	o	o	o	o	O
LOG(WEALTH)	o	O	o	o	o	o	O
LOG(EDU)	o	O	o	o	o	o	O
LOG(EMPL)	o	O	o	o	o	o	O
LOG(IMGR)	o	O	o	o	o	o	O
LOG(HMCD)	o	O	o	o	o	o	O
LOG(PRST)	o	O	o	o	o	o	O
LOG(ETH)		O					O
LOG(LING)			o				O
LOG(RLG)				o			O
LOG(THEFT)					o		O
LOG(ALCH)						o	O
Histogram Normality Test							
Skewness	-0.22816	-0.164221	-0.236664	-0.269227	-0.206239	-0.22245	-0.169501
Kurtosis	3.250372	3.461644	3.200016	3.350044	3.159508	3.271056	3.255832
Jarque-Bera	1.173959	1.390951	1.144195	1.78734	0.847514	1.176097	0.781616
Prob	0.556004	0.498837	0.56434	0.409151	0.654583	0.55541	0.67651
White Heteroskedasticity Test							
No Cross Terms							
F-stat	1.111165	1.13382	1.039802	1.48175	1.052765	1.099098	1.158838
Prob	0.361046	0.342074	0.421583	0.139763	0.410025	0.370242	0.315353
Obs*R-sq	13.2913	14.63557	13.58044	18.33494	13.7274	14.24878	19.38335
Prob	0.348228	0.330652	0.40404	0.145211	0.393318	0.35656	0.306977
Cross Terms							
F-stat	1.390293	1.595256	1.177851	1.3054	1.129873	1.253732	1.409616
Prob	0.124383	0.047385	0.2761	0.169001	0.327125	0.207508	0.194187
Obs*R-sq	41.1762	53.38994	45.53696	48.1835	44.47531	47.14084	88.81731
Prob	0.155248	0.09299	0.288865	0.205006	0.327565	0.235825	0.311059

Appendix 5: Collinearity

Correlation Matrix for the Main Explanatory Variables

	CPI	WEALTH	EDU	EMPL	IMGR	HMCD	PRST
CPI	1	-	-	-	-	-	-
WEALTH	-0.34782	1	-	-	-	-	-
EDU	-0.46836	0.334433	1	-	-	-	-
EMPL	0.148464	-0.10931	-0.4623	1	-	-	-
IMGR	-0.49394	0.037742	0.460127	-0.05356	1	-	-
HMCD	0.225389	-0.47121	-0.28466	0.251151	-0.17417	1	-
PRST	-0.24462	0.230273	0.229561	-0.11408	0.21582	0.043661	1

Since, the high collinearity between the explanatory variables causes larger variances and covariances, which makes the regression difficult to precisely estimate. In this section, it would be worthy of mentioning the variance-inflating factor (VIF), which defined as

$$\mathrm{VIF} = \frac{1}{(1 - \mathrm{R}_j^2)}$$

Where, R_j^2 is the partial correlation coefficient. The VIF explains how the variance of an estimator is inflated by the existence of multicollinearity. We can see from the formula that as R_j^2 approaches 1, the VIF approaches infinity making the variance of an estimator infinite. It can be observed that increasing R_j^2 has a dramatic effect on the estimated variances and covariances of the regression estimators. When, $\mathrm{R}_j^2 = 0.50$, the variance times to 1.33 and covariance times to 0.67. The VIF reaches extreme values when the R_j^2 value is higher than 0.95. In our models, the partial correlation coefficients among the variables are lower than 0.50, which makes our models free from relatively high collinearity problem.

Appendix 6: Regression Specification Error Test

Ramsey's RESET Test[26]					
	Restricted Model	R^2_{old}		Unrestricted Model	R^2_{new}
M1	log(appr)= c +log(cpi)	0.226193	M2	log(appr)= c +log(cpi)+log(wealth)	0.350477
M2	log(appr)= c +log(cpi)+log(wealth)	0.350477	M3	log(appr)= c +log(cpi)+ +log(wealth)+log(empl)	0.385022
M3	log(appr)= c +log(cpi)+log(wealth)+log(empl)	0.385022	M4	log(appr)= c +log(cpi)+ log(wealth)+log(empl)+log(imgr)	0.404831
M4	log(appr)= c +log(cpi)+log(wealth)+ +log(empl)+log(imgr)	0.404831	M5	log(appr)= c +log(cpi)+log(wealth)+ +log(impl)+log(imgr)+log(edu)	0.445123
M5	log(appr)= c +log(cpi)+log(wealth)+log(impl)+ +log(imgr)+log(edu)	0.445123	M6	log(appr)= c +log(cpi)+log(wealth)+log(impl)+ +log(imgr)+log(edu)+log(hmcd)	0.496938
M6	log(appr)= c +log(cpi)+log(wealth))+log(impl)+ +log(imgr)+log(edu+log(hmcd)	0.496938	M7	log(appr)= c +log(cpi)+log(wealth)+log(impl)+ +log(imgr)+log(edu)+log(hmcd)+log(prst)	0.520012

$$F = \frac{(R^2_{new} - R^2_{old})/\text{number of new regressors}}{(1 - R^2_{new})/(n - \text{number of parametrs in the new model})}$$

Unrestricted Model-2 vs Restricted Model-1	F-value	19.3260038520576***
Unrestricted Model-2 vs Restricted Model-3	F-value	5.61727411387074**
Unrestricted Model-3 vs Restricted Model-4	F-value	3.29501536538362*
Unrestricted Model-4 vs Restricted Model-5	F-value	7.11620052732407***
Unrestricted Model-5 vs Restricted Model-6	F-value	9.99092557179831***
Unrestricted Model-6 vs Restricted Model-7	F-value	4.61491537288433**

The main purpose of applying Ramsey's RESET Test is to find out whether the included new explanatory variables belong to the model or not. The null hypothesis indicates that if the calculated F value is significant in 1%, 5%, or 10% levels, we conclude that the Restricted model is mis-specified, otherwise, we accept the Unrestricted model. The reader can see from the calculated F values that they are all significant in the given probability values.

[26] The interested reader is advised to refer to "Damodar N. Gujarati "Basics Econometrics" fourth edition © The McGraw−Hill Companies, 2004 Part II, Chapter 13, page#521-523" for more detailed calculation method of Ramsey's RESET (regression specification error test) Test.

References

Aaron T. (2011). "The Economic Integration of Immigrants in the United States: Long- and Short-Term Perspectives." Migration Policy Institute, All Rights Reserved, July 2011. https://www.google.co.kr/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&ved=0CCoQFjAA&url=http%3A%2F%2Fwww.migrationpolicy.org%2Fpubs%2FEconomicIntegration.pdf&ei=Lc44VMX4BMj58QWmyYDQDQ&usg=AFQjCNGhUMjwg2KFOC0Kh-JJaaz7WTneNA&sig2=w5emYKqGg1X5dXb6LSb6YA&bvm=bv.77161500,d.dGc&cad=rjt

Alesina, A., Devleeschauwer, A., Easterly, W., Kurlat, S., Wacziarg, R. (2003). "Fractionalization." Journal of Economic Growth, 8,155-195. http://download.springer.com/static/pdf/535/art%253A10.1023%252FA%253A1024471506938.pdf?auth66=1413244513_6e3ff398953d399b3142174a155ed2ab&ext=.pdf

Alesina, A., Giulina, P., Nunn, N. (2013). "On the Origins of Gender Roles: Women and the Plough," Quarterly Journal of Economics 128(2): 469-530. http://www.econ.northwestern.edu/seminars/Nemmers11/Giuliano.pdf

Altonji, J. G., & David C. (1991). "The Effects of Immigration on the Labor Market Outcomes of Less-Skilled Natives," in John M. Abowd and Richard B. Freeman, eds., Immigration, Trade, and the Labor Market. Chicago: University of Chicago Press, pp. 201-234. http://davidcard.berkeley.edu/papers/natives.pdf

Ariu A., & Squicciarini P. (2013). "The balance of brains: corruption and high skilled migration." Catholic University of Louvain, IRES Discussion Paper No.10. http://sites.uclouvain.be/econ/DP/IRES/2013010.pdf

Borjas, G.J. (1987). "Immigrants, Minorities, and Labor Market Competition," Industrial and Labor Relations Review 40: 382-392. http://www.hks.harvard.edu/fs/gborjas/publications/journal/ILRR1987.pdf

Butcher, K. F., & Anne M. P. (1999). "The Role of Deportation in the Incarceration of Immigrants." NBER Working Paper No. 6974 http://www.nber.org/chapters/c6060.pdf

Butcher, K. F., & Anne M. P. (2005). "Why Are Immigrants' Incarceration Rates So Low? Evidence on Selective Immigration, Deterrence, and Deportation," (Chicago, IL: Federal Reserve Bank of Chicago) Working Paper 2005-19. http://www.nber.org/papers/w13229.pdf

Cooray, A., & Schneider, F. (2014): "Does Corruption Promote Emigration? An Empirical Examination." IZA Discussion Paper No. 8094 http://ftp.iza.org/dp8094.pdf

Cynthia, B., & Elizabeth, V. (2008). "Beyond Myths and Stereotypes Facts about Immigration and Crime Facts about Immigration and Crime." Coalition for Humane Immigrant Rights of Los Angele (CHIRLA), October 2008. http://chirla.org/files/FactsheetImmigrationanCrime.pdf

Darrell, M. W. (2010). "Brain Gain – Rethinking U.S. immigration policy". Brookings Institution Press, Washington, D.C. 2010 http://www.brookings.edu/research/books/2010/braingain

Dimant, E. (2014). "The Nature of Corruption - An Interdisciplinary Perspective" (Center for International Economics, Working Paper Series). No. 2014-06 http://groups.uni-paderborn.de/wp-wiwi/RePEc/pdf/ciepap/WP79.pdf

Dimant, E., Krieger T., & Margarete R. (2013a). "A Crook is a Crook . . . But is He Still a Crook Abroad?" On the Effect of Immigration on Destination-Country Corruption, Working Paper Series, No. 2013-14 https://www.wguth.uni-freiburg.de/forschung/data/data/wgsp_dp_2013_03

Dimant, E., Krieger, T., & Meierrieks, D. (2013b). "The effect of corruption on migration, 1985-2000." Applied Economics Letters 20: 1270-1274. https://wiwi.uni-paderborn.de/fileadmin/lehrstuehle/department-4/wiwi-dep-4-ls-8/Team/Dimant_Krieger_Meierrieks__2013__-_The_Effect_of_Corruption_on_Migration__1985-2000.pdf

Docquiera, F. & Khalid S. (2006). "Brain drain and inequality across nations". Discussion Paper Series. IZA DP No. 2440 http://dev3.cepr.org/meets/wkcn/4/4556/papers/docquier.pdf

Dreher, A., & Gassebner, M. (2013). "Greasing the wheels? The impact of regulations and corruption on firm entry." Public Choice, June 2013, Volume 155, Issue 3-4, pp 413-432 http://centaur.reading.ac.uk/35196/1/art%253A10.1007%252Fs11127-011-9871-2.pdf

Fisman, R., & Miguel, E. (2007). "Corruption, Norms and Legal Enforcement: Evidence from Diplomatic Parking Tickets." Journal of Political Economy 115 (6): 1020-1048 http://eml.berkeley.edu/~emiguel/pdfs/miguel_parking.pdf

Gupta, S., Davoodi, H., & Terme, R. A. (1998). "Does Corruption Affect Income Equality and Poverty?" Washington, DC: IMF, 1998, IMF Working Paper Series, No. 98/76 http://www.imf.org/external/pubs/ft/wp/wp9876.pdf

Haque, N. U. & Jahangir A. (1999), "The quality of governance: second-generation civil reform in Africa", Journal of African Economies 8, 65-106. http://www.imf.org/external/pubs/ft/wp/wp98164.pdf

Hooghe, M., Vanhoutte, B., Hardyns, W., & Bircan, T. (2010). "Unemployment, Inequality, Poverty and Crime: Spatial Distribution Patterns of Criminal Acts in Belgium, 2001-2006", the British Journal of Criminology, (2011) 51, 1–20 http://www.socialcohesion.be/Crime%20Belgium%2031%20May%202010.pdf

Huntington, S. P. (1968). "Political order in changing societies." New Haven: Yale University Press, 2006 - Political Science - 488 pages http://projects.iq.harvard.edu/gov2126/files/huntington_political_order_changing_soc.pdf

Immigration Policy Center, (2008). "From Anecdotes to Evidence: Setting the Record Straight on Immigrants and Crime," American Immigration Council. Washington D.C. September 2008 http://www.immigrationpolicy.org/sites/default/files/docs/SettingtheRecordStraightonImmigrantsandCrime9-10-08.pdf

Jacob, I. S., & Ramiro, M. (2007). "Displaced, Dispossessed or Lawless? Examining the Link Between Ethnicity, Immigration, and Violence." Aggression and Violent Behavior 12 (2007): 564-581. http://www.sciencedirect.com/science/article/pii/S1359178907000250

Kaufmann, D. (2004). "Corruption, Governance and Security: Challenges for the Rich Countries and the World", Chapter in the Global Competitiveness Report 2004. http://unpan1.un.org/intradoc/groups/public/documents/un-dpadm/unpan044780.pdf

Leff, N. H. (1964). "Economic development through bureaucratic corruption." American Behavioral Scientist, 8(3), 8–14. http://abs.sagepub.com/content/8/3/8.abstract

Mauro, P. (1995). "Corruption and Growth" Quarterly Journal of Economics 110(3): 681-712. http://homepage.ntu.edu.tw/~kslin/macro2009/Mauro%201995.pdf

Mauro, P. (1997). "The Effects of Corruption on Growth, Investment, and Government Expenditure: A Cross-Country Analysis," in Corruption and the Global Economy, edited by Kimberly Ann Elliott, Washington: Institute for International Economics. http://www.piie.com/publications/chapters_preview/12/4iie2334.pdf

Meon, P.G., & Sekkat, K. (2005). "Does corruption grease or sand the wheels of growth?" Public Choice, 122(1), 69–97. http://link.springer.com/article/10.1007%2Fs11127-005-3988-0

Meon, P.G., & Weill, L. (2010). "Is corruption an efficient grease?" World Development, 38(3), 244–259. http://www.sciencedirect.com/science/article/pii/S0305750X09001193

Moore, S., & Vedder, R. (2000). "The Immigration Problem: Then and Now," The Independent Review, Vol 4, n°3,2000 http://www.independent.org/pdf/tir/tir_04_3_vedder.pdf

National Immigration Forum Study (2013). "The Math of Immigration Detention: Runaway Costs for Immigration Detention Do Not Add Up to Sensible Policies," Practical Solutions for Immigrants and for America, August 2013. http://www.immigrationforum.org/images/uploads/mathofimmigrationdetention.pdf

Robert, J. S. (2008). "Rethinking Crime and Immigration". Contexts 7: 28-33. http://www.law.yale.edu/documents/pdf/Clinics/Sampson_Immigration_Contexts.pdf

Robert, W. F. (2013). "Kauffman Index of Entrepreneurial Activity, 1996-2012," 2013 by Ewing Marion Kauffman Foundation. http://www.kauffman.org/what-we-do/research/kauffman-index-of-entrepreneurial-activity

Ruben, G. R., & Walter, A. E. (2007). "The Myth of Immigrant Criminality and the Paradox of Assimilation: Incarceration Rates among Native and Foreign-Born Men" (Washington: DC: Immigration Policy Center, American Immigration Law Foundation), pp. 12-14. http://www.immigrationpolicy.org/sites/default/files/docs/Imm%20Criminality%20(IPC).pdf

Saisana, M., & Saltelli, A., (2012). "Corruption Perceptions Index 2012 Statistical Assessment," Transparency International. http://publications.jrc.ec.europa.eu/repository/bitstream/111111111/27386/1/lbna25623enn.pdf

Serra, D. (2006). "Empirical Determinants of Corruption: A Sensitivity Analysis." Public Choice 126(1/2): 225-256. http://www.gprg.org/pubs/workingpapers/pdfs/gprg-wps-012.pdf

Shleifer, A. & Robert, W. V. (1993). "Corruption" The Quarterly Journal of Economics 108 (3), 599–617. http://projects.iq.harvard.edu/gov2126/files/shleifer_and_vishy.pdf

Spenkuch , J. L. (2011). "Understanding the Impact of Immigration on Crime" University of Chicago. http://www.kellogg.northwestern.edu/faculty/spenkuch/research/immigration_crime.pdf

Tanzi, V. (1998). "Corruption around the World - Causes, Consequences, Scope, and Cures." IMF Staff Papers 45(5): 559-594. http://www.imf.org/external/pubs/ft/wp/wp9863.pdf

The US Census Bureau (2006-2011). American Community Surveys (ACS), Table B05006 "Place of Birth for the Foreign-Born Population"; Decennial Census 2000, Summary File 3, Table QT-P15. "Region and Country or Area of Birth of the Foreign-Born Population: 2000." http://www.census.gov/acs/www/data_documentation/2010_release/

The World Bank (1997). "The Role of World Bank in Helping Countries Combat Corruption," Poverty reduction and economic management, September 1997. http://www1.worldbank.org/publicsector/anticorrupt/corruptn/corrptn.pdf

TRAC-Immigration (2013). "Legal Noncitizens Receive Longest ICE Detention," June, 2013 http://trac.syr.edu/immigration/reports/321/

Transparency International (2008). "Poverty and corruption" Working Paper Series, No.02, 2008 http://www.civicus.org/new/media/Poverty-Corruption-March-2008.pdf

Treisman, D., (2000). "The causes of corruption: A cross-national study." Journal of Public Economics, Volume 76, pp. 399-457.

Trends in International Migrant Stock: The 2013 Revision
http://www.isr.umich.edu/cps/pewpa/archive/archive_98/19980019.pdf

Warner, J.A. (2005). "The social construction of the criminal alien in immigration law, enforcement and practice and statistical enumeration: consequences for immigrant stereotyping," Journal of Social and Ecological Boundaries, 1 (2), 56–80
http://www.tamiu.edu/coas/jseb/12files/Warner.pdf

Wei, Sh. J. (1998). "Corruption in Economic Development: Beneficial Grease, Minor Annoyance, or Major Obstacle?" Harvard University and National Bureau of Economic Research. Working Paper Series No. 2048
http://www.anti-corr.ru/archive/Corruption%20in%20Economic%20Development%20Beneficial%20Grease%20Minor%20A.pdf

Wolfensohn, J. D. (1996). "People and Development," Annual Meetings Address by the President of the World Bank. October 1, 1996.
http://web.worldbank.org/WBSITE/EXTERNAL/EXTABOUTUS/ORGANIZATION/EXTPRESIDENT/EXTPASTPRESIDENTS/PRESIDENTEXTERNAL/0,,contentMDK:20025269~menuPK:232083~pagePK:159837~piPK:159808~theSitePK:227585,00.html