

# **Quantifying the Importance of Nationality in Determining International Protection Outcomes in Ireland**

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*Abstract:* We examine 40,434 International Protection (IP) determinations for non-EEA nationals covering a 16-year period in Ireland. We quantify the weight of importance of nationality versus process factors (e.g. length of time awaiting a decision) and applicant (e.g. gender) related characteristics in determining the IP outcome and show that nationality accounts for over two-thirds of the explained variation in outcomes. We also show that a grant of protection depends on just seven statistically significant applicant characteristics or process factors suggesting the determining officer's assessment of the credibility of an asylum claim is nuanced. Taken with the fact that the UNHCR provides oversight of the IP determination procedure we take the view that the procedure is reasonably fair. Nonetheless, our analysis also shows that a stiffer determination regime has been in place in Ireland from 2007 to 2013. Our findings have important policy implications for IP in Ireland and elsewhere.

## I INTRODUCTION

**I**n October 2014 the Irish Minister for Justice and Equality announced terms of reference for the Working Group to examine improvements to the Protection process and the Direct Provision system. Having regard to the budgetary realities the main objectives of the Working Group are to identify

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what actions may be taken to improve existing arrangements in the processing of protection applications while concurrently improving the quality of life and dignity of persons seeking protection by enhancing the support and services currently available. Importantly, while actions to improve existing arrangements for processing of applications are within the terms of reference of the Working Group, analysis of the outcomes of protection applications is omitted. Nevertheless, the baseline for examining existing arrangements is the hypothesis that current procedures for deciding protection applications are sound. With a view to providing evidence to assess this claim we examine from a statistical perspective individual protection outcomes made in respect of non-EEA (according to the current definition) nationals in Ireland in the period 1998 to 2013.

In general two forms of International Protection (IP) determination apply to asylum seekers in Ireland; refugee status according to the Geneva Convention (GC) and for those who fail this there is Subsidiary Protection (SP). Broadly speaking two components are centre stage in an IP determination procedure, the independent country of origin information (see [www.ecoi.net](http://www.ecoi.net)) and the asylum seeker's account of their experience in their home country. These components are combined by the "determining authority" to assess via an interview and/or based on "assessment of papers" the credibility of an asylum seekers claim for protection. The most vital piece of information an asylum seeker will share with the determining authority is their nationality as this fixes the country of origin information and provides credible independent evidence of political or religious freedom, weak governance and human rights etc. in the applicant's home country. The country of origin information, the applicant's testimony, their medical condition and frame of mind, as well as any other pertinent facts are combined to form the case file. Using this body of information an assessment is made of both the objective (e.g. country of origin information) and subjective (e.g. the applicant's frame of mind) criteria (see UNHCR, 1992) and the determination to grant or refuse protection arrived at; this process is defined by the UNHCR (2013) as the credibility assessment of the asylum (protection) claim. Importantly, for a protection claim to succeed the applicant must show a "well-founded fear" of persecution in their country of origin. Crucially then each determination and resulting outcome is made conditional (in the statistical sense) on an applicant's stated nationality as this fixes the country of origin information.

In some countries concerns have been raised about the outcome of an asylum seeker's case with instances cited (see Camp Keith and Holmes, 2009) where recognition rates (grants as a percentage of total decisions) may depend on the geographical location of the deciding judge, or that an outcome may depend largely on chance (e.g. on the deciding judge assigned) or the outcome

may even depend on foreign policy concerns. In Ireland and in many EU countries this controversy is a good deal less relevant. The key reasons for this are that the UNHCR is closely involved in the training of IP decision makers in the determining authority and the decisions themselves are periodically scrutinised by the UNHCR. This suggests the reasons for a positive or negative IP determination in Ireland (and the EU generally) are based on the particular applicant profile judged against the criteria set out (in Ireland's case) in the *Refugee Act (1996)*, a reality also recognised by the UNHCR (2002) who state "divergent outcomes for the same nationality during the same period may be explained when the detailed profile of each case is taken into account".

Clearly IP outcomes depend critically on the detailed profile of the particular applicant recorded in the case file and the nationality of the applicant in particular. Notwithstanding the lack of controversy surrounding IP outcomes in Ireland there remains a great deal of interest in how both the nationality and other characteristics relating to the profile of the applicant determine the IP outcome. Accordingly, the perspective of policy makers, the UNHCR and NGOs in Ireland tends to be directed at key characteristics such as nationality that affect the outcome. Of paramount interest to these bodies is to understand how the outcome is affected by the presence or absence of a certain factors and characteristics in the applicant's profile. A key question that arises therefore is how vital is nationality (and nationality determined factors such as political freedom) that codify country of origin information in determining the outcome of an IP determination. Addressing this is the primary focus of this paper. We estimate the weight of importance of nationality versus process factors (e.g. length of time awaiting a decision) and applicant specific characteristics (e.g. gender) with a view to understanding how these affect IP outcomes; this is the main contribution of this paper. Interpreted as an intervention study we quantify the effect of including each characteristic in terms of the change it has on an applicant's probability of a positive determination. In light of this analysis of Irish data we take the view that the IP determination procedure in Ireland is by and large credible and reasonably fair. Specifically, by this we mean the determination process is internally consistent in terms of its decision making and the independent oversight provided by the UNHCR ensures it is sound.

The characteristics mentioned in the *Refugee Act (1996)* associated with the asylum seeker are recorded on arrival in Ireland on a database held by the Office of the Refugee Applications Commissioner (ORAC), the first instance determining authority. The applicant characteristics recorded include nationality, gender, age, year of application, whether the applicant is an unaccompanied minor, their route of travel, ethnicity, religion, whether married or not, English speaking or not. This "recorded information set" of variables also includes process factors such as the reason for asylum, whether the person

stays in a state run reception centre, has the applicant undergone an interview, length of time awaiting a decision etc. In addition to these the *Refugee Act (1996)* specifically highlights two other important process factors. The first is “withdrawn” cases, these are a subset of persons who apply for protection and either withdraw voluntarily or fail to cooperate with the determination procedure and are “deemed withdrawn”; these cases all result in a negative IP outcome.

The second factor highlighted in the *Refugee Act (1996)* is whether the applicant’s country of origin is a so-called *non-refoulement* country. Under the Geneva Convention (1951) such persons cannot be expelled or returned to the frontier of that country if their life or freedom is threatened. Whether a country is considered a *non-refoulement* country at a particular point in time is determined by the independent country of origin information. And while in Ireland this information is recorded on the applicant’s case file unfortunately it is not recorded on the database. We adopt a proxy variable to account for this gap in the information set by including a binary variable based on the Freedom House classification (see Freedom House, 2013) of “Free/Partly Free” or “Not Free” respectively to each applicant according to their year of application and nationality.

In this paper we base our analysis on individual IP (final) outcomes made in Ireland in the period 1998 to 2013 for non-EEA nationals across 150 nationalities. We note that the 16-year period covers a period of significant policy change and includes the years of very high asylum applications that persisted from about 2000 through 2004 (see Keogh 2013). Conditional then on applicant nationality, the probability of a positive determination is regressed via the logit (log-odds) against a vector of variables from the recorded information set in order to see if any of these provide statistically significant evidence that increases or decreases the probability of a positive (grant) outcome. Overall, with withdrawn cases excluded our findings tend to favour the view that both high and low chances of a positive outcome occur where we might anticipate them, for example with unaccompanied minors and males respectively. In addition, among the variables in the recorded information set we find seven are statistically significant and have a meaningful impact in terms of effect size.

The remainder of this article is structured as follows: the next section describes in broad terms the protection system in Ireland and provides background on related quantitative research. In Section III we undertake a descriptive analysis of IP outcomes and use this to direct our modelling choices. Section IV describes our modelling methodology while in Section V we present our results and discuss our findings. Section VI concludes.

## II THE PROTECTION SYSTEM AND QUANTITATIVE RESEARCH RELATING TO DETERMINATIONS

### 2.1 *The Protection System in Ireland*

In all EU countries the principles, rules and procedures of the Common European Asylum System (CEAS) apply. However, unlike many EU states Ireland does not yet operate a so-called “single procedure” for determining protection claims. Basically, a single procedure considers all forms of protection concurrently. In Ireland a claim for IP is first considered under the Geneva Convention (1951) and its 1967 Protocol. It defines a Convention Refugee as follows:

... a refugee is a person who owing to a well-founded fear of being persecuted for reason of race, religion, nationality, membership of a social or political group, is outside the country of his nationality, and is unable to, owing to such fear, or is unwilling to avail himself of the protection of that country.

Such persons are part of a group fleeing persecution and enjoy the right of *non-refoulement*.

Subsidiary Protection (SP) meanwhile is a complementary form of protection that is available to an individual who is not part of a group and has been refused Geneva Convention (GC) refugee status. In Ireland it is available to those who have failed to be recognised as GC refugees. Specifically SP<sup>1</sup> is defined as follows:

... a person who is not a refugee is entitled to subsidiary protection if they can show that if returned to his or her country of origin they would face a real risk of suffering serious harm, defined as: death penalty or execution; torture or inhuman or degrading treatment or punishment, or serious and individual threat to a civilian’s life or person by reason of indiscriminate violence in situations of international or internal armed conflict.

The SP process was commenced in Ireland in 2006. If the SP application fails, the applicant is invited to make a submission to the Minister for Justice and Equality for permission to stay in Ireland on humanitarian grounds under the provisions of the *Immigration Act 1999 (as amended)*; this process is outside the realm of the IP process.

<sup>1</sup> SP is provided for according to *European Directive 2004/83*, the “qualification directive” which prior to 2014 was implemented in Ireland under *Immigration Act 2004 (as amended)* but now is implemented under *Statutory Instrument S.I. No. 426 2013*.

While at a high level the protection process as described here is relatively straightforward, nonetheless there are a number of external factors that can come into play that complicate it. Firstly, negative decisions are open to Judicial Review (JR) in the High, Supreme and European Courts. Notwithstanding the fact that court delays mean that JRs significantly lengthen the time a person takes to make it through the system, a court decision can result in the application being returned to an earlier step for reconsideration and decision. Accordingly, JRs both significantly lengthen the process and result in multiple feedback loops. Secondly, an applicant may also be eligible for another type of immigration permission to stay on foot of, say, marrying an Irish national. In these situations the applicant may withdraw their claim and the application is closed without decision or they may elect to continue it with a view to progressing family reunification (*EU Directive 2003/86*) if successful. Thirdly, some applicants after the initial claim is made elect not to pursue it further, these are typically refused on foot of being “deemed withdrawn”. In many instances where external factors enter into play processing on the case is temporarily halted while the alternative process is completed and this inevitably lengthens the time it takes to fully process the person’s case end-to-end.

## 2.2 *Quantitative Research Relating to Determinations*

Somewhat surprisingly, given the political, economic and social attention that asylum seekers attract, there is little quantitative analysis relating to protection determinations. In the main where quantitative asylum research is available it focuses on asylum flows. From a supply side the research tries to explain the reasons people become refugees, typically political violence, civil war and concomitant human rights abuses (see Edmonston, 1993, Gibney *et al.*, 1993, Schmeidl, 1997, Apodaca, 1998 and Davenport *et al.*, 2003). Meanwhile, on the demand side the few quantitative studies that exist tend to concentrate on asylum movements from the third world to the EU. The key studies include Vink and Meijerink (2003), Hatton (2004, 2009), Neumayer (2005a) and Keogh (2013). They provide fairly extensive studies of the factors explaining asylum migration to the EU and show that GDP, unemployment, affinity (proportion of source immigrants in a destination country), asylum stock in the destination country and asylum policy, measured via a policy index or by the annual recognition rate are significant flow determinants. Generally these studies base their analysis on aggregated count data mainly sourced from the UNHCR.

The realm of research at the aggregate statistical level devoted to explaining the recognition rate, defined as the percentage of positive determinations out of all determinations for a country, is very small indeed. We are aware of only two studies that focus on aggregate data, namely Holzer *et al.* (2000a) and Neumayer (2005b). The latter focuses both on origin and destination country

recognition rates and shows that origin specific rates vary with factors that tend to be specific to the individual country of origin of the asylum seeker. Meanwhile Neumayer (2005b) also shows that destination based recognition rates tend to be positively correlated with national income. Notwithstanding these findings the UNHCR (2002) states “divergent recognition rates for the same nationality during the same period may be explained when the detailed profile of each case is taken into account”.

It is clear from the comments of the UNHCR that individual level data plays a vital role explaining protection determinations. In this article, we more precisely focus on the probability of a positive determination for the individual case rather than the equivalent aggregate recognition rate. Here again there appears to be only two relevant studies, namely Holzer *et al.* (2000a) and Camp Keith and Holmes (2009). The first of these studies analyses about 180,000 individual asylum applications in Swiss cantons over the period 1988 to 1996. They conduct a fixed effect analysis that controls for individual characteristics such as age and gender and use dummy variables for the most important cantons. All other things being equal they find that cantons with a high share of foreigners and negative attitudes towards asylum seekers tend to have lower recognition probabilities. Importantly, controlling for these factors they find no differences in recognition probabilities across administration systems. Interestingly this indicates that protection systems across cantons are consistent in their treatment of asylum seekers claims, a key element suggesting that the systems are fair. This study is similar in approach to both Holzer *et al.* (2000a) and Camp Keith and Holmes (2009) in that we use individual level IP determination data for Ireland. We focus on determinations made across 150 nationalities over the period 1998 to 2013. Moreover, our methodology is more sophisticated than Holzer *et al.* (2000a) and Camp Keith and Holmes (2009), as here we model the probability of a positive IP determination directly via the logit using a generalised mixed-effects logistic model with applicant nationality as a single one-way random effect.

### III DESCRIPTIVE ANALYSIS

In this section we focus on comparisons of the recognition rate for IP by nationality. Specifically, the recognition rate is the ratio of the total number of positive determinations to the total number of determinations expressed as a percentage; the total number of determinations includes positive and negative determinations and, in this case, withdrawn determinations. For the top ten applicant nationalities we look at how the recognition rate varies within nationality with each of the factors taken separately. We use the main findings

of this exploratory analysis to inform our modelling choices in the remainder of this article.

First we look at the relationship between the recognition rate and the year in which the determination is made. For comparison Figure 1a shows the trend in the actual overall crude recognition for all non-EU nationalities, this is labelled the “All Nationalities” recognition rate. Meanwhile both Figures 1a and 1b show the smoothed recognition rates that result after applying the Loess smoother (Cleveland, 1979), with an indicator variable to control for the pre- and post-2006 determination scenarios, to the crude recognition rates in each determination year. The reduction in recognition rates in Ireland post-2006 is clearly evident from the plots. Factors that are likely to have influenced this include the introduction of the Dublin II process in 2003 (*EU Directive 2003/343*), the introduction of procedures to control access to the territory such as carrier liability fines for allowing people to board flights without landing cards and the introduction of “refusal of leave to land” procedures at ports of entry.

Interestingly, initial analysis of the relationship between the recognition rate and year of decision revealed that country specific recognition rates tended to initially increase and then fall off with time, reflecting a concave time trend in the rate. To treat this fairly general phenomenon in the context of the Loess smoother we considered two strategies: (a) include a quadratic year variable; or (b) use a dummy variable to split the time axis into two halves reflecting the rise and fall. Working with a sequence of dummies we found that a dummy splitting the axis at 2006 worked best with the Loess smoother. Indeed this parsimonious treatment also proved better in the context of the Loess analysis than the quadratic time trend. Accordingly, this strategy suggested itself for inclusion in the generalised linear mixed model approach we use to model IP outcomes in the next section.

Notwithstanding the 2006 effect two other statistical features are evident. In the pre-2006 period there was a general upward trend in recognition rates across the bulk of countries and then post-2006 rates stayed level or there was a fall in recognition rates. Meanwhile a second feature in the data is that the nationality intercepts for the plots vary considerably. A natural way to handle this phenomenon is to introduce a “random effects” parameter conditioned on nationality that treats the intercepts as a random sample from a population of intercepts for all nationalities. In this situation the research question is to determine whether IP determination probabilities vary significantly based on the year in which they are made given the nationality of the applicant and whether the application was pre- or post-2006.

Figure 2 displays the overall nationality level recognition rates by gender. Over the 16-year time span the overall level of recognition for males and



Figure 1a: *Nationality Level Recognition Rates (%) vs. Year in Which Determination is Made.*<sup>2</sup>

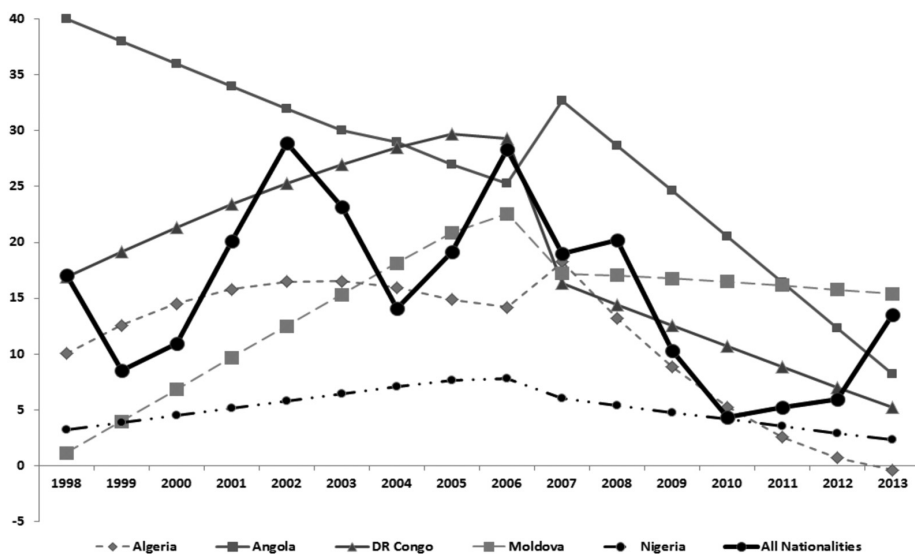
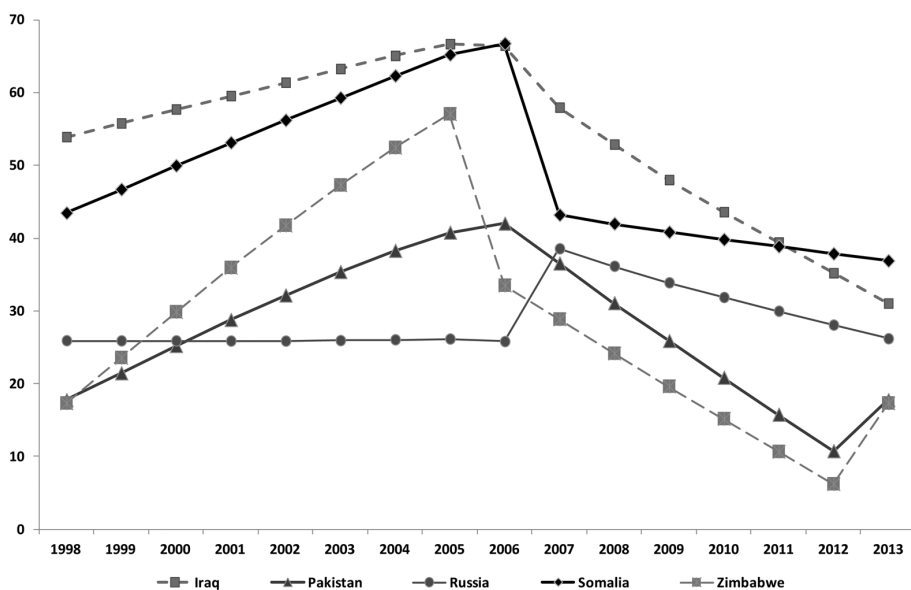


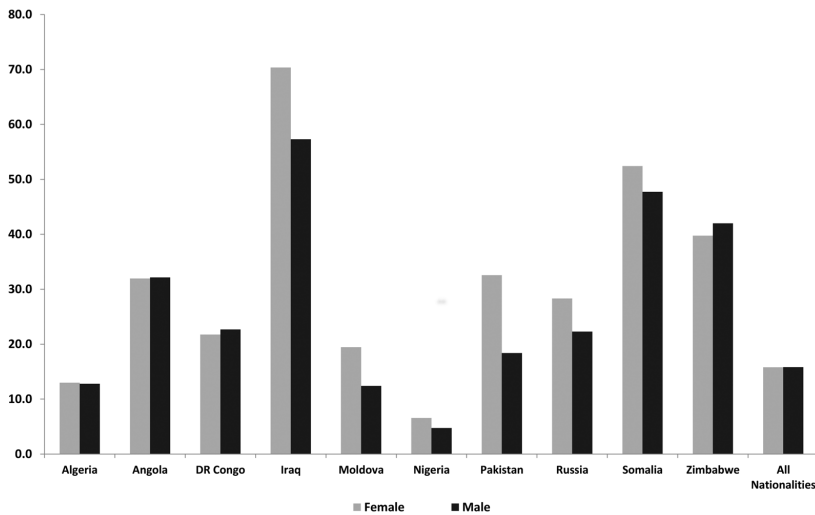
Figure 1b: *Nationality Level Recognition Rates (%) vs. Year in Which Determination is Made.*



<sup>2</sup> The appearance of a small apparently negative recognition rate for Algeria in 2013 is simply an artefact of applying the Loess smoother, the actual crude rate for 2013 is of course positive.

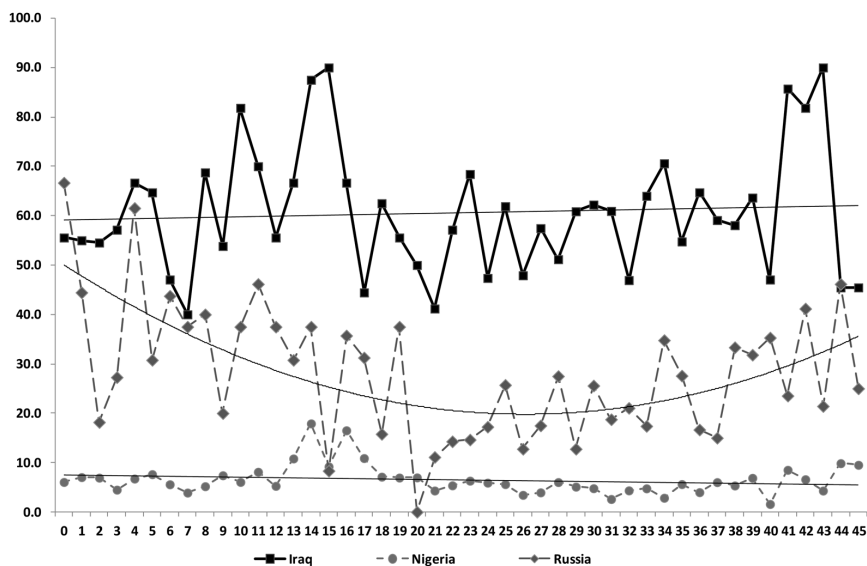
females in Ireland is about equal. Notwithstanding this there is also a pattern of higher country specific female rates evident from the countries displayed in the bar-chart – a feature common to many EU systems as Eurostat statistics show. Here, both Iraq and Pakistan show the strongest weight in favour of females being granted IP. Iraq and Somalia show recognition rates in excess of 50 per cent for males and females, a reflection of the ongoing conflicts and general political situation prevailing in both of these countries. Based on the difference between male and female rates across nationalities we should expect gender to be a significant factor in explaining determination outcomes for IP. However, in light of the fact that there is no overall difference and the country specific differences are for most relatively small, the impact of gender on the overall determination probability is unlikely to be substantial.

Figure 2: *Nationality Level Recognition Rates (%) by Gender (1998–2013 Pooled)*



In this study our exploratory analysis of the recognition rate against age at determination involves regressing the crude age specific rates against age at determination. When this is done, only Russia among the top ten nationalities is shown to have a significant (quadratic) trend. Figure 3 shows a sample of three nationality trends according to age at determination. The curved trend in rates with age is evident for Russia. Accordingly, given that age specific recognition rates across nationalities tend to remain level, in a regression modelling set-up we should expect that age at determination is in general unlikely to be a significant predictor of a positive determination of IP status when conditioned on nationality.

Figure 3: *Nationality level Recognition Rates (%) by Age (in years) at Determination of IP*



The final factor we consider in our exploratory analysis is length of time between application and determination. Recognition rates are examined against length of time from 0 to 5 years; recognition rates for 6 or more years are excluded as the number of decisions is typically small and this induces excessive noise series. Table 1 shows the cross-tabulation of rates according to nationality

Table 1: *Nationality Level Recognition Rates (%) by Length (in Years) to Determination of IP*

Length (years)	Nationality										
	Algeria	Angola	DR Congo	Iraq	Moldova	Nigeria	Pakistan	Russia	Somalia	Zimbabwe	All
0	7.1	38.0	23.3	70.1	9.4	5.2	25.4	19.0	68.9	53.8	24.0
1	10.4	28.0	23.9	53.5	18.2	5.5	18.7	21.5	36.9	31.4	17.7
2	30.6	42.1	22.8	43.4	22.5	8.9	23.5	44.7	46.8	18.6	25.1
3	16.7	18.8	9.1	6.7	12.1	3.9	17.6	19.7	36.7	10.7	16.8
4	33.3	9.1	10.0	42.9	11.1	5.8	26.3	0.0	13.6	14.3	15.2
5	50.0	0.0	15.8	0.0	0.0	0.0	0.0	0.0	55.6	16.7	22.1

Note: Average rates for decisions made within three (i.e. length 0–2) years in Table 1 generally tend to agree with the (average) rate levels in the displayed figures by virtue of the fact that well in excess of 90 per cent of decisions in the 16-year period are made within three years.

and length of time taken to determine the IP case. A glance at the table shows that within each nationality (and all) there is little to suggest that recognition rates rise or fall with length of time to determination. Accordingly it is unlikely that the length variable in a regression model will be a significant predictor of a positive outcome of an IP determination in Ireland.

In summary this exploratory analysis suggests that a mixed effects model with random intercepts for the nationality of an applicant is likely to be a fruitful way to identify whether there is significant relationship between the probability of a positive determination and (a) the year in which the subject's determination is made; (b) their gender; (c) age at determination; and (d) the length of time between application and determination. We pursue this modelling approach in the next section.

#### IV MODELLING INTERNATIONAL PROTECTION OUTCOMES

We model the relationship between individual IP final determinations (Grant=1 whether at first instance or appeal of the GC determination or grant of SP, and Refuse=0 being the final refusal at GC where it applies or at SP determination) for each applicant using a 1-way mixed effects regression model. Specifically, the final IP outcome is the GC outcome for older cases prior to the introduction of SP, otherwise it is the SP outcome. Importantly “withdrawn” cases, asylum seekers who apply for protection and either withdraw voluntarily or fail to cooperate with the determination procedure and are “deemed withdrawn” all result in a negative IP outcome. The outcome of this relatively large subset of cases is determined by definition and so we exclude these from our study. With withdrawn cases excluded we model the IP outcome (grant=1, refuse=0) of 40,434 individual protection decisions for non-EEA nationals using a generalised mixed-effects logistic model. The model incorporates nationality as a one-way “random effects” parameter to account for the possibility of varying mean levels in recognition rates (in fact grant probabilities) across the 150 recorded non-EEA IP determination nationalities. This random effect we denote by  $u_j$ , a zero-mean Gaussian random vector. We focus on modelling the probability of a grant  $\pi$  for each determination via the logit (log-odds) =  $\log\left(\frac{\pi}{1-\pi}\right)$  and relating this to a vector of predictors  $x$ . Using a notation similar to Laird and Ware (1982), we propose modelling the probability  $\pi_{ij}$  of each positive IP determination  $i$  in nationality  $j$  via a straightforward mixed-effect model of the form

$$\begin{aligned}\log it(\pi_{ij}) &= \mathbf{x}_{ij}^t \beta + u_j + \varepsilon_{ij} \\ u_j &\sim N(0, \sigma_u^2) \\ \varepsilon_{ij} &\sim N(0, \sigma_\varepsilon^2)\end{aligned}\tag{1}$$

where we assume  $\pi_{ij}$  is binomially distributed  $B(n_j, p_j)$  according to the number of determinations ( $n_j$ ) and proportion ( $p_j$ ) of grants in each nationality. The nationality mean level random effect is denoted  $u_j$  with the random error given by  $\varepsilon_{ij}$ . The model predictor vector  $\mathbf{x}$  comprises the four primary factors/variables discussed in Section III, namely year in which their determination is made (Year), Gender (male=0, female=1), age at determination (Age) and length of time between application and determination (Length). In order to facilitate model fitting the four continuous predictors Year, Age, Length and GDP are standardised so that the lowest value is 0 (providing a zero contrast) and the standard deviation is 1.

In addition to these primary factors/variables there are other factor variables associated with each applicant that are of interest in determining the IP outcome. So, in the predictor vector we also include indicator variables to identify:

- (a) whether the outcome related to an SP application (SP);
- (b) whether the applicant spent some time in a Reception and Integration Agency (RIA) centre;
- (c) if they travelled by air (Air Travel);
- (d) if they stated their asylum application was based on political grounds (“Asylum Reason”);
- (e) if they stated their religion (Religion);
- (f) if they gave an ethnicity (Ethnicity)
- (g) if the person was an unaccompanied minor (Unaccompanied Minor) – these account for about 3.5 per cent of Ireland’s determinations;
- (h) if the applicant underwent an interview (Interviewed);
- (i) if the applicant was married at some point (Ever Married);
- (j) if the applicant could speak English; and
- (k) if the applicant’s country of origin is designated by Freedom House as “Free or partly free”.

Our data analysis earlier showed that recognition rates tended to be generally lower after 2006, we account for this effect using indicator variable in our predictor matrix called “After 2006” to delineate between determinations made post-2006. A frequency and per cent distribution for each indicator variable is provided in the Appendix.

Our methodology follows that in Venables and Ripley (2002). This involves starting with a baseline simple intercept (null model) only in the predictor vector  $\mathbf{x}$  and fitting a fixed effects GLM to the outcome (grant=1, refuse=0) to compute the baseline deviance ( $-2 \times \log$  likelihood, also known as the log likelihood ratio statistic). We then consider the same model but with addition of the nationality variable as the one-way mean level random effect in Equation (1). We fit this model using the “glmer” function in the “lme4” package in R (Ihaka and Gentleman, 1996). Subtracting the deviance of this random effects model from the basic fixed effects GLM model gives an indication of the impact of nationality as a predictor of the outcome of the IP determination. To the random effects model we then add each fixed effect variable to the predictor vector  $\mathbf{x}$  in sequence and re-fit the model. This generates a sequence of mixed effects models based on the addition of each fixed effect variable. These are sequentially compared by testing the reduction in the deviance arising from the addition of the fixed effect variable via  $\chi^2$  distribution using the appropriate degrees of freedom (see for example Dobson, 1995). The full mixed-effects model incorporating all one-way fixed effects variables and nationality as the one-way random effect is used to compute the parameter estimates and associated probabilities according to

$$\pi = \frac{\exp(\beta_0 + \beta_k x_k)}{1 + \exp(\beta_0 + \beta_k x_k)} \quad (2)$$

where the subscript  $k$  refers to the  $k^{\text{th}}$  fixed effect predictor variable in the predictor vector  $\mathbf{x}$ .

We also highlight a useful feature of this modelling methodology is that we can directly measure the impact or “the effect size” of each predictor variable as it is added to the model in terms of its contribution to the reduction in the deviance. This has the advantage of allowing us to identify those variables that are significant and have a meaningful effect on the outcome. Our analysis suggests that it is reasonable to adopt an effect size cut-off for meaningful reductions in deviance of 50. Accordingly we ignore those predictors in the mixed-model that are below this cut-off.

## V RESULTS AND DISCUSSION

Table 2 shows the mixed-model fitting statistics that result from our modelling methodology. The full 1-way mixed effects model only explains 19 per cent of the overall variation in outcomes in terms of a reduction in deviance. This is a little disheartening as it indicates the model lacks some statistical

Table 2: Generalised Linear Mixed Effects Fitting Statistics, Parameter Estimates and Associated Probabilities

Sequential Addition of each Fixed Effect Variable							Parameter Estimates and Probabilities (from Full Model)		
Deviance	Reduction in Deviance (Effect Size)	Reduction in Degrees of Freedom	Probability ( $\chi^2$ )	Parameter Estimate ( $\beta$ )	Significant	Estimated Proportion of Effect	Difference with Intercept*	Odds Ratio*	
<b>GLM Intercept (Null) 41,105</b>									
<b>Intercept (Null)</b>	<b>35,115</b>	<b>5,990</b>		<b>-1.02</b>	<b>&lt;0.001</b>	<b>0.26</b>	-	-	
+After 2006	34,305	810	<0.001	-0.76	<0.001	0.14	-0.12	0.5	
+Gender (female)	34,196	109	<0.001	0.29	<0.001	0.33	0.06	1.3	
+Age	34,196	0	0.689	-0.07	<0.001	-	-	-	
+Year	34,170	26	<0.001	0.02	0.372	-	-	-	
+Length	34,155	15	0.57	-0.04	<0.001	-	-	-	
+SP Decision (Yes)	33,556	614	<0.001	-1.69	<0.001	0.06	-0.20	0.2	
+RIA (Yes)	33,417	738	<0.001	0.39	<0.001	0.35	0.08	1.5	
+Air Travel (Yes)	33,410	7	<0.001	-0.10	<0.01	0.25	-0.02	0.9	
+Asylum Reason (political)	33,409	1	0.406	0.01	0.927	0.27	0.00	1.0	
+Religion (stated)	33,402	7	<0.01	0.01	0.997	0.27	0.00	1.0	
+Ethnicity (stated)	33,386	16	<0.001	-0.11	<0.05	0.24	-0.02	0.9	
+Unaccompanied Minor	33,253	133	<0.001	0.75	<0.001	0.43	0.17	2.1	
+Interviewed	33,111	142	<0.001	0.37	<0.001	0.34	0.08	1.4	
+Ever Married (Yes)	33,076	35	<0.001	0.19	<0.001	0.30	0.04	1.2	
+English Speaking (Yes)	33,070	6	<0.05	-0.13	0.082	0.24	-0.02	0.9	
+Free Country of Origin	33,003	67	<0.001	-0.55	<0.001	0.17	-0.09	0.6	

\*While controlling for other effects.

power. However, the most striking feature of the results is that nationality has the greatest impact on determining the outcome. Nationality reduces the deviance by nearly 5,800, equivalently 14 per cent. This is both expected and pleasing and provides conclusive evidence in favour of (a) conditioning the outcome on nationality within a mixed-effects model; and (b) that the most vital piece of information an asylum seeker shares with the determining authority is their nationality as this fixes the country of origin information and provides credible evidence of concerns about political or religious freedom, weak governance and human rights etc. Importantly, among all the factors and applicant characteristics considered the nationality variable accounts for nearly three-quarters of the explained variation in outcomes. This fact is novel and by far the most important policy finding of this study. Accordingly, the weight of importance attaching to the nationality in the determination cannot be overstated as among all variables available for study the applicant's stated nationality determines the IP outcome.

Meanwhile in Table 2 the deviance statistic is significantly reduced and model fit improved with the addition of all fixed effect variables with the exception of Age, Length, Asylum Reason and English speaking. Thus knowledge of these four factors has no bearing on obtaining a positive (grant) outcome from the determination procedure. Furthermore, even though Year, Air Travel, Religion, Ethnicity and Ever Married are statistically significant their impact or "effect size" is relatively small (for example, the addition of "Air Travel" only reduces the deviance by 9 or 0.02 per cent, a negligible amount). In light of this, these factors also have little or no bearing on obtaining positive (grant) outcome.

Overall from a policy perspective the seven factors Age, Length, Asylum Reason (1=political, 0 otherwise), English speaking, Year, Air Travel, and Ever Married tell us little about the basis or grounds of a determination. This is appealing as it shows there is no mechanism that connects these simple factors directly to the outcome, the assessment of the credibility of an asylum claim therefore is a lot more nuanced. In this respect our findings are similar those of both Holzer *et al.* (2000a) and Camp Keith and Holmes (2009) who have also conducted studies based on individual outcomes for Switzerland and the US respectively. Those studies found there was no observable evidence to favour a positive outcome when they controlled for important country and demographic factors. Indeed, on the basis that determination procedures are in principle not malign, the consistency of these findings across Switzerland, the US and now Ireland surely serves to enhance the credibility of the determination procedure in Ireland. Moreover, this credibility is further enhanced by the fact that an asylum seeker's age or the length of time they have spent in the procedure are not statistically significant. In light of this it seems reasonable to take the view



the determination procedure is by and large sound and the training and monitoring provided by the UNHCR seems effective. Beyond this, the set of fixed-effect normative factors that statistically have an influence on an IP outcome are After 2006, Gender, SP, RIA, Unaccompanied Minor, Interviewed and Free. This knowledge is important from a policy viewpoint in that observing recognition rates for this subset of factors across nationality will provide policy makers, the UNHCR and NGOs alike with a sound platform for managing and monitoring asylum outcomes in Ireland. Accordingly, these seven factors are key indicators for effective monitoring of the IP determination process.

The right hand side (rhs) of Table 2 shows the parameter estimates  $\beta_k$  associated with each variable in the mixed-effect model when all variables included – we call this the “full model”. The significance level for each parameter is also shown. Here we can see that variables that are significant in terms of their reduction in deviance also possess significant parameter estimates. This is certainly appealing from a model fitting perspective. Using Equation (2) the estimated probability  $\pi_k$  based on the parameter estimate  $\beta_k$  for the  $k^{th}$  variable alone is computed and displayed as the “Estimated proportion of effect”. For example, if we consider the Gender variable  $x_{k=Gender} = 1$  for a male applicant, the proportion becomes

$$\pi_{k=Gender} (\text{Gender} = 1) = \frac{\exp(\beta_0 + \beta_{Gender} \times 1)}{1 + \exp(\beta_0 + \beta_{Gender} \times 1)}. \text{ Thus this quantity gives the}$$

marginal effect of that particular factor alone relative to the Intercept alone in the full model. Using this probability we can contrast the effect of including  $k^{th}$  factor with the Intercept against that of the Intercept alone. We compute the actual difference in probability with the intercept as a contrast as  $(\pi_k - \pi_0)$  in the “Difference with Intercept” column and the final column on the rhs gives the odds ratio  $\left(\frac{\pi_{k/1} - \pi_k}{\pi_{0/1} - \pi_0}\right)$  for the effect of including the  $k^{th}$  factor alone.

Firstly, looking at rhs in Table 2, the estimated overall probability of a positive (grant) outcome while controlling for all model effects and treating nationality as a random variable, is 0.26; equivalently the recognition rate across all 40,434 cases in all years is 26 per cent. In contrast when we do not control for nationality or other independent effects, the crude recognition rate for all these cases is 21 per cent.<sup>3</sup> This shows that when we adjust the variation in outcomes for the effects of the process factors, applicant characteristics and nationality, the resulting recognition rate is 25 per cent higher than the crude

<sup>3</sup> This crude recognition rate of 21 per cent is about 6 per cent higher than the level given for the “All” recognition rate given in Figure 2. The key reason for this difference lies in the fact that Figure 2 includes “withdrawn” cases. As noted in Section IV these cases all result in a negative outcome and so when this relatively large subset is included they lower the overall recognition rate.

rate. This is an informative policy finding for those who manage and monitor the determination procedure as on balance it shows that positive (grant) IP determinations are far more likely than crude rates suggest when other factors that influence the recognition rate are taken into account.

Looking at the individual estimated probabilities associated with each significant factor the largest positive effect on the overall probability of a positive outcome occurs for an unaccompanied minor. In this case when all other factors are controlled the (adjusted) probability of a positive (grant) is 0.43. In probability terms this is 0.17 or 17 points higher in probability than the Intercept probability and the odds ratio is over 2. Equivalently, this vulnerable subgroup of asylum seekers is twice as likely to get a positive (grant) outcome on foot of an IP determination. This shows that the determining authority attaches a high level of credibility to the sole fact that the person making the asylum claim is an unaccompanied minor and indicates the determination attaches significant weight to the humanitarian characteristics of asylum seekers. Two other factors also produce a positive effect on the probability of a positive (grant) outcome; these are RIA (the applicant is a resident in a reception centre) and Interviewed (the applicant was interviewed during the determination procedure). When other factors are controlled for, the probabilities associated with these factors are 0.35 and 0.34 giving odds ratios of 1.5 and 1.4 respectively. Importantly, while the odds ratio for an RIA based applicant is 1.5 the reduction in deviance associated with inclusion of this factor in the model is 738, the second largest reduction. Crucially, as “withdrawn cases” are excluded, a poorer outcome for non-RIA persons versus RIA residents cannot be attributed to a greater tendency to withdraw for non-RIA persons. This along with the fact that other applicant profile factors including nationality are controlled in the full model implies a RIA resident has a considerably better chance of a positive (grant) outcome than a non-RIA person. Verifying and quantifying this is another key policy finding for it forces us to ponder how being a RIA resident can influence the outcome. For example might it be that those in RIA are represented by advocates with more experience in asylum matters or is it the case that there is a preponderance of families in RIA and based on this humanitarian characteristics weigh more heavily in the decision and on the outcome.

Turning to those factors in Table 2 that reduce the probability of a positive outcome we can see that two factors in particular have a substantial and significant effect; these are After 2006 (whether the application was made after 2006) and SP (whether the outcome related to an SP application). The largest effect size or impact of 810 occurs with the inclusion of the After 2006 factor in the model. Controlling for all other factors the probability of a grant drops from 0.26 to 0.14, a substantial drop of 12 points in probability. Clearly those who

made an application after 2006 have fared considerably worse than those who made an application prior to that year. This downward level shift going from 2006 to 2007 points to a stiffer determination regime being in place since 2007. This has been mirrored across the EU where greater emphasis on the use of the Dublin II process, the effects of the introduction carrier liability fines, the implementation of the Schengen borders and the implementation of refusal of leave to land procedures at airports in EU countries provide evidence for stiffer access procedures in general (see Keogh 2013).

The year 2007 is also crucial as it was the first full year where Ireland accepted SP applications – the procedure coming into effect in November 2006. Looking at the effect of the SP factor variable in Table 2 we see that the effect size associated with its inclusion is 614, third highest among the fixed-effect factors. The drop in probability associated with this factor is 0.20 suggesting that those who received a determination on foot of an SP application have fared worse overall. Of course SP applicants have already failed to gain refugee status on Geneva Convention grounds and so a drop in probability is expected. Nonetheless controlling for other factors our results show that an SP applicant is over 3 (0.26/0.08) times less likely to be granted IP as the average asylum applicant, adding further weight to the perception of a stiffer determination regime being in place since 2007. This too has important policy implications in that those in this group who also failed to be granted humanitarian leave to remain according to the *Immigration Act 1999 (as amended)*, will feel justified in the view that they have been treated harshly relative to Geneva Convention refugees. The argument that any such person who is still in the state and possibly is subject to a deportation order should be favourably considered for say humanitarian leave to remain status therefore carries weight.

The two remaining factors that reduce the estimated probability of a positive (grant) outcome in Table 2 are Gender and Free. Controlling for other factors females are seen to have a 7 point higher probability of a grant of IP compared to males; statistically this quantifies our exploratory data observations (see Figure 2). Of course there is no legislative reason to expect a higher recognition rate for females compared to males. However it is clear from Eurostat statistics that this is a feature common to many protection systems in the EU. This fact has also been reported by Holzer *et al.* (2000b) who observe that males may be perceived as economic migrants by adjudicators. However this view of male asylum seekers is likely flawed given the weak empirical evidence found to support the view by Hatton (2004, 2009), Neumayer (2005a) and Keogh (2013). Rather, males tend to travel alone so it is more likely the case that humanitarian characteristics that can weigh the decision for families are less in play for male applicants. Meanwhile, the drop in probability of a positive determination for an applicant from a country classed as free or partly

free by Freedom House is intriguing. While the effect size of this factor is moderate at 67 the reduction in probability is 0.09 (9 probability points). This is surprising as it might be expected that asylum seekers from countries classed as free or partly free would have a very small probability of a grant relative to those from countries classed as “not free”. That this is not the case and that case workers are trained and monitored by the UNHCR suggests that this factor lacks predictive power in the full model – interestingly, the usefulness of Freedom House indicators has also been questioned elsewhere (see Camp Keith and Holmes, 2009). Indeed the main reason this index was chosen for inclusion in this study relied on the observations made by Camp Keith and Holmes (2009) about alternative indices such as Gibney’s Political Terror scale among others. In fact they considered several measures of civil liberties, human rights and democratisation and observed that none were statistically significant in their models. Ultimately, they chose the Freedom House Index because they felt the simple binary choice between free and not free was more robust and might better match adjudicators’ perceptions. In this study we followed their line of reasoning and accordingly adopted the Freedom House Index indicator to reflect home country conditions. Even so, that this factor does not carry a lot of weight as a grounds for determination shows the credibility of an asylum claim is likely based on a more nuanced assessment of an asylum seeker’s situation than is attributable to a set of simple indicators, a comforting piece of information for the asylum seeker and determining authority alike.

## VI CONCLUSIONS

We have examined 40,434 individual IP outcomes for non-EEA nationals covering a 16-year period in Ireland with a view to quantifying the weight of importance associated with nationality and other factors connected with an asylum seeker’s profile in determining the outcome. Our key policy finding is that nationality plays the preeminent role among all such factors in determining the outcome. Consequently, the importance of country of origin information which is centred on the nationality and brought to bear on the determination cannot be overstated. Our results also showed the seven factors Age, Length, Asylum Reason, English speaking, Year, Air Travel, and Ever Married do not affect the outcome. From a policy perspective this is appealing as these factors tell us little about the basis or grounds of a determination. These findings when taken with the fact that training and monitoring for IP determinations is provided by the UNHCR demonstrate the credibility of the determination procedure in Ireland. However, we also found seven variables that statistically influence an IP outcome; these are After 2006, Gender

(female), SP, RIA, Unaccompanied Minor, Interviewed and Free. We note this knowledge is also important from a policy viewpoint in that observing recognition rates for this subset of factors across nationality will provide policy makers, the UNHCR and NGOs alike with a sound platform for managing and monitoring asylum outcomes in Ireland. Accordingly, these seven factors are key indicators for effective monitoring of the IP determination process, this we feel is a valuable extra contribution arising out of this study.

The results in Figure 2 suggest the possibility of 2-way associations such as gender and nationality. Initial analysis modelled all 2-way interactions and found some to be significant. However, the effect size or impact of these in reducing the deviance was typically below the 50 cut-off, on this basis we decided to adopt the simpler 1-way model to assess the relationship. Still our model explains just 20 per cent of the variation in outcomes for asylum applications and this is a little disheartening. Our findings may also support the conclusion that the 80 per cent unexplained variation may be purely random and so (net of a few variables) the determination system is fair and credible only in the pure sense that it is a lottery.<sup>4</sup> Of course while this observation is correct it is not the whole story. In particular the significant body of the “case file” accessible to the case worker is not accessible for quantitative analysis. For these quantitative variables our analysis is consistent in that where we expect a higher probability of an outcome we tend to see it, as is the case for unaccompanied minors, and where we anticipate a lower probability we also tend to see it (e.g. for males). This quantitative level of consistency alone is insufficient to imply credibility and fairness but when taken with the fact that the UNHCR train case workers, independently monitor their decisions and crucially can review case files, then the conclusion that determinations are fair holds water. In this circumstance the 80 per cent unexplained variation is a reflection of the much broader information available and the considered judgement of the case file. Naturally when these broader elements are “averaged” across many thousands of case files the analyst should not be surprised to find a large unexplained random variation. Indeed as noted earlier the UNHCR (2002) anticipate this by highlighting the fact that divergent outcomes depend on the detailed profile of each case. That this is the case here serves to reinforce the conclusion that the determination process itself is credible and fair.

In summary our key findings are (a) the importance of nationality in determining the outcome; (b) the half of the other variables recorded as part of the asylum seekers profile are significant in determining the outcome while the other half are not; (c) unaccompanied minors are twice as likely to receive a

<sup>4</sup> Thanks to an anonymous reviewer for this observation.

positive outcome; d) an applicant who is accommodated in an RIA centre and is interviewed as part of the determination procedure fairs considerably better overall; and e) those who applied for asylum after 2006 fared worse overall, pointing to a stiffer determination regime being in place from 2007 through 2013.

Of course our study while valuable is not exhaustive. In particular identifying a person as a family group member is an unknown and the Ever Married factor we included as a proxy was not significant. Overall the absence of a family grouping variable limits the scope of our study as decisions on parents often apply *mutatis mutandis* to their children. If indeed an individual family group identifier was available, as opposed to say a single vs. family indicator variable, we could treat the family as a cluster and incorporate it as a second random effect in the model. A study of this nature would provide invaluable additional insight into determination probabilities as it would appropriately adjust for a determination made on a parent that also applies to their children.

## REFERENCES

- APODACA, C., 1998. "Human Rights Abuses: Precursor to Refugee Flight?", *Journal of Refugee Studies*, Vol. 11, No. 1, pp. 80-93.
- CAMP KEITH, L. and J. S. HOLMES, 2009. "A Rare Examination of Typically Unobservable Factors in US Asylum Decisions", *Journal of Refugee Studies*, Vol. 22 No. 2, pp. 224-241.
- CLEVELAND, W. S., 1979. "Robust Locally Weighted Regression and Smoothing Scatterplots", *Journal of the American Statistical Association*, Vol. 74, pp. 829-836.
- DAVENPORT, C., M. H. WILL and S. C. POE, 2003. "Sometimes You Just Have to Leave: Domestic Threats and Forced Migration, 1964-1989", *Journal of International Interactions*, Vol. 29, pp. 27-55.
- DOBSON, A., 1995. *Generalised Linear Models*, 5th Edition. London: Chapman Hall/CRC.
- LAIRD, N. M. and J. H. WARE, 1982. "Random Effects Model for Longitudinal Data", *Biometrics*, Vol. pp 963-974.
- EDMONSTON, B., 1993. "Why Refugees Flee: An Exploratory Analysis of Refugee Emigration Data", National Academy of Sciences, Washington, DC, Unpublished manuscript.
- EUROPEAN COMMISSION, 2003. "right to family Reunification 2003/86/EC", <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:32003L0086:EN:HTML>.
- EUROPEAN COMMISSION, 2003. "Dublin Regulation 2003/343/EC", <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2003:050:0001:0010:EN:PDF>.
- EUROPEAN COMMISSION, 2004. "Qualification Directive 2004/83/EC", <http://eurlex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:32004L0083:EN:HTML>.

- EUROPEAN COMMISSION, 2007. "Community Statistics on Migration and International Protection", <http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32007R0862>.
- FREEDOM HOUSE 2013. "Freedom in the World 2013", <https://freedomhouse.org/report/freedomworld/freedom-world-2011?page=363&year=2011#.Vbd7bbNVhBc>
- GIBNEY, M, C. APDACA and J. MCCANN, 1993. "Refugee Flows, the Internally Displaced, and Political Violence (1980-1993): An Exploratory Analysis" in A. P. Schmid (ed.), *Whither Refugees? The Refugee Crisis: Problems and Solutions*, Leiden, pp. 45-61.
- HATTON, T. J., 2004. "Seeking Asylum in Europe", *Journal of Economic Policy*, Vol. 19, No. 1, pp. 5-62.
- HATTON, T. J., 2009. "The Rise and Fall of Asylum: What Happened and Why?", *The Economic Journal*, Vol. 119, pp. F183-F213.
- HOLZER, T., G. SCHNEIDER and T. WIDMER, 2000a. "The Impact of Legislative Deterrence Measures on the Number of Asylum Applications in Switzerland (1986-1995)", *International Migration Review*, Vol. 34, No. 4, pp. 1182-1216.
- HOLZER, T., G. SCHNEIDER and T. WIDMER, 2000b. "Discriminating Decentralisation – Federalism and the Handling of Asylum Applications in Switzerland (1988-1996)", *Journal of Conflict Resolution*, Vol. 44, No. 2, pp. 250-276.
- IHAKA, R. and R. GENTLEMAN, 1996. "R: A Language for Data Analysis and Graphics", *Journal of Computational and Graphical Statistics*, Vol. 5, pp. 299-314.
- KEOGH, G., 2013. "Modelling Asylum Migration Pull Force Factors in the EU-15", *The Economic and Social Review*, Vol. 44, No 3, pp 371-399.
- LAIRD, N. M. and J. H. WARE, 1982. "Random-Effects Models for Longitudinal Data", *Biometrics*, Vol. 38, No 4, pp. 963-974.
- NEUMAYER, E., 2005a, "Asylum Destination Choice. What Makes Some West European Countries More Attractive Than Others?", *Journal of European Politics*, Vol. 5, No. 2, pp. 155-180.
- NEUMAYER, E., 2005b, "Bogus Refugees? The Determinants of Asylum Migration to Western Europe", *International Studies Quarterly*, Vol. 49, pp. 389-409.
- UNHCR, 1992. *Handbook on Procedures and Criteria for Determining Refugee Status under the 1951 Convention and the 1967 Protocol relating to the Status of Refugees*, Geneva, Switzerland: United Nations High Commissioner for Refugees.
- UNHCR, 2002. *Statistical Yearbook 2001*, Geneva, Switzerland: United Nations High Commissioner for Refugees.
- UNHCR, 2013. *Statistical Yearbook 2012*, Geneva, Switzerland: United Nations High Commissioner for Refugees.
- UNHCR, 2013. *Beyond Proof Credibility Assessment in EU Asylum Systems*, Geneva, Switzerland: United Nations High Commissioner for Refugees.
- VENABLES, T. and B. RIPLEY, 2002. *Modern Applied Statistics with S-PLUS*, 4th Edition, London: Springer.
- VINK, M. and F. MEIJERINK, 2003. "Asylum Applications and Recognition Rates in EU Member States 1982-2001: A Quantitative Analysis", *Journal of Refugee Studies*, Vol. 16 No. 3, pp. 297-315.

## APPENDIX

*Frequency and Percent Distribution of Independent Indicator Variables*

	<i>Indicator Value</i>			
	<i>No</i>		<i>Yes</i>	
	<i>Frequency</i>	<i>Percent</i>	<i>Frequency</i>	<i>Percent</i>
After 2006	27,545	68	12,889	32
Gender (female)	16,067	40	24,367	60
SP Decision	36,042	89	4,392	11
RIA	20,387	50	20,047	50
Air Travel	20,233	50	20,201	50
Asylum Reason (political)	27,891	69	12,543	31
Religion (stated)	35,485	88	4,949	12
Ethnicity (stated)	29,411	73	11,023	27
Unaccompanied Minor	38,699	96	1,735	4
Interviewed	17,289	43	23,145	57
Ever Married	22,966	57	17,468	43
English Speaking	26,157	65	14,277	35
Free or Partially Free Country of Origin	12,875	32	27,559	68