Hispanic Job-Seekers outside the fields: are they discriminated?

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We investigate wage settings in an experimental labor market to measure the effect of otherwise unobservable labor market characteristics on Hispanic job-seekers' employment and wages. Agricultural and non-agricultural labor markets were simulated by controlling the student's answer in a questionnaire about whether he or she is working or plans to work on a farm or rural county after graduation. This paper presents evidence supporting the existence of differences in discrimination on urban and rural markets. Average predicted productvity for Hispanic males in rural market was higher than in urban labor maket, suggesting that Hispanics male job-seekers are predicted to fit better in rural activities which may imply an invisible barrier that prevents their mobility from rural to urban labor market.

Hispanics are the largest and fastest growing minority group in the US, representing 17% of the U.S population at 54 million (US Census Bureau 2014a), increasing from 10.7 million in 1990 to 24.8 million in 2013 (Bureau of Labor Statistics 2010). The immigration explains part of this process, international migrants move from lower to higher wage labor markets: high-income countries with 16 percent of the world's workers have over 60 percent of the world's migrants (P.Martin 2005). There is a large amount of literature that supports the differences in outcomes of labor market and wealthfare level between minorities and Whites in US. In the log-run Hispanics show higher rates of unemployment than Whites, the jobless rates for Hispanics is12.5% and 8.7% for Whites (Bureau of Labor Statistics 2010). Hispanics show official poverty rates at least twice as high as those of non-Hispanic Whites. In addition, Hispanics also suffer from a larger educational attainment gap and higher immigration rates (Gradín 2012). Migrant Hispanics are demanded as agricultural workers and they may face limitations to access urban jobs. The demographic dynamics in recent years in US shows that population is aging rapidly mostly due to increases in life expectancy and low rates of fertility.The natural decrease of

population in many rural counties, has been offset by new Hispanic population growth and high fertility (Johnson and Lichter 2013).

Labor is a scarce resource in agricultural production. It is cited by farmers as one of the most common limitations for the expansion of farms in the Midwest. Among the causes for limited supply of labor in rural areas is the limited amount of the population living in rural areas, and in the case of the Midwest , the low total population (rural and urban) per square mile. The number of persons per square mile in most of the States in the Midwest is lower than the US average (including Alaska) which is 87.4 (US Census 2010).   In addition, the population growth rate was 0.93% while in US was 2.39% (US Census 2010). This low total population limits the labor supply in relation to rural labor demand, making labor suply a critical resource for agriculture.

In recent years competing activities have reduced the limited midwest labor supply even more in rural areas of the Northern Plains. In particular the oil boom of the Bakken formation area has increased the regional demand for labor significantly (Casselman 2010). Because of the limited local labor supply, the oil boom brought immigration to the upper plains, drastically changing the labor market and the rural communities in the area. This situation is going to persist in the following years. The North Dakota petroleum sector is estimated to reach 55,000 jobs by 2018 (8% of total jobs), and the permanent population growth in Williston is estimated to increase by 60% in the next five years (Hodur & Bangsund 2013a, 2013b).

Given the significant growth of hispanics in the U.S labor force mostly due to immigration, it is relevant to understand market frictions, in particular the causes of agricultural and non-agricultural labor market discrimination against Hispanics job-seekers which may have

an negative impact in the economy. This study contributes to the existing literature by comparing discrimination against Hispanics in rural and urban job markets.

We investigate wage settings in an experimental labor market to measure the effect of otherwise unobservable labor market characteristics on Hispanic job-seekers' employment and wages. The goal of this research is to test factors affecting the economic decision making in rural labor markets and to what extent. The experiment design is based on Mobius and Rosenblat (2005); Mobius, Rosenblat and Wang (2013) and Bertrand and Mullainathan (2003).

The participants of this study are midwest university students with diverse backgrounds. Students played the role of job market candidates/employees and employers. Students playing as job market candidates/ employees solved puzzles to provide a signal to the "employer" that makes predictions about productivity (Mobius and Rosenblat 2005; Mobius, Rosenblat and Wang 2013). Predictions are made with different sets of potencial employees' information, allowing to research the possible existence of discrimination.

Agricultural and non-agricultural labor markets were simulated by controlling the student's answer in a questionnaire about whether he or she is working or plans to work on a farm or rural county after graduation.

The goals of this research are to: (i) achieve a better understanding of the dynamics of negotiation between employers and employees in the rural labor market; (ii) determine the existence of discrimination against minorities, particularly against Hispanics; (iii) identify the potential underlying causes and types of discrimination that may also explain the different outcomes in labor market between minorities and Whites, particularly between Hispanics and Whites.

The outcomes of this experiment may help to better understand at following questions:

(i) Is there discrimination (differential treatment) in rural and urban labor market in the Midwest based on ethnic affiliation?

(iv) Even if there where no ethnic discrimination from potential employers against minorities are there other causes that may explain the different outcomes between minorities (particularly Hispanics) and Whites in the Midwest's labor market?

The results of this study may heltp to understand potential employers beliefs in both, rural and urban labor market that may affect the hispanic-jobseekers outcomes. They may provide evidence to correct wrong beliefs about rural labor markets that may cause market inefficiencies and information for the of policy desing to improve labor availability for agriculture in the Midwest. The remaining of this paper presents the literature review, experimental design, and proposed models, followed by results and conclusions.

Previous Studies

Discrimination in the labor market.

The theoretical literature provides two major sources of racial discrimination in labor markets: statistical and taste-based. While statistical discrimination occurs in an environment of imperfect information where agents form decisions based on limited signals that correlate with race (Arrow and Phelps' 1972), taste-based discrimination is related to racial prejudice (Becker 1957). While empirical literature focuses on documenting the presence of disparities and the effects of policies designed to counteract discrimination, theoretical literature based on each model has been split between statistical and taste-based models. Jonathan Guryan and Kerwin Kofi Charles (2013) provide an extensive review of this literature. Although no existing theory can account for all

existing empirical regularities in the labor market, significant advances in models of discrimination have been made in recent years (Lang and Lehmann 2012).

Researchers usually measure differential treatment by comparing the labor market performance of minorities with non-minorities who have similar sets of skills (ex: Whites and African-Americans). Empirical economic literature typically measures differences in economic outcomes between genders, races, etc. that remain after statistically controlling for observable characteristics of workers. However, such kinds of comparisons have important limitations. Those methods can control for too little but they can also control for too much, and both can lead to the classical omitted variable bias.

Concerns about the limitations of regression-based methods have led researchers to search for alternative methods. One of those methodological advances is audit studies consisting of testing differences in treatment received between minorities and white job candidates through sending trained actors to respond similarly in real job interviews. The results of those studies indicate that auditor minorities tend to have on average worse performance (fewer job offers, fewer callbacks, etc.). One example of an audit study applied to the labor market was Neumark et al. (1996). They studied sex discrimination in hiring sending matched pairs of men and women to apply for jobs as waiters and waitresses at 65 restaurants in Philadelphia. The experiment was designed so that a male and female pair applied for a job at each restaurant, and so that, on paper at least, the male and female candidates were identical. They found statistically significant differences in outcomes between men and women applicants. Women had an estimated probability of receiving a job offer that was lower by about 0.4, and an estimated probability of receiving an interview that was lower by about 0.35. Some other examples of audits studies are Ayres and Siegelman (1995), Yinger (1998), Riach and Rich (2002), and Dymski (2006).

The use of audit studies is a useful method because it provides more direct evidence of discrimination than is provided by other empirical methods. However, it also has important limitations, such as the fact that it is impossible that the pair of applicants match in all relevant characteristics. Even in the situation that auditors' characteristics could match (on average), the differences between the distributions of their characteristics may explain different outcomes. Furthermore, even in the best conditions, audit methods can only make measurements about average differences in behavior by employers. Those limitations have been addressed by Heckman and Siegelman (1992), Heckman (1998), and Neumark (2012).

When audit methods are applied in labor markets research, the focus of the analysis switches from the worker to the employer. The discrimination measurement is based on the analysis of the different treatments received by minorities from potential employers in observable variables such as callbacks and job offers. Discrimination becomes a difference in the behavior of potential employers, but the difference in the distribution of auditors' characteristics, not just the presence of such characteristics, can generate differences in those outcomes. Considering this, the most important limitation of these methods is the inability to control the distribution of auditors' characteristics. In addition, it is possible to see the remarkable importance of considering how employers perceive gender, race and expected productivity in order to understand the different outcomes between minorities and non-minorities in the labor market. A new type of field experiments, known as "correspondence studies" was created because of these limitations.

Correspondence studies represent a significant methodological advance in the pursuit of measuring the effect of discrimination on economic outcomes. These studies are typically based on a set of conveniently developed resumes which are sent in response to a set of real job

openings. The resumes are designed to be as realistic as possible, usually based on combinations of real resumes. The most important distinction between audit and correspondence studies is that correspondence studies are able to vary multiple attributes on the resumes randomly and independently. For example, researchers are able to signal the race or gender of the applicant by using a fantasy name on the resume, and then measure differences in callbacks between resumes that signaled that the applicant was black or female and resumes that signaled that the applicant was white or male.

An example of this kind of study is Bertrand and Mullainathan (2003), two researchers who studied the effect of ethnicity in the labor market by sending fictitious resumes to help-wanted ads in Boston and Chicago newspapers. They used African-American- or White-sounding names which were randomly assigned to CVs of differing qualifications in order to manipulate perceived race. They found a uniform gap across occupation, industry, and employer size between races. White-sounding names received 50 percent more callbacks for interviews. In addition, callbacks were also more sensitive to the level of qualifications on CVs with White-sounding names than for African-American-sounding ones. One limitation of this research is that these findings are evidence only that employers discriminate against black workers when they review CVs, but there is no evidence supporting that African-American workers have differential treatment when compared with White workers at other stages in the job process such as hiring, firing, and promoting (Guryan & Charles 2013).

Behavioral economics and field experimentation.

The basic core of behavioral economics is based on the idea that increasing the realism of the psychological underpinnings of economic analysis will improve the economy in its principal

fields: theory, predictions, and economic policy. In recent years the economics of behavior has gone beyond experimentation and embraced the whole range of methods used by economists.

The first experiments in labor economics using principles of behavioral economics were known as "lighting experiments" in the Hawthorne plant. In this experiment between 1924 and 1927, the amount of light in the workplace was varied, in addition to other changes such as maintaining clean work stations, clearing floors of obstacles, relocating workstations, and systematically changing experimental groups in different departments; in order to measure the impact of those changes in workers' productivity. Workers in the departments were women who made wound wire coils and productivity was measured based on the number of units completed during the workday. The experiment's results suggest an increase of workers' productivity but only while the changes were made. It has been argued that the "Hawthorne effect" was caused by a positive emotional effect due to the perception of a sympathetic or interested observer (Mayo 1949). Despite the fact that many researchers questioned the validation of this experiment's results such as Franke and Kaul (1978), Jones (1992), and Levitt and List (2011), this marked the beginning of the first period in which a large number of such experiments were performed. Furthermore, the "Hawthorne effect" has had a profound influence on the design and direction of research in the social sciences since then.

Late in the second half of the twentieth century came the second period of field experiments in which interest was focused on labor economics. During this period, government agencies made a series of large-scale social experiments in order to evaluate the impacts of changes in different areas like employment programs, prices of electricity, and housing subsidies. In the US the series of the experiments known as "income maintenance experiments" were started by Heather Ross in 1966. Ross wanted to collect data that could be used to

determine what lower-income people would do if they were provided with money. This is the first prominent example in which the technique of randomly assigning individuals was used to test the impact of social programs and has become a model for social experiments. The high cost and the long time needed do this kind of experiment have been stated as the most important weaknesses of this technique. However, with recent social experimentation timely results at a reasonable cost have been possible to produce (Munell 1986).

Field experimentations are the latest wave of experiments in economics. This type of experiment arose in the mid-1980's and included a new set of empirical strategies to identify causal effects that have entered the mainstream of empirical research in labor economics. To summarize, field experiments are based on fixed effects, difference-indifference, instrumental variables, regression discontinuities, and natural experiments. Today a large range of research questions are addressed by labor economists.

The field experiment is a useful technique for labor economists because it allows the estimation of otherwise unmeasurable variables. Despite rarely having the possibility to randomly change the economic variables directly related to the individuals, such as investment in education decisions, the minimum wage faced by an individual, or retirement benefits, field experiments allow the researcher the ability to randomize key elements of the economic environment that determine such results. However, List and Rasul (2011) addressed an extensive review of many concerns with respect to the use of field experiments in social sciences related to the sample attrition, the sample selection, and to the intervention level.

A new approach to the measurement of discrimination in labor market.

Another approach to solving the problem of isolating a single characteristic of an individual in order to measure the discriminatory differential in outcomes related to it in the labor market is to design an experimental labor market. These experiments in most cases produce replicable evidence and permit the implementation of truly exogenous ceteris paribus changes. Control is the most important asset behind running experiments; and it is also the most important advantage over other methods, no other empirical method allows a similarly tight control as do experiments. Particularly the implementation of experimental labor markets is useful in order to add realism in studies. The direct observation of human behavior in such experiments also has forced the researchers to take more seriously issues related to human motivation and bounded rationality (Falk & Fehr 2003).

One example of this is Mobius and Rosenblat (2005). They studied the beauty premium in an experimental labor market where "employers" determined wages of "workers" by estimating their ability to solve puzzles based on signals. The signal estimation was a real performance of the "workers". They found a sizable beauty premium and identified three channels of transmission, higher levels of self-confidence of physically-attractive workers, better oral skills of physically-attractive workers, and wrong beliefs from employers that considered physically-attractive workers more able. The task of solving puzzles requires a true skill which they showed to be unaffected by physical attractiveness. An important contribution of this research is that the methodology used can be easily adapted in order to study the sources of discriminatory pay differentials in other settings and related to other characteristics such as gender, ethnicity, etc. After that Mobius, Rosenblat and Wang (2013) replicated this methodology in order to analyze how stereotype-based discrimination against ethnic minorities

depended on the shares of ethnic groups in the population in an experimental labor market with university students in an ethnic non-diverse and an ethnic diverse province in China.

Methodology and Data

In this study an experimental labor market is designed in order to collect data that allows to study decision making processes in the labor market's supply and the demand. In particular the design tries to achieve a better understanding of the dynamics of negotiation between employers and employees in the rural labor market, determine the existence and types of discrimination against minorities (Hispanics), and identify other potential underlying causes, besides discrimination, that may explain the poorer outcomes of minorities (Hispanics) in the rural and urban labor markets.

There were two roles in this experiment: workers and employers. The experiment was divided into two sections on two different days. This paper was made using data from the first day session. In the first day section the main purpose was to obtain data about the labor supply. In particular we wanted to obtain data about cognitive and non-cognitive skills, and demographic characteristics.

Section day 1.

In the first day section, we asked all the participants to play the role of the worker. Workers have the task of solving as many character puzzles as possible within a five-minute period. We explained to them that they will be able to perform a few practice puzzles and after that they were asked to solve as many puzzles as possible in five minutes. We created incentives in order

to ensure the best effort from participants. For example in this step, for each puzzle solved during the five minute period they knew that they would receive 50 Tokens (1 Token = 1 Cent).

In addition, they knew that as a worker, they would be evaluated by several employers (who may hire them) based on their performance in a timed practice game which ended once they solved one puzzle correctly (their signal) and also based on estimations about how many puzzles they would be able to solve correctly during the five-minute period.

After that we asked a set of questions in order to obtain data related to non-cognitive skills such as punctuality, self-confidence, or perceived discrimination. In all those questions we gave them incentives in order to assure their answers would be as accurate as possible.

At the end of the first day section we asked them to choose between six different gambles in order to measure risk aversion, a set of demographic questions (we used the same set of questions used in the US Census), and a set of questions related to the field of study including: Are you planning to work on a farm, ranch, or any other rural work when you graduate? We use this question to split the sample into the rural labor market and the urban labor market.

General theoretical framework.

By definition, ethnic stereotypes exist in the labor market if potential employers have a wrong belief about some workers' productivity based on their ethnicity. These wrong beliefs may cause potential employers to make sub-optimal decisions in hiring, promotion, and firing workers. On the other hand, potential workers' beliefs about discrimination in the labor market affects their self confidence and this may cause job-seekers to make sub-optimal decisions in applications, investment in training, etc.

The potential employer has to form an estimate about the productivity A of a job-seeker which is a function of an observable variable X (X is all the job-seeker observable characteristics relevant for the job application) and an unobservable component η:

$$A = \alpha X + \eta \qquad \text{where} \qquad \eta \sim \text{N}(0, \sigma_\eta^2)$$

When the job-seeker receives a signal of their own productivity and uses this information to make predictions about their productivity, we called this workers' self-ranking (self-confidence):

$$C = \eta + \pi B + \varepsilon_c \qquad \text{where} \qquad \varepsilon_c \sim \text{N}(0, \sigma_\eta^2)$$

Measuring discrimination of Hispanics and Latinos in the job market.

In order to measure the discrimination of Hispanics and Latinos in the labor market we constructed a model based on two linear regressions.

Employers' beliefs were measured by using their predictions of the average number of correct puzzles solved by each mentioned ethnicity. Following this strategy, we constructed the following model:

(1) $\quad Employer\ Belief_j^{ih} = \varsigma + \eta Selfconfidence^i + \delta Employer\ Belief_j^{iw} + \lambda X^i +$

$\quad \partial Stereotype^i + \beta Z^i + v^i$

Where Selfconfidence^i is participant i's self-prediction about his position in the ranking, X^i is a vector of employer i's other socio-economic characteristic dummies: gender, urban/rural, age, religion, ethnicity,etc. Employer Belief$_j^{ih}$ is employer i's estimate of the productivity of Hispanic or Latino males when j=1(avpredhlm) and females when j=2 (avpredhlf), Employer Belief$_j^{iw}$ is employer i's prediction of Whites males' productivity when j=1(White male Average prediction)

and females when j=2 (White female Average prediction), Stereotype is a dummy variable with the value of 1 if the employer i's received a stereotype treatment in the first question of the experiment, and 0 otherwise, and βZ^i is a vector which contains the interactions among all the dummy variables used in the regression.

Equation (1) is the "belief productivity regression". The difference in beliefs of productivity between Hispanics or Latinos and Whites was measured by the coefficient δ on the Employer Belief$_j^{iw}$ variable (avpredhlm, avpredhlf) for which a value lower than one implies that employers have higher productivity predictions for Whites than for Hispanics or Latinos . The coefficient associated with the "rural" dummy variable is used to measure the difference in employers' productivity predictions in rural and urban job markets.

Ethnic stereotype was measured by the differences of employers' productivity beliefs about Hispanics or Latinos and Whites. Following this strategy, we constructed the following model:

$$(2) \qquad DiffinBelief_j^{ih} = \varsigma + \eta Selfconfidence^i + \lambda X^i + \partial Stereotype^i + \beta Z^i + v^i$$

Equation (2) is the "ethnic discrimination regression" where the variable $DiffinBelief_j^{ih}$ represents the differences in employers' predictions between Whites and Hispanics or Latinos (difwmhlm and difwmhlm in the case of males and females respectively). The coefficient associated with the dummy variable rural provides a difference-in-differences approach to discrimination against hispanics in rural and urban job markets, by providing information abouth whether prediction differences between hispanics and whites are different in urban and rural participants.

Results

Average Hispanic male and female performances' predictions where regressed following theoretical model (1) against average white performance's predictions and demographic characteristics of the participants (Table 1). Regressions with and without interaction terms are presented for males (models (1) and (2) respectively) and females (models (3) and (4) respectively). In the case of male Hispanics results indicate a positive discrimination by rural participants of 3.4 puzzles solved in 5 minutes (model (2)). In the case of rural participants being white this positive discrimination is reduced but it is still significantly different from zero (p value =0.033), given the sum of the white, rural and rural*white coefficients. On the other side, Average Hispanic female performance's predictions have no statistical difference between rural or urban participants. Nevertheless, it is interesting to note that whites do discriminate against Hispanic females while being a white religious person reduces that discrimination to non-significant (the F test of Religious, White and Religious*white is none significantly different from zero). In the four models of table 2, participants that predict higher average performance of White participants, do also predict higher performance of Hispanics.

Table 2 presents four models that explain the difference in expected average performance of whites and Hispanics. Models (5) and (6) explain the difference in expected average number of puzzles solved in five minutes in males whites minus male Hispanics, and models (7) and (8) for the case females. Male Hispanics expected average performance is statistically higher (2.917 puzzles more solved in 5 minutes) for the case of white rural participants, compared to other participants (either minorities or urban). For the case of female Hispanics expected average performance, minorities estimate their performance to be 5.413 puzzles less, compared to white participants, than white females. Religious participants, compared to non-religious expect the average five minutes performance of female Hispanics to be 3.602 puzzles less than white

16

females. Being white increases the impact of religion on lowering the prediction of average

female Hispanics' performance in 2.173 puzzles less.

Table 1. Participants' Average Hispanic male and female performances' predictions regressions

	(1) avpredhlm	(2) avpredhlm	(3) avpredhlf	(4) avpredhlf
Selfrank	0.00191	0.00105	-0.00326	-0.00344
	(0.22)	(0.14)	(-0.41)	(-0.52)
White male Average prediction	**0.944****	**0.929****		
	(18.15)	(16.37)		
Religious	-0.190	**-2.958+**	0.0190	**-3.681+**
	(-0.39)	(-1.91)	(0.04)	(-1.82)
White	-0.500	**4.423***	0.514	**5.607***
	(-0.61)	(2.22)	(0.53)	(2.37)
Male	0.341	0.687	-0.599	-0.481
	(0.70)	(0.58)	(-1.62)	(-0.62)
Rural	-0.156	**3.407***	0.249	2.129
	(-0.37)	(2.06)	(0.76)	(1.40)
Male*rural		1.119		-0.0844
		(1.13)		(-0.13)
Male*religious		-1.207		-0.293
		(-1.59)		(-0.39)
Male*white		-0.146		-0.299
		(-0.15)		(-0.48)
Rural*religious		-0.755		0.405
		(-0.87)		(0.46)
Rural*white		**-3.057****		-1.908
		(-2.80)		(-1.47)
Religious*white		-2.915+		**-2.184+**
		(-1.83)		(-1.93)
White female Average prediction			**0.954****	**0.940****
			(19.03)	(18.38)
_cons	-0.0432	1.227	-0.260	0.848
	(-0.04)	(1.19)	(-0.31)	(1.17)
r2	0.803	0.828	0.887	0.906
N	105	105	105	105

t statistics in parentheses
+ *p* < 0.10, * *p* < 0.05, ** *p* < 0.01

Table 2. Participants' Average Hispanic male and female performances' predictions regressions

	(5) difwmhlm	(6) difwmhlm	(7) difwfhlf	(8) difwfhlf
Selfrank	-0.00297	-0.00229	0.00276	0.00272
	(-0.39)	(-0.30)	(0.46)	(0.43)
Religious	0.283	2.667	0.0378	**3.602+**
	(0.40)	(1.12)	(0.07)	**(1.71)**
White	0.672	-4.025	-0.434	**-5.413***
	(0.89)	(-1.47)	(-0.72)	**(-2.22)**
Male	-0.413	-0.643	**0.592+**	0.520
	(-0.92)	(-0.29)	**(1.67)**	(0.70)
Rural	0.112	-3.091	-0.266	-1.788
	(0.26)	(-1.46)	(-0.79)	(-1.24)
Male*rural		-1.129		0.114
		(-1.25)		(0.17)
Male*religious		1.241		0.187
		(0.82)		(0.26)
Male*white		-0.0156		0.293
		(-0.01)		(0.51)
Rural*relig		0.511		-0.532
		(0.33)		(-0.61)
Rural*white		**2.917+**		1.653
		(1.80)		(1.35)
Religious*white		3.002		**2.173***
		(1.16)		**(2.01)**
_cons	0.426	-0.615	0.565	-0.336
	(0.48)	(-0.33)	(0.80)	(-0.68)
r2	0.0199	0.140	0.0368	0.188
N	105	105	105	105

t statistics in parentheses
+ $p < 0.10$, * $p < 0.05$, ** $p < 0.01$

Conclusions

This paper presents evidence supporting the existence of differences in discrimination on urban and rural markets. In Model (2) we found that average predicted productvity for Hispanic males in rural market was higher than in urban labor maket (3.407 puzzles more). This result suggests that Hispanics male job-seekers are predicted to fit better in rural activities which may imply an invisible barrier that prevents their mobility from rural to urban labor market. However,we did not find significant differences in the average predicted productivity for women Hispanic workers. In the second set of regressions we attempted to understand the underlyings causes for differences between the predicted productivity for White workers and for Hispanic workers. In contrast with our expectation, we did not find significant results between those predicted productivities when rural and urban labor market were compared. However , we found that White Rural participants predicted higher productivity (2.917 puzzles more) for White than for Hispanics males workers. In addition, we found that Whites predicted higher productivity for Hispanic females than for White females (5.413 more puzzles). These results suggest that the possible invisible barrier found in Model (2) may be related to minorities beliefs, including Hispanics, than by Whites beliefs.

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