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The Impact of Resident Status Regulations on Immigrants' Labor Supply: Evidence for France

Joachim Jarreau

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The impact of resident status regulations on immigrants' labor supply: evidence for France *

Joachim Jarreau[†]

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Abstract

Many OECD countries have changed the rules for immigrants in recent decades, generally making harder to enter and to stay. France is one example. This paper studies the immigrants' response to the 2004 reform of the immigration law, which made it harder for foreigners to obtain resident status. The strategy for identification exploits a discontinuity in exposure to the reform, determined by the time of entry. The first result is that the 2004 reform prompted a wave of departures among low-skilled, unemployed, unmarried men. This effect is observed among those with previous work experience in France and searching for work, indicating that the difficulty to find a job without resident status creates an incentive for outmigration. Second, the obtention of resident status lowers significantly but marginally the labor supply of women, consistently with an adjustment role of women's work, and with a small substitution effect of labor income with welfare benefits. Overall, these results suggest that restrictions on access to resident status prompted outmigration, but not among the population with the most elastic labor supply. Thus, the reform did not reach its main objectives: selection occurred, but not of those less willing to work; cutting access to benefits increased labor supply, but only marginally.

JEL classification: F22, J61, J65.

Keywords: Immigration policy, labor markets, welfare magnets.

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[†]Aix-Marseille University (Aix-Marseille School of Economics), CNRS & EHESS. Email: joachim.jarreau@gmail.com

1 Introduction

The design of an optimal immigration policy, designed to maximize the benefits from immigration accruing to native residents, is a matter of debate among destination countries. In France, immigration policy has been given a restrictive turn from 2002 on, with a law in 2004-2005 reforming the legal regime for foreigners living in the country¹. This policy pursued two main objectives: the selection of high-skilled immigrants, to avoid adverse labor market impacts on low-skilled nationals; and the limitation of access to welfare benefits for foreigners, to maximize net contributions of foreigners and limit free-riding on the welfare system. To achieve these objectives, the law introduced a number of restrictions for the entry and stay of foreigners in France; most importantly, it modified the conditions for obtaining resident status, making obtention longer and more conditional.

This study estimates the impact of the 2004 law on migration decisions and labor supply of immigrants. First it measures the impact of the law on immigrants' decisions to stay or leave the country. Second, it studies the impact on the labor supply of foreigners. It shows that the passing of the law in 2004 triggered a substantial movement of departures of foreigners leaving the country, concentrated among low-skilled, unemployed, young men. Importantly, those departures are observed among individuals looking for jobs and having worked in France before, suggesting that the effect is due to a higher difficulty to find a job, rather than to harder access to welfare benefits. Second, we find a positive impact on labor supply, restricted to the population of low-skilled women, suggesting that women labor supply may play a role of adjustment.

The empirical strategy exploits the specificity of immigration law in France to perform our impact analysis. Before the 2004 law, resident status could be granted to a foreigner after 3 years of legal presence in the country, and was granted in a quasi-automatic way to foreigners after 5 years of presence. The 2004 reform increased this minimum duration to more than 5 years and added a number of conditions for obtention.² Thus, foreigners entered in France in or after 2000 faced the new regime for resident status, and lost access to a resident card at 5 years

¹The reform, known as the first Sarkozy law on immigration, was initially voted in Parliament in 2003, then entered in force on November 24th 2004 (*Ordonnance du n° 2004-1248 du 24 novembre 2004*, see <http://www.journal-officiel.gouv.fr/frameset.html>)

²The foreigner's "integration into french society" becomes a condition for obtaining the card. Notably, a "sufficient knowledge of french language" is required (article 7). In addition, decision regarding the card is taken by the prefectural authority, considering proofs of "intention to install durably in France, [his] conditions of professional activity, and means of subsistence" (art. 29). Foreigners wishing to install in France must sign a contract of integration.

of presence. We apply a double-difference strategy, comparing foreign individuals in the the 'post-2000 cohorts' (those arrived in or after 2000) to those in the pre-1999 cohorts. We first study the impact of the passing of the law, in late 2004/2005, on departure decisions. In the second part, we study the impact of obtaining resident status (this time with pre-1999 cohorts being 'treated' and post-2000 cohorts being the control group).

Taken together, our results suggest that the 2004 immigration law reform in France partially reached its objectives. It had a selection effect on the immigrant population in France by prompting some foreigners to leave; this effect is substantial (about 5% higher departure rates among the population impacted) and quite striking, showing that rights granted to foreigners have a direct influence on their decision to stay or leave; in other words migration decisions are not irreversible, despite the costs of settlement and re-migration. To our knowledge this is the first study to show this type of result.

Interestingly, the policy succeeded in selecting specific profiles, inasmuch as increased departure rates are found among low-skilled, unemployed workers. However, while the reform intended to restrict mainly family immigration and in general, all immigrants susceptible to be net recipients of welfare benefits, our results indicate that the departures increased among those looking for a job, and who previously worked in France, suggesting that the increased difficulty to find a job without a card, rather than access to benefits, motivated these departures.

Concerning labor supply, results show an effect of resident status obtention only for a specific population, low-skilled women. They show that the probability of transition into employment decreases after obtention of a resident card (that is, after 5 years of presence for immigrants arrived before 1999). This is consistent with the reform targeting in priority family immigration. It suggests that women's work might play a role of adjustment in those families, with the search for work becoming less systematic once resident status is obtained. This could be due to access to some benefits linked to resident status.

Importantly, we show that the selection effect occurring in 2005 with higher departure rates is not responsible for the impact observed in the following years on labor supply. In other words, higher employment rates among post-2000 cohorts are not due to selection of those with higher employment probabilities, but to the newly imposed restrictions on resident status.

Overall, these results taken together suggest that modifying conditions for resident status in France had two distinct effects: on one hand, living as a foreigner without resident status represents an additional cost, so that raising obstacles for its obtention prompts some people to

leave. On the other hand, resident status gives a right to benefits, which impacts labor supply through a change in reservation wages. However this labor supply effect is relatively limited: it is present only among women, and there is no evidence of higher exit rates from the labor market. These results taken together run against the hypothesis of free riding on welfare, the main target of the reform.

The question of a potential “welfare magnet” impact, by which generous Welfare systems in rich countries increases inflows of immigrants into these countries, is the matter of an intense debate in the recent literature. Borjas (1999), Dodson (2001), De Giorgi and Pellizzari (2009), among others, find evidence of it; while Pedersen et al. (2008), Giulietti et al. (2011) find no statistically significant evidence supporting this hypothesis. These studies have in common to rely on a cross-country or cross-state empirical approach, which raises endogeneity issues as it may be difficult to control for unobserved determinants of immigrants’ location choices. The approach in this paper is different in two aspects. First, it relies on a change, in one country, of the legal conditions faced by immigrants to enter and stay; this panel approach exploits the quasi-experimental setting created by this reform, with different groups in the foreign population being impacted differently by it. It also allows to mitigate the impact of all other variables specific to France as a destination country, which have not changed concurrently with the legal change considered. Kaushal (2005) adopts a similar approach, exploiting state-level variation in access to means-tested benefits for noncitizens in the US; it finds no effect on location choices of new immigrants.

Second, by showing evidence of an impact of the reform on departure decisions, this study brings evidence on the outmigration side of the welfare magnet debate. There is, to my knowledge, no study of this question. Outmigration is generally the subject of less studies than inflows, as it is generally harder to observe. Bellemare (2007) is close to this paper in this respect. This author also uses attrition in panel data, to observe outmigration among immigrants in Germany. However the variable of interest is the legal migration duration, and it finds that the shortening of this duration provoked departures of immigrants.

The rest of the paper is organized as follows. Section 2 explains immigration law in France, in particular the two main types of permit, temporary and long-term, which non-EU foreigners can hold in France. Section 3 looks at the impact of the 2004 reform of immigration law on outmigration among foreigners to which the reform applied. Section 5 studies the impact of

the reform on the labor supply of foreigners, asking whether access to resident status has an impact on the probability of exiting unemployment. Section 6 concludes.

2 Immigration law in France and the 2004 reform

Non-EU immigrants aged 18 or more can stay legally in France by holding one of two main types of permit: one temporary card with one year duration, and one resident card lasting 10 years.³

The 1-year card has to be obtained (at entry) and has to be renewed thereafter every year. It is granted on the basis of work, studies, or family motives. In addition to justifying these motives, the candidate must prove his ability to sustain himself. The first one-year card has generally to be asked for in France, at the administrative office of the foreigner's place of residence. In some cases, the initial 1-year card is delivered along with the visa of the same duration. This is the case of students and workers. To take one example, a foreigner hired by a firm in France applies for a work visa⁴. In case of acceptance, he obtains the visa, along with an initial 1-year card. For every additional year spent in France, he has to renew his card, either with the same or with different motives (e.g., family motives) as for the initial card. Conditions for renewing the temporary card are the same as for the first delivery.

The resident card gives legal right to stay in France for a period of ten years. It is granted automatically (*de plein droit*) for some categories of foreigners; on a discretionary basis for others. Automatic delivery concerns only children or parents of a French person, and refugees. For all other categories, delivery is conditional on the evaluation, by the administration, of the candidate's sufficient resources, as well as of his willingness to integrate into the French society, a condition introduced by the 2004 reform (see below). The resident card gives stability by avoiding its holder the uncertainty associated to the renewal of the temporary card every year.

After a relative pro-immigration stance of the left government in power in France from 1997 to 2002, marked by a mass regularization of about 70000 illegal migrants, the centre-right party government elected in 2002 took a harder stance, voicing its willingness to curb illegal immigration, and to restrict access to legal status. The then interior minister Nicolas Sarkozy (to become president in 2007) was particularly vocal and active in his goal to make immigration

³This excludes 1- to 6-months permits for special motives such as health care.

⁴in the category "wage worker" or "temporary worker", depending on the duration of the contract.

more selective and more suited to the economic needs of the country.

Two reforms of immigration law were adopted under this government, in power from 2002 to 2007. The first one, the 2004 reform, undertook to make conditions for entry and stay of non-EU foreigners more stringent. In particular, conditions for obtaining the resident card became more restrictive, with the removal of automatic access for a number of categories of foreigners, including individuals justifying 5 years of legal presence in the country.⁵

Under the new law, these 5 years of legal presence became a condition for making the demand, without guarantee of obtaining the card⁶. In addition, the condition of integration into French society was introduced, to be appreciated by the administration, which increased discretion in the delivery process. By making acceptance more dependent on administrative judgement, the reform increased uncertainty for candidates and variability in the results (Spire, 2008). The number of resident card deliveries dropped from 39697 in 2003 to 24133 in 2006 (Ministry of Interior).

Another consequence of the reform was that, by raising the minimum duration of stay allowing to ask for a resident card, it also raised *de facto* the minimum length of stay for obtaining the minimum allocation (RMI, *revenu minimum d'insertion*) for people without other sources of income.⁷

3 Impact of the 2004 reform on outmigration

We start by examining the impact of the 2004 reform of France's immigration law, on the composition of the foreign population living in the country. The law ended the automatic obtention of the resident card after 5 years of presence in France; with it the 5 years became the minimal duration, and it added a number of conditions for the obtention. In effect, foreigners

⁵The other main field of the 2004 reform was to reinforce repression against illegal immigration, with a lengthening of jail terms for individuals helping illegal entry of immigrants, and a raise of sanctions for employers of illegals.

The second reform, voted in 2006, was in the same spirit as the 2004 one. Delays for demanding family reunion, resident status for marriage purposes, and nationality were raised. Signing a contract of integration (a commitment to accept the host country's laws and values) becomes mandatory for all foreigners.

⁶The text of the law can be found on

<http://www.legifrance.gouv.fr/affichTexte.do?cidTexte=LEGITEXT000005702743dateTexte=20090903>.

Articles concerning obtention of the resident card are Articles 21 to 25. See also GISTI (2003)

⁷The RMI was aimed at people without any work income and who were not eligible to contribution-based unemployment benefits. Individuals had to be 25 years old or more and had to commit to finding work. Students and people living with a non-eligible partner were not eligible. It has been replaced in 2009 by the RSA (*revenu de solidarité active*), which is more progressive and can be obtained by people with low income, with the amount perceived decreasing with labor income.

who were living in France for less than 5 years in 2004, saw their expected time to obtention of a resident card lengthened by the law, and the probability of obtaining the card reduced.

One can expect that this legal change caused some immigrants to leave in 2004 or later. This is of interest to us for two reasons. First we want to quantify this reaction, which is informative about the reactivity of immigration to the legal conditions of stay offered to immigrants in the host country. Second, those departures also create a selection problem for our subsequent analysis of immigrant's labor supply response to the 2004 law: if decisions to leave were not random among the population concerned, it implies that the observed difference in labor supply between cohorts impacted by the law will result from a composition change as well as a behavioral response, and we will need to disentangle these two channels.

Note that selection could also occur in the composition of arrivals in France after 2004; however this selection will not matter for our estimates, as those arrived in 2004 or later reach their 5 years of presence in 2009 or later, while our data end in 2009: thus our estimates of the labour supply reaction do not use observations of those individuals. Therefore we will focus here on the selection by departures.

We will address the selection issue in two steps. First, in this section, we test for selective departures among the populations impacted by the 2004 law. This is done by looking for evidence of higher departures among selective groups, such as those with less education, unemployed, and with less prior work experience. Obtaining a resident card may facilitate access to a job, as well as to housing. This may prompt those less likely to obtain a job in the first place to leave when the card becomes harder to obtain. Alternatively, people less likely to find a job, can be expected to rely more on welfare benefits. If obtaining welfare benefits was their major reason for coming in the country in the first place, then news that the obtention of the resident card will take more time and be less certain, may prompt some of them to leave. We will try to disentangle between these channels.

Second, in the next section, the analysis of labor supply response to the legal change in 2004 will also give us the opportunity to test for selection, by testing whether the law had an effect on labor supply of the individuals concerned by it, at the time of the announcement and passing of the law, or at the change becomes effective for them, which occurs 1 to 5 years later.

3.1 Determinants of departures

We use the rotating panel structure of the data to observe departures from France, which is one of the causes for attrition in the dataset. In this survey, each individual is normally interviewed six quarters in a row. However, some individuals leave the survey before their sixth interview, which can be due to death, a change of adress, or a departure from the country. Thus departures cannot be directly observed. In the whole dataset, the rate of attrition is 7.5% among french nationals, and 10.77% among foreigners. This suggests that roughly one quarter of all attrition can be attributed to departures from the country, if we assume that death rates and rates of moving out are not too different between immigrants and natives. Our strategy consists in using changes in attrition rates in time and across groups, and to control for classic determinants of attrition (age, education level, employment status, marital status, housing occupation status), in order to attribute those changes to changes in departure rates, once other possible factors of attrition change have been ruled out.

More precisely, focusing on the population of foreigners living in France, we test the hypothesis that the 2004 law prompted selective departures among the population of foreigners impacted by the legal change, that is, all foreigners arrived in 2000 or later, who learnt in 2004 that they would not automatically obtain their resident card at their 5th year of presence. If this is true, then we expect attrition rates to rise among the impacted populations, compared to those arrived before 2000, who constitute the control group. The specification used is the following:

$$P[A_{it} = 1] = \alpha + \beta X_{it} + \alpha.Post2000 + \delta.Post2000 * t > 2005 + \lambda_t + \gamma_d + \epsilon_{it} \quad (1)$$

where A_{it} is an indicator for attrition, $Post2000$ is a indicator variable for an individual being arrived in France in or after 2000; λ_t and γ_d are fixed effects for time and the duration of stay in France; and X_{it} is a set of controls comprising age, nationality, marital status, gender, employment status.

We can write $P[A_{it} = 1] = P[A_{it} = 1|Dep_{it} = 1].P[Dep_{it} = 1] + P[A_{it} = 1|Dep_{it} = 0].P[Dep_{it} = 0]$

and we assume that $P[A_{it} = 1|Dep_{it} = 0]$ (the probability of attrition not caused by departure) can vary over time, but is independent on other observable characteristics (Lewbel 2000). Thus, differencing between post-2000 and pre-2000 cohorts eliminates this component, so

that remaining differences in the probability of attrition can be attributed to different departure rates.

The coefficient δ is a double-difference estimator of the impact of the 2004 reform on the probability of leaving the country: it measures the difference of attrition rates before and after 2004, for treated cohorts (post-2000 cohorts) relative for control cohorts (those arrived before 2000).

Time fixed effects control for changes in attrition rates across all foreigners, which can be due to e.g. economic fluctuations that would prompt a higher number of individuals to leave in bad times. The post-2000 variable controls for differences in attrition rates across cohorts, which could be due to differences in the composition of cohorts upon arrival in France. Finally, fixed effects for the duration of stay in the country control for the possibility that post-2000 cohorts could exhibit different attrition rates than the others because of their more recent history in France.

We estimate this model for all immigrants in the sample⁸ Results in table 1 show that there is no sign of higher departure rates when considering the whole population (col. 2). However distinguishing between employed and unemployed individuals (col. 3 and 4), it appears that departures increased significantly for unemployed people, among post-2000 cohorts, after 2005.

Table 2 thus focuses on unemployed immigrants, and examines when exactly did those departures take place, and among which cohorts. Results show that the effect is remarkably sharp at the 2005 date and for post-2000 cohorts, consistently with the law coming into effect in late 2004. Columns 1 and 2 show no effect with placebo legal changes occurring in 2004 or 2006. Columns 3 and 4 show no effect if assuming that the legal change would impact post-1998 cohorts, or post-2002 cohorts. These results reinforce the evidence for a causal effect of the 2004 immigration law on departures of unemployed immigrants. In particular, they rule out the possibility that results be driven by some interaction between different emigration costs for more recent/older cohorts, and economic fluctuations in the period of study.

We then attempt to characterize more precisely the individuals most likely to leave in response to the law. Table 3 splits the sample along several characteristics and tests where the departure effect is present. It shows that this effect concerns only non-EU foreigners, of low education level, and men; among men, only young and non-married men show a higher propensity to leave (not shown). Foreigners of EU origin face less restrictions for staying and

⁸We keep individuals between 20 and 65 of age, non student, arrived in France after 1990. We put aside cohorts arrived earlier in order to have similar number of 'treated' and 'untreated' cohorts in the sample.

for the access to jobs and welfare benefits than non-EU foreigners do in France, thus obtaining a resident card does not matter much for them and the law has no effect. Non-married men are expected to have a higher propensity to leave as they have less ties in France; moreover, they are generally more likely to participate in the labor market. Low education is generally coming with a higher difficulty to find a job. Thus these results suggest that the propensity to leave is higher among those looking for a job, but with a lower probability to find one. The 2004 law seems to represent an obstacle for the access to jobs, which can prompt individuals with low skills and little ties to leave.

In table 4 we try to discriminate more precisely between the hypotheses of the 2004 as an 'obstacle to jobs' vs 'obstacle to benefits'. We run separately the model for unemployed men searching for a job (col. 1) or not searching (col. 2)⁹. The departure effect is present in both groups with a non significant difference between the two. However, it turns out that the effect on young men (below 40) is significant only for those searching jobs. Alternatively, we split the sample between those who did work since their arrival in France and those who did not (columns 3 and 4), a proxy for participation. We find an increase in departures only among those who had a job in France, suggesting again that departures are motivated by a higher difficulty to find a job in the future.

Overall, these results show that the 2004 immigration law, by changing the regime for resident status obtention for immigrants arrived after 2000 in France, triggered selective departures among the population facing this legal change. The double-difference strategy and the precise identification of this effect in time reduce the risk of a spurious correlation driving the results. Departures are concentrated among the young, not married, non-EU male population, and within it, those with low probabilities to find a job are the most likely to leave. This suggests that the main effect of the law for the population concerned was to create obstacles to jobs. The harder access to welfare benefits, such as the minimum unemployment income (RSA), seems to play less of a role in triggering departures: those not participating in the labor market, and those who never worked in France, are not those who leave.

⁹Note that these results are subject to caution due to non-response and possible error in the job searching question.

Table 1: Departures

	(1)	(2)	(3)	(4)
	Probability of attrition			
			Employed	Unemployed
Low education	-0.010 ^c	-0.010 ^c	-0.007	-0.010
	(0.005)	(0.005)	(0.007)	(0.008)
Intermediate educ.	-0.012 ^b	-0.012 ^b	-0.006	-0.015 ^c
	(0.005)	(0.005)	(0.007)	(0.008)
Married	-0.026 ^a	-0.026 ^a	-0.014 ^b	-0.039 ^a
	(0.005)	(0.005)	(0.006)	(0.007)
Male	0.018 ^a	0.018 ^a	0.015 ^a	0.027 ^a
	(0.004)	(0.004)	(0.006)	(0.007)
Post-2000 cohort		-0.003	0.025	-0.026
		(0.011)	(0.016)	(0.016)
$t > 2005$ x post-2000 cohort		0.007	-0.021	0.031 ^c
		(0.011)	(0.016)	(0.016)
Fixed effects	Duration of stay, year, nationality, age			
Controls	Age, housing status			
Observations	33593	33593	17949	15551
R^2	0.022	0.022	0.021	0.028

Standard errors in parentheses. Linear probability model. Attrition defined as individual leaving sample before sixth interview. Post-2000 cohorts: indicator for arrival in France in or after 2000. Low education: achieved less than high school education. Intermediate education: graduate of high school/technical diploma/apprenticeship. Age controls: indicator variable for 5-year brackets. Housing occupation status: landlord, mortgage repayment, social housing, rent, free housing provided by family or friends. Observations include all foreign individuals arrived after 1990, non student, of age between 20 and 65.

^c $p < 0.1$, ^b $p < 0.05$, ^a $p < 0.01$

Table 2: Departures: falsification tests

	(1)	(2)	(3)	(4)
	Probability of attrition (unemployed foreigners)			
N	2000	2000	1998	2002
break	2004	2006	2005	2005
Low education	-0.010 (0.008)	-0.010 (0.008)	-0.010 (0.008)	-0.010 (0.008)
Middle education	-0.015 ^c (0.008)	-0.015 ^c (0.008)	-0.015 ^c (0.008)	-0.015 ^c (0.008)
Married	-0.039 ^a (0.007)	-0.039 ^a (0.007)	-0.039 ^a (0.007)	-0.039 ^a (0.007)
Male	0.027 ^a (0.007)	0.027 ^a (0.007)	0.027 ^a (0.007)	0.027 ^a (0.007)
Post-N cohort	-0.007 (0.018)	0.001 (0.014)	0.031 ^c (0.016)	-0.038 ^c (0.020)
$t > break$ x post-N cohort	0.004 (0.017)	-0.010 (0.014)	0.014 (0.016)	0.033 (0.020)
Fixed effects	Duration of stay, year, nationality, age			
Controls	Age, housing status			
Observations	15551	15551	15551	15551
R^2	0.028	0.028	0.029	0.028

Standard errors in parentheses. Linear probability model. Model and controls as in table 1.

^c $p < 0.1$, ^b $p < 0.05$, ^a $p < 0.01$

Table 3: Departures by origin, education, gender

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Probability of attrition (unemployed foreigners)						
	EU	nonEU	Low Educ	MidEduc	HighEduc	Men	Wmen
Low education	0.011 (0.017)	-0.015 (0.009)				-0.012 (0.015)	-0.009 (0.010)
Middle education	-0.012 (0.015)	-0.017 ^c (0.010)				-0.018 (0.015)	-0.013 (0.010)
Married	-0.026 (0.016)	-0.040 ^a (0.008)	-0.032 ^a (0.011)	-0.038 ^a (0.013)	-0.058 ^a (0.015)	-0.031 ^b (0.013)	-0.042 ^a (0.009)
Male	0.024 ^c (0.014)	0.030 ^a (0.007)	0.029 ^a (0.010)	0.025 ^b (0.011)	0.022 (0.014)		
Post-2000 cohort	0.023 (0.037)	-0.033 ^c (0.018)	-0.051 ^b (0.024)	-0.014 (0.028)	0.000 (0.035)	-0.062 ^b (0.030)	-0.010 (0.019)
$t > 2005$ x post-2000 cohort	-0.005 (0.034)	0.036 ^b (0.018)	0.052 ^b (0.024)	0.005 (0.028)	0.028 (0.034)	0.066 ^b (0.030)	0.014 (0.019)
Fixed effects	Duration of stay, year, nationality, age						
Controls	Age, housing status						
Observations	2757	12794	7021	4991	3539	4811	10740
R^2	0.069	0.024	0.025	0.030	0.060	0.040	0.024

Standard errors in parentheses. Linear probability model. Model and controls as in table 1.

^c $p < 0.1$, ^b $p < 0.05$, ^a $p < 0.01$

Table 4: Departures: by labor market status

	(1)	(2)	(3)	(4)	(5)	(6)
	Probability of attrition					
	LM participation		Worked in France before			
			<i>age < 40</i>			
	yes	no	yes	no	yes	no
Low education	0.005 (0.012)	-0.010 (0.012)	-0.037 ^c (0.020)	0.023 (0.023)	-0.047 ^a (0.018)	0.009 (0.012)
Middle education	0.009 (0.012)	-0.026 ^b (0.012)	-0.018 (0.020)	-0.014 (0.023)	-0.034 ^c (0.018)	-0.002 (0.013)
Married	-0.025 ^b (0.010)	-0.047 ^a (0.011)	-0.038 ^b (0.017)	-0.024 (0.021)	-0.045 ^a (0.015)	-0.038 ^a (0.011)
Male	0.027 ^a (0.009)	0.016 (0.012)				
Post-2000 cohort	-0.060 ^b (0.025)	-0.000 (0.021)	-0.063 (0.047)	-0.068 (0.042)	0.069 (0.049)	-0.019 (0.021)
<i>t > 2005</i> x post-2000 cohort	0.044 ^c (0.025)	0.017 (0.021)	0.075 ^c (0.045)	0.046 (0.048)	-0.036 (0.047)	0.015 (0.022)
Fixed effects	Duration of stay, year, nationality, age					
Controls	Age, housing status					
Observations	6964	8064	2657	2154	3024	7716
<i>R</i> ²	0.03	0.03	0.04	0.06	0.04	0.03

Standard errors in parentheses. Estimation on the population of unemployed foreigners. Linear probability model. Model and controls as in table 1.

^c p<0.1, ^b p<0.05, ^a p<0.01

Table 5: Outmigration: year by year

	(1)	(2)	(3)	(4)	(5)
	Probability of attrition				
<i>year</i>	2005	2006	2007	2008	2009
Married	-0.010 (0.022)	-0.006 (0.022)	-0.007 (0.022)	-0.007 (0.022)	-0.006 (0.022)
Post-2001 cohort	-0.025 (0.035)	-0.020 (0.035)	-0.000 (0.035)	-0.011 (0.036)	-0.005 (0.036)
<i>t = year</i> x post-2001 cohort	0.123 ^b (0.061)	0.078 (0.067)	-0.061 (0.062)	0.005 (0.066)	-0.027 (0.071)
Observations	1776	1776	1776	1776	1776
<i>R</i> ²	0.05	0.05	0.05	0.05	0.05

Standard errors in parentheses. Estimation on the population of unemployed foreigner men with low education. Linear probability model. Model and controls as in table 1.

^c p<0.1, ^b p<0.05, ^a p<0.01

4 Impact of the reform on labor supply

We now turn to the analysis of the impact of the 2004 law on labor supply of immigrants. We focus on transitions out of unemployment, asking whether the harder conditions for obtaining resident status had an impact on the time spent until taking a job. As for the previous analysis on departures, the empirical strategy will be based on a difference-in-difference approach, comparing the labor supply of 'treated' and 'untreated' individuals. Here the treatment is the obtention of the resident card, which was granted in a quasi-automatic way to foreigners with 5 years of presence before the law. Untreated individuals are those arrived after 2000, who under the new regime had to wait longer than 5 years for the card, and faced additional conditions for its obtention. Differences in economic environment (e.g. labor market conditions) at the time of the treatment/non-treatment (i.e. 5 years after arrival) are controlled for using time fixed effects. Thus, in effect, we use the 2004 legal change to measure the impact of the resident status on labor supply, using post-2000 cohorts as a control group.

Note that this methodology gives us a low bound estimate of the true effect of resident status, as we do not directly observe resident card obtention: some immigrants may have obtained the card at 5 years of presence, or a few years later.

4.1 Empirical model

We estimate a duration model of unemployment spells for immigrants in France. We start by assuming a logit form for the discrete-time hazard function:

$$\ln \frac{h_{it}}{(1 - h_{it})} = \theta(t) + \lambda(d_{it}) + \delta Access_{it} \beta' X_{it} \quad (2)$$

where h_{it} is the hazard rate of unemployed individual i at time t (probability of transition into employment); $\theta(t)$ and $\lambda(d_{it})$ capture the dependence of the hazard rate on time t and on duration of stay d_{it} ; $Access_{it}$ denotes potential access to a resident card (depending on year of arrival and duration of presence in France), and X_{it} is a vector of variables including and a set of controls (age, education level, cohort).

Jenkins (1995) shows that the likelihood function for this problem is identical to the one for a binary choice problem on a variable y_{it} indicating transitions into employment. y_{it} equals 0 for individuals remaining in unemployment and for censored observations (unemployed individuals exiting the sample). We use this simplification method to estimate our model; note that this

method also applies for other functional forms of the hazard rate, such as the complementary log-log form which we will use for robustness checks.

In effect, time and duration of stay fixed effects are used to estimate functions $\theta(t)$ and $\lambda(d_{it})$. Cohort fixed effects (by year of arrival in France) are added. $Access_{it}$ takes value 1 for cohorts arrived before 2000 and observed after 5 years of presence. Thus, coefficient δ measures the change in the probability of transition into employment for a 'treated' (pre-1999) foreigner after 5 years of presence, relative to a non-treated foreigner.

4.2 Results

Table 6 examines the impact of gaining access to a resident card on the probability of a transition into employment, testing different scenarios for the precise date of entry into force of the new legislation; and comparing with falsification tests with fake minimal durations of stay for card obtention (4 and 6 years instead of 5). Results make appear a significant impact on transition probabilities, only under the hypothesis that 1999, or 1998, represents the last year of arrival giving right to card obtention at 5 years of presence. This is consistent with evidence on departures presented in the previous section, which showed that the cohort of immigrants arrived in France in the year 2000 was the first to display higher departure rates in 2005. (Note that it remains possible that some individuals from the 1999 were denied access, for instance if the law took effect toward the end of 2004; or that some 2000 individuals benefit from the previous legal regime for card obtention. We cannot observe directly this as we do not generally observe the month of arrival, only the year.)

We run two 'placebo' tests based on a fake duration of stay for obtaining the card, of 4 or 6 years instead of 5. Remarkably, these regressions display no significant impact, ruling out the possibility that a difference in the pattern of integration into the labor market over time could explain our result. This also shows that the 5 years constraint for obtaining the card was binding. They show that the obtention of the resident card for pre-2000 foreigners had a significant negative impact on the probability of transition into employment.

Next, we examine the risk of selection driving our results. The previous section has shown that the passing of the law in 2005 triggered departures among some specific groups of foreigners. There are two ways in which this may affect our results. First, post-2000 cohorts (those facing the legal change) may differ in composition from pre-2000 cohort. This does not mean that

those cohorts are not a valid control group anymore in our strategy, provided that differences in transition probabilities across cohorts are controlled for.

In table 7, we ensure that this is the case by controlling for a change in post-2000 cohorts after 2005 (col. 1). This does not affect our result. Second, we try keeping only observations of post-2000 cohorts after 2005 (col. 2), so that cohort fixed effects capture the different composition of this population after that date. Again, our coefficient of interest is not substantially affected.

Lastly, we try defining our 'treatment' as 'posterior to 2005' or 2006 for post-2000 cohorts, with pre-2000 cohorts being the control. This tests if selective departures at that date may drive the results. Although the coefficient is positive, consistently with selective departures of individuals with low transition probabilities, this effect is not significant and not comparable in amplitude to our effect of interest.

These results show that our results are unlikely to be driven by selection. We rely on the difference of timing in the treatment (after 5 years of presence) and in the selection, which occurs after 2005 for all cohorts. If departures occurring in 2005, 2006 or subsequent years were driving the results, we would expect to find an effect not only at 5 years of presence but also at shorter or longer durations. Table 6 and columns 5-7 of 7 show that this is not the case for any duration but 5 years.

We will now characterize more precisely the population concerned by this effect. This is done in table 8. This table shows that the impact on labor supply is present only for women, both those living in couple or not. Overall, this suggests a pattern where women labor supply could play a role of adjustment within immigrant families. There could be substitution between this source of income and some welfare benefits such as the minimum income (RSA), or some family allocations. However, columns 5 and 6 show no effect when considering transitions out of, not into, employment: column 5 fits the probability of exiting the labor market, either by leaving a job or by stopping job search; column 6 focuses only on stopping job search. In both cases, there is no evidence that resident card obtention had any impact on those exits. This suggests that the effect on labor supply is relatively limited.

Table 6: Transitions into employment

	(1)	(2)	(3)	(4)	(5)	(6)
					placebo tests	
N	1999	1998	1997	2000	1999	
T	5 years		5 years		4 yrs.	6 yrs.
Access to Resident Card (arrival $\leq N$ x dur. stay $\geq T$)	-0.441 ^b (0.209)	-0.468 (0.294)	0.049 (0.645)	-0.031 (0.178)	-0.430 (0.290)	-0.131 (0.209)
Length of stay $> T$ years	-0.038 (0.142)	-0.072 (0.139)	-0.108 (0.138)	-0.099 (0.147)	0.205 (0.130)	-0.062 (0.159)
Duration of inactivity	-0.438 ^a (0.063)	-0.432 ^a (0.063)	-0.426 ^a (0.063)	-0.427 ^a (0.063)	-0.438 ^a (0.062)	-0.431 ^a (0.063)
Has worked in France	0.194 (0.138)	0.207 (0.138)	0.222 (0.136)	0.219 (0.138)	0.197 (0.138)	0.211 (0.139)
Low education	-0.354 ^a (0.103)	-0.353 ^a (0.103)	-0.348 ^a (0.103)	-0.348 ^a (0.103)	-0.347 ^a (0.103)	-0.347 ^a (0.103)
Middle education	-0.210 ^b (0.101)	-0.206 ^b (0.101)	-0.205 ^b (0.101)	-0.205 ^b (0.101)	-0.204 ^b (0.101)	-0.204 ^b (0.101)
Fixed effects	Year, year of arrival, occupation, age					
Observations	12181	12181	12181	12181	12181	12181
Pseudo R^2	0.105	0.104	0.104	0.104	0.104	0.104
chi2	663.246	659.434	657.173	658.096	662.056	658.502

Standard errors in parentheses. Access to RC: year of arrival in France $\leq N$ x duration of stay in France $\geq T$ years.

^c $p < 0.1$, ^b $p < 0.05$, ^a $p < 0.01$

Table 7: Transitions to employment: testing for selection

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
N		Treatment: post-N 2005	post-N 2006	Post-2005 only (*)	placebo	access	
Access to Resident Card	-0.781 ^a (0.271)			-0.681 (0.414)	-0.470 (0.519)	0.199 (0.219)	-0.080 (0.179)
Length of stay > 5 years	0.289 ^c (0.165)			-0.004 (0.189)	0.069 (0.136)	0.065 (0.136)	0.051 (0.140)
post-2000 x $t \geq 2005$	-0.238 (0.213)	0.095 (0.173)	0.095 (0.173)				
Duration of inactivity	-0.423 ^a (0.066)	-0.436 ^a (0.065)	-0.436 ^a (0.065)	-0.484 ^a (0.086)	-0.427 ^a (0.063)	-0.423 ^a (0.062)	-0.431 ^a (0.065)
Has worked in France	0.231 (0.143)	0.214 (0.141)	0.214 (0.141)	0.102 (0.181)	0.232 ^c (0.136)	0.238 ^c (0.136)	0.223 (0.141)
Low education	-0.371 ^a (0.104)	-0.364 ^a (0.104)	-0.364 ^a (0.104)	-0.503 ^a (0.133)	-0.363 ^a (0.104)	-0.363 ^a (0.104)	-0.362 ^a (0.104)
Middle education	-0.229 ^b (0.101)	-0.221 ^b (0.101)	-0.221 ^b (0.101)	-0.354 ^a (0.128)	-0.219 ^b (0.101)	-0.221 ^b (0.101)	-0.220 ^b (0.101)
Fixed effects	Year, year of arrival, occupation, age						
Observations	11685	11685	11685	7328	11685	11685	11685
Pseudo R^2	0.110	0.108	0.108	0.119	0.108	0.108	0.108
chi2	704.959	698.473	698.473	497.804	696.688	696.156	698.337

Standard errors in parentheses. Access to RC: year of arrival in France $\leq N$ x duration of stay in France $\geq T$ years.

(*) In this specification observations of post-2000 individuals are kept after 2005 only.

^c p<0.1, ^b p<0.05, ^a p<0.01

Table 8: Transitions into employment: by gender

	(1)	(2)	(3)	(4)	(5)	(6)
	Transitions into employment				Labor market exits	
	Men	Women	Couple	single	Women	
Access to Resident Card	-0.285 (0.308)	-1.000 ^a (0.324)	-0.639 ^c (0.385)	-2.067 ^a (0.660)	-0.117 (0.311)	-0.129 (0.360)
Length of stay > 5 years	0.140 (0.203)	0.244 (0.202)	0.205 (0.236)	-0.008 (0.426)	0.069 (0.175)	0.069 (0.200)
Duration of inactivity	-0.432 ^a (0.068)	-0.473 ^a (0.076)	-0.534 ^a (0.085)	-0.182 (0.163)		
Low education	-0.083 (0.144)	-0.590 ^a (0.149)	-0.516 ^a (0.170)	-0.854 ^a (0.322)	-0.022 (0.134)	0.024 (0.150)
Middle education	0.068 (0.141)	-0.499 ^a (0.146)	-0.424 ^b (0.167)	-0.926 ^a (0.330)	0.095 (0.127)	0.015 (0.145)
Fixed effects	Year, year of arrival, occupation, age					
Observations	3515	8665	7245	1370	8583	3679
Pseudo R^2	0.064	0.112	0.126	0.117	0.054	0.016
chi2	161.340	411.010	375.015	81.523	207.067	37.146

Standard errors in parentheses. Access to RC: year of arrival in France \leq 1999 x duration of stay in France \geq 5 years.

Column 5: dependent variable= probability of leaving employment or stopping job search. Column 6: probability of stopping job search.

^c $p < 0.1$, ^b $p < 0.05$, ^a $p < 0.01$

5 Conclusion

This paper has examined the impact of making access to resident status more difficult for immigrants. This question is of great interest for immigration countries, in a context where many of these countries attempt to define immigration policy schemes to optimize the benefits and reduce the costs of immigration. The question of how to grant access to resident status to foreigners is central to this debate. Answering this question requires weighing several effects:

- Making access to resident status harder by lengthening the minimum duration of presence and adding conditions is expected to act as a general barrier to immigration. It can also be expected to have a selection effect, possibly by selecting migrants with higher skills and/or willingness to work.
- By making living conditions in the country more precarious, and by limiting access to safety nets such as welfare benefits, such policy is also likely to increase labor supply of immigrants, possibly worsening adverse labor market impacts of immigration on native workers.

This study contributes to quantifying these effects. First, it shows evidence of an important selection effect, showing that adding obstacles to obtention of the resident status prompted some individuals among unemployed, low-skilled men, to leave the country. This effect is quantitatively important, with departure rates augmenting by about 5% among this population. Interestingly, this effect is absent among medium and high-skilled individuals, showing that the policy succeeds in creating selection without being explicitly skill-based. Additional tests suggest that the motive for leaving should be the difficulty to find a job without resident status, rather than lower expected welfare benefits. In particular, this result goes against the so-called welfare magnet hypothesis.

Thus, the policy pursued with the 2004 immigration law reform in France seems to have partially reached its goal, which was to select high-skilled people and those more likely and more willing to work among immigrants, and to discourage others to come or stay in the country.

Unfortunately we do not observe the trajectory of those who leave, and therefore cannot study whether they return to the origin country or opt for another host country to settle.

Turning to the effect on the labor supply of foreigners in France, results show a positive impact on labor supply limited to the population of women. This may be explained by a role of adjustment played by women labor supply. There may be substitution between women labor

supply and some welfare benefits. However, there is no evidence of higher exit rates from the labor market following obtention of the resident status; or of people stopping to search for jobs. This suggests that increase of labor supply due to the reform has been limited.

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