The Influence of Institutions on Migrant Entrepreneurship Rates in the United States

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Abstract

This study aims to research migrant entrepreneurs and the influence institutions and area-specific characteristics have on the decision of migrants to start a business in metropolitan areas across the United States. A special focus was laid on the Phoenix metropolitan region, to gain open-ended information from people active in the local Phoenician entrepreneurial domain about these influences. The role of institutions in creating a viable and cohesive entrepreneurial ecosystem for migrants is assessed by use of a mixed method approach.

The various governmental organizations active in the Phoenix area seem to have a passive approach considering their policy measures considering migrant entrepreneurship. They do provide business support in setting up incubators and shared workspaces and connecting interested entrepreneurs with service providers like financers and consultants, but only for parties that reach out to the government agencies. The connection between these services provided by the involved agencies and the migrant entrepreneurs who need these services is regarded to be relatively weak. Explanations for this can be found in the tendency of these agencies to treat the entrepreneurs as one group and not make any distinctions about what the different subgroups of entrepreneurs may need.

This research makes the case that migrant entrepreneurs are a distinct group that has other needs and is affected differently by decisions made by government agencies than the native-born entrepreneur. Their needs for support are in the current situation mostly taken care of by dedicated institutions which operate in the non-governmental domain. Improving the connectivity between the resources available and migrant entrepreneurs can be done through marketing and awareness campaigns but would also need a government that reaches out in providing help and support more actively. Getting this group familiar with these resources in an early stage is key in maximizing the potential of migrants who are unfamiliar in the local economy. Progress in stimulating migrants to become entrepreneurs could be achieved by local governments through the promotion and funding of colleges and community colleges that offer practical degrees in specializations that are of use when starting a business.

It is also found that a high rate of migrant entrepreneurial activity does not necessarily tell either positive or negative signs regarding the integration of the migrant group in the local economic ecosystem. It can both tell stories of integration and good governance, or contrarily of non-participation on the regular labor market and labor market segmentation.

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1 Introduction

One of the best-known immigrants who became a successful entrepreneur is Sergey Brin. A computer scientist of Russian-Jewish origins who emigrated with his parents to the United States in 1979, when he was six years old. His talent and motivation for mathematics and later computer science was stimulated by his parents, who both majored in mathematics in the Soviet Union. Sergey Brin met Larry Page while he was doing a PhD at Stanford University in Computer Science and they discovered that both were interested in the problem of easily extracting information from the internet (Astrum People, 2019). They were convinced that the search engines of that era could be improved by ranking relevant web pages by amount of back links, instead of the amount of key words on a web page that was used by many search engines back then. The higher the amount of links of other web pages referring to that specific page, the higher that page would come up in their search engine. That search engine would go on to be named Google.

These kind of entrepreneurial success stories still speak to the mind of policy makers in this day and age. Many of those policy makers uphold to the opinion that immigrant entrepreneurs are an important and often under-utilized factor in the revival of U.S. job growth since the recession of the late 2000's and early 2010's (Kerr & Kerr, 2016). This is evident in the various local and national policy initiatives in the United States which try to stimulate immigrant entrepreneurship. Examples of these initiatives are the White House Startup America initiative, the office of New Americans in Chicago and the Thrive competition in New York City. In Phoenix, various Chambers of Commerce are active, as well as the Minority Business Development Association. Ethnic groups with a big presence in the area often have their own Chamber of Commerce which promotes and connects the businesses with the resources that help them improve in managing or extending their business.

These initiatives and policy measures often focus on helping already present immigrant entrepreneurs to become successful entrepreneurs. They do this by removing language barriers and connecting entrepreneurs with financers who are willing to invest in their business. Stimulation of entrepreneurial ecosystems and incubators, where starting entrepreneurs come together and which serve as hotbeds for creativity, innovation and knowledge spillovers are as important for immigrant entrepreneurs as for regular entrepreneurs, if not even more so. These kind of policy measures are of great importance in helping immigrant entrepreneurs who have started a business to become successful (Desiderio, 2014). It also contains an assumption by the government that those affected migrant entrepreneurs expand their business beyond their ethnic market and create jobs for the economy. This is important for policy makers in developed countries, as migrants may provide a way out of demographic and related economic decline.

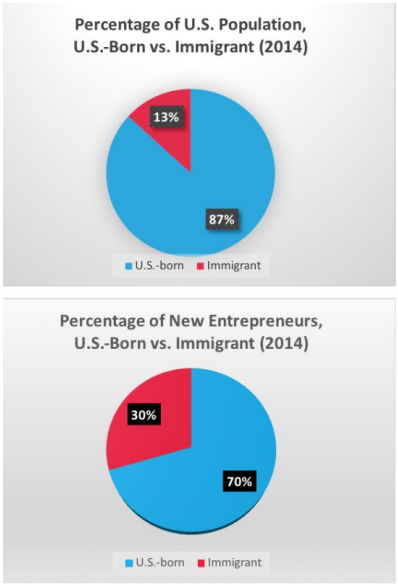

Figure 1: Percentages of population being born in- or outside of U.S. and compared with entrepreneurship levels of these groups. Data: Immigration Forum, 2018

The mentioned initiatives that have a specific target group suggest that immigrant entrepreneurs may have a disadvantage and need some help, when compared to their native counterparts. This entrepreneurial disadvantage of immigrants is not observed in American metropolitan areas around the country. They are overrepresented in the American labor force when their share of the population is considered (Immigration Forum, 2018), as well as having a higher propensity to launch businesses, compared to

people born in the United States (Figure 1).

Migrants tend to have a higher rate of starting businesses, but they also have to face greater obstacles on their path towards maintaining and expanding their business. A lack of social capital in their host country combined with lower than average financial capital and greater difficulties in access to finance is in many cases preventing the migrant entrepreneurs from unlocking their full potential in growing the economy (Desiderio, 2014).

Immigrants make up 30% of all entrepreneurs active in the United States (Immigration Forum, 2018), while only 13% of the total U.S. population exists of immigrants. These immigrant entrepreneurs are mostly concentrated in urban areas, but not equally across all American urban areas. Certain cities, like Los Angeles, Phoenix and Miami have a higher percentage of immigrant entrepreneurship, even when higher absolute amounts of immigrants are considered (Morelix et al, 2015).

Table 1 shows the list of American metropolitan areas with more than 1 million inhabitants, ordered by their respective migrant entrepreneurship rates. This figure only shows the ten areas with highest entrepreneur rate and lowest entrepreneur rate. A full table is included in appendix 1.

In general terms, the center point of the United States since the second world war has been moving from the Northeast and Great Lakes area towards the Southwest and California and Texas. The origins of these changing importance of areas are macroeconomic and due to the lessened importance of manufacturing in the U.S. economy (Alder et al, 2015), as well as purely demographic, considering the biggest domestic migration patterns are nowadays in gross terms directed from the Midwest towards the Southwest (Rappaport, 2003). The importance of the Southwest and decline of the Northeast and Rust Belt can also be noticed when comparing entrepreneurial activity. Rust Belt cities like Detroit, Cincinnati and Milwaukee have a lowered overall entrepreneurship rate, as well as lowered migrant entrepreneurship rate. Cities like Los Angeles, Houston and Austin, that are situated in the favored part of the country by migrants as well as the general population nowadays, have much higher rates of entrepreneurship. Phoenix also stands out in this figure, as it has a rather low overall entrepreneur rate of 5,9%. Among the 53 metropolitan areas with more than 1 million inhabitants, that score ranks 16th. This could be seen as low, as Phoenix is the 5th largest city of the U.S. and its metropolitan area also ranks among the biggest of the country. Urban areas with higher than average economic

	U.S. Metropolitan area	Entrepreneur rate	Entrepreneur rate foreign-born inhabitants	Total Population
1	*Tucson*	6.5	12.8	1 007 257
2	*New Orleans*	6.4	11.3	1 260 660
3	*Los Angeles*	8.9	11	13 261 538
4	*San Antonio*	5.9	9.7	2 377 507
5	*Houston*	6.5	9.4	6 636 208
6	*Phoenix*	5.9	9.3	4 561 038
7	*San Diego*	7.8	9.3	3 283 665
8	*Miami*	7	9.2	6 019790
9	*Riverside*	7	9.2	4 476 222
10	*Austin*	7	8.8	2 000 590
44	*Richmond*	4.4	5.5	1 270 158
45	*Louisville*	4.4	5.4	1 278 203
46	*Raleigh*	4.9	5.3	1 273 985
47	*Columbus (OH)*	4.7	5.1	2 023 695
48	*Cincinnati*	4.6	4.9	2 156 723
49	*Providence*	5	4.8	1 613 154
50	*Detroit*	4.2	4.7	4 304 613
51	*Milwaukee*	3.9	4.6	1 575 101
52	*Minneapolis*	4.6	3.7	3 526 149
53	*Grand Rapids*	4.9	3.2	1 039 182

Table 1: Highest and lowest scoring metropoles (>1 000 000 inhabitants) with regards to entrepreneurship rates among foreign-born inhabitants Data: United States Census Bureau (2019).

growth and diverse economic activities are shown to have a higher level of entrepreneurial activity (Bosma & Sternberg, 2012), but that is not necessarily the case for Phoenix as a whole.

The entrepreneurship rate of foreign-born inhabitants in Phoenix is contrarily very high with 9,3% and props up the overall entrepreneurship rate. This migrant entrepreneurship rate is ranked 6th among all metropolitan areas with more than one million inhabitants. The difference between the two entrepreneurship rates is relatively large in Phoenix, which shows that migrants in Phoenix have a higher propensity to start a business than their native-born counterparts and that they do that despite a general entrepreneurial ecosystem that may be not as thriving as other big American cities. This discrepancy between the two entrepreneur rates can potentially be a sign of a labor market that is unfriendly towards migrants, who may seek other opportunities to provide for themselves and start a business. This discrepancy makes Phoenix a particularly interesting area to take a closer look on with respect to the differing influences the related institutions and city-specific characteristics have on these two groups.

1.1 Aim of the research

The aim of this thesis is to explore which and to what extent local socio-economic characteristics of American cities stimulate immigrants to become entrepreneurs and how involved institutions relate to this group in their work. This is important because, by identifying the influencing characteristics, a framework for policymakers and institutions can be provided to ascertain why their local immigrant entrepreneur levels are as they are. This helpful knowledge can potentially influence the enactment of policy measures which would improve or decrease these levels. This would in an ideal situation make the local environment more inclusive to migrants and help the overall economy.

These policy measures could help stimulate the pull-factors of the local labor market towards migrants by gaining better protection and easier overall accessibility of the labor market (Bauder, 2008). The economic situation of migrant enterprises can be influenced by policies through laws that state that a certain percentage of government contracts are to be allotted to minority-owned businesses (Rice, 1991), as well as by the efforts governmental organizations put into creating a general entrepreneurship-friendly environment. These general efforts are further explained in the theoretical framework chapter.

The theoretic framework begins with providing insights into what already is known concerning entrepreneurship and its economic and social effects on economic development in urban areas, as well as an overview of the various policy measures with which policy makers try to make the local entrepreneurial ecosystem more friendly towards people who are starting a business.

To examine the effects of the socio-economic characteristics, it is necessary to determine what characteristics are hypothesized to increase or decrease the opportunities of migrants to start businesses, to make a correct assessment of that be used in this research. This is needed to gain insights into the reasons why certain cities have higher amounts of immigrant entrepreneurs and why other cities have lower amounts and if those data-driven characteristics can be influenced by policies outside or inside the entrepreneurial domain. By comparing cities with these characteristics and discovering certain trends, insight to this knowledge will be made available. For this, there is a need to create a theoretical framework to determine which city-specific characteristics are necessary to include in this research. These characteristics will also be needed to be transformed in good-fitted data which is available for all cities. Data used in this research should be recent, as we are trying to say something about the current socio-economic situation of these American cities.

With the results of this data analysis in mind, the metropolitan area of Phoenix will be used as a case study. Comparisons of the differences in immigrant entrepreneurial activity between Phoenix and all U.S. metropolitan areas will be made, with a focus on metropolitan areas of roughly the same size in terms of population and with a focus on areas with comparable level of immigrants and immigrant entrepreneurial activity. By interviewing people who are knowledgeable about the local entrepreneurial ecosystem, the local institutions and the involved policymakers who try to influence this ecosystem, further insights are to be provided into what kind of measures Phoenician institutions take to stimulate their local entrepreneurial ecosystem and the role that immigrants play in it, as well as provide explanations as to why the portion of entrepreneurs being an immigrant is relatively high. Then some insights could be provided on which policy measures work and which do not work.

1.2 Phoenix

The Phoenix-Mesa-Scottsdale metropolitan area is comprised of 21 mostly contiguous cities and had a total population of 4 561 038 inhabitants in 2017 (United States Census Bureau, 2019). The whole area entails the Pinal and Maricopa counties. Phoenix itself is the fifth largest city in the United States with 1 660 272 inhabitants. The metropolitan area is the 11th largest of the country and continues to grow with roughly two percent every year (Figure X, World Population Review, 2019). This makes it the third-fastest growing out of the twenty biggest metropolitan area's measured from 2010 to 2018, after Houston and Dallas. By 2030 it is estimated that the Phoenix metropolitan area will be home to approximately 6 300 000 inhabitants.

1.3 Business environment of Phoenix

The annual growth rate was noticeably less in the beginning years of the 2010's, as the Phoenix metropolitan area was hit especially hard by the financial and housing crisis of those years. A government official in one of the conducted interviews called the local economy 'an economy overly reliant on population growth'. As this area is still rapidly growing in population (Table 2) and has been for over 50 years, construction and real estate-related activities are more prevalent than in more mature metropolitan areas in the United States (City-data, 2019). This made the economy especially vulnerable to the most recent economic crisis. Since then it has tried to diversify the economy more into business services, as well as leaning more on the already historically present manufacturing and tourism sectors. Construction and real estate maintain their important position in the Phoenician economy in recent years. Migrants who work are overrepresented in the construction sector in Phoenix (American Immigration Council, 2017).

Phoenix-Mesa-Scottsdale, AZ Metro Area Population by Year

Year	Total Population	Growth	Annual Growth Rate
2018	4,857,962	96,268	1.98%
2017	4,761,694	85,728	1.80%
2016	4,675,966	94,844	2.03%
2015	4,581,122	89,699	1.96%
2014	4,491,423	86,748	1.93%
2013	4,404,675	73,622	1.67%
2012	4,331,053	77,228	1.78%
2011	4,253,825	49,087	1.15%

Table 2: The population growth in Phoenix metro area 2011-2018. Data: City-data, 2019.

Phoenix continues to have many tourists, mainly from the United States and Canada and especially during winter, when temperatures are more pleasant. A large part of these tourists are so-called snowbirds, retirees who spend four to six months of the year in the Valley, often opting to live in RV's

or campers. Almost 1 million Canadians visited the state of Arizona in 2018, spending more than one billion dollars while staying there (Canada Arizona Business Council, 2019).

The government programs concerning starting and maintaining businesses in the Phoenix metropolitan area is considered to be favorable. Employers located in the City of Phoenix Enterprise Zone can earn corporate income tax credit for each job they create in this zone (City-data, 2019). The state of Arizona collects no corporate franchise tax and business inventories are not included when calculating property taxes. Aside from having a relatively low property tax, Arizonian business owners also profit from having lower than average unemployment insurance taxes (Tax Foundation, 2019).

Public-private partnerships such as the Greater Phoenix Economic Council (GPEC) and the Minority Business Development Association help entrepreneurs who look into expanding into the area get a foothold when they are starting their business. Mayors of the various cities have regular meetings concerning economic development to help boost cooperation, but every Economic Development department is mostly doing work considering the development of their own city.

1.4 Migrants in Phoenix

The Phoenix metropolitan area consisted of 653 360 foreign-born inhabitants in 2017, which is 14,32 percent of all inhabitants (United States Census Bureau, 2019). The entrepreneur rate of Phoenix among foreign-born inhabitants is 9,3 percent, which means that roughly 61 000 foreign-born inhabitants are considered to be entrepreneurs. The top country of origin by far was Mexico, which makes up 56,1 percent of all immigrants, followed by Canada (4,2 percent), India (4,1 percent), the Philippines (2,9 percent) and Vietnam with 2,7 percent (American Immigration Council, 2017). In Arizona, whose economy is primarily focused on the Phoenix metropolitan area, migrants are most prevalent working in the construction sector. Health care and accommodation & food services are the 2nd and 3rd most prevalent sectors.

The reasons why and in which American cities immigrants make up a large segment within the total amount of entrepreneurial activity are multi layered and can tell stories of either integration and good governance (LaLonde & Topel, 1991), or contrarily of non-participation on the regular labor market and labor market segmentation (Gorodzeisky & Semyonov, 2017; Rodriguez-Planas & Nollenberger, 2014; Durand et al, 2016). This thesis tries to formulate both sides of earlier mentioned arguments into measurable data to include in the data-analysis. Together with other socio-economic characteristics derived from a dataset of U.S. metropolitan areas, this thesis tries to find answers on the question as to why there is a differentiation between those metropolitan areas when it comes to the percentage of immigrant entrepreneurs in comparison with all entrepreneurs. The answer to this question is important in gaining a better understanding of the underlying reasons that influence higher levels of migrant entrepreneurship and the influence it has on the economic positioning of an urban area. Understanding this can lead to an increase in effectiveness of migrant entrepreneurs. While migrant entrepreneurs start businesses more often and are on average overrepresented in the U.S. entrepreneurial ecosystem, they also typically face greater obstacles than their native counterparts when it comes to starting and expanding their business (Desiderio, 2014). Lesser knowledge of the system and its' workings coupled with more difficulty in accessing capital works against this group in fulfilling the economic potential that they have. Identifying socio-economic characteristics and entrepreneurial-related policy measures that lack good governance can help institutions in combatting the negative sides of migrant entrepreneurship while unlocking the full potential of this target group.

1.5 Research questions

The research questions are formulated as followed:

- *How do institutions situated in American cities relate to migrant entrepreneurship?*

  Case-study: Phoenix

- *To what extent are Phoenician institutions actively involved in stimulating immigrant entrepreneurship with policy measures?*
- *To what extent are the different types of entrepreneurial policy measures instrumental in influencing immigrant entrepreneurship?*

The first question allows for the development of an extensive dataset of U.S. metropolitan areas, their respective relevant socio-economic characteristics and a comprehensive analysis on what influences immigrants to become entrepreneurs. This question is also necessary to say anything about Phoenix and the immigrant entrepreneurs who are present in that entrepreneurial ecosystem. It can be used to allow for further exploration in the case study of the reasoning why foreign-born people choose to start a business and which measures implemented by policymakers and institutions work in allowing them to start a business and which conversely do not work. This thesis aims to expand upon the currently existing literature of which socio-economic factors stimulate immigrants to become entrepreneurs, as well as provide an overview of considered and implemented policy measures and their effectiveness, derived from the case study. Better-grounded arguments and estimates are needed to provide answers on the question how U.S. cities perform on immigrant entrepreneurship and how this can be influenced.

The theoretic framework of this thesis will provide a brief review of the available literature on economic competitiveness of regions, entrepreneurship and what exactly is meant with those terms as well as their relation to each other. Secondly, institutions and their importance and role in stimulating immigrant entrepreneurship will be explored. Thirdly, immigrant entrepreneurship and socio-economic characteristics of cities that can play a role in the decision of immigrant to become entrepreneurs will be studied through previous academic research. The overview of available literature leads to a conceptual framework. This model is used to show visually which relations are present between the key concepts and possible policy interventions mentioned in the theoretical framework and the research objects of this study.

The third chapter will consist of the methodology of this research. It elaborates on the steps taken within the qualitative and quantitative research methods that are used to answer the formulated research questions and offers the supporting infrastructure as to which the questions can be answered.

The fourth chapter will consist of the results that follow out of the different research methods. Results will be compared on a macro level within the secondary data analysis, and on a more micro level with the area of Phoenix, Arizona as research area. Results from the different research approaches will be analyzed and compared with each other. Validation and pattern seeking within the results is important. The two methods supplement each other to gain a better understanding of the inner workings of the entrepreneurial climates for migrants in the U.S.

The fifth chapter will consist of the conclusion. Here, the results following from the fourth chapter that are instrumental in answering the research questions are brought forward. Emphasis is placed

on putting these results into perspective in accordance to the theoretical framework, while also adding some new insights regarding the relation between migrant entrepreneurs and institutions.

The sixth chapter will consist of the discussion. In this chapter, societal and scientific implications of this research will be considered. Secondly, the research methods and process of research will be examined. Thirdly, avenues for further research with this theme will be explored.

2 Theoretical Framework

2.1.1 Influence of institutions on Economic Competitiveness

Policymakers and institutions in cities and metropolitan areas see improving the economic competitiveness of their area as one of their main tasks (Begg, 1999). Many economic strategies are based upon the thought that something can be done to increase the competitiveness and resilience of the economy. Organizations like the European Union, The World Economic Forum and the OECD have each published their own multitude of reports and point of views concerning improving the economic competitiveness of regions (European Union, 2016; World Economic Forum, 2014; OECD, 2006). The United States of America has its own Council on Competitiveness. "The Council on Competitiveness shapes policies and runs programs to jump-start productivity and grow America's economy" (America's Society/Council of the Americas, 2015). These initiatives represent a focus of people working for organizations in the non-entrepreneurial domain towards an inclination that the goal of optimal economic competitivity can be reached though stimulating entrepreneurship and especially migrant entrepreneurship.

Earle et al. (2019) looked into the amount of innovation behavior between foreign and U.S.-born entrepreneurs in high-tech industries and found uniformly higher innovation rates in firms owned by migrants. This advantage holds in all age categories of the firms, as well as for every level of education the entrepreneurs have. Migrant entrepreneurs seem to innovate more than their U.S.-born counterparts in the high-tech sector. Migrants possess the capabilities to see the opportunities which lead to an increased chance to start a business when compared to native-born people.

A report conducted in 2015 by Americas Society/Council of The Americas (AS/COA) shows that immigrants and immigrant entrepreneurs play an important role in neighborhood revitalization and local economic development. This is due to the role immigrants play among businesses, shops and services that can be considered as the backbone of neighborhoods in cities. These 'Main Street' businesses make, just like most businesses, a direct contribution to the economy, but they also play vital role in making and keeping local neighborhoods attractive to people to come and live in them. Places with diverse shops and businesses are of vital importance in making an area more vibrant and economically stable. It also increases local spending, tax base and amount of local jobs (AS/COA, 2015). This kind of businesses can revitalize their local commercial centers. Most migrants will not be as successful as Sergey Brin, but these kinds of businesses are also very relevant in keeping many American cities economically vibrant and interesting for newcomers.

2.1.2 What is economic competitiveness?

Despite the mentioned focus of policy makers and organizations on economic competitiveness, there is little agreement on what economic competitiveness exactly entails. Krugman (1996) states that a great majority of people view economic competitiveness as nations, regions or cities competing for markets and market performance in the same way that business-related corporations do. In this paradigm, these politically clustered areas are compared to businesses and can fail its own population if they do not match or leave other areas behind in terms of productivity and innovation. They can also face the same economic crisis as a business that can't match the products or lowered costs of other rivalling companies. Economists like Krugman view the term competitiveness as a poor metaphor. However, people and policy makers like to talk and think about the economic prowess of their own area. Comparing them with other areas gives perspective on how your associated region or country is performing.

2.1.3 The importance of entrepreneurship in stimulating economic competitiveness

Entrepreneurship is a subject often discussed within the academic fields of Economics and Economic Geography as ways to improve regional economic competitiveness. Drucker (1985) calls entrepreneurship an economic buzzword, one which provokes various definitions of the term. The term is fairly elastic. It can refer to many types of long-existing businesses and start-ups alike. For some, it indicates venture capital-backed businesses, while to others it refers to all kinds of start-ups and small businesses. Entrepreneurship can also be placed in a more sociological context as being *'the pursuit of opportunity beyond resources controlled' (*Stevenson, 2013).

The term entrepreneurship has played an increasingly larger role towards identifying the incentives of economic growth and economic competitiveness of an area in the 21st century (Bosma et al, 2006). Entrepreneurship in empirical studies is most often measured as the new creation of firms within a certain given time frame within a certain region, like in studies performed by Acs & Armington (2004) and Van Stel & Storey (2004). This can then be compared to all sorts of socio-economic indicators, to provide any meaning and context towards the influence of entrepreneurship levels upon the economic development of a region, as well as provide comparisons between regions.

The implication that the people who are identified as entrepreneurs are in possession of a higher ability to influence the economic ecosystem is considered by Eisenmann (2013). His research states that entrepreneurs possess a certain kind of focus to act upon a perceived window of opportunity where a new or improved product, technology or way of thinking is developed. Alternatively, entrepreneurs can also push already existing products to new sets of customers.

2.2.1 What is entrepreneurship?

While the earlier mentioned new creation of firms is often used when measuring entrepreneurship, this research chooses for another definition. The measured term of entrepreneurs in this research is contained by the definition of the U.S. Census of being a self-employed worker in a business. This definition is firstly chosen due to the desire to include business owners that are already self-employed for a longer time period than a year, as a lot of them will still be innovating their business in terms of producing or expanding and thus can still be considered entrepreneurs. Secondly, this definition is less susceptible towards year-by-year variations when entrepreneurship levels are considered. This definition results in more robust dependent variables and comparisons can be made more easier between the metropolitan areas. Thirdly, this definition was readily available, as well as data that relates to this specific definition.

An Uber driver is in this case considered a self-employed worker and is thus counted as an entrepreneur in this research just as much as a business consultant with an own firm. This illustrates that following this definition allows for a rather broad definition of the term entrepreneurship and is not the same definition as for example given by Acs & Armington (2004). As entrepreneurship is a fairly elastic term, in this research it is chosen to define the term in accordance to how the U.S. government defines and taxes it. That allows for a clear demarcation in what is and what is not considered an entrepreneur. It is however conceded that this demarcation is not perfectly placed, due to the rise of companies that form the gig-economy and the inability of modern labor laws to deal with them adequately due to the people working in this sector being an entity between self-employed and wage worker. Being an independent contractors of Uber and Lyft combines in some sense the disadvantages of both self-employment and working for a company, as it lacks the social

and financial security of being a wage worker and lacks the freedom associated with being your own boss (Friedman, 2014).

2.2.2 Entrepreneurship as driver of economic growth

The increased attention of researchers on entrepreneurship is itself an expansion upon Schumpeter's' (1942) theory of creative destruction, where economic growth is only powered by technological innovation and where new businesses who wield this innovation destroy older businesses by out competing them. Acs & Armington (2004) state that the generation of economic growth in more modern cities is not mainly due to economies of scale, but rather due to local externalities like entrepreneurs. By improving the entrepreneurial climate of the area, policy makers can internalize and wield these externalities for the benefit of the whole economy. Acs & Armington find that those externalities are the main engine in generating growth. They furthermore find that higher rates of entrepreneurial activity are strongly associated with faster growth of the local economy and employment growth. This is due to new firms being better positioned to make use of knowledge externalities and local spillover effects in human capital than older firms. With this view in mind, cities and regions with the highest amount of entrepreneurial activity and new firm formation would be the most successful cities and regions, economically speaking.

2.3.1 The role of institutions in improving entrepreneurship

Improving entrepreneurship in a region can be done in a strictly economic approach, where policy makers focus their efforts on access to finance, improved support of non-competing established businesses, cluster and innovation building. Alongside this approach, policy makers can alternatively use social development drivers in their region (Huggins & Williams, 2011). These drivers include improving the rates of entrepreneurship within underrepresented or marginalized groups or areas, and the more general development of a culture of entrepreneurship, particularly among young people. Putting more thought into reaching these focus groups can help unlock the economic potential of these groups, as well as gaining a more cohesive society by letting the different groups that may be spatially or culturally divided interact with each other on a professional level.

Huggins & Williams (2011) find that there is case of friction between using enterprise policies as a tool for improving regional competitiveness or, alternatively, for addressing economic and social disadvantages. Using enterprise policies for improving the regional competitiveness often focusses upon already successful areas of economic activity, as short-term results are more likely to occur at places that already enjoy some amount of success. When enterprise policies are used towards achieving cultural changes in less successful areas, there are less short-term gains and successes to be had for the involved institutions. These cultural changes move slowly and are a long-term commitment which can result in regional enterprise policy activity being defined by short-term targets in the area of start-up promotion (Huggins & Williams, 2011).

Policymakers who want to improve the competitiveness of their city have to heed the various regional and urban dimensions of the economic development policies. There is no proof of one economic framework that fits all regions or areas concerning improving their economic competitiveness. Regional policies maintain industrial competitiveness and are as important in this as macroeconomic or sectoral policies (Saxenian, 1996). Regional institutions need to be created or improved so they can promote a decentralized framework of industrial self-organization, without sacrificing the diversity and autonomy of the industries. These institutions can be funded by the government, like the Minority Business Development Association and the Greater Phoenix Economic

Council in Phoenix are but can also be non-governmental organizations such as the various active Chambers of Commerce.

2.3.2 Types of policy interventions considering influencing entrepreneurship rates

Despite the differing urban and regional dimensions of the metropolitan areas that this research is using, there is still a general sense of what kind of policy measures work in improving a general entrepreneurship-friendly environment. Desiderio (2014) states six different types of policy interventions that can contribute to this. Firstly, governmental organizations can reduce the red tape and simplify the administrative procedures that is required for starting and maintaining a small business. Cutting down on the requirements of governmental agencies towards these businesses let the owners focus on running their business. Secondly, creating favorable tax regimes for start-ups and investors to stimulate an increase in their initial financial capabilities. Thirdly, government agencies can allow for legislative measures that enhance the labor market flexibility and facilitate apprenticeships and traineeships for the entrepreneurs. Fourth, the incorporation of entrepreneurship in education could be stimulated by facilitating interaction between students and entrepreneurs and mainstreaming business-related courses in curricula. In the fifth type, Desiderio argues that governmental organizations can provide support for research and innovation by conducting public-private partnerships with entrepreneurs and researchers with bright ideas but who are lacking the know-how to run a business. Connecting these people with business consultants and forming innovation clusters surrounding these researchers and the sector in which they are active helps stimulate innovation. Lastly, government organizations can promote an entrepreneurial culture by presenting entrepreneurs as role models in marketing and media, as well as supporting an environment that is welcome towards all entrepreneurs. These types of policy interventions, their presence and usefulness are used in the interview guide as part of the qualitative segment of this research.

2.4.1 Spatial patterns of migrant entrepreneurship

Evans and Jovanovic (1989) estimate a model of entrepreneurial choice under liquidity constraints, which means that they calculated the likelihood of people with various levels of personal wealth starting a business. They show that wealthier people are more inclined to become entrepreneurs. They find that this is not due to wealthier and thus economically successful people being better entrepreneurs. Instead, their data points to liquidity constraints. Access to capital is of the essence for starting a business. People who want to start a business but have insufficient income or wealth to do so are excluded or have a lessened opportunity to become an entrepreneur. This finding would hypothetically give immigrants a disadvantage in starting a business, as they often have lower financial means. Improving personal wealth levels is one of the most prevalent reasons to migrate on a micro-level (Hagen-Zanker, 2008).

The lessened opportunities of migrants in starting a business is not observed in American cities. Immigrants are overrepresented in the overall American labor force, when their share of the population is considered (Immigration Forum, 2018), as well as them having a higher propensity to launch businesses, compared to people born in the United States (Figure 1). The underlying reasons and motivations as to why these differences in entrepreneur rate among migrants and non-migrants are what they are touches the essence of this research.

2.4.2 Dual labor markets

Starting a business can be a way to achieve success in a new country, but it can also be a sign that the accessibility of the regular labor market is not that high for immigrants. A dual labor market is observed in research conducted by Durand et al (2016), where the effect of being an illegal immigrant in the U.S. on type of employment and earned wages is analyzed**.** Illegal immigrants, due to their status are disproportionally placed into the secondary labor market, where they often earn lower wages and do not have the same rights and protections as people working in the primary labor market.

Rodriguez-Planas & Nollenberger (2014) assessed how immigrants in Spain performed in the country's labor market. They found that many immigrants work in a secondary labor market. In this labor market, progress from unskilled into middle-skilled jobs occurs more easily than in the primary labor market. However, this secondary labor market also offered less protections for those workers when the 2008 recession hit. These findings suggest that integration policies should aim more to help immigrant workers transition into the primary labor market in order to obtain more stable employment, rather than forming their own labor market.

Gorodzeisky & Semyonov (2017) examined the labor market incorporation of immigrants in European labor markets. Their findings suggest that being of non-European origin is associated with greater disadvantages in finding employment, even when a person is a second-generation immigrant.

To understand what fosters and hinders firm formation and firm formation of immigrants at the US metropolitan level is a challenge, as entrepreneurship can be measured by a lot of varying indicators. Understanding what the driving factors behind firm-formation by immigrants are, can help us understand how to cultivate that drive of immigrants and use it to make the local economy stronger and more resilient. Alternatively, it can show the presence of a dual labor market in some cities, where immigrants are excluded in participating in the regular labor market and are forced towards starting a business. It is also possible that both types of push and pull factors for migrants towards entrepreneurship are present in metropolitan areas.

2.5 Necessity & opportunity entrepreneurs

Chrysostome (2010) identifies these two types of reasoning behind starting a business and defines two different types of entrepreneurs within immigrants. The necessity immigrant entrepreneurs and the opportunity immigrant entrepreneur.

Opportunity immigrant entrepreneurs freely decide to start a business to take advantage of perceived opportunities (Chrysostome, 2010). These immigrants often came to the host country with an economic or educational purpose. They came there looking for a (short-term) job or enjoyed an education and decided to stay. These immigrants are highly educated, often hold a university degree from the host country and are proficient in English (Min & Bozorgmehr, 2000). They do not necessarily rely on the ethnic market for their business and instead concentrate on the market of the host country (Kwong, 1987). They are generally well integrated in the host country.

Already in 2000, Saxenian found that there were new kinds of immigrant entrepreneurs active in Silicon Valley. Those highly skilled immigrants concentrated themselves in the U.S. technology sector where their products would be exported across the globe, contributing greatly to the economic growth of the country. The founders of Yahoo!, Hotmail and Google were immigrants and Saxenian states that these well-known persons are only the tip of the iceberg concerning immigrant entrepreneurship in the Silicon Valley.

Necessity immigrant entrepreneurs undertake business activities because of the various obstacles that prevent them or limits their access to the job market of their host country. They start a business because it is one of the main ways to thrive in the host country. They often are not highly educated and have limited professional experience (Min & Bozorgmehr, 2000). In comparison with opportunity immigrant entrepreneurs, they experience a lack of capital. They do not have the opportunity to gain capital from formal financial sources due to language difficulties and lower education levels. They must rely on their ethnic community for investments. That ethnic community often is the market on which the business of these entrepreneurs' focusses.

2.6 The role of institutions of improving migrant entrepreneurship

What makes migrant entrepreneurs stand out from regular entrepreneurs is their increased risk propensity, as well as their possession of unique knowledge and a clear identity, based from their land of origin (Earle et al. 2019). Migrants are in general more willing to take a risk as moving to another country can be seen as a sign of that increased risk propensity (Fairlie & Lofstrom, 2015).

2.6.1 Policy measures on migrant entrepreneurship rates

There are different ways and scale levels where migrants can be stimulated to become entrepreneurs and are recognized as focus group by governmental organizations. The Kaufmann Foundation (2016) gives a good overview of the different types and kinds of measures that can be implemented as ways to stimulate migrants in the U.S. to start a business.

On a federal level, governmental organizations can implement active measures to attract foreign people that want to start a business. Anno 2020, would-be migrant entrepreneurs in the U.S. need to work within the current framework of immigration laws to apply for a visa. The use of Start-up Visa programs can be of use in authorizing non-citizens to start a business in the U.S.

Every year more than half a million foreign students are granted a visa to study at American universities. Allowing these students to pursue residency on a permanent basis would be an extension of the Curricular Practical Training and Optional Practical Training programs, which allows for training and added work experience during or after your study (ICE, 2019). These programs could also be extended to allow those students to set up a business in their host country.

On the state level, the various visas can be used in an unorthodox way to incorporate migrants who want to start a business into the entrepreneurial ecosystem. The state of Massachusetts has created a program where the University of Massachusetts has employed 'resident entrepreneurs' on a H-1B visa, which is a visa that enables employers to temporarily employ foreign workers in specialty occupations. Those resident entrepreneurs work part-time at the university, while also allowing enough time opportunities to pursue their own businesses and creating jobs and economic surpluses for the region. The creation of more generalized work visas would allow states to match the needs of their state economy with workers. A state like California could focus on attracting foreign workers with expertise in software development or even agriculture, while a state like Michigan could focus on their manufacturing sector. In contradiction to previous considered visas, this visa would not tie the workers to an employer and give them more chances and opportunities to carve out their own business with their own skillset, instead of relying on a sponsor.

On the local level, NGO's and community leaders can encourage cities and regions to enhance the entrepreneurial ambitions of immigrants. Training and engaging immigrants to develop businesses that sustain economic growth can be of vital essence towards many communities across the U.S., especially on the non-coast areas, where economic growth often is not a given.

When comparing this to the possible types of policy interventions stated by Desiderio (2014), the policy measures suggested by the Kaufmann Foundation focus mostly on making it easier to attract would-be immigrants, while Desiderio, as well as this research, approach the people that comprise the migrant group as people that already are present in the U.S.

Despite the differing problems and opportunities of economic regions, there is the agreement that entrepreneurship is very important for competitiveness for regions across the globe (Porter, 1990). Immigrants are an important part of the entrepreneurs present in the metropolitan areas of the United States. These entrepreneurs nevertheless comprise in some areas a bigger part of the total entrepreneurial system than in others. To obtain more knowledge in what socio-economic characteristics of an area improves or decreases the rate of immigrants becoming entrepreneurs is thus one of the main objectives of this research. Furthermore, by gaining qualitative data about the role of institutions and government agencies in Phoenix, we can provide a complete view of why the migrant entrepreneurship rates in the Phoenix metropolitan area are relatively high and through what measures the incorporation of migrant entrepreneurs should be further improved to gain a more cohesive and robust economic ecosystem where social and economic interaction between population groups is encouraged.

Policymakers have as one of their main tasks to improve the economic competitiveness of their region (Begg, 1999), and entrepreneurship has in recent years gained more interest from researchers and policymakers alike as main incentive of economic growth and competitiveness. Higher rates of entrepreneurial activity benefit the whole economy. Entrepreneurial activity in a focus group such as migrants is higher than average in most metropolitan areas. This group does however also have a higher business failure rate (Desiderio & Mestres-Domènech, 2011) than average. More specifically, Hispanic migrants, who make up the largest part of migrants in Phoenix, also tend to have a lowered probability of business survival in the U.S. (Georgarakos & Tatsiramos, 2011). Difficulties associated with these lowered probabilities are the lack of familiarity with the local economic environment and administrative burdens, as well as credit access difficulties and language barriers (Desiderio, 2014). Improving the success rate within marginalized groups can help unlock the economic potential and lead to a more cohesive economy and society. To gain insights into what enables these entrepreneurial opportunities for migrants and how to let this group make the best out of the given opportunities is the crux of this research. How socio-economic characteristics of American cities stimulate immigrants to become entrepreneurs in what way and how institutions can influence these characteristics and enact entrepreneurial policy measures that unlock their full economic potential are the questions that follow out of this approach.

2.7 The influence of socio-economic characteristics of cities on entrepreneurship rates

The levels of migrant entrepreneurship and non-migrant entrepreneurship vary widely across states and cities. Reasons as to why these levels vary are often sought in the socio-economic characteristics of those cities. These characteristics can be compared with each other by metro area and represent a part of the overall economic development and competitiveness of the city, as well as the overall shape and fit of the people living in the cities contributing to the local economy.

Glaeser (2007) states some demographic and educational supply factors that can explain the heterogeneity in self-employment rates across metropolitan areas. These factors are age and schooling of individuals. According to Glaeser, older people who are skilled are more likely to start a business. Presence of an appropriate workforce is a powerful predictor of new firm birth and the

presence of small firms. These people are a provision of both potential entrepreneurs and labor for those entrepreneurs. Interestingly, the presence of enough customers in the local area seems to be relatively unimportant. Motoyama and Bell-Masterson (2014) too identified education as a primary factor in influencing start-up rates in US metro areas. Both a high secondary education completion rate and the presence of colleges is positively correlated with high start-up rates. In their research, the presence of research universities and high government expenditures towards research was not associated with higher rates of entrepreneurship. Inclusion of these characteristics will test if and how strong the effects of age and education are upon entrepreneurship rates. The existence of different ethnic communities will test if the more multicultural urban areas in the U.S. also influence the rate of migrant starting businesses. Economic characteristics such as the unemployment rate, potential labor force and poverty rate in the metropolitan areas will test the economic capabilities of the areas and the effects this has on the entrepreneurship rate. These indicators can also be used to look more in depth into if a high migrant entrepreneurship rate can be seen as a sign of a well performing labor market or alternatively of a dual labor market where migrants are marginalized. The distance to border crossing is also included in the analysis as a variable, to look into the effect a close border crossing can have upon migrants starting businesses. As the migrant entrepreneurs in border areas are hypothesized to have close connections across the border and can possess the increased to connect the market of the metropolitan area with imported goods from other countries.

The investment levels of local financial organizations are not considered to be a factor in start-up rates, according to Motoyama and Bell-Masterson (2014). They state that high-tech sectors are only hotbeds for start-ups in their own sector, and that the spin-off effects on other parts of the local economy are nihil. They furthermore confirm the theory that in general, larger metropolitan areas have higher entrepreneurial rates. This can be explained by the more diverse and resilient economy those areas often have and the higher amounts of business opportunities associated. These higher entrepreneurial rates in more populous metropolitan areas are tested for in the analysis.

Glaeser (2007) finds that the number of workers per firm is strongly negatively associated with growth at the industry level within metropolitan areas. This suggests that areas with firms with lower numbers of workers per firm are more successful areas. Areas where higher levels of entrepreneurship are achieved are more successful according to this. Increasing the total amount of business opportunities should be one of the main goals of institutions concerned with economic development of their jurisdictive area. Migrants seem to have a lessened risk propensity towards starting a business, which is an opportunity for them to make a decent living in a new country, as well as an opportunity for the area they live in to evolve into a more competitive, diverse and resilient economy. According to a report from Citi Group (2018), the attraction of the United States towards migrants has been one of the strong historical drivers behind its' economic growth and remains to be so well into the 21st century.

Not every area in the U.S. recognizes this, as political rhetoric is often targeting them. Perceptions of migrants as stealing jobs and social benefits from the people who are born and raised in the U.S. nurture these views. This is a potential reason why migrants are so inclined to start their own business. The political climate and anti-migrant rhetoric can make this group uncomfortable and unwilling to participate in the regular labor market and start working for themselves. Attitude towards migrants in metropolitan area is thus a factor for which in this research is tested to see if this increases or decreases the tendency of this group to start a business for themselves. Attitude towards migrants is hard to measure correctly, as there are no wide scale surveys available that ask questions towards these sensitive issues. Local concerns and flare-ups of negative sentiments towards migrants seem to be influenced heavily by national politics (Hopkins, 2011). Within these

national politics, the Republican Party in particular involves themselves heavily in framing migrants and minorities to white and native-born economic resources (Brown, 2014). When in power on a state level, the Republican Party is more inclined to introduce anti-immigrant legislation to help protect the groups which they represent (Wallace, 2014). The bipartisan nature of politics in the U.S. where one party stands for anti-immigrant rhetoric enables a way to approximate the effect of migrant friendliness in an area on migrant entrepreneur rate. Using voting behavior in the metropolitan areas gives insight in the willingness to cooperate with and friendliness towards migrants and their entrepreneurial enterprises.

2.8 Conceptual model

The external level of opportunities, possibilities and influencing factors for setting up, managing and extending the businesses for migrant and native-born entrepreneurs alike are in this research divided into four distinct scales of measure.

Firstly, the economic positioning of migrants is measured to gain insights into if their positioning is different from the native-born group and if this influences the entrepreneur rates.

The institutional attitude measures the role of governmental and non-governmental organizations in creating a viable entrepreneurial ecosystem for migrant entrepreneurs and is predominantly assessed in the metropolitan area of Phoenix. To what extent involved organizations are or are not stimulating migrant entrepreneurship and what could be improved in order to improve cohesiveness and fulfill economic potential of the migrant entrepreneurs. Level of policymaking and involvement of local organizations is primarily measured through qualitative interviews and is vital in getting a sense of how this may influence the decisions of migrants to become entrepreneurs.

Migrant and ethnic diversity measures the up make and size of the different ethnic communities in American cities and the extent to which the amount of migrants is influenced in their decision to start a business.

The last theme comprises of general demographic characteristics such as population size and density, as well as an age component to test if these characteristics have any influence on these entrepreneur rates.

These characteristics are metropolitan-wide available data about cities that are hypothesized to influence the decisions of migrant or native-born people to become and successfully stay an entrepreneur. To measure if and how much the effect is of certain levels of those metropolitan-wide characteristics gives insights towards the extent of the influence of the factors and facility levels of the metropolitan areas upon entrepreneurship rates. To thematically describe the processes at work which influence the migrant entrepreneurship rate in American metropolitan areas, the following conceptual model is developed with the described theory in mind. The combination of quantitative and qualitative analyses is used to figure out the questions why the migrant entrepreneurship rates are what they are, if a higher rate is a sign of a good functioning economy and what can be done to embed the migrant entrepreneurs further in the local economy. Policy interventions can be deduced that act on the economic positioning of migrants as well as the institutional attitude towards migrant entrepreneurship, which gives the conceptual model its looping structure. See figure 3 for the conceptual model.

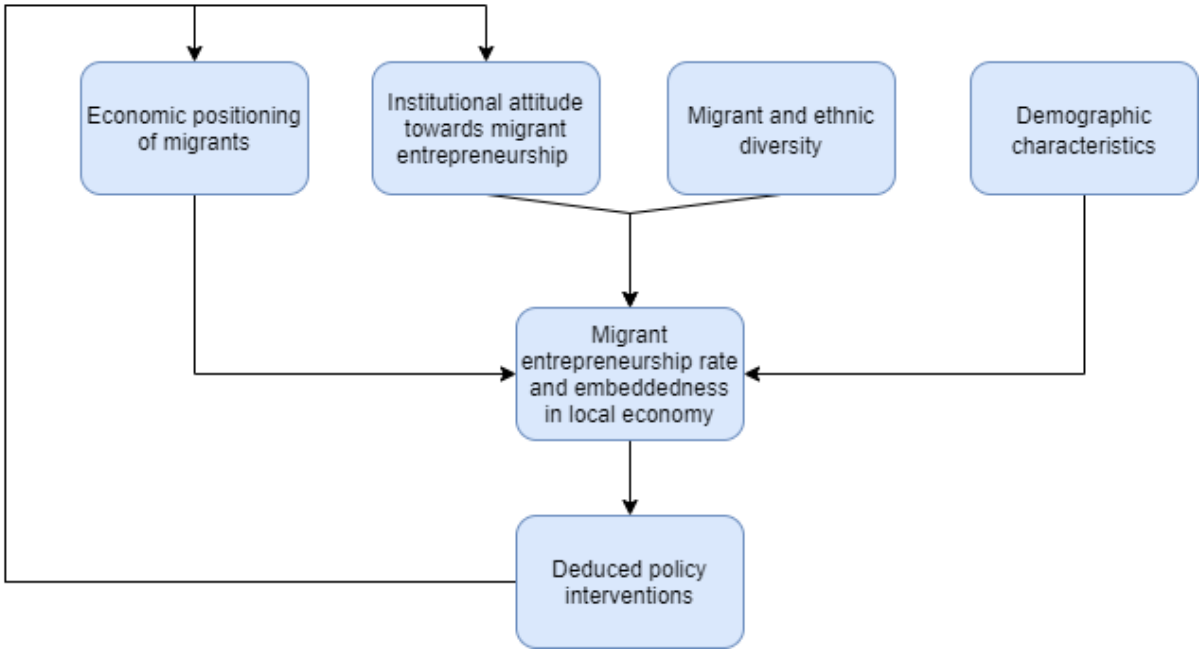

Figure 2: Conceptual model

3 Methodology

This research will make use of qualitative and quantitative methods to gain answers to the earlier formulated research questions. An integration of both types of data collecting is necessary to provide more complete and concise answers to the research questions than each individual method would do on its own. Only incorporating one of the methods would give answers either only driven by data, or by the opinions and statements of the interviewees. By combining the two methods, several means can be used to measure the same phenomenon and the influences of migrant entrepreneurship rate can be assessed through open-ended and close-ended information. This makes this research not only capable of finding certain results and correlations concerning migrant entrepreneurship and city-specific variables, but also in providing arguments as to why these variables are what they are and why they influence the entrepreneurship rates in the first place.

The first part of this research comprises of a regression analysis based on entrepreneur rates of migrants and native-born citizens of the United States as dependent variables and close-ended characteristics of metropolitan areas as independent variables. The regression can help analyze the variation found in the dependent variables on basis of these independent variables. This part of the research is aimed primarily to gain clues about the variation in entrepreneurship rates on a nationwide level. The nature of the available data also enables a comparison between Phoenix and the other researched metropolitan areas. The independent variables are put into four distinct brackets, based on overlapping themes. These brackets are mentioned also in the conceptual model.

The second part of this research is focused on finding answers for the area of Phoenix specific, as interviewees are based in this area and knowledgeable about these subjects in a specific regional context. The following two questions will be answered by using these research methods:

To what extent are Phoenician institutions actively involved in stimulating immigrant entrepreneurship with policy measures?

To what extent are the different types of entrepreneurial policy measures instrumental in influencing immigrant entrepreneurship?

The answers for these questions can then be used to answer the main research question:

How do institutions situated in American cities relate to migrant entrepreneurship?

3.1 Secondary data-analysis

Sixteen variables were incorporated into the model. These sixteen variables are partly chosen on basis of earlier discussed academic literature, discussed in section 2.7. The remaining variables are included due to having a hypothesized, but not proven, influence on entrepreneurship rates. These sixteen characteristics can be broadly divided into four distinct brackets, each with their own overall theme that the variables correspond with. These four main themes are:

- Economic positioning of migrants
- Institutional attitude towards (migrant) entrepreneurship
- Migrant & ethnic diversity
- Demographic characteristics

By adding the sixteen variables in two models, one predicting migrant entrepreneurship and one predicting native-born entrepreneurship, differences in predicting variables between the models can be shown. These independent variables are each chosen with the goal to gain information on one of

the four themes on if and how they influence migrant entrepreneurship rates. The version of two models is used to make the overall analysis stronger, as it has as added benefit that it can differentiate between factors that influence the migrant entrepreneurship rate and factors that influence entrepreneurship rate as a whole. This differentiation would not be possible with the use of only one model.

The observed differences between the models will provide more insights into the different ways how and why the two groups perform as they do in American cities around the country. This way of regression modelling also has the benefit of revealing which socio-economic characteristics are influencing the entrepreneurship rates positively or contrarily negatively. The analysis also provides some insights into the different hypotheses of a higher migrant entrepreneurship rate being a sign of integration and good governance in the local labor market or contrarily of a labor market that is less accessible towards this group.

Observing which independent variables are statistically significant in declaring the perceived variation is the main goal of this analysis, as well as keeping multicollinearity low and trying and getting a high overall fit of the model. The statistical analysis program Stata is used in performing this analysis.

3.2 Transforming independent variables

The obtained variables in many cases needed transformation before they could be incorporated into the model. These transformations were mainly necessary for two reasons. Firstly, the variation of some variables was not normally distributed. This results in standard deviations that were magnitudes higher than the coefficient it was trying to predict. Inclusion of these variables in this form would result in weaker predicting power. The variables that experienced this were thus transformed by calculating the natural log for these variables and adding these in the model. In the Results section of this dissertation, these variables can be identified by the addition of 'Log' in the label.

The second reason transformation was deemed to be necessary had to with the composition of certain variables. Treating metropolitan areas as single cases can give certain issues. This is due to available data often being compositional data, where one variable's data is partly dependent on another variable's data. An example is the racial up make of a metropolitan area. This always counts to a hundred because it is measured as a percentage of the whole population, which gives issues with regards to multicollinearity. If the percentage people being white people of a metropolitan area is hundred percent, the other compositional variables will be automatically zero, which means that the 'independent' variables are not independent from each other. These compositional variables are transformed into multiple binomial variables, in which is tested for different individual characteristics of the composition variable. One of the less relevant binomial variables that make up these transformed compositional variables is finally excluded in the analysis. Multicollinearity is so kept to a minimum.

Table 3 gives an overview of the most important included independent variables and the hypothesized effects they have on the dependent variables in the models.

Independent variables	Label	Hypothesized effect on dependent variable model 1 (migrant entrepreneur rate)	Hypothesized effect on dependent variable model 2 (native-born entrepreneur rate)
Economic Positioning			
PopHS	Relative amount of people that finished high school	Positive	Positive
PopCollege	Relative amount of people that has a college degree	Positive	Positive
PopBachelorPlus	Relative amount of people that has a bachelor's degree	Positive	Positive
PovRate	Relative amount of people living in poverty	Negative	Negative
Institutional Attitude			
Demvote2016	Percentage people voting Democrat (2016)	Positive	Positive
Migrant & Ethnic Diversity			
BlComm	Black community is more than 15% of total population (0 = no, 1 = yes)	Positive	Neutral
AsComm	Asian community is more than 15% of total population (0 = no, 1 = yes)	Positive	Neutral
HisComm	Hispanic community is more than 15% of total population (0 = no, 1 = yes)	Positive	Neutral
Demographic Characteristics			
Popudens	Population density	Positive	Positive

Table 3: A selection of variables and hypothesized effects on dependent variable in the models.

3.3 Case study Phoenix: Qualitative research

The second part of this research is a case study, where the metropolitan area of Phoenix, Arizona is studied more intensely by conducting interviews comparing these results with the results from the data analysis. Validation of results obtained from the data analysis is the first reason to zoom in on Phoenix as a case study. To obtain other insights and variables that could be of influence on entrepreneur rates of foreign-born inhabitants and that are not as easily put in statistical models is the second main reason to conduct the interviews. The influence institutions can have on nurturing the entrepreneurial environment is not easily captured in close-ended data, so these actors are accounted for through interviews.

By interviewing knowledgeable people about aspects of the local entrepreneurial ecosystem, the local institutions and the involved policymakers who try to influence this ecosystem, further insights are to be provided into what kind of measures Phoenician institutions take to stimulate their local entrepreneurial ecosystem and the role that immigrants play in it, as well as provide explanations as

to why the portion of entrepreneurs being an immigrant is relatively high. The questions focus on different types of policy measures institutions can focus on. These different types are:

- Stimulation of labor market flexibility and facilitation of apprenticeships and traineeships
- Promotion of entrepreneurship as role models in marketing and media
- Incorporation of entrepreneurship-related courses in curricula
- Simplification and reduction of red tape and administrative procedures
- Stimulation of initial financial capabilities
- Business support provision

Asking about motivations for migrants to become entrepreneurs rather than wage laborers is a way to see if there is a dual labor market, as well as asking them straight about the possible existence of such a labor market. Thoughts and opinions about various policy measures are encouraged to see which measures are successful.

Semi-structured interviews are an additional way to gain a deeper understanding of the relatively high levels of migrant entrepreneurship in the Phoenician metro area than is possible with the data analysis alone. An added advantage is that the outcomes of the data analysis can be submitted to these people who can compare them with their own experiences and add some context to the data. The questions will be asked in a neutral manner to ensure that steering to certain answers and outcomes is avoided as much as possible. The expectation is that in interviews there will be some amount of formulated ideas and opinions from the respondents that are not accounted for in the data-analysis and the interview guide. Semi-structured interviews allow for a change of direction in an interview which can then be capitalized on to provide new insights in migrants choosing to become an entrepreneur.

The main criteria that respondents need to meet is that they should be knowledgeable about the Phoenician entrepreneurial ecosystem and the role migrants play in this ecosystem. Because of this, all respondents are either migrants with their own business or alternatively are experts on this subject due to their academic research or work touching this domain. Appendix 2 shows the people who were interviewed for this research, as well as the place where the interviews were conducted and which organization they are affiliated with, as owner or employee. Interview guides will vary slightly based upon the respondent themselves being a migrant entrepreneur or not. A shortened version of the interview guide is included below. The full interview guide can be found in Appendix 3.

3.3.1 Interview Guide

Institutional measures Phoenix

- In your overall experience, how involved are local government organizations in trying to stimulate entrepreneurship/migrant entrepreneurship?
- What happens on the front of promoting entrepreneurship as a viable career strategy in Phoenix?
- What happens in Phoenix on the front of educating interested migrants so that they are well equipped to start a business?
- How do migrant entrepreneurs in Phoenix cope with the administrative and legal barriers that surround entering and starting a business?
- What kind of ways are there for migrant entrepreneurs in Phoenix to get access to financing?
- What happens on the front of connecting migrant entrepreneurs with business support in Phoenix?

- According to you, where should local government organizations focus on to improve the economic positioning of migrant entrepreneurs in the Phoenix metropolitan area?

Concluding

- Outside of the government and the functioning of their policies, what kind of other demographic, economic or social characteristics of the Phoenix metro area influence in your opinion the lowered amount of migrants starting a business?
- Would you consider this local labor market a dual labor market, where marginalized groups have more difficulties finding a job than non-marginalized groups?

4 Results

The first part of this chapter presents and discusses the results of the regression analysis. The overall fitness of the models in correspondence with the used data is discussed and analyzed. The individual variables are bracketed into their corresponding themes to offer guidance and a clear line in discussing the results. The two models are compared with each other to offer insight into which independent variables have effect on the entrepreneurial rate as a whole or specifically on migrant entrepreneurship rate. The two models are displayed in table 4. Appendix 6 and 7 show the Stata output tables of the two models.

EntRateFor (1)	Coeff. & Sig. Lvl.	St. Dev.	***EntRateNat (2)***	Coeff. & Sig. Lvl.	St. Dev.
Economic positioning			***Economic positioning***		
ForPopHS	**-0.016**	**0.050**	NatPopHS	**-0.214*** **	**0.049**
ForPopCollege	**0.148*** **	**0.069**	NatPopCollege	**0.174*** **	**0.025**
ForPopBachelorPlus	**-0.192*** **	**0.042**	NatPopBachelorPlus	**-0.027**	**0.020**
ForPopUnemployRate	**-0.338*** **	**0.122**	NatPopUnemployRate	**-0.165***	**0.098**
ForPovRate	**0.066** **	**0.030**	NatPovRate	**0.015**	**0.026**
Institutional Attitude			***Institutional Attitude***		
SanctuaryCity	**-0.485**	**0.385**	SanctuaryCity	**0.752*** **	**0.190**
Demvote2016	**0.040*** **	**0.015**	Demvote2016	**0.001**	**0.0003**
LogBorderCrossDist	**-0.076**	**0.033**	LogBorderCrossDist	**0.025**	**0.021**
Migrant & Ethnic Community			***Migrant & Ethnic Community***		
NoMinorities	**0.396**	**0.373**	NoMinorities	**0.412** **	**0.183**
BlComm	**0.943** **	**0.410**	BlComm	**-0.354***	**0.207**
AsComm	**1.241**	**1.123**	AsComm	**0.858**	**0.537**
HisComm	**1.358*** **	**0.446**	HisComm	**0.586*** **	**0.195**
Multicultural	**-1.060142***	**0.637**	Multicultural	**-0.078**	**0.308**
Demographic Characteristics			***Demographic Characteristics***		
TotPopLog	**0.257**	**0.186**	TotPopLog	**-0.330*** **	**0.090**
MedAge	**0.087** **	**0.035**	MedAge	**0.158*** **	**0.017**
PopuDens	**-0.0003**	**-0.0006**	PopuDens	**-0.0003**	**0.0003**
Constant	**-1.743**	**3.252**	Constant	**13.094*** **	**3.969**
N	**264**		N	**264**	
R2	**0.283**		R2	**0.503**	
P	***		P	***	

*Table 4: Dependent and independent variables modelled with use of Ordinary Least Squares regression (OLS). * = P < 0.1, ** = P < 0.05, *** = P < 0.01.*

4.1 Overall fit of data

The model with the entrepreneur rate of foreign-born inhabitants (model 1) has a p-value of 0,000 with regards to if the overall model fits the data. The variables and the effect the overall model has upon the migrant entrepreneur rate is thus considered to be significantly different from zero. The R-squared value is 0,2831 and the adjusted R-squared value is 0,2367. These values give the percentage that the variation within the dependent variable can be declared by the independent variables.

The model with the entrepreneur rate of native-born inhabitants (model 2) also has a p-value of 0,000. The effect of the included variables upon native-born entrepreneur rate is also considered to be significantly different from zero. The R-squared value is 0,5333 and the adjusted R-squared value is 0,5031. When compared with model 1, it seems that the independent variables do a better job in declaring the variance of the entrepreneur rate of native-born inhabitants than of the foreign-born inhabitants. A possible interpretation is that the migrant entrepreneur group are somewhat less integrated in the social and economic ecosystem of their city than their native-born counterparts, which makes their decision to start or not start a business harder to predict on the basis of metropolitan-wide characteristics. This possible explanation of lesser integration and connectivity between the cities' resources and migrant entrepreneurs is also touched upon in the qualitative part of this research.

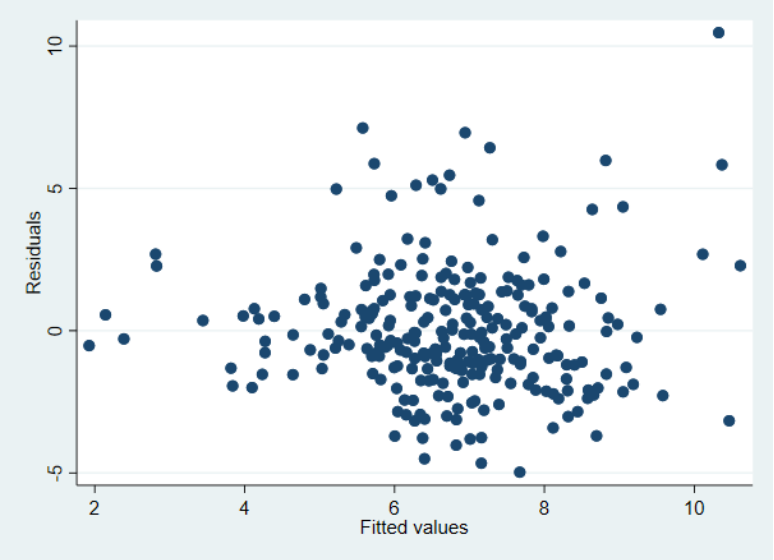

Figure 3: Residuals of metropolitan areas plotted

The residuals of all the metropolitan areas were calculated and plotted (figure 4) with EntRateFor as dependent variable. This kind of plot is used for detection of non-linearity and outliers. Points should be concentrated horizontally around 0, which is the case in this figure. The figure also does show that the points with the highest fitted value also experience more variance in their residuals. The mean residual does not change heavily with these values, but the spread does increase slightly, mostly due to the data point in the upper right corner. This unequal variance is important to consider when interpreting but is not severe enough to warrant alterations in the model.

The data point that represents Phoenix has a residual value of 0.449. A data point that is close to zero, like Phoenix, has a low level of unexplained difference in this model. The predictions of the variables incorporated in the model are close to the observed value of migrant entrepreneurship rate in Phoenix.

4.2.1 Economic positioning of migrants

One of the important questions in this research is whether labor markets in American metropolitan areas can be described as dual labor markets for migrants and if that is one of the explanations as to why foreign-born entrepreneur rates are relatively high. The relation of unemployment rate and entrepreneur rate for foreign-born inhabitants was observed to be statistically significant and negative. In a labor market, a higher entrepreneur rate together with a high unemployment rate among the marginalized group would suggest that there is a lack of opportunities in the regular labor market for that group. The presence of a dual labor market on basis of unemployment rates is not observed in the model. This model states that a higher unemployment rate of foreign-born inhabitants correlates with lowered entrepreneur rate in that group. The existence of a dual labor market in Phoenix was also questioned in the qualitative research. Respondents did not seem to have an unambiguous answer, as they could see it happen, but they never experienced this phenomenon themselves.

Correlations between Poverty Rate and Entrepreneurship rate were proven to be significant and positive for the migrant incorporated model. The effect of poverty rate on entrepreneurship rate is limited to a moderate effect. The model predicts that if poverty rate among foreign-born inhabitants rises with one percent, entrepreneur rate among those inhabitants rises with 0.0804014 percent.

A person's education level is oftentimes used in assessing the capability of someone in performing hard tasks and can be seen as a predictor of economic success. Among the metropolitan areas, there is an insignificant effect of the rate of foreign-born inhabitants having finished high school upon migrant entrepreneurship rate. There is however a significant perceived negative effect of the rate of native-born inhabitants having finished high school upon native entrepreneur rate. For every percent increase in the rate of native people finishing high school, the native entrepreneur rate is expected to decrease with 0.237401. Given that economic success is usually positively associated with higher levels of formal education (Bartel, 1995; Xiao, 2002), this could be an unexpected observation. This unexpected observation however is supported by the Kauffman Index of Entrepreneurial Activity, as seen in Figure 5 (Fairlie, 2013).

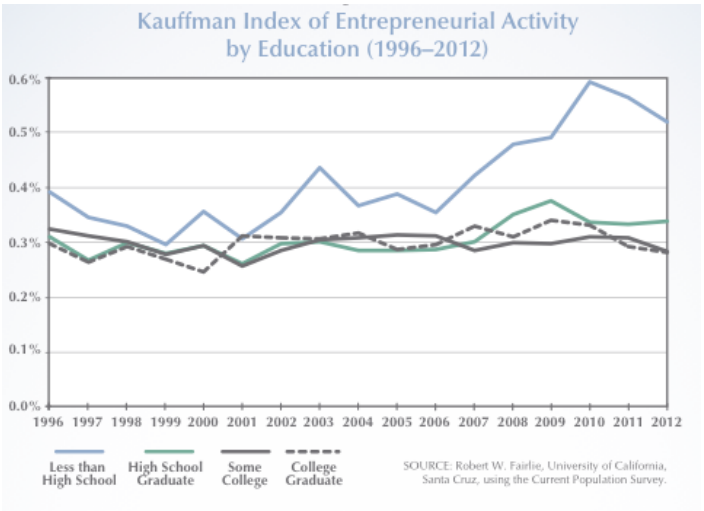

Figure 4: The percentage of individuals between 25 and 64 that did not own a business in the first survey month and did own a business in the following month. Data: Fairlie, 2013

The individuals that did not finish high school have a substantially higher propensity to start a business than individuals that did finish high school. The higher rates suggest that these people are excluded out of the regular labor market due to their lack of education. They are starting a business out of necessity more than out of opportunity. For foreign-born entrepreneurs, this correlation is not found.

There is however a positive effect observed of the rate of inhabitants having finished some amount of tertiary education upon entrepreneur rate in both models. This can be explained by people having

need for some type of specialized knowledge before it is realistic to start a business. Most of this specialized knowledge is not learned in high school, but rather at colleges and universities. To start a business, in most cases entrepreneurs need to have some knowledge of the study field of that sector to efficiently run their company. A second explanation can be that potential entrepreneurs have to learn and hone their ability to sense business opportunities and that they can learn that in tertiary education, for example while studying Business Administration. The individuals that become entrepreneurs after having finished some tertiary education can be described as being more likely to be opportunity entrepreneurs than necessity entrepreneurs.

The economic positioning of migrants plays a big role in their decision of starting a business. The level of education is an interesting factor in this, as it does not have a straight linear effect on the entrepreneurship rates. There seem to be education levels in which its' people are more inclined to start a business, which are people who did not finish their high school and people with a college degree but not a bachelor's degree. The migrant entrepreneur rate with regards to the influence of poverty and unemployment levels of their area is interesting. It seems that high poverty levels influence this rate positively, and that high unemployment levels influence it negatively. This gives reasons to believe that there are migrant entrepreneurs who start their business out of necessity, rather than out of opportunity, in accordance to Chrystostome (2010). The possibility of dual labor market being an influence on migrant entrepreneurship rates is still somewhat unclear, as a high unemployment rate predicts lower entrepreneur rates and respondents did not have an unambiguous answer on the possible existence of a dual labor market in Phoenix.

4.2.2 Institutional attitude towards migrant entrepreneurship

Sanctuary cities are cities in the U.S. that do not provide support towards enforcing the federal immigration laws. Deportation and forcibly breaking-up of families are minimized in these cities, so that the members of those families feel comfortable enough to get more acquainted with all the facets of life in their city. Using health services, the enrollment of children in schools and sport clubs and partaking in the labor market is made more accessible for these people. The American census does not ask people about their status concerning citizenship, which means that people without a status can also fill those forms in and are incorporated into the data of this model. A metropolitan area being a sanctuary city has no significant effect upon the migrant entrepreneurship rate. It does have a significant and positive effect on native-born entrepreneurship rates. The insignificance of this variable on migrant entrepreneurship rate is interesting. It could be hypothesized that a sanctuary city would have a negative effect on migrant entrepreneurship rate, as the regular labor market is made more easily accessible for these people. The data does not show support for this hypothesis.

The results of the presidential election of 2016 are used to test for the local political climate as a possible predictor for entrepreneurial activity among migrants. This was treated as a binomial variable and data was available for all the metropolitan areas on a county level (New York Times, 2018) , which needed some manual transformation to provide a truthful representation of the reality, as some metropolitan areas where part of multiple counties. In some of those metropolitan area's (Provo, Utah, Idaho Falls, Idaho, Logan, Utah & St. George, Utah), there was an independent candidate with such an amount of votes that it would skew the binomial nature of this variable too much and was subsequently deleted. In the other 99 area's, the percentage of voters for non-Republican, non-Democrat candidates was smaller than 10% and the election results could be regarded as representative for the political standing points concerning migration in this analysis. In this hypothesis, migrant entrepreneurship rate will be positively influenced by higher amounts of populations voting Democrat, as opposed to Republican, in line with the literature on this subject

(Hopkins, 2011; Brown, 2014; Wallace, 2014). There seems to be a positive and significant relation between percentage of Democratic voters and migrant entrepreneurship rates. This gives reason to believe that institutions that are more friendly towards migrants enables this group more to start their own business.

There is some support for the hypothesis that distance to border crossing is a predictor for entrepreneur rate of foreign-born inhabitants. The found relation of distance to nearest border crossing was negative, which means that entrepreneur rates of migrants are predicted to be higher in metropolitan areas close to the border. One explanation for this could be that migrants who live close to the border can use their shorter connections with their country of origin to have better access to goods or services. One other explanation could be that entrepreneurs on both sides of the border form a close cooperation or partnership where their countries comparative advantages can be used for both entrepreneurs' benefit, as is shown to be a major motivation for starting a business in those areas (Smallbone & Welter, 2012). In earlier versions of the model, this variable was found to be significant, but in the final iteration, it was deemed not significant.

The overall institutional attitude towards migrants and their businesses varies widely across all the metropolitan areas. There is however a trend where migrants start more businesses in places which seem to be politically more friendly towards migrants. While this may seem obvious, it gives additional reasons to reject the existence of a dual labor market, as entrepreneur rates rise among migrants if they experience more cooperation from an institutional and government agency standing point.

4.2.3 Migrant & ethnic diversity

The binomial variable 'NoMinorities' is added to approximate the effect of racially homogenous metropolitan area's on entrepreneur rates. The entrepreneur rate of natives is according to this model higher in metropolitan areas where more than 85% of the population is of one specific race. This only occurs with predominantly white metropolitan areas. There are no metropolitan areas where self-identified Black, Asian, Hispanic or any other race except White compose 85% of the total population. The effect of 'NoMinorities' on foreign-born entrepreneur rate is not significant.

The entrepreneur rate of foreign-born inhabitants is shown to be higher in metropolitan areas where its black self-identified inhabitants comprise more than 15 percent of the total population. This is in contrast with the native-born entrepreneur rate, where this variable is shown to be not significant. A Hispanic community of more than 15% of total population is shown to have a positive effect on entrepreneur rate in both models. The variables of Asian Community and Multicultural were not found to have a significant effect in both models.

The 'Multicultural' variable not having a significant effect can potentially be explained by the hypothesis that the cities that are fulfilling that parameter are often economically the most successful or alternatively the least successful. 18 of the 27 metropolitan areas that meet the parameter rank either in the upper 25% of GDP per capita or in the lowest 25% (BEA, 2017). While testing various iterations of the models, this variable was questioned if it didn't test for the same thing as all the minority variables. This was not the case, as those variables were shown to be robust in their scores in the model with or without the 'Multicultural' variable.

The amount of migrant & ethnic diversity is shown to be of influence on the migrant entrepreneurship rates across the metropolitan areas. The presence of a sizeable Hispanic and Black community is shown to be a positive contributing factor.

4.2.4 Demographic characteristics

Firstly, there is no proof found in these models that the amount of people living in a metropolitan area correlates with higher or lower rates of migrant entrepreneurship. Population density and total population are both insignificant.

The median age is a proxy for how old or young the population of a metropolitan area is. Median age was chosen here instead of mean age, because it is slightly more precise in determining the population up make of a city. Taking the mean of something adds the risk of a skewed dataset, as extreme values can influence the outcomes to an extent. This would skew for example the data of Phoenix, where elderly people tend to move to due to the mild winter weather. Extreme young or old ages influence the mean more than non-extreme values. In this variable, we want to assign the same value to every individual.

A higher median age correlates with higher entrepreneur rates in both models. This could be explained as older people having more access to the necessary connections and money that are important when starting a business. The addition of Median Age^2 is used to see if these correlations carry on into the cities with the highest median ages. The models with the additions of Median Age^2 can be found in appendices X and X The Median Age^2 coefficient is positive for migrant entrepreneurs, which means that the positive effect of higher median age upon this group gets even more stronger the higher the median age goes. For native entrepreneurs, the coefficient of Median Age^2 is negative, which means that the positive effect of higher median age upon this group gets less strong the higher the median age goes.

The coefficient of Median Age^2 being negative is to be expected, as people generally quit working when they pass a certain age. In the case of the U.S. The coefficient being positive for migrant entrepreneurs is surprising. While it doesn't mean that migrants are retiring at a higher age, median age is too broad a proxy for that, it does give some pointers as to why migrants have a higher rate of entrepreneurship. According to the data, older communities have higher rates of entrepreneurship, and migrants as a group experience entrepreneurship rates that go even higher when median age increases.

Population density was also added, as a high population density is associated with higher levels of entrepreneurship, due to the increased local competition and urban variety that a high population density encourages (Glaeser et al, 1992). High levels of population density could be an enabling factor for more and heavily specialized kinds of businesses (Yasuhiro, 2012). Migration patterns tend to have urban areas as oft chosen point of destination (Qi, 2019; Nawrotzki et al., 2016), so following this, a high population density would also be hypothesized to positively influence the migrant entrepreneurship rate. Population density was not heavily correlated with the Log of total population, but also did not turn out to be significant. Possible explanations as to why this did not turn out to be the case in the model are considered in the next paragraph.

4.3 Secondary Data Analysis: Comparing Phoenix

When comparing the data and scores of Phoenix with the other metropolitan areas, comparisons are made for all independent and dependent variables. The mean score of the metropolitan areas is calculated and compared with the score of Phoenix, as well as the rank that Phoenix holds within the respective variables among all metropolitan areas. This is repeated for the 53 biggest metropoles. These areas contain a population amount of at least 1 000 000 inhabitants and comparing Phoenix with these areas contains added value through being on a scale level slightly more like Phoenix in terms of population, size of labor market and opportunities to start a business. All variables are ranked from high to low, so the metropolitan area with the highest score in the variable would be first and the area with the lowest score would be last. Not in all variables is a high rank considered to be positive, so the tables warrant concise reading.

Variables	Score Phoenix	Mean 268 metropoles	Rank Phoenix among 268 metropoles
EntRateNat	**5.3%**	**5.6%**	**141**
EntRateFor	**9.3%**	**6.7%**	**34**
Economic positioning			
ForPopHS	64.4%	70.2%	190
NatPopHS	92.1%	90.5%	94
ForPopCollege	41.3%	48.1%	188
NatPopCollege	68.6%	62.6%	60
ForPopBachelorPlus	22.6%	29.2%	177
NatPopBachelorPlus	32.0%	30.1%	101
ForPopUnemployRate	3.2%	3.6%	162
NatPopUnemployRate	4.0%	4.0%	136
ForPovRate	23.1%	19.4%	60
NatPovRate	14.5%	14.6%	123
Institutional Attitude			
SanctuaryCity	0 (no)	N/A	N/A
Demvote2016	47.6%	46.3%	127
LogBorderCrossDist	82.2 km	N/A	243
Migrant & Ethnic Community			
NoMinorities	0 (no)	N/A	N/A
BlComm	0 (no)	N/A	N/A
AsComm	0 (no)	N/A	N/A
HisComm	1 (yes)	N/A	N/A
Multicultural	0 (no)	N/A	N/A
Demographic Characteristics			
TotPopLog	4561038	N/A	12
MedAge	36.2	37.3	167
PopuDens	287.9/sq mile	N/A	103

Table 5: comparing the tested variables of Phoenix with the 267 other metropolitan areas.

Variables	Score Phoenix	Mean 53 metropoles	Rank Phoenix among 53 biggest metropoles
EntRateNat	5.3%	5.1%	18
EntRateFor	9.3%	6.8%	6
Economic positioning			
ForPopHS	64.4%	74.4%	50
NatPopHS	92.1%	92.0%	22
ForPopCollege	41.3%	52.5%	49
NatPopCollege	68.6%	66.6%	17
ForPopBachelorPlus	22.6%	33.4%	49
NatPopBachelorPlus	32.0%	35.3%	38
ForPopUnemployRate	3.2%	3.6%	39
NatPopUnemployRate	4.0%	4.3%	34
ForPovRate	23.1%	17.0%	3
NatPovRate	14.5%	12.8%	13
Institutional Attitude			
SanctuaryCity	0 (no)	N/A	N/A
Demvote2016	47.6%	55.2%	43
LogBorderCrossDist	82.2 km	N/A	49
Migrant & Ethnic Community			
NoMinorities	0 (no)	N/A	N/A
BlComm	0 (no)	N/A	N/A
AsComm	0 (no)	N/A	N/A
HisComm	1 (yes)	N/A	N/A
Multicultural	0 (no)	N/A	N/A
Demographic Characteristics			
TotPop	4561038	N/A	12
MedAge	36.2	37.4	40
PopuDens	287.9/sq. mile	N/A	40

Table 6: Comparing the tested variables of Phoenix 52 metropolitan areas with more than one million inhabitants.

Some scores are not shown for certain variables in the graphs. These variables are either binomial variables, where it is not of any importance or added value to compare those two answers, or they are non-normally distributed, where outliers skew the results. This skewedness is in the statistical analyses accounted for through logarithmic transformation. This ensures normal distribution, which is necessary to perform the regression analysis.

The entrepreneur rate of migrants in Phoenix is 9,3%, which ranks 34th among all areas and 6th among the highest populated areas. This is higher than the average of 6,7% among all areas and 6,8% among the highest populated areas**.**

4.3.1 Economic positioning of migrants

In terms of education, Phoenix ranks average or slightly above average when it comes to educational attainment of their U.S.-born inhabitants. The average educational attainment of the foreign-born inhabitants is rather low in Phoenix. 29.2% of those inhabitants did not finish high school, which ranks 79th among all areas and 5th among the most populated areas. A lack of educational attainment can be one of the reasons among people to start a business, as opportunities to enter the regular labor market for people without a high school degree can be found lacking in job quality or salary. This discrepancy between foreign-born and U.S.-born inhabitants in Phoenix concerning finishing high school could be one of the reasons why there is such a difference between the entrepreneurship rate of migrants versus the entrepreneurship rate of native-born inhabitants.

The percentage of migrants having some sort of college degree in Phoenix is 41,3 percent. This is less than the average of 48,1 percent and ranks 188 among all metropoles and 49th out of the 53 biggest metropoles. The data analysis predicts higher levels of entrepreneurship rate when a higher percentage of the population has finished some sort of college degree, but this effect becomes negative with respect to the amount of people finishing a bachelor's degree or more at a university. The migrant population of Phoenix also scores low with respect to this variable, which is a negative significant variable.

The differences between foreign-born and native-born people considering their overall level of education are large and provides some reasonings as to why the entrepreneur rates in the area are as they are. The amount of foreign-born people not having finished high school is 35,6%. These people do not have any education attainment and combined with having a lack of financial and social capital can have difficulties in finding regular jobs and can be forced into starting for their own. This is in accordance to the findings in the qualitative research, as multiple interviewees state that they can see it happening that people start a business out of necessity, due to lessened chances on finding a job on the regular labor market. This is however only partly supported in the data-analysis, as foreign-born people not finishing high school had an insignificant effect on migrant entrepreneurship rate.

The unemployment rate of migrants in Phoenix is 3,2 percent, which is lower than the averages of all and the biggest metropoles, which is 3,6 percent. The sign of this significant variable is negative but the effect of the variable on the dependent variable is relatively small**.** Phoenix scores high with number of migrants living in poverty, as 23,1 percent of that group lives in poverty. This is higher than average and 3rd among the 53 biggest metropolitan areas. Higher poverty rates among migrants is significantly associated with higher levels of migrant entrepreneurship rates. This association could point to the existence of necessity entrepreneurship as a way out for people who are working and poor, as the unemployment in Phoenix is low, but poverty rate is high.

4.3.2 Institutional attitude towards (migrant) entrepreneurship

The amount of people voting Democrat during the 2016 presidential elections in Phoenix was 47,6%, which ranks 127th among all metropoles and 43rd among the biggest metropoles. For a big American agglomeration, Phoenix votes in relatively large amounts Republican. A higher number of democratic voters is in general positively associated with higher levels of migrant entrepreneurship rates, but Phoenix does not contain these high amounts of democratic voters.

The amount of people voting democratic in the 2016 elections is, for a big metropolitan area, low in Phoenix, which negatively influences migrant entrepreneurship rates in the model. The low education attainment, high poverty rate and low unemployment rate for migrants and the low total

amount of people voting democratic all point to an environment that is relatively unfriendly towards migrants from an economic perspective. This is an important observation, because the qualitative research gives further information on the economic ecosystem that is in place in Phoenix and the role that migrants play in this.

The Phoenix metropolitan area is 82,2 kilometers away from the Mexican border, which makes it one of the cities closest to the border. This ranks them 49th in terms of distance to the border, as areas are ranked from highest score to lowest score.

4.3.3 Migrant & ethnic diversity

The presence of black communities that exceed 15 percent of the total population also has a positive and significant effect, but there is no such amount of black communities in Phoenix. There however is such an amount for the Phoenician Hispanic community. The presence of a Hispanic community as predictor for migrant entrepreneur rate is significant and positive and has a coefficient of 1,357865. This means that metropolitan areas with a Hispanic community of more than 15% of the total are predicted to have a migrant entrepreneur rate that is 1,357865 percent higher than areas without such a community. That is a rather interesting jump and could be one of the reasons why Phoenix has such a high migrant entrepreneur rate, as Hispanics make up 30,5 percent of the total population. This could be explained by the entrepreneurial culture that they seem to take from their countries of origin into the U.S., as interviewees have stated that in those countries, people tend to often partake in some sort of entrepreneurial activity, be it as their main of source of income or as additional income.

The amount of migrant & ethnic diversity is shown to be of influence on the migrant entrepreneurship rates across the metropolitan areas. The presence of a sizeable Hispanic and Black community is shown to be a positive contributing factor. Phoenix has a sizeable Hispanic community. It seems that the culture of this population group makes them more prone to partake in some sort of entrepreneurial activity.

4.3.4 Demographic characteristics

Phoenix has a median age that is 0,9 years lower than average and ranks 167th out of 268. Median age has a positive significant effect on migrant entrepreneur rate, which means that it is predicted that migrant entrepreneurship rate increases when the median age of areas is higher.

The population density of the Phoenix area is rather low, ranking 40th out of the 53 highest populated areas. It should be stated that the metropolitan area of Phoenix is comprised of the Maricopa and Pinal counties (Figure 2) and contains a big desert area that is not intensely settled by humans and would not be considered by many to be ‘metropolitan’. This could be one of the reasons why the variable that tests population density is insignificant, as various standards of delimitation of metropolitan areas makes it hard to compare the effect population density has on entrepreneurship rates. Research often states that higher population density in many cases lead to higher incentives for people to become entrepreneurs (Yasuhiro et al., 2012; Audretsch & Keilbach, 2007). In additional research this could possibly be accounted for through a new type of delimitation where population density has to meet a certain threshold to be regarded as a true metropolitan area, but it should be noted that even those areas may contain too much noise and variation of population density to state substantiated claims about the effect of overall population density on entrepreneurship rates in a metropolitan area.

4.4 Qualitative research: Case Study Phoenix

The qualitative part of this research is formed by seven interviews with respondents who are knowledgeable about the entrepreneurial ecosystem of the metropolitan area of Phoenix. This knowledgeability can be obtained by the respondent being an entrepreneur or if the respondent has work that directly touches the migrant-entrepreneurial domain. These questions that the respondents were asked can be found in the interview guide (Appendix 3). These questions were mostly related to the economic positioning of migrant entrepreneurs and the institutional attitude towards this group, with Phoenix as object of study.

The first thing interviewees stated when asked about the cities' characteristics that influence the relatively high number of migrant entrepreneurs in Phoenix, is the nearness to Mexico. Being a major population center close to the Mexican border makes it attractive for entrepreneurs to set up businesses on both sides of the borders to make use of both countries their comparative advantages. The lowered cost of living in Phoenix is one of the other advantages for migrants starting a business. Phoenix has a diminished cost of living than for example California or Texas, while maintaining and increasing the already large number of inhabitants. The weather was stated to be another reason. During winter months, so-called 'snowbirds' drive down to Phoenix to spend the coldest months in Arizona. A lot of these people are Canadians, some of them with businesses that they move with them during winter. This amounts to 500 Canadian companies in the Phoenix area. The biggest airport has direct flights to Europe, which is also believed to be attractive for people doing business in Phoenix. Connectedness with Mexico, Canada and Europe, the for Southwest United States relatively cheap cost of living with a warm climate make Phoenix for migrant entrepreneurs an attractive place to set up and manage a business, when compared with other U.S. metropolitan areas.

4.4.1 Economic positioning of migrant entrepreneurs in Phoenix

When asked where local organizations could make a difference for migrants wanting to start a business, people often stated that the links between the resources and the people who need those resources are often very weak, especially within migrant communities. The resources of how to start a business are easily accessible online and often available offline through libraries, but migrant entrepreneurs can have difficulties in accessing the available information. This can be connected to the lack of social capital and the lessened social network that migrant entrepreneurs are hypothesized to experience (Desiderio, 2014). There was consensus among migrant entrepreneurs and people working with migrant entrepreneurs about the solution for these problems. They state that the solution for this lays in reaching out to these people and making them known of the possibilities and resources available for them:

"I feel getting information out is important. I think that public announcements and information on the resources available is kind of critical … Making that information more accessible, be it through local magazines that everybody is looking at like The New Times. Different publications that everyone is looking at. If there was more information sharing, then those entrepreneurs would know more … The city of Phoenix used to have a lot of programs and I think after the recession some of those departments closed down or aren't doing as much.

Organizations like the Minority Business Development Agency (MBDA) and the Greater Phoenix Economic Council (GPEC) are instrumental in providing a place for support and information for migrant entrepreneurs. They also help foreign companies that want to come to this area in getting

familiar with the environment and help ease the transition. They can provide working spaces and connect outsiders with the necessary contacts to establish a permanent base in the Phoenix area.

'I know GPEC who are actively pursuing foreign entrepreneurs, for Mexico that is the case. So, they give assistance like for example three months free rent at SkySong. That is one way they help them. Chambers of Commerce are always keen to match any needs that entrepreneurs have with their local members. So you have the Arizona Chamber, the Phoenix Chamber, the Hispanic Chamber, Tech Chamber. The AcTech Chamber and AcBio Chamber. There are a lot of trade organizations. They are very keen in matching needs with their members.'

There is a decreased access to the business domain for blue-collar companies due to heightened financial constraints and associated regulations. They need a higher amount of funding but draw less attention from investors and government organizations alike. For these kinds of businesses, organizations like LocalFirst exist.

"Once you are funded, there is a whole catalog of options, but for small size like hotdog vendors, those need to look for small scale operations like LocalFirst. LocalFirst would be something for those micro-small companies. The Spanish version is Fuerzo Locale. They do a good job. There are a lot of benefits. You also have to go look for other resources. The Phoenix library, they have a department called the Hive. They have a lot of business resources. You go there, there are some volunteers there, there are some talks there. For those micro and small companies, it can be very helpful, because no one is catering to them."

Migrants may experience some form of uncomfortableness working among or as a laborer. Cultural and linguistic barriers can make these kinds of people uncomfortable and opt out of the regular labor market and start for themselves or work for someone in their own community.

'In Chandler we have the Innovation Center. That organization, they help start-ups. I happen to be one of their members there, but I was the only Hispanic in one year. They have programs with a duration of 3 months. During that year I was the only Hispanic. Also, Latino's and Hispanics, I think they are afraid to go and ask. Or they think that there are going to be a lot of Americans and maybe that is why they are afraid. This was to me very strange. I was like: … They bring you the best experience, people to talk about different subjects that are interesting for an entrepreneur to talk with. But they weren't there.'

Desiderio (2014) argues that the incorporation of entrepreneurship in education can be stimulated by through government agencies by facilitating interaction between students and entrepreneurs and mainstreaming related courses that focus on entrepreneurship. The previous quotation states that this already is happening on some level. The connection between these resources and potential migrant entrepreneurs as a group is in this instance however found to be somewhat lacking.

Interviewees have mixed reactions on if the possible existence of a dual labor market in Phoenix could be responsible for the higher amounts of migrant entrepreneurs.

"People don't start business in my consideration because they did not get any job opportunity. That is desperation. Job opportunity at least ensures a salary every month. Businesswise you never know. It is a bigger risk than being self-employed. There are people that don't have enough opportunities, will take a lower payed job as compared to saying that they open up their own business. ... I don't think that business is seen as the last resort. They want to open up a business because they are passionate and want to offer their services to the market."

"Interesting. That is a great motivator for entrepreneurship. Not finding any work. I can see that happening, especially if you are from Middle East and you end up in Phoenix and can't find work, you open a restaurant and you try to survive some way. I can certainly see that happening, but I don't have any information to let you know if that is really happening. I can understand it very well, because being Mexican, all Mexicans are entrepreneurs because you have to be entrepreneur in Mexico in order to move ahead. You cannot depend on your job because the jobs pay so little, so you have to do other things on the side. Entrepreneurship comes natural for those types of communities. They sell from their kitchen what they make. They change labors. I can totally see it happen."

The quantitative research did not show a relation between high unemployment rates and high entrepreneurship rates, which gives reasons to believe that the hypothesized dual labor market does not exist in the United States. It should however be stated that the interviewees in this research were predominantly migrant entrepreneurs and experts who have had extensive tertiary education and can be considered economically successful people. They had different viewing points about the existence of a dual labor market, but all had in common that they never experienced such a thing**.** If a dual labor market on basis of ethnicity exists, it is possible that this only exists for people who find themselves on the lower end of the labor market or have a lower education level. This is supported by the quantitative model, as individual that did not finish high school have a substantially higher propensity to start a business than individuals that did finish their high school education. Lacking multiple interviewees who can represent that side of entrepreneurship, this theory cannot be tested in this research, which can be considered instrumental in getting signs of the existence of systematic signs of a dual labor market.

4.4.2 Institutional attitude towards (migrant) entrepreneurship in Phoenix

The involvement of local government organizations in stimulating migrant entrepreneurship and helping them with the necessary education, funding and business support in the Phoenix area is not necessarily focused on migrant entrepreneurs as a specific group to concentrate on. The motivations behind this can be described as the government not wanting to appear to divert resources specifically to migrants, certainly in a Republican state like Arizona. One of the interviewees stated:

"*I think the political rhetoric is always scary. People* (red: immigrants) *never feel that comfort level, they don't know what can happen the next day. At the same time I feel like immigrants start their own businesses because they are more comfortable running their own shop rather than working for somebody else."*

Local government organizations try to divert their resources towards stimulating the entrepreneurial ecosystem. Their activities tend come to the benefit of the entrepreneurial ecosystem. Interviewees stated that they are instrumental in providing the space for incubators around Phoenix, such as the Hive, SEED SPOT & CO+HOOTS Coworking spaces:

"So when you're (red: government organizations) making these connections and nurturing the environment, that helps. When you create spaces like that, miracles can happen. This sounds like magical stuff, but I call it miracles because it is somewhat inexplicable in a way. That is the sharing in life, that you enable by these incubators."

Desiderio (2014) states that government organizations can help nurture an environment that is welcome towards all kinds of entrepreneurs. By choosing to ignore the differences among

entrepreneurs and opting in general for a 'one size fits all' approach, it can be argued that some people can potentially opt out of this career path.

The stimulation of migrant entrepreneurship is thus not necessarily done by local government organizations, as they mostly try to put their resources to work for the whole entrepreneurial ecosystem. Helping and informing this specific group is mostly done by organizations that are not or semi-affiliated with government agencies. The most identified problem among the respondents concerning migrant entrepreneurs seems to be the lack of links between the migrant entrepreneurs and the resources and information that are available for them that can make their enterprise a success.

Organizations that focus on migrant entrepreneurs as a group are mostly not or semi-affiliated with government organizations and agencies. Compared with government organizations, they have more freedom to involve themselves with specific groups within the entrepreneurial domain, as they lack the need to spread their resources evenly across the whole society. The various ethnic Chambers of Commerce play an important role in organizing events and facilitating cooperation between migrant entrepreneurs of the same ethnic community. The Hispanic Chamber of Commerce is one of the most active CoC's, due to the large amount of Hispanics living in the Phoenix Area and the relative short distance to Mexico and Central America but there are CoC's active for every major ethnic community in the greater Phoenix area. These organizations provide workshops and seminars for interested people from in- and outside the community. Chambers of Commerce fill a gap that government agencies cannot fill with this direct focus on ethnic communities.

Local non-governmental organizations are focusing on minority businesses because they are a big group that is growing bigger and that needs additional resources to make them thrive. The Minority Business Development Agency was created in the 1970's, as people realized that the demographics of the U.S. were changing. Minority-owned businesses needed to be focused on to provide for more jobs and (tax) revenue for the overall economic system. Mentorships systems and the availability of co-working spaces that cater to these minorities seem to be one of the most occurring types of help migrant entrepreneurs can easily access when starting a business in Phoenix.

Connectivity between the available resources and the migrant entrepreneurs can be improved by reaching out to these migrants through marketing and awareness campaigns. This change in behavior would mean that a paradigm shift needs to occur for mainly the government organizations, but also for non-governmental organizations. Their help is currently mostly of a passive nature. They provide resources when entrepreneurs come to them, and not the other way around. Changing this would help migrant entrepreneurs and a higher portion of them would avoid bankruptcy. A disadvantage to this different approach could be that money and time investments are made into businesses that are not able to avoid bankruptcy even with the increased attention and knowledge of business support options. To combat this, these investments should be kept at a minimum, but a mind shift must occur where local governments should play a more active role in creating awareness about the various available resources and NGO's that are active. This is a role most easily fulfilled at the moments where businesses are created, as every legal entrepreneur needs to pass that point. By improving connectivity between the resources available for the migrant entrepreneurs and the entrepreneurs themselves, they provide a relatively easy and painless way of adopting an active role without investing huge amounts of financial and human capital. This proactive approach could impact the shutdown rates, which results in higher amounts of tax revenue and job creation.

The interviewed migrant entrepreneurs tend to find it easier to open a business here. Bureaucracy is seen to be on a lower level in the U.S. and was blocking the people who had the skills and knowhow

in opening a business in a quick way in their countries of origin. Reduction of red tape and simplification is seen as one of the six types of policy interventions that government organizations can possibly enact that involve the promotion of entrepreneurship (Desiderio, 2014).

Another way governments, non-governmental organizations and corporations can influence the local entrepreneurial ecosystem is through the contracts they put out for various projects. In earlier times, there were regulations in the Phoenix area that specified that a certain percentage of contracts had to go to women-owned and minority businesses, to help them get more opportunities. To justify these kinds of regulations legally, studies had to be issued to look for the existence of gaps between minority and non-minorities in terms of entrepreneurial activity, with these studies having a legal validness of five years. Current studies do not show this gap in entrepreneurial activity. While not legally binding anymore, it is still common practice among larger companies to give out contracts to a valid representation of the area. This means also including migrant- and woman-owned businesses. It is in the government's own interest to encourage this spread of contracts, as they can tax businesses that otherwise may have been going bankrupt.

'The reason for these certifications was that these minority and women-owned businesses were disadvantaged and discriminated historically. People can judge minority or women-owned businesses as less capable or less professional. There is a reason behind that but unless like a said a valid study, they cannot justify it. It is harder for minority businesses and women-owned businesses to break.

Local government organizations can help individual entrepreneurs, but only after they have proven themselves. Help is not provided for everyone so choices in who gets their help are made. In this case, a survival of the fittest mentality is upheld, where the weaker businesses are outcompeted by businesses where competitiveness is higher. These businesses are of greater value for the government, due to their higher ability to create tax revenue and jobs. They try to make the most of the resources and allocate them to the options with the highest potential, even while stating that they try to do it evenly across population groups. Because of this, governmental organizations tend to focus on businesses that are already existing and, in some sense, already thriving. They forget about the start-ups that are in their infancy, because they have no way of knowing which of these companies will go on to deliver on their economic promise and which ones will go bankrupt.

Other businesses, often blue-collar companies, have more difficulty in starting up due to the associated increased costs when compared to companies that rely more on human capital and are knowledge-based enterprises.

"Where it takes money for some of the other businesses is inventory, salaries, the brick and mortar. If I want to open a coffee shop right now, it takes money. As compared to my business, where everything was virtual. We were just consultants, coaches and trainers in public speaking. We didn't need the kind of resources that most other businesses would need."

4.4.3 Migrant & ethnic diversity within Phoenix

One of the things that I have found challenging is if there's somebody new in the market. Often, they don't know what the resources are and they also don't know where to go to find out about them, then we're are at a loss. However, there are lots of resources available, that if they go to even one person that can lead them in that direction then they would find all those resources.

In the Phoenix area, most migrants tend to come from Latin America, where proficiency in English can be lacking. In 2012, 27 percent of all immigrants in Arizona did not speak English (FAIR, 2012). The English language can be a problem for some migrants, certainly in Arizona, where in many

communities, Spanish is more common, and it is not necessary for them to get out of the Hispanic spheres. Government organizations in Arizona are accommodating for these people by giving them access to their services in the Spanish language. First generation migrants often don't speak English good enough to join in the entrepreneurial domain of Phoenix as a whole, and therefore often have their business within the confines of the Hispanic speaking community. To give these entrepreneurs the ability to develop their business outside of that community and serve the whole area, government organizations should choose to start campaigns that promote learning English as a business tool.

5 Conclusion

This study set out to research the migrant entrepreneurs in the U.S. and the influence metropolitan areas and their area-specific characteristics and institutions have on the decision of migrants to start a business. A special focus was laid on the Phoenix metropolitan region to gain open-ended information from people active in the local entrepreneurial domain. The results from the regression, the comparison of Phoenix with the other metropolitan areas and the interviews are used in answering the research questions.

- *How do institutions situated in American cities relate to migrant entrepreneurship?*

- *To what extent are Phoenician institutions actively involved in stimulating immigrant entrepreneurship with policy measures?*
- *To what extent are the different types of entrepreneurial policy measures instrumental in influencing immigrant entrepreneurship?*

Economic positioning

The economic positioning of migrants plays a big role in their decision of starting a business. The level of education is an interesting factor in this, as it does not have a straight linear effect on the entrepreneurship rates. There seem to be education levels in which its' people are more inclined to start a business, which are people who did not finish their high school and people with a college degree but not a bachelor's degree. Incorporating entrepreneurship into education curricula can be used in most education levels to increase these levels. The migrant entrepreneur rate with regards to the influence of poverty and unemployment levels of their area is interesting. It seems that high poverty levels influence this rate positively, and that high unemployment levels influence it negatively. This gives reasons to believe that there are migrant entrepreneurs who start their business out of necessity, rather than out of opportunity, in accordance to Chrystostome (2010). The possibility of dual labor market being an influence on migrant entrepreneurship rates is still somewhat unclear, as a high unemployment rate predicts lower entrepreneur rates and respondents did not have an unambiguous answer on the possible existence of a dual labor market in Phoenix.

Institutional attitude towards migrant entrepreneurship

The overall institutional attitude towards migrants and their businesses varies widely across all the metropolitan areas. There is however a trend where migrants start more businesses in places which seem to be politically more friendly towards migrants. While this may seem obvious, it gives additional reasons to reject the existence of a dual labor market, as entrepreneur rates rise among migrants if they experience more cooperation from an institutional and government agency standing point. Socio-economic indicators and voting behavior in Phoenix combined with a lack of active approaching of migrant entrepreneurs all point towards an environment that is relatively unfriendly towards migrant entrepreneurs. It should however be noted that the respondents themselves do not necessarily feel this the same way. What they do agree on is that the institutional attitude should change from a passive approach, where they only possibly can help starting entrepreneurs when they come to the relevant agencies, to an active approach. This active approach would yield the most benefits at the least cost when incorporated in the beginning phases of setting up the business, as support is most needed at that moment, with an extra focus on blue-collar companies.

Migrant & ethnic diversity

The amount of migrant & ethnic diversity is shown to be of influence on the migrant entrepreneurship rates across the metropolitan areas. The presence of a sizeable Hispanic and Black community is shown to be a positive contributing factor. Phoenix has a sizeable Hispanic community. It seems that the culture of this population group makes them more prone to partake in some sort of entrepreneurial activity. First generation migrants that join their sizeable community in the U.S. may experience difficulties in acquiring the English language. To give these entrepreneurs the ability to develop their business outside of that community and serve the whole area, government organizations should choose to start campaigns that promote learning English as a business tool.

The Phoenician institutions seem to have a passive approach considering their treatment and promotion of migrant entrepreneurship. An unwillingness of these institutions to give these people special treatment lays at the base of this, which is influenced by a political climate that is relatively unfriendly towards migrants (Hopkins, 2011; Brown, 2014; Wallace, 2014). The institutions do provide business support in the provision of incubators, shared workspaces and connecting interested entrepreneurs with service providers like financers and consultants but does this only for interested parties. The connection between these services provided by the institutions and the migrant entrepreneurs seems to be weak, as migrant entrepreneurs tend to look for these things at organizations and institutions that do have them as a target group.

There seems to be a lack of connectivity between the resources being made available by primarily governmental institutions and migrant entrepreneurs. Explanations for this can be found in the tendency of these agencies to treat the entrepreneurs as one group and not make any distinctions about what subgroups of entrepreneurs may need. Desiderio & Mestres-Domènech (2011) make the case that migrant entrepreneurs are a distinct group that has other needs than the native entrepreneur, but government agencies in Phoenix seem to not meet the needs of these people. These needs are mostly taken care of by institutions that are not run by government agencies.

6 Discussion

6.1 Scientific and social implications

Scientifically, this research tries to expand upon the knowledge available about the influence that institutions and socio-economic characteristics have on the decision of migrant inhabitants to start and maintain a business. Providing an overview of considered and implemented policy measures and their effectiveness is derived from the case study to gain better-grounded knowledge into how U.S. cities perform on migrant entrepreneurship and how these levels can be influenced. Through identification of these influencing characteristics, a framework can be provided for policymakers and institutions to ascertain why migrant entrepreneurship rates are what they are. This framework is enhanced through qualitative research performed in Phoenix, where the role of governmental and non-governmental organizations in creating a viable and cohesive entrepreneurial ecosystem for migrants is identified.

One of the topics in this research is whether labor markets in American metropolitan areas can be described as dual labor markets for migrants and if that is one of the explanations as to why foreign-born entrepreneur rates are relatively high. The relation between unemployment rate and entrepreneur rate for foreign-born inhabitants was observed to be statistically significant and negative. This suggests that migrants start businesses easier in areas with low unemployment, which contradicts the hypothesis of the existence of dual labor markets as trigger for migrants to start a business. It does however point to the existence of necessity entrepreneurship (Chrystostome, 2010). Phoenix scores high with number of migrants living in poverty, as 23,1 percent of that group lives in poverty. Higher poverty rates among migrants is significantly associated with higher levels of migrant entrepreneurship rates. This association could point to the existence of necessity entrepreneurship as a way out for people who are working and poor, as the unemployment in Phoenix is low, but the poverty rate is high.

In line with literature on this subject (Hopkins, 2011; Brown, 2014; Wallace, 2014), there seems to be a positive and significant relation between percentage of Democratic voters and migrant entrepreneurship rates. This gives reasons to believe that an increase in migrant entrepreneur rates can be both a sign of an inclusive or contrarily of a non-inclusive society. The implication is here that there are push and pull factors at work in influencing these rates. It can then be deduced that a high or low migrant entrepreneurship rate in each area is also not necessarily a positive or negative sign. Closer looks should be taken by researchers in this field at other factors and how they function, to gain estimates of the economic success of migrants.

The entrepreneur rate of foreign-born inhabitants is shown to be higher in metropolitan areas where its black self-identified inhabitants comprise more than 15 percent of the total population. A Hispanic community of more than 15% of total population is shown to have a positive effect on entrepreneur rate in both models. This can be one of the reasons why Phoenix has a relatively high number of migrant entrepreneurs, as Phoenix distinguishes itself as one of the major Hispanic hubs of the United States. Interviewees agreed that in Hispanic countries, a large percentage of the population partook in entrepreneurial activity, to gain some needed additional income. The migrants could have very well taken this cultural phenomenon with them.

The effect of education on entrepreneurship rates in this research is very interesting and shows that there is no real linear relation between these rates and education, be it negative or positive. There are some clues that people not finishing high school can have positive effects on their rate of starting

a business, which is in accordance with literature on this subject (Fairlie, 2013). There also seems to be a positive effect of the amount of foreign-born people finishing some amount of tertiary education on the entrepreneur rates. This effect is also present for native-born inhabitants. This can be explained by the need for some type of additional specialized knowledge that someone cannot obtain in high school before someone can start a successful business. Another interesting outcome here is that a higher amount of people finishing a bachelors' degree or more at a research university is correlated with a lower entrepreneurship rate among migrants. When it comes to stimulating migrants to become entrepreneurs, local governments could investigate the promotion and funding of colleges, community colleges that offer practical degrees in specializations that can be used by these potential entrepreneurs.

The missing link between migrant entrepreneurs and the resources available to them is the most identified problem by interviewees. The consensus was that people who are new to the entrepreneurial domain in Phoenix don't know what the available resources are and where to go to find out about them, due to their lack of social capital and a network in their new place of residence. This is not a problem that can be solved through one of Desiderio's policy type measures (2014), but rather has more to do with visibility and reach of government agencies and other related institutions. The connectivity between the resources and migrant entrepreneurs can be improved by marketing and awareness campaigns but would also need a government that reaches out for the provision of help more actively. A proactive approach could decrease shutdown rates, which would result in higher amounts of tax income and jobs.

Raising awareness about the business resources should for maximal efficiency be focused at places where migrant entrepreneurs congregate. Entrepreneurs have in common that they all need to make their business official through addressment of the government, be it online or offline. A more active role for the government in leading them through the various available resources. The different types of resources could include different ways of finding investors and funding, linking migrant entrepreneurs with mentors/shared workspaces/supply chains and making them aware of the educational possibilities while pursuing an entrepreneurial career. Getting them familiar with these resources in an early stage is key in maximizing the potential of migrants who are unfamiliar in the local economy. This again would need an active approach for the government.

Another way governments, non-governmental organizations and corporations can influence the local entrepreneurial ecosystem is through the contracts they put out for various projects. This policy measure has fallen out of favor in Phoenix in recent years, but it could be in the government's own interest to encourage this spread of contracts, as they can tax businesses that otherwise may have been going bankrupt. This could prove to be an instrumental policy measure to stimulate successful immigrant entrepreneurship.

6.2 Reflection on research methods

For this study, both quantitative and qualitative research methods were used. The quantitative analysis was performed for the greatest part with data gathered through the U.S. census. This makes it obtained from a government agency which relies very much on statistics to gather insights about their population and, for this research of interest, how they behave and perform in an economic sense. In general, these kinds of statistical agencies are found to have reliable data. The results of this analysis however remain subject to transformation and interpretation of the researcher. Transformation was necessary for multiple variables. There were certain compositional variables, like education levels and racial makeup of researched areas, where transformation made the data less accurate by changing them into binomial variables.

There are 264 cases incorporated in the data analysis, which enabled this research to consider sixteen variables on which they could be tested. It should however be noted that predicting the variance in the dependent variables based on the independent variables is notably better performed in the model with native-born entrepreneur rate than the model with migrant entrepreneur rate as dependent variable. The predicting power is thus higher for the control group than for the actual subject group of this research, which provides reasons to believe that there are other significant influences

The qualitative part of this research was performed through semi-structured interviews. Seven interviews were conducted. New insights were still obtained with the last interviews, which gives a hint that conducting more interviews could have been beneficial in answering the research questions. Time constraints from the researchers' side and oftentimes a lack of interest or time among many potential respondents made it hard to gain more respondents. The insights provided by these seven respondents are consequently generalized as speaking for all individuals active in the migrant entrepreneurial domain. While generalization is always the case with qualitative research, the number of respondents in this research may be on the low side for such broad generalizations. This should be taken into account when considering the results.

It should also be considered that the researcher while conducting these interviews may unintentionally steer the respondents towards answers. There is also a risk that subjectivity of the researcher while interpreting the collected data skews the outcome of this research. These situations were prevented to rise as much as possible by upholding to the interview guide as much as possible, as well as asking respondents for their own input about the discussed subject at the end of the interview. These potential problems are always present, so this too should be considered when considering the results.

Oftentimes, it proved difficult to compare the different results gathered through the two research methods. This research started with the intention of the research methods supplementing each other, but it turned out that the research methods mostly gathered different kinds of information. While the quantitative analysis mostly provided answers on the influences of socio-economic characteristics, the qualitative part focused more on the role of institutions and their influence. This is not necessarily a negative aspect of this research, but it did make comparing the results somewhat harder.

6.3 Recommendations for further research

Entrepreneurship, as discussed earlier in chapter 2, has multiple definitions. In this research, an entrepreneur is contained by the definition of being a self-employed worker in a business, as measured by the U.S. Census. This definition has been chosen due to the desire to include all business owners that are self-employed, not just the owners that just started their enterprise. This has as disadvantage that the timeframe of the part of the entrepreneurial group that started a business more than five years ago does not match the timeframe of the independent variables. The data gathered in the quantitative analysis represents a snapshot of those variables taken between 2016 and 2019, but those influencing factors could have had differing scores when compared to five or fifteen years ago. Incorporating the definition of an entrepreneur being someone who started a business recently into the quantitative data analysis of this research could be an additional avenue of research.

Another avenue of research could be to do the qualitative part of this research in another city and compare those results to the results from Phoenix. A comparative study of this aspect of the research

would be interesting to gain perspective into what developments and influences that institutions have are repeated across other cities and which are not repeated and are characteristic for Phoenix. A metropolitan area like Los Angeles would make an interesting comparison, as it is situated in a more progressive part of the country.

The theory of migrants experiencing a lack of chances on the regular labor market and consequently starting a business was not satisfactory tested in this research. The existence of such a dual labor market was asked to the respondents. It could be concluded that a dual labor market does not exist for migrant entrepreneurs with high levels of education, such as the respondents, but that does not mean that it does not exist for migrants with a lower education level and who are blue collar workers. Performing a qualitative study on the existence of dual labor markets for migrants should also take a representative sample into account when considering the education level or type of jobs of the respondents.

An additional interesting group of migrant entrepreneurs that did not garner a lot of attention in this research are the snowbirds, elderly people who spend the colder period of the year in the drier and hotter parts of the United States. These people may not all be coming from another country, but they come from far away and take their businesses with them. More research into how they incorporate their businesses in new areas could provide insights for the migrant entrepreneur group that does not originate from the U.S.

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Appendix 1: The 50 largest metropoles and the entrepreneur rates of the foreign-born and native-born inhabitants

	U,S, Metropolitan area	Entrepreneur rate	Entrepreneur rate foreign-born	Total Population
1	Tucson	6,5	12,8	1007257
2	New Orleans	6,4	11,3	1260660
3	Los Angeles	8,9	11	13261538
4	San Antonio	5,9	9,7	2377507
5	Houston	6,5	9,4	6636208
6	Phoenix	5,9	9,3	4561038
7	San Diego	7,8	9,3	3283665
8	Miami	7	9,2	6019790
9	Riverside	7	9,2	4476222
10	Austin	7	8,8	2000590
11	San Francisco	8,3	8,3	4641820
12	Atlanta	5,6	8,2	5700990
13	Sacramento	7,4	8,2	2268005
14	Memphis	5,3	8,1	1344058
15	Dallas	6,1	7,8	7104415
16	Birmingham	4,7	7,4	1144097
17	Nashville	7,2	7,4	1830410
18	Oklahoma City	5,9	7,1	1353504
19	Portland	6,6	7	2382037
20	New York	5,6	6,9	20192042
21	Boston	5,6	6,3	4771936
22	Orlando	4,6	6,2	2390859
23	Seattle	5,5	6,2	3735216
24	Washington	4,9	6,2	6090196
25	Charlotte	4,8	6,1	2427024
26	Cleveland	4,3	6	2062764
27	Buffalo	4,1	5,9	1136670
28	Philadelphia	4,5	5,9	6065644
29	Pittsburgh	4,6	5,9	2348143
30	St, Louis	4,3	5,9	2804998
31	Salt Lake City	4,6	5,9	1170057
32	Virginia Beach	4,2	5,9	1717708
33	Las Vegas	4,9	5,8	2112436
34	San Jose	6	5,8	1969897
35	Hartford	5,3	5,7	1213123
36	Baltimore	4,5	5,6	2792050
37	Chicago	4,2	5,6	9549229
38	Jacksonville	4,5	5,6	1447884
39	Rochester	4,9	5,6	1080653
40	Kansas City	5,1	5,5	2088830
41	Richmond	4,4	5,5	1270158
42	Louisville	4,4	5,4	1278203
43	Raleigh	4,9	5,3	1273985
44	Columbus	4,7	5,1	2023695
45	Cincinnati	4,6	4,9	2156723
46	Providence	5	4,8	1613154
47	Detroit	4,2	4,7	4304613
48	Milwaukee	3,9	4,6	1575101
49	Minneapolis	4,6	3,7	3526149
50	Grand Rapids	4,9	3,2	1039182

Appendix 2: Respondents and place of interview

NAME RESPONDENT	AFFILIATED WITH	DATE OF INTERVIEW	WHERE CONDUCTED
CATALINA PEREZ	Arizona Hispanic Chamber of Commerce		Alameda Dr, Tempe (phone call)
ALIKA KUMAR	Phoenix Minority Business Development Agency		Alameda Dr, Tempe (phone call)
INDIRA JEFFREY	IGlobal Business Consulting (owner)	December 10th	Skysong, 1365 N Scottsdale Rd, Scottsdale
KEDRICK ELLISON	City of Phoenix, Economic Development department	December 12th	Phoenix City Hall, 200 W Washington St, Phoenix
VICENTE NEGRETE	Lean Developers Corp (owner)	December 13th	Starbucks, 3320 W Bethany Home Road, Phoenix
BEN PANDYA	CDC Labs (owner)	December 13th	Starbucks, 9051 E Indian Bend Rd, Scottsdale
EDUARDO GONZALEZ	258 Consulting (owner)	January 8th	10269 N Scottsdale Rd, Scottsdale

Appendix 3: Interview guide

- **Own introduction**
  - An explanation of purpose of the interview and research goals
  - An explanation of the length and confidentiality of the interview, as well as permission to record the interview.
  - If consent, then proceed.

- Can you tell me about your background and how your work touches entrepreneurial domain/what your business is in?

Institutional measures Phoenix

- In your overall experience, how involved are local government organizations in trying to stimulate entrepreneurship/migrant entrepreneurship?
- What happens on the front of promoting entrepreneurship as a viable career strategy in Phoenix?
- What happens in Phoenix on the front of educating interested migrants so that they are well equipped to start a business?
- How do migrant entrepreneurs in Phoenix cope with the administrative and legal barriers that surround entering and starting a business?
- What kind of ways are there for migrant entrepreneurs in Phoenix to get access to financing?
- What happens on the front of connecting migrant entrepreneurs with business support in Phoenix?
- According to you, where should local government organizations focus on to improve the economic positioning of migrant entrepreneurs in the Phoenix metropolitan area?

Concluding

- Outside of the government and the functioning of their policies, what kind of other demographic, economic or social characteristics of the Phoenix metro area influence in your opinion the lowered amount of migrants starting a business?
- Would you consider this local labor market a dual labor market, where marginalized groups have more difficulties finding a job than non-marginalized groups?
- Are there any questions or topics you still want to cover?
- Thank you very much for your time. It is really appreciated.
- Do you have any further recommendations for other respondents that may be of interest to me?
- Do you want to receive the study after the research is finished?
- Again, thank you for your time.

Appendix 4: Age Squared for Native-born entrepreneurship rate

Source	SS	df	MS	Number of obs	=	268
				F(17, 250)	=	16.47
Model	333.264351	17	19.6037854	Prob > F	=	0.0000
Residual	297.508	250	1.190032	R-squared	=	0.5283
				Adj R-squared	=	0.4963
Total	630.772351	267	2.36244326	Root MSE	=	1.0909

EntRateNat	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
TotPopLog	-4.026848	3.349999	-1.20	0.230	-10.62467	2.57097
MedAge	.198791	.1382141	1.44	0.152	-.0734214	.4710034
MedAgeSq	-.0007797	.0016734	-0.47	0.642	-.0040756	.0025161
NoMinorities	.4322773	.1883966	2.29	0.023	.0612306	.8033241
BlComm	-.4207769	.2088891	-2.01	0.045	-.8321837	-.0093702
AsComm	.6377707	.5195449	1.23	0.221	-.3854721	1.661014
HisComm	.5937219	.1960269	3.03	0.003	.2076472	.9797967
Multicultural	-.1082614	.3079957	-0.35	0.726	-.7148585	.4983357
NatPopHS	-.2361387	.0515712	-4.58	0.000	-.3377081	-.1345693
NatPopCollege	.1875428	.0259222	7.23	0.000	.1364891	.2385965
NatPopBachelor	-.0278151	.0413723	-0.67	0.502	-.1092978	.0536675
NatPopMasterplus	-.0272286	.065266	-0.42	0.677	-.1557699	.1013127
PotLaborLog	3.663755	3.368818	1.09	0.278	-2.971126	10.29864
NatUnemploymentRate	-.1463665	.0941408	-1.55	0.121	-.3317767	.0390436
NatPovRate	.0039719	.0296349	0.13	0.893	-.054394	.0623377
SanctuaryCity	.7013417	.193905	3.62	0.000	.3194461	1.083237
LogBorderCrossDist	.0245301	.0206025	1.19	0.235	-.0160465	.0651067
_cons	15.54699	5.677757	2.74	0.007	4.364653	26.72932

Appendix 5: Age Squared for Foreign-born entrepreneurship rate

Source	SS	df	MS	Number of obs	=	268
				F(17, 250)	=	5.49
Model	491.396661	17	28.9056859	Prob > F	=	0.0000
Residual	1316.70961	250	5.26683843	R-squared	=	0.2718
				Adj R-squared	=	0.2223
Total	1808.10627	267	6.77193359	Root MSE	=	2.295

EntRateFor	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
TotPopLog	3.11777	7.702286	0.40	0.686	-12.05187	18.28741
MedAge	-.3357237	.2841437	-1.18	0.239	-.8953443	.2238969
MedAgeSq	.0056812	.0034324	1.66	0.099	-.0010788	.0124412
NoMinorities	.2334616	.377388	0.62	0.537	-.5098034	.9767266
BlComm	1.061073	.413961	2.56	0.011	.2457775	1.876369
AsComm	1.354469	1.109364	1.22	0.223	-.8304218	3.539359
HisComm	1.394432	.4560872	3.06	0.002	.4961687	2.292695
Multicultural	-1.091964	.6403019	-1.71	0.089	-2.353037	.1691098
ForPopHS	-.0379021	.0491623	-0.77	0.441	-.1347272	.058923
ForPopCollege	.1393227	.0687952	2.03	0.044	.0038306	.2748147
ForPopBachelor	-.0991222	.0840879	-1.18	0.240	-.2647333	.0664889
ForPopMasterplus	-.0690294	.0842154	-0.82	0.413	-.2348914	.0968326
PotLaborLog	-2.772828	7.741178	-0.36	0.721	-18.01906	12.47341
orUnemploymentRate	-.294969	.1239346	-2.38	0.018	-.5390579	-.05088
ForPovRate	.0686596	.0324051	2.12	0.035	.0048377	.1324815
SanctuaryCity	-.163604	.3890595	-0.42	0.674	-.9298561	.602648
LogBorderCrossDist	-.1030923	.0439517	-2.35	0.020	-.1896551	-.0165294
_cons	6.214132	7.549983	0.82	0.411	-8.655547	21.08381

Appendix 6: Native-born entrepreneur rate and independent variables modelled

Source	SS	df	MS	Number of obs	=	264
				F(16, 247)	=	17.64
Model	335.215977	16	20.9509985	Prob > F	=	0.0000
Residual	293.358417	247	1.1876859	R-squared	=	0.5333
				Adj R-squared	=	0.5031
Total	628.574394	263	2.39001671	Root MSE	=	1.0898

EntRateNat	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
TotPopLog	-.3299759	.0897184	-3.68	0.000	-.5066866	-.1532651
MedAge	.158248	.0167383	9.45	0.000	.12528	.191216
NoMinorities	.4124065	.1833169	2.25	0.025	.0513429	.77347
BlComm	-.3544533	.2066138	-1.72	0.088	-.7614028	.0524962
AsComm	.8577931	.5369441	1.60	0.111	-.1997798	1.915366
HisComm	.5856208	.1948762	3.01	0.003	.2017898	.9694518
Multicultural	-.07849	.3078075	-0.25	0.799	-.6847522	.5277723
NatPopHS	-.2138171	.0486483	-4.40	0.000	-.3096354	-.1179987
NatPopCollege	.1740338	.0249658	6.97	0.000	.1248607	.2232069
NatPopBachelor~s	-.0267622	.019573	-1.37	0.173	-.0653134	.011789
NatUnemploymen~e	-.1649794	.0976719	-1.69	0.092	-.3573555	.0273966
NatPovRate	.0145584	.0258236	0.56	0.573	-.0363041	.065421
SanctuaryCity	.7518789	.1898815	3.96	0.000	.3778856	1.125872
LogBorderCross~t	.0246673	.0206391	1.20	0.233	-.0159837	.0653183
demvote2016	.0012577	.0079269	0.16	0.874	-.0143553	.0168706
popudens	-.000299	.0002798	-1.07	0.286	-.00085	.0002521
_cons	13.09472	3.968937	3.30	0.001	5.277445	20.912

Appendix 7: foreign-born entrepreneur rate and independent variables modelled

Source	SS	df	MS	Number of obs	=	264
				F(16, 247)	=	6.10
Model	505.083493	16	31.5677183	Prob > F	=	0.0000
Residual	1278.90556	247	5.1777553	R-squared	=	0.2831
				Adj R-squared	=	0.2367
Total	1783.98905	263	6.78322834	Root MSE	=	2.2755

EntRateFor	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
TotPopLog	.2568317	.1858871	1.38	0.168	-.1092942	.6229576
MedAge	.0873409	.0351476	2.48	0.014	.0181138	.1565681
NoMinorities	.3957005	.3731774	1.06	0.290	-.3393152	1.130716
BlComm	.9434997	.4098392	2.30	0.022	.1362743	1.750725
AsComm	1.241257	1.122579	1.11	0.270	-.9697911	3.452306
HisComm	1.357865	.4464781	3.04	0.003	.4784748	2.237254
Multicultural	-1.060142	.6368126	-1.66	0.097	-2.314418	.194133
ForPopHS	-.0158549	.0495095	-0.32	0.749	-.1133696	.0816597
ForPopCollege	.1475254	.0685494	2.15	0.032	.0125094	.2825414
ForPopBachelor~s	-.1915001	.0416723	-4.60	0.000	-.2735784	-.1094217
ForUnemploymen~e	-.3375663	.12191	-2.77	0.006	-.5776821	-.0974506
ForPovRate	.0663942	.0300224	2.21	0.028	.0072617	.1255267
SanctuaryCity	-.485299	.3849409	-1.26	0.209	-1.243484	.2728863
LogBorderCross~t	-.0764147	.0438391	-1.74	0.083	-.1627608	.0099314
demvote2016	.0397609	.01475	2.70	0.008	.010709	.0688128
popudens	-.0003078	.0005739	-0.54	0.592	-.0014382	.0008226
_cons	-1.742793	3.251894	-0.54	0.592	-8.147771	4.662186