Birthright Granted and Revoked: The Effects of Irish Citizenship Policy on Migrant Characteristics

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An important aspect of a country's immigration policy is the citizenship status of second-generation immigrant children. Some countries (notably the United States) follow a birthright citizenship (jus soli) policy in which any child born within the country is automatically a citizen, regardless of the citizenship status of their parents. Other countries (many in Western Europe) have a jus sanguinis policy in which citizenship is only automatically granted to children with at least one citizen parent.

Birthright citizenship has become a topic of political debate with the recent rise in antiimmigrant sentiment. Critics of this policy often argue that it can lead to "anchor babies" or "birth tourism" where a migrant has a child in the country to gain permanent residence since governments are less likely to deport the parent of a citizen.

A potential benefit of birthright citizenship is that if migrants know that their children will gain citizenship, they may be more likely to become permanent migrants. Permanent migrants are more likely to integrate both economically and culturally. This is supported by several studies on the adoption of a hybrid birthright citizenship policy by Germany in 2000. The German policy automatically granted citizenship to native-born children with one parent who had been a permanent German resident for at least eight years.

Sajons (2016) finds that migrants whose children are German citizens are less likely to leave and repatriate. Avitabile, Clots-Figueras, and Masella (2013) find that when immigrant children are citizens, their parents are more likely to learn German and become more active members of their community. Felfe, Rainer, and Saurer (2020) find that with birthright citizenship, immigrant parents are more likely to send their children to preschool, primary school, and adjust their secondary school choices to increase access to higher education.

The positive effects of birthright citizenship are also documented for the Dominican Republic by Amuedo-Dorantes, Gratereaux-Hernandez, and Pozo (2017). They found that limiting citizenship for children of Haitians

born in the Dominican Republic reduced the school enrollment of these children.

There is also evidence that birthright citizenship could have potentially negative effects. Sajons (2019) found that after the implementation of the German policy, mothers of children who have citizenship were more likely to reduce their formal working hours. This could be explained by a greater investment by mothers in their children's education given higher potential returns to education with German citizenship. Dahl et al (2020) found that German policy led to lower self-esteem and life satisfaction among girls born to migrant parents under birthright citizenship. This can be attributed to parents constraining their daughter's choices when faced with the threat of greater integration.

I contribute to this literature by looking at the unique experience of Ireland with birthright citizenship. Prior to 1999, Ireland followed a jus sanguinis policy in which only children with at least one Irish citizen parent were automatically granted citizenship at birth. In 1999, Ireland moved to a jus soli policy in which children born in Ireland were automatically granted citizenship, regardless of the citizenship status of their parents. This policy elicited significant political opposition and was overturned in June 2004 by a referendum that gained 79% support to return

to a jus soli policy. Birthright citizenship ended in 2005, though any children granted citizenship between 1999-2004 retained their status.

The five-year experience of birthright citizenship in Ireland presents a natural experiment to evaluate the effects of this policy on both the characteristics of migrants arriving under this regime and changes in behavior of migrants already living in Ireland when this policy was implemented. I compare fertility rates of migrants arriving during the birthright citizenship era to those who arrived both before this policy was implemented and after it was revoked. I find that migrants arriving under this regime had lower fertility rates. This can be explained by the higher levels of education and employment for these migrants, both characteristics associated with lower fertility rates. I also find evidence that non-British migrants already living in Ireland when the policy was implemented did increase their fertility in response to birthright citizenship, though the fertility rates of these migrants was still below that of natives.

I. Data

I utilize data from the Irish National Census conducted in 1991, 1996, 2002, 2006, and 2011. I first define the potential mother of the household as the defined head of the household

if female or the spouse of the household head if the head is male. For this potential mother, I gather data on age, marital status, number of children, birthplace, year of immigration, citizenship, educational attainment, English language ability, and employment/labor force status.

I have 698,620 household observations to which I am able to link a potential mother. Of these observations for potential mothers, 13.4% are immigrants. Across immigrants, 72.1% migrated before birthright citizenship was implemented 1999, 11.7% migrated between 1999-2004, and 11.3% migrated after the policy was revoked in 2004.

By far, the largest origin country for migrants in the sample is the United Kingdom, with 52.5% of migrants arriving from the UK. However, the share of migrants from the UK does decline over time, falling from 61% of migrants arriving before 1999, to 37% of those arriving between 1999-2004, to 25% of migrants arriving after 2004. Migration from other European countries (especially Eastern Europe) rises over this same period, going from 18% before 1999 up to 51% post 2004. Other origin regions display similar increases over time, though representing much smaller shares.

Compared to natives, migrant household heads tend to be better educated (33% college graduate for migrants as compared to 16% for natives) and more likely to be employed (63% for migrants compared to 56% for natives). Interestingly, both education and employment are highest for non-UK migrants (42% college graduates and 65% employed).

II. Effects on New Migrants

A common concern used to promote the 2004 resolution to end birthright citizenship was that Ireland's birthright citizenship policy was incentivizing "birth tourism." Since children born in Ireland would automatically be granted citizenship, their parent(s) could jump the immigration/asylum process by being the guardians of Irish citizens (reducing their likelihood of deportation).

If this is the case, then we should observe higher fertility rates for those migrants who arrived during the treatment period (1999-2004) than those that arrived in the pre and post periods. To evaluate this hypothesis, I estimate the following model:

(1)
$$Children_{it} = \alpha + \beta Treatment_{it} + \delta t + \gamma_1 Age_{it} + \gamma_2 Married_{it} + \gamma_3 HS_{it} + \gamma_4 College_{it} + \gamma_5 Catholic_{it} + u_{it}$$

¹ The remaining 4.9% of immigrants have missing data on when they arrived.

The number of children born to individual i from census year t is regressed on a treatment variable equal to 1 if the individual migrated between 1999-2004, a time trend to account or general changes in fertility and controls for the individual's age, marital status, whether they graduated high school, graduated college, and if they are list Catholic as their religion.² A positive value for β would suggest that fertility rates for migrants increased during the birthright citizenship era, indicative of birth tourism.

OLS estimates of equation 1 are given in Table 1 for the full sample (natives and migrants), for immigrants only, for only immigrants arriving before 2005, and for only immigrants arriving after 1998. In all four samples, the treatment variable has a negative and significant effect, suggesting that birthright citizenship actually led to a drop in fertility among immigrants arriving when this policy was in place.

In the full sample, migrants arriving during the birthright citizenship era had nearly 0.5 fewer children as compared to both natives and migrants arriving under a jus sanguinis policy. Restricting the sample to migrants only, those arriving during the treatment period had nearly 0.3 fewer children than migrants arriving in the pre or post periods. The reduction in fertility rates also holds when we compare migrants arriving before and during the treatment (0.33 fewer children for the treatment group) and those arriving during and after the treatment (0.14 fewer children). These results strongly suggest that migrants who arrived during the birthright citizenship era had fewer children than those arriving when their children born in Ireland would not automatically be granted citizenship.

To understand why migrants arriving during the birthright citizenship era had fewer children than those arriving before or after, I examine how the migrants arriving during this period differed in terms of education and employment status. Specifically, I estimate a variation of equation 1 for the following binary dependent variables: high school graduation, college graduation, and employment status.³

Migrants arriving during the treatment period are better educated than those arriving either before or after. I estimate that migrants arriving between 1999-2004 are 7.7 percentage points more likely to have graduated high school than those arriving before 1999. They are 6 percentage points more likely to graduate high

² I also estimate a model with year fixed effects and the key results do not change.

³ For the regressions with high school and college as dependent variables, the explanatory variables are the treatment, a time trend, age,

marital status, and Catholic. For the employment regression, I include the high school and college variables as regressors.

school than those arriving after 2004. For college graduation, the treatment effects are 10.1 and 6.7 percentage points more likely compared to those arriving before and after the treatment period respectively. Migrants arriving during the treatment period are also more likely to be employed, being 0.9 and 7.3 percentage points more likely to be employed than migrants arriving before and after the birthright citizenship era.

Given that migrants arriving during the birthright citizenship era tend to be better educated and more likely to be employed than those arriving before or after, it is not surprising that this group has lower fertility given that fertility rates tend to fall with education and employment given higher opportunity costs of having children.

III. Effects on Existing Migrants

The preceding section suggests that birthright citizenship shifted migration toward better educated migrants who tend to have lower fertility rates. However, the implementation of this policy could also have affected the behavior of migrants already living in the country.

To evaluate this hypothesis, I construct sample-wide fertility rates for both natives and migrants (restricted to only migrants arriving before 1999) over the period 1990-2011. I first count the number of children born in each year for both groups. I then count the number of potential mothers (again defined as either female household heads or spouses of male household heads) between the ages of 21-35 for each year.⁴ The fertility rate is defined as the ratio of these two variables.

Figure 1 depicts trends in fertility for natives and migrants between 1990-2011. Panel a compares natives with all migrants. Prior to 1999, the fertility rates for both groups mirror each other, with migrants having slightly lower fertility. It does appear that migrant fertility rises relative to natives during the birthright citizenship era, though the difference is fairly small. Fertility rates are nearly identical in the post treatment period.

Panel b shows a larger impact of birthright citizenship on the fertility of non-UK migrants already living in the country. Migrants coming from outside the UK may have a greater incentive to increase fertility since the children of UK migrants arriving before 1999 would already have EU citizenship. Fertility rates between natives and non-UK migrants have

⁴ This age range follows Angrist and Evans (1998) as the age range with the highest likelihood of childbirth.

parallel trends prior to 1999, with migrants having much lower fertility than natives. Relative fertility changes significantly during the treatment period, with non-UK migrant fertility rising relative to native fertility. This difference eventually disappears in the post-treatment period, suggesting that non-UK migrants did respond to birthright citizenship by increasing their fertility.

To formally evaluate this hypothesis, I estimate the following model:

(2)
$$Fert_{it} = \beta_0 + \beta_1 Migrant_i + \beta_2 Treat_t + \beta_3 Migrant_i * Treat_t + u_{it}$$

The fertility rate of group i (native or migrant) in year t is regressed on a dummy variable for migrant status, a dummy variable equal to 1 if year t is between 1999-2004, and the interaction between these two terms. The interaction variable is the difference-in-differences estimator and measures the average treatment effect on fertility rates for migrants during the treatment period. A positive estimate of β_3 would suggest that migrants did increase their fertility in response to birthright citizenship.

Table 2 presents estimates comparing natives to all migrants and between natives and non-UK migrants. The average treatment effect for all migrants is positive, but not statistically

significant. However, the effect for non-UK migrants is significantly positive (at the 10% level). I estimate that birthright citizenship led to an increase in fertility among non-UK 0.02 migrants of compared the counterfactual of this policy not being implemented. This represents a 26.3% increase in fertility compared to the counterfactual rate of 0.076.5 Thus, there is evidence that non-UK migrants who were already living in Ireland before 1999 did increase their fertility in response to this policy. That said, even with this increase, migrant fertility is still below that of natives.

IV. Conclusion

A key aspect of a country's immigration policy is the citizenship status of native-born children of migrants. I find that when Ireland implemented birthright citizenship in 1999, new migrants were better educated, more likely to be employed, and had lower fertility rates than either those arriving before this policy was implemented or those arriving after the policy was revoked in 2004. A possible explanation for this shift is that birthright citizenship made Ireland a more attractive destination for better educated migrants who would be more likely to become permanent residents given that their

⁵ Defined as $\beta_0 + \beta_1 + \beta_2$

children had a clearer path to citizenship than in other countries with jus sanguinis policies.

While the effects of birthright citizenship at the extensive margin reduced fertility by attracting better educated migrants, I do find some evidence of increased fertility at the intensive margin by immigrants already living in the country when the policy was implemented. Specifically, non-UK migrants (those most likely to gain from their children being granted citizenship) increased their fertility relative to natives during the five years this policy was in effect. Even with this increase, however, the fertility rate of this group was still below that of natives.

Taken together, these results suggest that concerns over birthright citizenship leading to significant increases in migrant fertility are unfounded and in fact this policy could be effective at attracting higher skill migrants.

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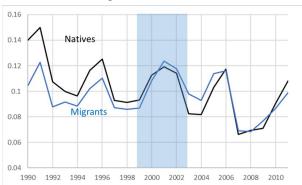
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Panel a: All Migrants



Panel b: Non-UK Migrants

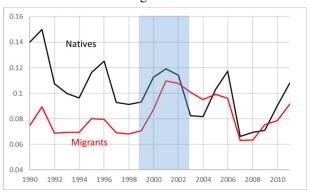


FIGURE 1. TRENDS IN FERTILITY RATES FOR NATIVES AND MIGRANTS

Note: Calculated fertility rates for natives and migrants between 1990 and 2011. Panel a includes all migrants, while Panel b includes only migrants from outside the UK. The treatment period (1999-2004) is shaded.

TABLE 1-DIFFERENTIAL FERTILITY RATES BY ARRIVAL PERIOD

| | Full Sample ^a | Immigrants Only ^b | Pre and Treatment ^c | Treatment and Post ^d |
|-----------------------------|--------------------------|------------------------------|--------------------------------|---------------------------------|
| Treatment | -0.467** | -0.287*** | -0.334*** | -0.141*** |
| | (0.012) | (0.012) | (0.013) | (0.016) |
| Time Trend | -0.016*** | -0.006*** | -0.003*** | -0.004* |
| | (0.000) | (0.001) | (0.001) | (0.002) |
| Age | -0.016*** | -0.009*** | -0.011*** | 0.002*** |
| | (0.000) | (0.000) | (0.000) | (0.001) |
| Married | 1.192*** | 0.992*** | 1.004*** | 0.915*** |
| | (0.003) | (0.008) | (0.009) | (0.013) |
| HS | -0.204*** | -0.219*** | -0.210*** | -0.201*** |
| | (0.004) | (0.010) | (0.011) | (0.019) |
| College | -0.175*** | -0.129*** | -0.141*** | -0.067*** |
| | (0.004) | (0.009) | (0.010) | (0.014) |
| Catholic | 0.131*** | 0.183*** | 0.203*** | 0.058*** |
| | (0.004) | (0.008) | (0.009) | (0.013) |
| Observations R ² | 662,518 | 86,526 | 72,119 | 24,989 |
| | 0.230 | 0.173 | 0.176 | 0.189 |

Notes: OLS estimates of equation 1. The unit of observation is the "potential mother," defined as the household head (if female) or the spouse of the household head (if the head is male).

TABLE 2— DIFFERENCE-IN-DIFFERENCES ESTIMATES FOR EXISTING MIGRANTS

| | 1 | D | - |
|-----------|---------------------------|------------------------------|---|
| | All Migrants ^a | Non-UK Migrants ^b | |
| Intercept | 0.103*** | 0.103*** | |
| | (0.005) | (0.004) | |
| Migrant | -0.008 | -0.025*** | |
| | (0.007) | (0.006) | |
| Treatment | -0.002 | -0.002 | |
| | (0.009) | (0.009) | |
| ATE | 0.012 | 0.020* | |
| | (0.013) | (0.012) | |
| | | | |

Notes: OLS estimates of equation 2. The dependent variable is the fertility rate between 1990 and 2011. Migrant is a dummy variable equal to 1 if the fertility rate is for migrants and Treatment is a dummy variable equal to 1 if the fertility rate year is between 1999-2004. The Average Treatment Effect (ATE) is the interaction between Migrant and Treatment.

^a Includes both natives and all migrants

^b Includes only migrants

^c Includes only migrants arriving before 2005

^d Includes only migrants arriving after 1998

^{*, **, ***} Significant at the 10, 5, and 1 percent level respectively.

^a Includes both natives and all migrants

^b Includes both natives and non-UK migrants