Self-Employment, Immigrants and Culture

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Abstract:

There is an extensive literature examining the determinants of self-employment. These studies have mainly failed to account for the differences in entrepreneurial spirit across countries. This paper explores the role of culture in self-employment by exploiting variation in historical self-employment rates by country of origin of second-generation immigrants. Since second-generation immigrants are born in the U.S., all of them live under American laws and institutions. Thus, we interpret differences in self-employment rates by country of origin as evidence of the effect of culture. Using this epidemiological approach, we find that culture has quantitatively significant effects the self-employment decision.

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Keywords: Self-Employment, Culture.

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1 Introduction

During the last three decades of the 20th century, self-employment tended to increase its share of non-agricultural civilian employment what entailed an important source of job growth in many OECD countries (OECD, 2000). However, there is no evidence of any convergence in the rates among countries, see Figure 1. In 2005, the share of self-employment in total employment varied from around 6 per cent in Sweden and Denmark to almost 36 in Greece, which clearly reflects the considerable diversity among countries (OECD, 2008).

Examining the determinants of self-employment is important because governments frequently foster self-employment. Policy makers provide subsidies to set-up and to remain self-employed given special attention to some groups, including young people, minorities and women. In Australia, France, UK and US, for example, government programs provide easier access to finance, training, and networks of contacts such as transfer payments to the unemployed while they attempt to start businesses, they also provide loans to small businesses, and even exempt small businesses from certain regulations and taxes. In spite of the widely held view that small firms are the greatest creators of jobs, Birch (1979), small firms also disproportionately destroy jobs, Davis et al. (1996). Additionally, there is no evidence that the increases in the self-employment rate increased the real growth rate of the economy, Blanchflower (2000).

Researchers have looked for several determinants of self-employment, including economic factors such as lack of capital (Evans and Leighton (1989), Evans and Jokanovic (1989)), the existence of an inheritance or gift (Blanchflower and Oswald (1998), Holtz-Eakin et al. (1994a,b), Laferrere and McEntee(1995)).[1] Less work has been done on the study of the influence that institutional factors have on self-employment. For example, Blau (1987) studied the role of minimum wage legislation; Quinn (1980) analyzed retirement policies; Long (1982), Blau (1987) and Schuetze (1998) focused on the effect of tax systems and Borjas and Bronars (1989) studied the impact of immigration

[1] See Blanchflower (2000) for an excellent review of this literature.

policy. In this paper, we present evidence that culture also has an important influence on self-employment decisions.

Following the definition of culture offered by Fernandez (2007), we conceptualize culture as a set of beliefs and preferences that vary across time, space, or social groups. Although most economists would agree that preferences and social norms are important determinants of behaviour, it is common practice to take these preferences as given. Fernandez (2007) argues that this tradition is driven mostly by the difficulty in rigorously disentangling the effects of culture from institutions and economic variables. The interrelationship among institutions, economic conditions and norms is the source of this difficulty.

To separate them, we examine self-employment patterns of second-generation immigrants in the US. Since second-generation immigrants are by definition born in the US, they all live under the laws, institutions, and markets of the U.S. However, because the attitudes of these children of immigrants are likely to reflect the attitudes of their parents and ethnic communities, differences in self-employment patterns by country of origin can be interpreted as evidence of the importance of culture.

In our empirical analysis, we use the 1970 U.S. Census to estimate the probability that a second generation immigrant residing in the US in 1970 is self-employed based on a cultural proxy, the self-employment as a share of labour force, obtained from the OECD Labour Statistics. Our results suggest that culture does play an important role in explaining differences in self-employment. This result holds even when controlling for a list of socioeconomic indicators typically associated with self-employment as well as state fixed effects.

Our results contribute to the growing literature on the effect of culture on economic outcomes.[2] Using methodologies very similar to ours, fairly recent studies have examined the effect of culture on savings rates (Carroll et al. 1994), female labor force participation (Antecol 2000), fertility and female labor force participation (Fernandez and Fogli 2006), and living arrangements (Giuliano

[2] See Fernandez (2006) for a review of this literature.

2007). We add to this work by presenting evidence of the importance of culture on self-employment decisions.

The paper is organized as follows. Section 2 describes the empirical strategy. Section 3 describes the data. Section 4 presents the main evidence of the effect of culture on an individual's self-employment probability. Section 5 shows robust checks and Section 6 concludes.

2 Empirical Strategy

Our empirical approach makes use of the fact that second generation immigrants in the US are all exposed to the same markets and institutions. If cultural norms do not matter, then we may expect that self-employment in countries of origin should have no effect on self-employment of second-generation immigrants in the US. Correspondingly, cross-country differences in self-employment rates among second-generation immigrants can be viewed as resulting from differences in culture. Thus, the analysis exploits variation in self-employment rates by country of origin to identify the effect of culture in employment decisions.

The following equation forms the empirical framework of this analysis.

$$P(S_{ijs} = 1 \mid X) = \Phi(\beta_1 + \beta_2 SR_j + \beta_3 X_{ijs} + \delta_s)$$

where Φ is the normal cumulative density function of ε_{ijs} for the probit model, S_{ijs} is an indicator variable for whether individual i of cultural origin j who lives in state s is self-employed. Our variable of interest, SR_j is the self-employment rate in country j in 1970, that is, the ratio of self-employment to labour force in 1970. The vector of controls, X_{ijk}, contains age, education, sex and marital status. Because many programs to promote self-employment vary by state, we also include a full set of state fixed effects denoted by δ_s. All standard errors are corrected for clustering at the country of origin level.

An alternative strategy often used in the literature would be to include dummy variables for the various countries of origin instead of controlling directly for the self-employment rates in these countries. The benefit of this approach would be that it does not require a linear relationship

between the cultural proxy and self-employment. However, this technique does not allow for a clear specification of how culture matters. Evidence suggests that the two approaches lead to similar conclusions.

3 Data

To conduct the main analysis, we utilize the 1970 U.S. Census Form 2. In 1970, it was the last time Census responders were asked for their parents' countries of birth. Our sample consists of second-generation immigrants who are part of the labour force. We define a person's country of origin to be the country of birth of whichever parent is foreign-born or the country of birth of the father if both parents are foreign-born.

Our dependent variable is an indicator for whether a second-generation immigrant's current work status is self-employed. Previous research on the self-employment experience of immigrants focuses on differential in self-employment rates and earnings between immigrant and native-born, see Borjas (1985, 1986, 1987, 1994, 1995) and Lofstrom (2002). This is problematic since native-born group includes second-generation immigrants which can be influenced by their own immigrant parents.

Our measures of culture are obtained from the OECD Labour Force Statistics. The OECD provides yearly data on total self-employment and on labour force for various countries which are used in the analysis. Our final sample consisted of 48,279 individuals and 19 countries of ancestry. These are reported in Table 1.Self-employment jobs are ones where remuneration is directly dependent upon profits, and incumbents make operational decisions or are responsible for the welfare of the enterprise. "Self-employed" refers to the sum of "own-account workers" or self-employed without employees, and "employers" or self-employed with employees. What we expect is that the differences among self-employment rates of second generation immigrants mimic the differences among the self-employment rates of their respective counterparts in their country of origin. Our first

measure of culture is the self-employment rate in 1970 in the person's country of origin, defined as the ratio of self-employment to labour force.

Figure 2 plots the relationship between self-employment rates in origin countries in 1970 and the percentage of second-generation immigrants who are self-employed from that country of origin in the US in 1970. The figure shows a positive correlation between the two, suggesting that culture is an important factor in determining employment decisions.

There may be other differences between second-generation immigrants of different ancestries, unrelated to cultural attitudes toward self-employment, which may explain differences in self-employment rates. We use as controls in the analysis age, gender, marital status, and educational attainment defined using dummy variables for high school graduate, some college, and college graduate. Table 1 presents descriptive statistics of these variables. We order the ancestries (country of origin) from higher to lower self-employment rate, defined as a share of Labour Force, in the year 1970 shown in Column (2). The self-employment rate in 1970 shows large variation across countries: from 52.38% in Greece to 8.34% in UK. Ancestries from countries such as Greece, Japan and Italy maintain the highest self-employment rates from 1970 to 1990. Averaged across country of ancestry, 9.8% are self-employed. Our sample of second-generation immigrants is on average 44.8 years old (with a standard deviation of 4.5 years). Second-generation immigrants from Australia and New Zealand tend to be younger than other groups suggesting a relatively more recent arrival of these groups to the US. About 30% of the second-generation immigrants have at least a college degree. They ranged from a low of 24% for Portugal to a high of 38.6% for New Zealand. Second-generation of immigrants also tend to be married, about 72.2%, from a high 78.4% for Japan and Netherlands to a low 46.8% for Australia.

4 Results

Table 2 reports the estimates for the main specification in the model with self-employment as the dependent variable. As can be seen in the first column, the self-employment rate, defined as the ratio of self-employment to labour force, in one's country of origin in 1970 is positive and significant.

Given that many person-specific characteristics have been found to be associated with self-employment, if second-generation immigrants from countries with high self-employment rates are more likely to possess those characteristics, then a correlation between self-employment rates in origin and home countries would result for reasons unrelated to culture. As noted above, there are substantial differences in characteristics such as educational attainment and marital status between second-generation immigrants groups.

For example, with respect to the educational attainment, it seems more likely that education and self-employment rates would be positively related since the extent of education increases the types of skills necessary for an individual to assess the extent of the market. For that, it would also not be surprising if the self- employment propensity was positively correlated with age, see Borjas (1986). We also expect that self- employment propensities are greater for married persons than for single persons since married self-employed persons have identical incentives, see Borjas (1986).

Column 2 adds to the specification controls for gender, education, age and marital status. Observations were clustered at the country level. Consistent with the literature, older and more educated second-generation immigrants are more likely to be self-employed. Married male are also more likely to be self-employed than females. For our purposes, what is most important is that the inclusion of these variables has almost no effect on our parameter of interest—the estimated effect of the self-employment rate in home countries.

Another potential source of concern arises if immigrants from countries with high self-employment rates tend to settle in states with high self-employment rates. It is also important to note that programs to promote self-employment varied between states. It thus becomes especially important

to include state fixed effects in the empirical specification. Results presented in column 3 show that culture does play a role in explaining self-employment decisions since the greater the self-employment rate in the country of origin of second-generation immigrants the greater the probability of being self-employed.

5. Robust Checks

5.1 Self-employment vs. All workers or vs. Unemployment

As argued by Fernandez (2007), culture adjusts very slowly, and so, self-employment rates in other years should lead to similar results. Tables 3 and 4 show the results for the different years of the self-employment rates defined as the ratio of self-employment to labour force. Results do not change with respect to specification in Table 2. In addition to the cultural proxy, we control for age (and its square), sex, education, gender, marital status and state of residence. Observations are clustered at the country of origin level. The self-employment rate in one's country of origin each five years from 1970 to 2005 has a positive and significant impact in the probability of being self-employed even when we include demographic and geographical controls.

The cultural proxy used in Table 2, self-employment rate in 1970, may not perfectly capture people's true attitudes towards self-employment since there is a considerable disagreement on how the self-employment rate should be measured, see Blanchflower (2000). Differences in results across papers can be explained by differences in the denominator of the self-employment ratio.

On the other hand, several papers focus on the study of the relationship between self-employment and unemployment, see Meager (1992) for a survey in this literature. Some of these works find a positive correlation between self-employment and unemployment, (Evans and Leighton (1989), Bogenhold and Staber (1991),). However, other works find a negative relationship between this two variables (Blanchflower and Oswald (1990), Taylor (1996), Blanchflower and Oswald (1998)). Empirical evidence is not conclusive since there is some disagreement on whether high unemployment acts to encourage or discourage self-employment. These results might somehow

obscure the impact of programs which try to promote the unemployed move into self-employment, see Kosanovich and Fleck (2001) for some examples in the US.

In order to tackle this problem we introduce different denominator in our self-employment rate to observe whether it exists differences in the effect of our cultural proxies. We separate the sample into all workers and unemployed and we compare how our cultural proxies affect the probability of being self-employed. What we expect to observe it is no differences in the impact of the cultural proxies when we separate the sample since individuals maintain their behaviour even when perturbations in the form of cyclical aspects appear, which can be identified with differences in the unemployment rate across countries. This is due to the fact that cultural differences has maintained since the behaviour of agents is eventually part of individual preferences and beliefs, as Fernandez (2007) explains.

Figures 3 and 4 show the relationships self-employment rates in origin countries in 1970, defined as the ratio of self-employment to all workers and as the number of self-employed per unemployed, respectively, and the percentage of second-generation immigrants who are self-employed from that country of origin in the US in 1970. The figures show a positive correlation between them, suggesting that culture is an important factor in determining employment decisions.

Tables 5 and 8 show the results of the estimations when we separate the sample into all workers and unemployed. We observe similar results when we change the definition of the cultural proxy and the sample. The self-employment rate in one's country of origin has a positive and significant impact on the probability of being self-employed even when we include demographic and geographical controls. We have repeated these analyses using several years for the different measure of the self-employment rates, see tables 6, 7, 9 and 10 and we have obtained similar results.

6 Conclusions and Future Research

This paper aims at rigorously disentangling the effects of markets and institutions from the effects of culture in determining self-employment rates. Evidence suggests that culture plays a role in self-employment decisions even when controlling for person-specific characteristics such as education, age, gender, marital status as well as state of residence: Self-employment rates in the countries of origin of second-generation immigrants have economically and statistically significant effects on their probabilities of being self-employed.

Although we view these results as certainly suggestive of the role of culture in self-employment decisions, we have taken several steps to provide even more convincing evidence. We have also used different measures of self-employment rates and several samples, separating all workers to those unemployed. We find a positive and significant effect of those different measures of self-employment rates on the probability of being self-employed. We also use different years of self-employment rates in the countries considered observing similar results.

We plan to explore how countries varied in their cultural attitudes towards self-employment using information on attitudes toward entrepreneurship. Blanchflower et al. (2001) explores differences in "entrepreneurial spirit" using data from the International Social Survey Programme. They use the following question: "Suppose you were working and could choose between different kinds of jobs. Which would you prefer: being an employee or being self-employed?" as a measure of how entrepreneurship is driven across countries. The problem with this approach is that using individual attitudes as an indicator of culture is the potential for reverse causality, in this sense, individual attitudes can be primarily determined by legal and economic circumstances. This can be avoided if one uses the attitudes of individuals from a different time and place as we plan to explore using the US census data, see Fernandez (2006). What we expect to find is that individuals who belong to a country of origin with less entrepreneurial spirit tend to be less self-employed.

Given that not only culture is transmitted from the first generation of immigrants to the second, but also the second-generation immigrants inherit there parents' business, and for that, the probability

of self-employment depends positively upon whether the individual ever received an inheritance or gift, (Blanchflower and Oswald. 1998). We plan to test whether the effects of our cultural proxies in first and second-and-higher generation immigrants are maintained using data from the Census 2000, see Antecol (2000) for a similar analysis.

We conclude by reiterating our finding that culture does seem to be a significant determinant of self-employment decisions. We also hope to gain more insights into the evolution of culture on self-employment.

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Table 1: Descriptive Statistics by Country of Origin in 1970

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Countries	Self-employed in 1970	Share of Labour Force in 1970	Share of Labour Force in 1990	Age	Male	High School	Some College	College more	Married	Obs.
Greece	0.141	52.378	40.756	41.487	0.644	0.367	0.169	0.217	0.706	41
Japan	0.124	34.702	22.157	44.332	0.615	0.438	0.148	0.162	0.784	111
Austria	0.122	30.123	17.595	49.385	0.628	0.342	0.119	0.157	0.748	1360
Italy	0.112	28.591	26.820	45.878	0.647	0.355	0.086	0.088	0.775	421
Ireland	0.060	25.301	19.437	48.227	0.619	0.388	0.139	0.160	0.670	4085
Finland	0.092	24.438	12.930	48.590	0.575	0.407	0.122	0.173	0.727	463
Iceland	0.095	24.425	19.786	46.952	0.619	0.286	0.095	0.381	0.762	705
Spain	0.110	21.910	18.255	42.469	0.635	0.382	0.138	0.104	0.749	18038
France	0.106	20.312	11.830	45.123	0.595	0.345	0.158	0.147	0.686	1233
Belgium	0.097	20.135	16.805	44.085	0.636	0.382	0.133	0.097	0.745	1114
Norway	0.119	19.478	12.351	48.899	0.642	0.362	0.140	0.144	0.775	746
Portugal	0.089	19.330	24.018	43.990	0.667	0.318	0.064	0.045	0.780	330
Australia	0.045	17.880	15.048	35.658	0.505	0.306	0.243	0.198	0.468	5285
New Zealand	0.024	17.273	17.031	33.537	0.512	0.220	0.390	0.220	0.659	2593
Netherlands	0.124	17.050	14.580	46.055	0.671	0.322	0.132	0.128	0.784	1628
Denmark	0.115	14.911	7.783	48.825	0.630	0.377	0.149	0.158	0.754	21
Canada	0.074	10.926	12.890	41.352	0.633	0.353	0.151	0.154	0.690	590
Sweden	0.123	9.170	5.232	50.630	0.630	0.400	0.160	0.155	0.769	1003
United Kingdom	0.097	8.339	13.537	45.817	0.622	0.359	0.121	0.119	0.696	8512
Average	0.098	21.930	17.307	44.805	0.617	0.353	0.150	0.158	0.722	
Std. Dev.	0.030	10.067	7.737	4.489	0.044	0.049	0.069	0.069	0.074	

Note: Sample consists of second-generation immigrants who are part of the Labour Force (1% 1970 Form 2 Metro Sample). Ancestries ordered from higher to lower percentage of Self-employed with respect to the Labour Force in 1970. In Columns (4) and (5) we include our cultural proxy share of Labour Force in 1970 (Ireland (1971), Norway (1972) and Spain (1977)) and in 1990, respectively. Source: OECD Economic Outlook.

Table 2: Estimations of the Cultural Effect using the Self-employment as a % of Labour Force in 1970.

	(1)	(2)	(3)
Share of Labour Force 70	0.0012**	0.0010***	0.0014***
	(0.001)	(0.000)	(0.000)
Age		0.0033***	0.0035***
		(0.001)	(0.001)
Age Square		-0.0000	-0.0000
		(0.000)	(0.000)
Male		0.0804***	0.0794***
		(0.008)	(0.008)
High School		0.0086**	0.0071**
		(0.004)	(0.003)
Some College		0.0274***	0.0232***
		(0.008)	(0.008)
College +		0.0360***	0.0333***
		(0.011)	(0.011)
Married		0.0341***	0.0337***
		(0.002)	(0.002)
Pseudo Rsq	0.00	0.06	0.07
N	48279	48279	48279

Note: Marginal effects and robust standard errors in brackets. Standard errors clustered by country of origin. All regressions based on IPUMS data census, 1% 1970 Form 2 Metro Sample. Sample consists of second-generation immigrants who are part of the Labour Force. The cultural proxy is represented by self-employment as a share of Labour Force in 1970 (Ireland (1971), Norway (1972) and Spain (1977)). Specification (1) is a basis probit regression with no controls for the whole the men sample and the women sample. Specification (2) add to the specification controls for gender (male), education (high school, some college, college +), a quadratic term for the age and marital status (married). Specification (3) also includes as controls dummies for the US state of residence, without Kentucky. ***, ** and * denote statistical significance at 1%, 5% and 10% level, respectively.

Table 3: Estimations of the Cultural Effect using the Self-employment as a % of Labour Force in 1990.

	(1)	(2)	(3)
Share of Labour Force 90	0.0009	0.0011***	0.0017***
	(0.001)	(0.000)	(0.000)
Age		0.0035***	0.0036***
		(0.001)	(0.001)
Age Square		-0.0000	-0.0000
		(0.000)	(0.000)
Male		0.0803***	0.0792***
		(0.008)	(0.008)
High School		0.0095**	0.0083**
		(0.004)	(0.003)
Some College		0.0291***	0.0254***
		(0.008)	(0.008)
College +		0.0380***	0.0362***
		(0.011)	(0.011)
Married		0.0338***	0.0332***
		(0.002)	(0.002)
Pseudo Rsq	0.00	0.06	0.07
N	48279	48279	48279

Note: Marginal effects and robust standard errors in brackets. Standard errors clustered by country of origin. All regressions based on IPUMS data census, 1% 1970 Form 2 Metro Sample. Sample consists of second-generation immigrants who are part of the Labour Force. The cultural proxy is represented by self-employment as a share of Labour Force in 1990. Specification (1) is a basis probit regression with no controls for the whole the men sample and the women sample. Specification (2) add to the specification controls for gender (male), education (high school, some college, college +), a quadratic term for the age and marital status (married). Specification (3) also includes as controls dummies for the US state of residence, without Kentucky. ***, ** and * denote statistical significance at 1%, 5% and 10% level, respectively.

Table 4: Estimations of the Cultural Effect using the Self-employment as a % of Labour Force in 1975-2005.

	(1)	(2)	(3)
Share of Labor Force 75	0.0011*	0.0010***	0.0014***
	(0.001)	(0.000)	(0.000)
Share of Labor Force 80	0.0012*	0.0012***	0.0017***
	(0.001)	(0.000)	(0.000)
Share of Labor Force 85	0.0012*	0.0013***	0.0019***
	(0.001)	(0.000)	(0.000)
Share of Labor Force 95	0.0009	0.0011***	0.0017***
	(0.001)	(0.000)	(0.000)
Share of Labor Force 2000	0.0006	0.0010**	0.0017***
	(0.001)	(0.000)	(0.000)
Share of Labor Force 2005	0.0008	0.0011**	0.0018***
	(0.001)	(0.000)	(0.000)

Note: Marginal effects and robust standard errors in brackets. Standard errors clustered by country of origin. All regressions based on IPUMS data census, 1% 1970 Form 2 Metro Sample. Sample consists of second-generation immigrants who are part of the Labour Force. The cultural proxies are represented by self-employment as a share of Labour Force in 1975 (Spain(1977)), 1980, 1985, 1995, 2000, 2005. Specification (1) is a basis probit regression with no controls for the whole the men sample and the women sample. Specification (2) add to the specification controls for gender (male), education (high school, some college, college +), a quadratic term for the age and marital status (married). Specification (3) also includes as controls dummies for the US state of residence, without Kentucky. ***, ** and * denote statistical significance at 1%, 5% and 10% level, respectively.

Table 5: Estimations of the Cultural Effect using the Self-employment as a % of Total Employment in 1970.

	(1)	(2)	(3)
Share of Total Employment 70	0.0026	0.0023*	0.0037***
	(0.002)	(0.001)	(0.001)
Age		0.0046*	0.0046*
		(0.002)	(0.003)
Age Square		0.0000	0.0000
		(0.000)	(0.000)
Male		0.2084***	0.2103***
		(0.018)	(0.017)
High School		-0.0625***	-0.0623***
		(0.012)	(0.012)
Some College		-0.0305*	-0.0303
		(0.018)	(0.021)
College +		-0.1333***	-0.1319***
		(0.022)	(0.023)
Married		0.1103***	0.1076***
		(0.006)	(0.007)
Pseudo Rsq	0.00	0.08	0.10
N	13193	13193	13193

Note: Marginal effects and robust standard errors in brackets. Standard errors clustered by country of origin. All regressions based on IPUMS data census, 1% 1970 Form 2 Metro Sample. Sample consists of second-generation immigrants who are employed. The cultural proxy is represented by self-employment as a share of Total Employment in 1970 (Ireland (1971)). Specification (1) is a basis probit regression with no controls for the whole the men sample and the women sample. Specification (2) add to the specification controls for gender (male), education (high school, some college, college +), a quadratic term for the age and marital status (married). Specification (3) also includes as controls dummies for the US state of residence, without Kentucky. ***, ** and * denote statistical significance at 1%, 5% and 10% level, respectively.

Table 6: Estimations of the Cultural Effect using the Self-employment as a % of Total Employment in 1990.

	(1)	(2)	(3)
Share of Total Employment 90	0.0024	0.0020	0.0037***
	(0.002)	(0.001)	(0.001)
Age		0.0050	0.0052
		(0.003)	(0.003)
Age Square		0.0000	0.0000
		(0.000)	(0.000)
Male		0.2083***	0.2098***
		(0.018)	(0.017)
High School		-0.0612***	-0.0598***
		(0.013)	(0.012)
Some College		-0.0280	-0.0258
		(0.018)	(0.022)
College +		-0.1308***	-0.1272***
		(0.022)	(0.023)
Married		0.1096***	0.1064***
		(0.006)	(0.007)
Pseudo Rsq	0.00	0.08	0.09
N	13193	13193	13193

Note: Marginal effects and robust standard errors in brackets. Standard errors clustered by country of origin. All regressions based on IPUMS data census, 1% 1970 Form 2 Metro Sample. Sample consists of second-generation immigrants who are employed. The cultural proxy is represented by self-employment as a share of Total Employment in 1990. Specification (1) is a basis probit regression with no controls for the whole the men sample and the women sample. Specification (2) add to the specification controls for gender (male), education (high school, some college, college +), a quadratic term for the age and marital status (married). Specification (3) also includes as controls dummies for the US state of residence, without Kentucky. ***, ** and * denote statistical significance at 1%, 5% and 10% level, respectively.

Table 7: Estimations of the Cultural Effect using the Self-employment as a % of Total Employment in 1975-2005.

	(1)	(2)	(3)
Share of Total Employment 75	0.0022	0.0018	0.0033**
	(0.002)	(0.002)	(0.001)
Share of Total Employment 80	0.0030*	0.0026**	0.0044***
	(0.002)	(0.001)	(0.001)
Share of Total Employment 85	0.0029	0.0027**	0.0046***
	(0.002)	(0.001)	(0.001)
Share of Total Employment 95	0.0027	0.0023	0.0040**
	(0.002)	(0.001)	(0.002)
Share of Total Employment 2000	0.0027	0.0023	0.0041**
	(0.002)	(0.001)	(0.002)
Share of Total Employment 2005	0.0032	0.0028*	0.0049**
	(0.002)	(0.002)	(0.002)

Note: Marginal effects and robust standard errors in brackets. Standard errors clustered by country of origin. All regressions based on IPUMS data census, 1% 1970 Form 2 Metro Sample. Sample consists of second-generation immigrants who are employed. The cultural proxies are represented by self-employment as a share of Total Employment in 1975, 1980, 1985, 1995, 2000, 2005. Specification (1) is a basis probit regression with no controls for the whole the men sample and the women sample. Specification (2) add to the specification controls for gender (male), education (high school, some college, college +), a quadratic term for the age and marital status (married). Specification (3) also includes as controls dummies for the US state of residence, without Kentucky. ***, ** and * denote statistical significance at 1%, 5% and 10% level, respectively.

Table 8: Estimations of the Cultural Effect using the Number of Self-employed per Unemployed in 1970.

	(1)	(2)	(3)
N of self-employed per Unemployed 70	0.0048**	0.0037**	0.0032*
	(0.002)	(0.002)	(0.002)
Age		0.0200***	0.0196***
		(0.003)	(0.003)
Age Square		-0.0002***	-0.0002***
		(0.000)	(0.000)
Male		0.2565***	0.2593***
		(0.030)	(0.032)
High School		0.0986***	0.1031***
		(0.014)	(0.015)
Some College		0.1020***	0.1056***
		(0.009)	(0.007)
College +		0.1758***	0.1778***
		(0.021)	(0.019)
Married		0.1576***	0.1547***
		(0.019)	(0.017)
Pseudo Rsq	0.01	0.17	0.18
N	6406	6406	6406

Note: Marginal effects and robust standard errors in brackets. Standard errors clustered by country of origin. All regressions based on IPUMS data census, 1% 1970 Form 2 Metro Sample. Sample consists of second-generation immigrants who are either self-employed or unemployed. The cultural proxy is represented by the number of self-employed per unemployed in 1970 (Ireland (1971), Spain (1977)). Specification (1) is a basis probit regression with no controls for the whole the men sample and the women sample. Specification (2) add to the specification controls for gender (male), education (high school, some college, college +), a quadratic term for the age and marital status (married). Specification (3) also includes as controls dummies for the US state of residence, without Kentucky. ***, ** and * denote statistical significance at 1%, 5% and 10% level, respectively.

Table 9: Estimations of the Cultural Effect using the Number of Self-employed per Unemployed in 1990.

	(1)	(2)	(3)
N of self-employed per Unemployed 90	0.0293***	0.0239***	0.0238***
	(0.008)	(0.006)	(0.006)
Age		0.0190***	0.0187***
		(0.003)	(0.003)
Age Square		-0.0001***	-0.0001***
		(0.000)	(0.000)
Male		0.2558***	0.2579***
		(0.032)	(0.033)
High School		0.0979***	0.1022***
		(0.013)	(0.014)
Some College		0.1058***	0.1087***
		(0.009)	(0.007)
College +		0.1763***	0.1779***
		(0.018)	(0.017)
Married		0.1558***	0.1524***
		(0.018)	(0.016)
Pseudo Rsq	0.01	0.17	0.19
N	6406	6406	6406

Note: Marginal effects and robust standard errors in brackets. Standard errors clustered by country of origin. All regressions based on IPUMS data census, 1% 1970 Form 2 Metro Sample. Sample consists of second-generation immigrants who are either self-employed or unemployed. The cultural proxy is represented by the number of self-employed per unemployed in 1990. Specification (1) is a basis probit regression with no controls for the whole the men sample and the women sample. Specification (2) add to the specification controls for gender (male), education (high school, some college, college +), a quadratic term for the age and marital status (married). Specification (3) also includes as controls dummies for the US state of residence, without Kentucky. ***, ** and * denote statistical significance at 1%, 5% and 10% level, respectively.

Table 10: Estimations of the Cultural Effect using the Number of Self-employed per Unemployed in 1975-2005.

	(1)	(2)	(3)
N of self-employed per Unemployed 75	0.0047*	0.0035*	0.0031*
	(0.003)	(0.002)	(0.002)
N of self-employed per Unemployed 80	0.0077**	0.0053**	0.0048**
	(0.003)	(0.002)	(0.002)
N of self-employed per Unemployed 85	0.0265***	0.0205***	0.0201***
	(0.007)	(0.006)	(0.006)
N of self-employed per Unemployed 95	0.0375**	0.0372***	0.0379***
	(0.016)	(0.010)	(0.010)
N of self-employed per Unemployed 2000	0.0002	0.0041	0.0047
	(0.015)	(0.014)	(0.013)
N of self-employed per Unemployed 2005	0.0063	0.0143	0.0170
	(0.018)	(0.015)	(0.015)

Note: Marginal effects and robust standard errors in brackets. Standard errors clustered by country of origin. All regressions based on IPUMS data census, 1% 1970 Form 2 Metro Sample. Sample consists of second-generation immigrants who are either self-employed or unemployed. The cultural proxies are represented by the number of self-employed per unemployed in 1975 (Spain (1977)), 1980, 1985, 1995, 2000, 2005. Specification (1) is a basis probit regression with no controls for the whole the men sample and the women sample. Specification (2) add to the specification controls for gender (male), education (high school, some college, college +), a quadratic term for the age and marital status (married). Specification (3) also includes as controls dummies for the US state of residence, without Kentucky. ***, ** and * denote statistical significance at 1%, 5% and 10% level, respectively.

Figures

Figure 1.

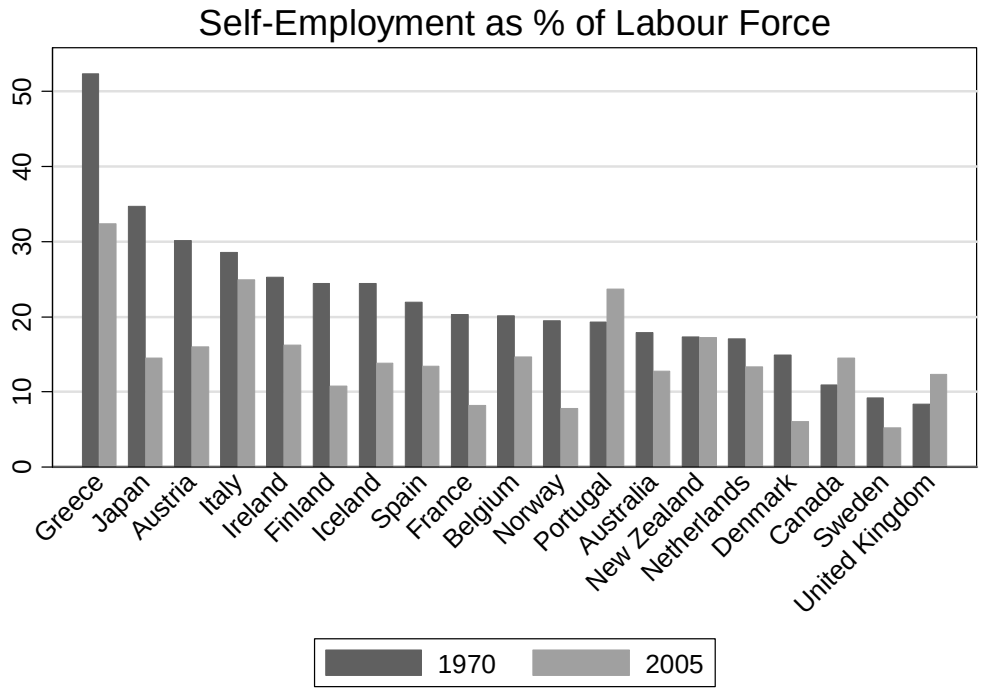

Figure 2

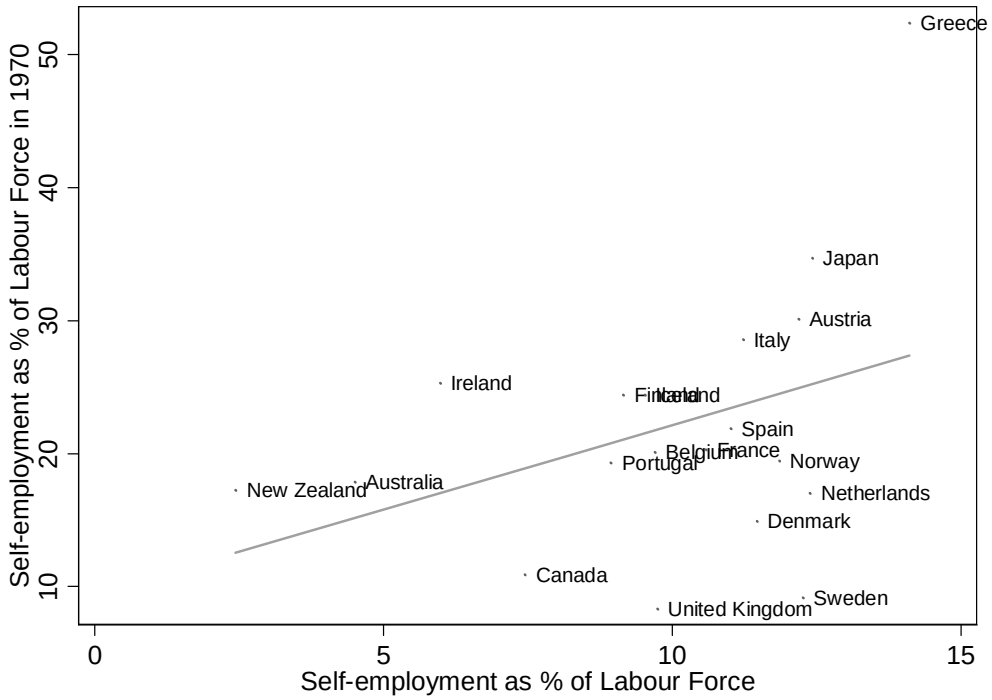

Figure 3

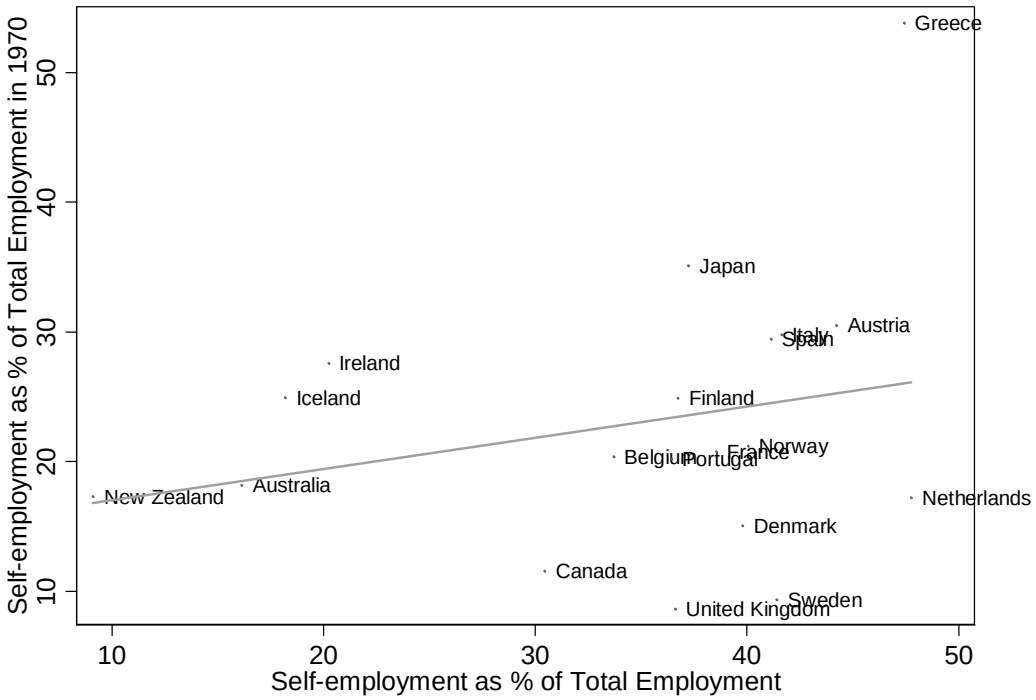

Figure 4