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**Longitudinal Studies:
An insight into current
studies and the social and
economic outcomes for migrants**

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List of Acronyms

BIMPR	Bureau of Immigration, Multicultural and Population Research (Australia)	IMDB	Longitudinal Immigration Data Base (Canada)
BIR	Bureau of Immigration Research (Australia)	INS	Immigration and Naturalization Service (US)
CAPI	Computer-Assisted In-Person Interview (US)	LDS	Longitudinal Data Set (Australia)
CATI	Computer-Assisted Telephone Interview (US)	LIDS	Landed Immigrants Data System (Canada)
CCSD	Canadian Council on Social Development	LisNZ	Longitudinal Survey of Immigrants to New Zealand
CEETUM	<i>Centre d'Études Ethniques des Universités de Montréal</i> /Centre for Ethnic Studies of the Universities of Montreal (Canada)	LS	Longitudinal Survey
CIC	Citizenship and Immigration Canada	LSAC	Longitudinal Survey of Australian Children
CILS	Children of Immigrants Longitudinal Survey (US)	LSIA	Longitudinal Survey of Immigrants to Australia
CSDS	Community Social Data Strategy (Canada)	LSIC	Longitudinal Survey of Immigrants to Canada
DIMIA	Department of Immigration, Multicultural and Indigenous Affairs (Australia – was Department of Immigration and Multicultural Affairs)	MRCI	Ministry of Relations with Citizens and Immigration (Canada)
DoL	Department of Labour (New Zealand)	NIS	New Immigration Survey (US)
ÉNI	<i>Établissement des Nouveaux Immigrants</i> /New Immigrants Settlement in Montreal (Canada)	NIS-P	New Immigrants Survey Pilot (US)
FaCS	Department of Family and Community Services (Australia)	NLSY	National Longitudinal Survey of Youth (US)
GSOEP	German Socio-Economic Panel Survey	PSID	Panel Survey of Income Dynamics (US)
HILDA	Household Income and Labour Dynamics in Australia	SDB	Settlement Data Base (Australia)
		SLID	Survey of Labour and Income Dynamics (Canada)
		STC	Statistics Canada

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Chapter 1: Introduction

This paper responds to the interest of the Home Office's Immigration, Research and Statistics Service (IRSS) in creating a longitudinal database to provide information on the social and economic outcomes for refugees and other migrants entering and settling in the United Kingdom. The research team were asked to provide information on current longitudinal methods used worldwide in creating suitable databases on migrant profiles and outcomes, with specific reference to four existing longitudinal surveys (LS) in Canada, the United States, Australia and New Zealand.

The background to this need for further insights into LS experience elsewhere is as follows. Whilst there is much emerging research on migrants and refugees in the UK and Europe, much of this is based on small-scale, one-off studies, often orientated to individual migrant groups in particular places, or to the evaluation of specific policies (Stewart 2001). Little attention has been paid to how those who migrate experience changing economic, social and policy contexts over time, and to how migrants develop strategies or respond to incentives in highly diverse and dynamic economic and political circumstances (Black 2001). There is no doubt that there are significant gaps in available datasets on asylum and other international migrants in the UK. For internal migration and established ethnic minorities, longitudinal data are available through the population census. However this dataset is limited by the census-defined variables available and by the infrequency of the census: the most recent published analyses refer to 1981–91 (Fielding 1997; Fielding and Halford 1999). Furthermore, for refugees and other recently-arrived migrants, the census and other regular population surveys reveal little if any information about these specific groups. This is despite the fact that time and context factors arguably matter more for refugees and other international migrants than for any other population group, given their often precarious and dynamic legal status and (for refugees at least) their experience of discrimination and exclusion. And yet the characteristics of migrants – their human capital and skills, and

their willingness to respond to labour market needs and opportunities, especially in sectors and locations where there are labour shortages – make them a potentially valuable resource.

In this context, a new source of time-series information or longitudinal data on refugees and other migrants could represent an important resource to comprehend matters related to their lives, especially regarding economic and social outcomes, and how these change over time. Longitudinal data are particularly useful in providing evidence to demonstrate how public policy interventions might be associated with such change, hence providing a valuable tool for evaluation of the impact of such policy.

1.1 Aims and Objectives of this Study

The overall aim of this review is to provide details of and insights into the existing methodologies used to create LS that focus on social and economic outcomes for refugees and other migrants, as well as to summarise the outcomes and usefulness of different types of LS.

Key objectives of this paper are:

- To review and furnish appropriately detailed accounts of the methodologies used to create longitudinal studies on refugees and other migrants in Canada, the US, Australia and New Zealand.
- To provide lists of what information is included (and hence also excluded) in each of these countries' LS, and how the data are collected and compiled.
- To list the advantages and disadvantages of the approaches taken in each study, in terms of their cost-effectiveness and value to academic and policy users.

In order to attain these objectives the research team have surveyed the literature and websites on the LS of the four countries mentioned, and have engaged in a variety of means of communication with the key persons and departments involved.

In our comparative analysis of the LS experiences of the four countries, we decided to devote particular attention to Canada, given

its breadth of experience in the field. Tiemoko visited Canada (Ottawa, Montreal) during 3–10 June 2002, and Black was able to visit Toronto on 14 June 2002 as an offshoot from another trip to the US. Discussions also took place with Australian researchers during a visit by Skeldon to Bangkok in June 2002.

1.2 Specific Questions Posed

The following is a more specific listing of questions posed, grouped into categories. These questions were used to frame the interrogation of the Canadian experience in particular; as many of them as possible were also confronted in the other three countries.

A. History and objectives

- 1 Reasons for the survey
- 2 History and age of the survey
- 3 Who initiated and implemented the project, and what consultations with stakeholders (academics, government departments, NGOs etc.) took place?
- 4 What were seen as the key objectives?

B. Questions of sampling and survey design

- 1 What categories does the survey include (refugees, other migrants, children, the elderly)?
- 2 What was the population sample used? How was it located?
- 3 What was the coverage of the survey?
- 4 What were the variables and topics covered?
- 5 Did the survey use a control group? If so, how was it established?
- 6 How was the survey representative?
- 7 How many waves, and length of time between them?

C. Questions of methodology and implementation

- 1 Who carried out the survey?
- 2 The period of the survey
- 3 Were pilot and/or feasibility studies conducted, and how were they evaluated? What use was made of pilot data?

- 4 How were the questionnaires administered?
- 5 How were translation issues dealt with?
- 6 Were there any links to other surveys (linking of administrative data etc.)?
- 7 Mechanisms to check accuracy and reliability of data (post-enumeration checks etc.)

D. Questions of analysis

- 1 Were the analyses carried out in-house?
- 2 If subcontracted, to which agencies/individuals?
- 3 What kinds of analyses were done, when, by whom etc?
- 4 Any consultation with users?

E. Questions of evaluation

- 1 Advantages and disadvantages of approaches taken and methods used
- 2 Challenges faced
- 3 What was the cost of the survey, and who paid?
- 4 Satisfaction of stakeholders with the survey

1.3 Structure of the Paper

The rest of the paper is organised into five chapters: four on the countries surveyed, and a conclusion which draws together significant insights from the different case studies and applies them to the UK experience. As mentioned above, we devote most attention to the Canadian case. In the concluding chapter we also draw out some comparative and thematic findings. The paper contains, in its appendices, a list of individuals and organisations consulted, a list of useful websites, and summary tables which contain key information from each of the four case-study countries.

Chapter 2: Longitudinal Surveys of Immigrants in Canada

2.1 Introduction

In recent decades, Canada has launched a number of Longitudinal Surveys (LS)¹ and several are specifically on immigration. Two early LS on immigration, conducted in 1969–71 and 1976 respectively, involved several thousand newly-arrived immigrants selected from those awarded permanent residence visas (Ornstein 1982; Ornstein and Sharma 1981). Then, in 1980, the Longitudinal Immigration Data Base (IMDB) was established, which links administrative records on immigration, employment and taxation. The most recent LS is the Longitudinal Survey of Immigrants to Canada (LSIC), which was initiated in the late 1990s, and remains in its first phase (Martin 2002). In addition, in the late 1980s, the province of Quebec successfully launched its own longitudinal survey on the Settlement of New Immigrants to Quebec (ÉNI: Établissement des Nouveaux Immigrants). The ÉNI is similar to the LSIC in its approach, survey design and topics covered, but has some innovative features that merit attention.

This chapter highlights the main features of the IMDB, LSIC and ÉNI. It is based on a review of various published and unpublished documents and websites on these surveys and on email discussions and interviews conducted with academics and policy-makers in Canada in June 2002.

2.2 History and Objectives

The IMDB covers the period 1980 to 1990 with an update since 1998. Its objective is to provide data that could help in understanding the performance and impact of the state's immigration programme by linking outcomes to immigration policy levers. In more detail:

¹ Current LS of Statistics Canada include the Longitudinal Survey of Children and Youth, the Youth in Transition Survey, the Survey of Labour and Income Dynamics (SLID) and the National Population Health Survey, as well as the Longitudinal Survey of Immigrants to Canada (LSIC), which is discussed further below.

The IMDB was created to respond to the need for detailed and reliable data on performance and impact of the immigration program. It allows, for the first time, the analysis of relative labour market behaviour of different categories of immigrants over a period long enough to assess the impact of immigrants' characteristics, such as education and knowledge of French or English, to the settlement process. It also permits the investigation and measurement of the use of social assistance by different categories of immigrant and allows the measurement and analysis of secondary inter-provincial and inter-urban migration. It is the only source of data which links outcomes to immigration policy levers (Langlois and Dougherty 1997: 1).

The IMDB was created by a federal–provincial consortium led by Citizenship and Immigration Canada (CIC) and managed by Statistics Canada (STC). The consortium was created to ensure that all government departments with an interest in immigration 'have access to a shared body of information to support research and analysis on the performance of the program' (Langlois and Dougherty 1997: 1).

Although the IMDB has been and still continues to be an important source of information for policy, there were still major information gaps in the knowledge on migrants. For example, the IMDB has little social and demographic information and it is silent on the early phase of settlement of new immigrants. It also does not allow an assessment of the impact of education, training and services received after immigrants arrive in Canada, since data such as that on educational achievement is 'frozen' at the point of entry. In other words, the IMDB only partially helps in assessing whether government policy towards immigrants is effective or not, especially as regards the achievement of the goals of the 1976 Immigration Act (which were: to foster the development of a strong economy in all parts of the country; to facilitate the reunion in Canada of Canadian residents with close family members abroad; and to fulfil Canada's legal and humanitarian obligations with respect to refugees).

Important, too, in an historical context are the shifts and changes in the immigration

programme of Canada and the changes in the composition, ethnic origin and volume of immigrants. For instance in the thirty years from 1970 to 2000, the top two source countries changed from Britain and the US to China and India, bringing new challenges related to linguistic and cultural integration. These changes, coupled with a shift towards selection of more highly skilled and business immigrants and away from family reunification, as well as trends towards economic and cultural globalisation and an internationally mobile labour force, have made the issues of immigrant integration and the government's role in enabling this process much more important. Policy-relevant information is therefore needed to improve understanding of the settlement process and thus help government at all levels in providing the effective responses that are deemed necessary to maximise the positive impact of immigration.

In 1998, at an early stage of the LSIC, a Joint Working Group on the advancement of research using social statistics expressed the 'need to design social policy informed by social statistics'. The Group wrote:

there is a general sense among many Canadians that the major problems we face are not economic, but social. Government at all levels has acknowledged the need to redesign our social policy so that it fits better with our current economic policy (Joint Working Group 1998: 1).

It went on to say that such social policy requires an understanding of the life-course and the complexity of social relations through a well-integrated system of social surveys. Specifically:

the descriptive data available from cross-sectional surveys were inadequate for monitoring changes in social outcomes, or understanding the causal mechanisms that led to desired outcomes. This required longitudinal surveys... (Joint Working Group 1998: 1).

The LSIC was thus designed to fill these information gaps by studying how newly-arrived immigrants adjust to living in Canada during the first four years of their settlement. In 1995, Citizenship and Immigration Canada (CIC) held a meeting with academics and

representatives of the provincial governments to identify key policy issues and which specific aspects of settlement to include in the LSIC, although one of our informants suggested that discussions had first been initiated by CIC at least five years earlier.

The LSIC improves upon available datasets such as the census and the IMDB by including longitudinal information, and capturing information that moves beyond the economic to include social and cultural aspects of integration.

The main objectives of the LSIC can be summarised as follows:

- Collect information on new immigrants' integration in Canada; how they adjust to life in Canada.
- Understand the factors, including the larger social, economic and civic context, that can help or hinder this adjustment.
- Study the timeframe surrounding integration.
- Identify immigrants' contributions to Canada's economy and society.

The LSIC started in April 2001 and the aim was to interview about 20,000 people aged 15 and over. Like the IMDB, the LSIC is conducted by STC, in partnership with CIC.

The ÉNI survey in Quebec emerged in a similar context to the LSIC. Quebec was also affected by an increased immigration flow in the late 1980s, a shift in the countries of origin and debate over immigrants' language skills. There was perceived to be a strong need to understand the first period of settlement and to redesign immigration programmes in response to evidence. As a result, in 1988 the then Ministry of Culture, Community and Immigration sponsored a longitudinal study of immigrants in collaboration with the *Institut québécois de recherche sur la culture* and the *Centre d'Études Ethniques des Universités de Montréal* (CEETUM). The main objective of the ÉNI was to provide the Ministry with relevant and updated policy information on new immigrants to help in improving its programmes and actions. Professor Jean Renaud of CEETUM was responsible for the project. Prof. Renaud, in collaboration with the Department of Research within the Ministry, identified a number of key policy questions that the ÉNI was designed to address:

- How long does the settlement and integration process take and what are the main factors? In particular:
- How long does it take an adult immigrant to get stably established in the labour market, and in accommodation?
- Do immigrants continue their training/education once settled in Quebec?
- To what extent does this education/training affect their employability?
- What kinds of social network have they established?

2.3 Sampling and Survey Design

The IMDB covers only workers or those filing tax returns, and as such does not include children. While in its approach it does not exclude refugees, the constraints attached to tax files encourage an under-representation of women and of refugees whose cases are in the process of being determined in-country (Schellenberg 2001). However, more generally it does include both refugees and other migrants. Indeed, one particularity of Canada which has been crucial in the project is the coverage and accuracy of tax files: all adults in Canada, regardless of their employment status, are obliged to fill in the tax form. These forms can be used to claim tax credits.

The IMDB has a sample size of 1.5 million immigrants (55 per cent of landed immigrants in the period) representing 69 per cent of all immigrants between 20 and 64 years of age. The IMDB is not representative of the total population of immigrants, but rather it is representative of those immigrants who file tax returns. It covers the whole country.

The LSIC covers all Census Metropolitan Areas and non-remote census agglomerations. Estimates are produced at the national level, and given the concentration of immigrants in Ontario, Quebec and British Columbia, it also uses weights to produce reliable estimates at provincial level. As stated earlier, the LSIC is at its initial stage, just completing the first wave of interviews. This is a single cohort study targeting initially 20,300 people aged 15 and over selected from the 190,000 visa-holders admitted during the year in which it was implemented. As with the IMDB, the LSIC is not representative of the total population of immigrants, but rather it is representative of immigrants who are issued a permanent residence visa to enter Canada.

The sampling frame for the LSIC is the administrative data from CIC on immigrants who were issued visas for Canada between October 2000 and September 2001 from abroad. The sampling strategy excludes asylum claimants and other immigrants who were either already landed or in-country claimants. The main reason for excluding this group, according to CIC, is the sharp difference in settlement trajectories of the two groups. With a goal of 5,000 interviewed individuals at wave three, and an estimated overall attrition rate over the three waves at slightly over 50 per cent, 20,000 immigrants were selected to take part in the first wave, and 12,000 were expected to be successfully interviewed. In practice, the attrition rate was around 40 per cent after the first wave.

The LSIC employs a two-stage stratified clustered sampling strategy using the province of destination and the visa category. Then one individual is selected from each family group. The LSIC will be conducted over four years in three waves. The first wave was taken six months after arrival in Canada, the second wave is scheduled for the second year of settlement (i.e. 2003) and the third and last wave will be in the fourth year of residence in Canada (2005). Participation is voluntary. In contrast, the ÉNI covered only new adult immigrants issued with a visa to enter Canada and settle in Quebec. In practice, the study is limited to interviews in the Montreal region because 89 per cent of new immigrants to Quebec in 1989 settled in this region, and focusing on them reduced the cost of the survey. In most other respects, the survey design of the ÉNI is similar to that of the LSIC. A total of 1,000 interviews were conducted in the first wave in 1989–93, and a follow-up survey in 1999 reached 429 of these respondents. Given the fact that participation in the LSIC and ÉNI is voluntary, and that some of those selected do not come to Canada (or in the case of the ÉNI do not arrive in Montreal), both of these surveys are open to the criticism that they are not fully representative. However, the amount of bias was judged to be small, at least for the ÉNI (Renaud *et al.* 1992).

The IMDB collects demographic data, immigration programme data, personal attributes, labour force and government transfer data. In contrast, the LSIC and ÉNI are more wide-ranging, covering the following topics:

- Socio-demographic information
- Family structure
- Education
- Employment and income
- Current housing/mobility
- The role of social networks
- Organisations approached for help
- Knowledge of French and English
- Reasons for migrating to Canada
- Perception of settlement
- Intention of becoming a Canadian citizen
- Importance of ties with cultural and ethnic background.

The questionnaire for the first wave of the LSIC is a 193-page document covering 12 modules: Entry, Background, Social Network, Language Skills, Housing, Education, Employment, Health, Values and Attitudes, Income, Perception of Settlement, and Exit.

The *Entry* module informs the respondent about the survey and collects information on his or her date of arrival, immigration category, address and phone number, and basic demographic information and family relations. The *Exit* module collects address information if the respondent plans on moving, as well as two contact names for retracing in subsequent waves.

Five other modules contain specific sub-modules for collecting further information. For example, a sub-module on *Group Organisation* provides detailed information on every social group or organisation in which the respondent participates. The *Other Language* sub-module collects information on the official languages spoken by other household members and the *Where Lived* sub-module collects information on each location the respondent has lived in since arriving in Canada. Similarly the sub-modules to the *Education* module collect detailed information on the credentials and types of education the respondent has taken or is currently taking. *Employment Roster* and *Employment Detail* are also sub-modules and collect detailed information on the respondent's past and current jobs.

The ÉNI has similar modules, but its originality lies in the nature of the information collected and the way it is presented. Thus, it not only collects information on the different aspects and phases of settlement, but it also gives the chronology of the phases in weeks. The use of a short time unit (week) is a major methodological contribution of the study. Otherwise, the questionnaire is similar to the

one in use in the LSIC, but with more precision on household dynamics and formal integration (e.g. date of first bank account, registration for different services and institutions).

2.4 Implementation

The IMDB is implemented by STC in association with CIC, and combines administrative records from CIC's Landed Immigrants Data System (LIDS) and from the T1 general tax return. As a database management system, it does not involve questionnaires or translation issues, and there is no attrition. Individual immigrants are unaware of their inclusion in the IMDB, but STC is required by law to ensure the confidentiality of every individual within the system.

The LSIC involves individual interviews conducted by STC in one of the 15 languages most frequently spoken by new immigrants, including English and French. Most interviews are face-to-face, but one third are conducted over the telephone, where face-to-face interviews cannot be set up because, for example, of the geographical isolation of the interviewee. Each interview lasts about 90 minutes and is computer-assisted. STC has developed a Windows application for the computer-assisted interview in the fieldwork. While the initial cost of such a method may be high, it reduces not only data collection and coding errors but also the time between data collection and data availability in digital form for analysis. Given the length of the questionnaire, such a method seems highly desirable.

The main challenges of the survey design are tracing respondents and differentiating between similar or the same names among immigrants. Although administrative data were linked to facilitate the tracing, confidentiality was guaranteed, and respondents were requested to give their consent for the sharing of information between different ministries involved in the project.

In the ÉNI, a different strategy was adopted. Immigration officers, or in some cases a special agent at the entry-point (airport), contacted each potential respondent on arrival. Sampled individuals were provided with a form to fill in at airports once they had finished with their immigration formalities. All immigrants to Quebec are then also invited to report to the MRCI (Ministry of Relations with Citizens and

Immigration) after arrival for orientation and information on services and utilities available to them. Through such reporting it was possible to trace and if necessary correct the address of the respondent. Most importantly, the consent of all participants was requested and obtained at this early stage for sharing their personal information with other ministries involved in the research. Obtaining this consent at the beginning of the survey was said to be extremely helpful for the coupling of information and tracing respondents. However, it seems that for the last wave of the survey, that is, 10 years after arrival, the research team encountered some difficulties, especially a two-year delay in clearing administrative and legal constraints on confidentiality and sharing information. It should be noted that the ÉNI used face-to-face interviews in one of 25 languages, without computer assistance, and that these were carried out by CEETUM.

There was a pilot survey for the LSIC in 1997 with 400 respondents. The main objective of the pilot was to test the process of survey design and data collection, and particularly the content of the questionnaire and the level of refusal. The pre-test successfully interviewed 37.6 per cent of the 1,135 cases in the sample (less than the 44 per cent planned) with a refusal rate of only 4 per cent. The main constraint was the difficulty in establishing contact, as many respondents were absent, or their address was inaccurate (Statistique Canada 1997).

As tracing was the main problem of the project, the pre-test used as many sources of information as possible (CIC database, form filled in on arrival, contact address update, contact person and medical/insurance database). Of these five sources of contact, the pre-test results suggested that the CIC database was the least helpful in tracing immigrants and obtaining responses. The contact person, the form filled in on arrival and the medical database between them ensured higher numbers of respondents and a higher proportion of successful interviews.

The pre-test identified key difficulties and issues to address for the main survey, but concluded that the LSIC was feasible and would provide interesting and reliable information. It did not yield any substantive analytical findings as the design would not allow reliable estimates of population characteristics. Overall the pre-test was judged to have been successful. However, there was

no audit or post-enumeration to assess the quality of the data collected.

2.5 Analysis

The Canadian government is very concerned about the protection of privacy and all research must conform to the strict rules of the Confidentiality Act. To ensure the confidentiality of the data and thus the privacy of the surveyed individuals, both the IMDB and LSIC data are stored and managed by STC. STC either conducts the analysis itself, or controls the analysis done by authorised researchers who are under an oath of confidentiality. STC can also provide users with 'a compendium of statistical cross-tabulation' in aggregate form.

Analysis of the IMDB appears to have produced useful and reliable data. Because it is not a survey and has a large coverage of 1.5 million immigrants with ten years of observations, the IMDB has yielded policy-relevant information on immigrants. The IMDB is available to support the research efforts of all interested users on a cost recovery basis, although some outside the Federal Government complained that it was only available to Federal Government analysts.

To date, eight working papers are available on the CIC website that are based on the IMDB, ranging from the economic performance of immigrants, their labour market prospects and inter-provincial migration (see Appendix 2). The database has also been used by provincial statistical services (BC Stats 1999) and academics (Hum and Simpson 2002). However, from our interviews, it seems that the demand for and the use of IMDB data in general, and longitudinal immigration information in particular, depend on the province and region. Quebec and British Columbia stand out as the main users of the IMDB, although Ontario (a major destination of immigrants) has made relatively little use of the database. At the same time, there is a danger of IMDB data producing erroneous conclusions. For example, the fact that it is based on a tax form that reports wages from employment means that immigrant entrepreneurs (who are self-employed) may show up as having low or zero incomes.

The Canadian Council on Social Development (CCSD) is also seen as a key user of the IMDB. The CCSD was established in 1920 as a non-profit organisation and its main activity is

research, focusing on concerns such as income security, employment, poverty, child welfare, pensions and government social policies. Its current interests are poverty, youth, family and cultural diversity. It claims to have been a regular user of the IMDB and other datasets to provide relevant policy research to government, non-profit organisations and political parties.

Although the CCSD considered the LSIC as important in understanding the settlement process, it was not sure whether it will use these data, since the resources required are enormous and most of its clients might not be ready to pay for the service. Another problem of this longitudinal survey is the long time required to obtain and then prepare the data for analysis. The results of the LSIC should, however, be used by federal government departments, provincial ministries, immigration settlement agencies and some non-governmental organisations. For example, some provinces have already clearly expressed their needs and requested information and estimates at the provincial level.

In Quebec, the ÉNI has played an important role in shaping immigration and community policies and programmes in the last decade. Its results on language skills, employment dynamics and housing have been particularly useful (Renaud *et al.* 1992; 1993). According to Prof. Renaud, both government and immigrant settlement agencies have been very positive about the ÉNI and there is now a roundtable consultation between the two groups of stakeholders. He commented that the ÉNI has also enhanced research and training on migration, community and culture in the University of Montreal and especially in CEETUM, where it was analysed. However, it has been necessary to conduct additional bespoke surveys to capture particular immigrant groups such as refugees (Renaud and Gingras 1998; McAll and Tremblay 1996).

To improve access to social data through the IMDB and other datasets, the CCSD has launched the Community Social Data Strategy (CSDS). Data are expensive, particularly for local or small organisations with limited resources. This is a fact acknowledged by CIC. The CSDS will bring together project partners with similar data needs in order to maximise their collective buying power. Through the CSDS community base organisation, non-profit organisations and municipalities will have access to key social data.

In setting up the LSIC, CIC went through various consultation processes with different partners. Apart from meetings with government departments and academics, a discussion with a group of immigrants took place at a very early stage of the project to improve the design and content of the project. CIC established a ten-member consultative committee with acknowledged expertise in academic, community and cultural research and in policy elaboration. This consultation could be extended further, especially to NGOs. However, many NGOs are concerned with asylum claimants or others who are not included or highlighted in the surveys. In addition many NGOs do not have the capacity to make appropriate use of such data.

2.6 Evaluation

As might be expected, it is not easy to estimate the cost of these studies. From our interviews, it appears that the IMDB has not cost more than Can\$ 3 million (£1.3 million) over its entire period.² For the LSIC, the cost from the beginning until the completion of the second wave is estimated at about Can\$ 16.4 million (£7.1 million). The Policy Research Initiative is the main sponsor of the project, but the CIC has contributed in the region of Can\$ 4 million (£1.8 million). The ÉNI, which focused on Montreal only, cost less – about Can\$ 2 million (£0.9 million) – secured through the Ministry's sponsorship and research subsidies obtained by Prof. Renaud. The fieldwork cost Can\$ 100,000 (£45,000).

There are four potential limitations of the studies. The first relates to those categories and groups of immigrants that are excluded from all three studies, such as asylum claimants, and undocumented (or non-landed) immigrants. None of the surveys deals systematically with children. Meanwhile, only the IMDB covered all categories of immigrants (including refugees) who are on the labour market. Although this situation may be seen as a limitation of the studies, it is important to note that there are other studies (most of them cross-sectional) focusing on these groups of migrants. When all these studies are brought together, it does become possible to have an overview of all categories of migrants.

² Amounts in £ sterling are calculated using current exchange rates taken from the Universal Currency Converter (<http://www.xe.com/ucc/convert.cgi>).

Secondly, both the ÉNI and the LSIC adopted the study of one cohort of immigrants, which enables analysis of the process of settlement over time. However, what the ÉNI and LSIC cannot do is compare the experience of different cohorts of immigrants, meaning that they cannot, for example, examine differences in the experience of immigration before and after a policy change or a major historical event (9/11, for example). The IMDB data are helpful in this respect, since they do allow for isolation of different cohorts of immigrants, and comparison of their experience.

A third criticism of the LSIC raised during interviews was the lack of key policy questions that could have been elaborated at the initial phase of the project. One interviewee pinpointed the fact that some groups of migrants (e.g. those from particular places) might be particularly important for policy, but the current design of the LSIC fails to address this issue because of its general random sampling design.

Finally, the LSIC and the ÉNI may not be representative of the immigrant population because not all visa-holders will actually come to Canada and, with the survey being voluntary, and with problems in tracing respondents, the final sample may be biased.

The unit of analysis is the individual, but all the surveys except the ÉNI have a module on household dynamics. The IMDB income data are accumulated over the taxation year without a part-time/full-time distinction. In the IMDB the personal attributes are frozen at 'landing' – the point at which an individual enters Canada.

Chapter 3: Longitudinal Survey of Immigrants to Australia

3.1 Introduction

The development of the Longitudinal Survey of Immigrants to Australia (LSIA) dates from the late 1980s and was associated with the establishment of the then Bureau of Immigration Research (BIR) in 1989. This quasi-governmental institution was established to co-ordinate and implement research into immigration to Australia and, in the early 1990s, became one of the most innovative as well as best-funded institutions researching migration anywhere in the world. This chapter reviews this experience. It is based on a paper by Hugo (2000), and supplemented by discussions with him in Bangkok in June 2002 as well as by email discussion with other Australian researchers.

3.2 History and Objectives

The first step on the way to establishing the LSIA was the recognition that there was a lack of representative, relevant and timely information relating to immigration to Australia. This recognition emerged from the initial findings of the research co-ordinated by the BIR that showed a virtual complete lack of data on which to base meaningful government policy on immigration matters. The history of the LSIA has therefore been closely associated with the history of the BIR and its later manifestations. With the abolition of its final manifestation, the BIMPR (Bureau of Immigration, Multicultural and Population Research), by the incoming Liberal-National government in 1996, the fate of the LSIA, too, was less than assured. The fact that it has survived, albeit in a reduced form, is tribute to the value that Australia's leaders have seen in the results from the survey.

The key objective of the LSIA was to generate up-to-date data that would facilitate the monitoring and evaluation of specific immigration and settlement programmes and to assess programmes providing services to recently-arrived migrants. A pilot survey was set up in 1991 to test the feasibility of establishing a full survey. The results from the pilot survey started to be used by the BIR in 1992 and were used to supply well-documented answers to questions asked in parliament of the Minister of Immigration. The success of the pilot survey in generating new

data convinced the government to approve funding for the full LSIA in 1993.

However it should be noted that, like Canada, Australia has also established, or is embarking upon, a number of other types of longitudinal survey, quite apart from the study of immigrants. These include the Longitudinal Study of Australian Children (LSAC)³, the Household, Income and Labour Dynamics in Australia (HILDA) survey⁴, both panel surveys sponsored by the Department of Family and Community Services (FaCS), as well as the FaCS Longitudinal Data Set (LDS) 1% sample, which links administrative records in a similar way to the IMDB in Canada (though not specifically for immigrants).

3.3 Sampling and Survey Design

The people to be covered by the first wave of the LSIA were those arriving in Australia between 1 September 1993 and 31 August 1995 as permanent settlers (i.e. with a visa, granted overseas, to settle permanently in Australia). This includes refugees who are resettled from overseas, but excludes:

- Those granted a visa for permanent residence after arriving in Australia (including in-country asylum claimants)
- New Zealand citizens
- All persons entering for reasons other than permanent settlement
- Undocumented migrants

Only principal applicants were selected for interview and the principal applicant had to be 15 years of age or older. There was also a spatial constraint so that only those immigrants who settled in State and Territory capital cities and centres close to those capitals, plus Cairns, were included in the survey. These areas accounted for some 95 per cent of immigrant settlement and 71 per cent of the total population. This area-based selection was adopted to reduce field operation costs. The sample size of the first wave of the LSIA was 5,192, which represented about 7 per cent of the total permanent arrivals over the two-year period. The sample was stratified by visa entry categories (preferential family; concessional family; business; independent; humanitarian) and by country of birth. The sample was

³http://www.facs.gov.au/internet/facsinternet.nsf/aboutfacs/respubs/research-lsac_nav.htm

⁴ <http://www.melbourneinstitute.com/hilda/>

designed to give a 2.5 per cent absolute standard error for each visa entry category and 7 per cent absolute standard error on birthplace group. The sample was to be 'rolling', that is, collected over four six-month segments, to allow the information to be collected as soon after arrival as feasible.

Sampling practices were made more complex than originally intended by incomplete contact address information on the sample frame used. The DIMIA Settlement Database was used as the sampling frame. This is an internal system which links data from several sources, including entry and exit records. The main address source on the SDB was obtained from a Settlement Assistance Information Form. Permanent settlers are requested to complete this form in their country of origin but, as completion is voluntary, it was found that certain origin groups had lower completion rates than others. The contact address information from these forms had to be supplemented with that from the Arrival Cards that all persons entering Australia must complete.

Refusal rates of those contacted were very small (2.2 per cent) but the major problem lay in contacting the selected principal applicants and there was considerable attrition between those selected for interview and those actually interviewed: only about 60 per cent of those selected could be interviewed. Fully 12.4 per cent could not be tracked and a further 13.3 per cent of the principal applicants were overseas.

Initially, there was a very complex questionnaire as a result of responding positively to the many stakeholders with an interest in the LSIA. There were some 330 questions under 12 policy topics. Topics covered in the questionnaire administered to principal applicants included (asterisked items were included on spouse/partner questionnaire):

- Household data
- Relatives living in Australia
- Information on pre-migration situation*
- The immigration process, decision-making and information sources
- Sponsorship information*
- Housing, moves, cost, quality, type
- Support services
- Financial assets and transfers
- Household budget
- Religion/ethnicity*

- Return visits/settler loss*
- Citizenship*
- Language/knowledge of English*
- Qualifications and their assessment*
- Further study/training*
- Work history/job-seeking*
- Health*
- Income and finances*
- Perception of Australia*
- Tracking details

A very thorough discussion of design issues associated with LSIA 1 is provided by Gartner (1996).

3.4 Implementation

Prior to implementation of the main survey, there was a major pilot study, the prototype LSIA, which was used to develop the final methodology. This study resulted in simplification of the questionnaire, provision of visual support materials translated into the 10 most common migrant languages, improvements to interviewer training and use of other sources than the SDB for contact address information.

The first wave of the survey was carried out in March 1994 by a commercial company. This was seen to put the survey at arms' length from the government and helps to improve the response rate and quality of information collected. Prior to this, there was a pilot survey of 100 applicants in one city that resulted in the questionnaire being considerably simplified.

Interviews were conducted face-to-face. The sample covered some 60 different language groups. Recruiting interviewers with ability to conduct interviews in the migrant's language was not viable for all language groups. While bilingual interviewers were used if available, it was decided to recruit interviewers primarily for interview skills and to use a mix of agency supplied interpreters and family or friend members for interpretation. Problems that could arise when friends and relatives were used as interpreters were addressed in interviewer training. While main questionnaires were produced only in English, visual support show cards were provided in the 10 most commonly encountered migrant languages.

The need to use languages other than English declined from wave to wave. Initially there were two questionnaires, one for the principal applicant and one for the spouse.

The first version of the LSIA involved three waves. Some 75 per cent participated in all three waves; 86 per cent in the first two waves. The issue of sample maintenance is crucial to the success of the LSIA and several techniques were tested during the pilot with the following adopted for the main survey:

- Collection of addresses of two contact persons at the time of the first interview
- Distribution of small gifts such as fridge magnets
- Sending of reminder cards every six months
- Provision of a pamphlet outlining the project

A second round of the survey, LSIA 2, has been initiated, although it is somewhat smaller, covering around 3,000 settlers who arrived in Australia between 1 September 1999 and 31 August 2000. Thus the reference period was reduced to a single year and two rather than three waves were taken. Given the changing priorities of Australian immigration, a greater emphasis towards the selection of highly skilled migrants was made in LSIA 2. Most of the other methodological procedures remained the same.

3.5 Analysis

Closure of the BIMPR resulted in less analysis of the LSIA than would otherwise have occurred. Nevertheless, the information has been used extensively at the policy level within government and it is important to stress that the use is not dependent upon the completion of the three waves of the survey. Results from the first wave were quickly found to answer questions about immigration to Australia. It can be noted that the major value of the LSIA is as a migrant survey rather than a longitudinal survey. The time-series data do, nevertheless, provide the best view of the whole process of settlement in Australia, and have led to some significant academic studies on the general experiences of new migrants (VandenHeuvel and Wooden 1999), as well as their specific experience of the labour force (Richardson *et al.* 2001).

Information from the LSIA is used by all sections of DIMIA but especially the Migration and Temporary Entry and the Multicultural Affairs and Citizenship divisions. Requests for information from the survey have been made by the following sections of these divisions,

showing the range of interests that can find use for the LSIA data:

- Economics and environment
- Statistics
- Migration programme
- Skilled migration
- Business migration and APEC
- Family
- Language policy
- Access and equity
- Anti-racism education unit
- Citizenship policy section
- Community reporting section
- Community resource development section
- Settlement policy and planning
- Client access
- National multicultural advisory council
- Social justice co-ordination

The following other federal government departments have made use of the data:

- Department of Employment, Workplace Relations and Small Business
- Australian Bureau of Statistics
- Department of Education, Training and Youth Affairs
- Department of Finance
- Australian Broadcasting Authority
- Attorney General's Department

Almost all the use made by government departments appears, so far, to have been at the federal level, with only one state government having made much use of the information.

3.6 Evaluation

The costs of the survey are difficult to estimate accurately as many of the planning and developmental costs were absorbed under the recurrent costs of regular departmental budgets. The costs of the field interviews for the three waves of the first cohort of the LSIA were around A\$ 3 million (£1.1 million), while the two waves of the smaller second cohort are estimated to cost A\$ 1.2 million (£0.4 million). These costs do not include analysing or publishing the results of the survey.

There are some concerns, however, that the survey cannot address the complexity of the global international flows that appear to have overtaken Australia in the 15 years since LSIA 1 was planned and initiated. Provision now needs to be made to consider including onshore visa approvals, New Zealand citizens,

immigrants settling outside the capital cities and those entering on non-settler visas. It will be particularly difficult to generate any information on undocumented migrants, although it might be possible to include within the sample frame those who entered as asylum-seekers and were later granted the right to stay in Australia.

Chapter 4: Longitudinal Survey of Immigrants to New Zealand

4.1 Introduction

The principal objective of the Longitudinal Immigration Survey: New Zealand (LisNZ) is 'to provide reliable authoritative statistics about migrants' initial settlement experiences in New Zealand and the outcomes of immigration policies'. The information collected will allow a picture to be built up of the contributions, as well as the costs, of migrants to New Zealand, their experiences and labour market outcomes. That is, it will become much easier to assess the net benefits (or otherwise) of immigration using the data generated from the survey. Consultations on the survey began in late 1999 and the pilot survey in mid-2001.

So far, the main survey has not been initiated, placing limits on the conclusions that can be drawn. Nonetheless, the aim here is to draw out key points from the experience of the pilot survey, and design of the main survey, that are of interest. The chapter is based on analysis of documentary and web-based material, as well as on email discussion with key actors involved in establishing the LisNZ.

4.2 History and Objectives

Interest in establishing a longitudinal survey of immigrants in New Zealand can be traced to a report of the Department of Labour (DoL – of which the New Zealand Immigration Service is part) as recently as 1998, in which they noted the absence of data that would allow evaluation of policies on immigration, and the lack of generalisable data on immigrant adaptation. This information gap was seen as significant, in spite of the existence of census material and 'hundreds' of studies on international migration to New Zealand.

There are 12 major survey objectives for the LisNZ and within each of these there are specific policy objectives. The major survey objectives are:

- To describe key family, household and other general characteristics of migrants
- To describe the reasons for migration, migration information sources used, locations chosen within New Zealand, and perceptions of and satisfaction with New Zealand
- To describe the types of housing used by migrants, the problems experienced in

accessing suitable housing, and expectations of and satisfaction with housing in New Zealand

- To describe migrants' labour market experiences and identify issues associated with labour market integration
- To describe the characteristics of migrants involved in business and the nature of their business activities
- To describe levels of personal and business assets brought to New Zealand, and levels of migrant income and expenditure
- To identify levels of English-language proficiency, issues relating to language proficiency, and English-language acquisition and training for migrants
- To describe levels of schooling and qualifications on arrival, factors affecting use of qualifications, participation in schooling and further education and training in New Zealand, and issues relating to schooling in New Zealand
- To identify migrants' need for and use of government and/or community social services and health services, issues relating to service use, and unmet needs in the provision of these services
- To describe the social networks which migrants develop, identify factors affecting the establishment of these networks, and investigate some initial indicators of settlement
- To identify migrants' perceptions of their health status
- To collect key information on partners of migrants which can be analysed as characteristics of the survey respondent.

To give an idea of the policy concerns identified under each objective, the following relate to the second objective only, the reasons for migration:

- Reasons why migrants come to New Zealand
- Whether New Zealand is seen as an interim or a final destination
- Whether the experiences of settlement influence migrants' duration-of-stay intentions
- Reasons for moving within New Zealand and on-migrating from New Zealand to another destination
- Whether migrant retention rates differ by immigration approval category; and generally, whether specific selection criteria were useful.

4.3 Sampling and Survey Design

The survey sample will be based upon a representative sampling of approved applications, which consist of the principal applicant and accompanying family members. Separate sample frames for those applying onshore and for those applying offshore are being drawn up. The target population for interview includes all those 16 years of age and older at approval who are already in New Zealand or who arrive in New Zealand within 12 months of approval. Stratification will be made by visa entry type and by business category. Excluded from consideration are the following:

- Refugees
- Temporary visitors
- Persons in New Zealand unlawfully
- People (citizens) of Australia, Niue, the Cook Islands and Tokelau

It is expected that information will be collected on a wide range of areas, including employment, business activity, use of government and social services, social networks, health, training and education, entrepreneurial behaviour, international linkages, reasons for migration, migration information sources used, locations and housing, family and household characteristics, and re-migration patterns and satisfaction (or otherwise) with life in New Zealand (Dunstan and Bedford 2000).

4.4 Implementation

Sampling for the main survey was programmed to commence from October 2002 with the interviewing beginning from April 2003 and the final fieldwork from a third wave of interviews not complete until March 2008. The aim is to achieve a sample of around 5,000 migrants at the third interview. Taking into account expected attrition rates, it is presently estimated that the initial interview will cover around 7,500 migrants. The migrants will be interviewed at around six months, 18 months and 36 months after taking up permanent residence status. Small area data will not be generated but the results will be valid for the following three regions:

- The Auckland region
- The rest of North Island
- South Island

The survey is being conducted by Statistics New Zealand on behalf of the DoL, and involves face-to-face interviews. Unlike the Australian LSIA, the New Zealand survey anticipates production of questionnaires, materials and the training of interviewers in languages other than English, particularly Samoan and Chinese. The results of the pilot survey for the first wave showed the common problem of attrition from those sampled to successfully interviewed: only 42 per cent were successfully interviewed in the 2001 pilot.

4.5 Analysis

Since the LisNZ has not yet been conducted, it is not possible to describe any analyses that have been undertaken. However, there has been substantial consultation, with written and verbal feedback being supplied to the DoL by 85 agencies, groups and academics, and a Key User Group has been established that includes central and local government agencies, community and ethnic groups, academics, individuals and other non-government agencies (Dunstan and Bedford 2000).

4.6 Evaluation

It is not possible at the present time to provide an evaluation of the LisNZ. However, it is useful to note that there have been close links between experts associated with the Longitudinal Survey of Immigrants to Australia, so that the benefits of experience with that survey have been passed into the LisNZ. For example, the fact that LisNZ covers onshore as well as offshore immigration to New Zealand is an important innovation, since the decision to become an immigrant to New Zealand (and other countries) is increasingly being taken whilst in-country.

The total estimated costs for the LisNZ over nine years are around NZ\$ 9 million (£2.8 million).

Chapter 5: The New Immigration Survey (US)

5.1 Introduction

There are several longitudinal studies of migrants in the United States. However, many of them are either indirect – the initial project did not specifically target migrants – or specific to certain groups of migrants. For example, a Longitudinal Study of Cuban and Mexican Immigrants in the US was conducted in 1973–74 and 1979, providing data for a classic study of immigration by Portes and Bach (1985), whilst the Children of Immigrants Longitudinal Survey (CILS) has been conducted more recently in Southern California and South Florida which traced children from 1992 to 1995–96 (Rumbaut 1998). These studies are not included in this review, as they are not representative of general populations of immigrants.

It is a matter of some surprise that, to date, the US has never had a nationally representative survey of immigrants and their children, given the major impact that immigration has had on American society. However, as with New Zealand, there is now a new longitudinal survey of new immigrants, the New Immigrants Survey (NIS), which has been piloted and is in the process of implementation. This survey promises to set a benchmark for information on immigrants in the US. This chapter reviews its potential, based on a conference paper prepared by Pergamit *et al.* (2000) for the Vancouver Metropolis Conference, and on information available on the NIS website (see Appendix 3).

5.2 History and Objectives

Although the history of the NIS could be linked to the long-standing expressed need for improving knowledge about immigrants and their impact on the United States, it is reasonable to date discussion about the NIS back to the 1980s. In early 1980, a Federal Government Select Commission on Immigration and Refugee Policy planned to implement a survey of recent immigrants that would serve as the first panel of a longitudinal survey. The study was not conducted, however, because of difficulty in getting approval to conduct it alongside the census, and because it was considered that a short-term Select Commission could not take on

responsibility for such a long-term project (Pergamit *et al.* 2000).

In 1982, the National Academy of Sciences Committee on National Statistics further examined the adequacy of information collected by the US federal government on immigration and recommended an improvement of the quality of immigration data. It even clearly set out the way for such improvement: 'The establishment of a longitudinal panel survey of a sample of aliens entering the United States or changing visa status during a 1-year period. This sample of an entry cohort would be followed up for a minimum period of 5 years.' (Pergamit *et al.* 2000: 1). However, it was not until 1994 that the US Commission on Immigration Reform restated the need and specifically stressed the benefit of a new longitudinal survey on immigrants for measuring immigration impacts.

The NIS effectively started in 1995 when a group of researchers from the University of Pennsylvania, New York University and the RAND Corporation obtained a grant to conduct the pilot study of the NIS (NIS-P). It was accepted that there were fundamental problems with existing data on immigrants. The NIS organisers argued that 'in perhaps no other area of public policy is there such a large gap between information needs and existing data'. The formulation of immigration policy was therefore believed to be severely hampered by the lack of reliable and relevant data.

The NIS is the new plan for better immigration data. It is expected to provide comprehensive answers to key questions such as:

- How many immigrants return to their home country?
- What is the relationship between documented and undocumented immigration?
- What are the contributions and costs of immigrants to the economy?
- What are the factors affecting the assimilation of immigrants and their children?
- What are the achievements of, and burdens imposed by, immigrant children and the children of immigrants?

5.3 Sampling and Survey Design

The NIS is conducted nation-wide and it samples both children and adults (aged 18 and over) from Immigration and Naturalization Service (INS) administrative records. The plan is to interview 11,000 immigrants in the first wave based on all immigrants admitted to permanent resident status during selected months in 2001. The NIS will use clustered probability sampling and will deliberately over-sample adults and employed residents and under-sample children. However, although only 1,000 of the 11,000 respondents in the NIS will be children (whereas children represented about 25 per cent of all immigrants in 1998), information will be collected on additional children by gathering information on the siblings of the sampled children. Similarly, the spouses/partners of the sampled adult migrants are being interviewed. With an estimated 70 per cent of adult migrants being married, the strategy should drastically increase the number of persons covered by the study. The design includes three annual interviews in the first year following admission, then a biennial interview in the fourth wave. The NIS expects to add future immigrant cohorts.

There are two particularly interesting and innovative features of the design of the NIS in comparison to other longitudinal surveys. As with other countries, the sample frame of the NIS does not include a US-born comparison group. However, the survey instrument does replicate sections of other ongoing longitudinal surveys, so that such a comparison can be made. The second major feature of the NIS is that it has a prospective–retrospective design to capture experience and information before and after a respondent obtains legal resident status. The questionnaire design also makes use of innovations such as follow-up bracket categories for initial non-response, and methods for prompting retrospective memory.

The questions included in the NIS cover 10 main topics:

- *Household roster* records basic demographic characteristics and visa category of all household members.
- *Income* records all incomes at individual and household level.
- *Health status* captures self-reported health and functional status (difficulties and assistance with basic self-care).

- *Employment* records detailed information on all employment events for primary and secondary jobs since immigration.
- *Net worth* allows a comprehensive computation of net worth (housing, assets in the US and abroad) for each household.
- *Expectations, attitudes and network*. This section uses subjective probability scales measuring respondents' perceptions of uncertain future events. Events to consider here are return to home country, future income, naturalisation, and the sponsoring of new immigrants.
- *Family structure, transfers and remittances* records information on financial transfers to and from other family members, and the movement of individuals in and out of the family.
- *Prior immigration experiences* collects information on all major events prior to immigration that lasted at least six months since age 16, and all migrations that lasted a month or more during the last two years preceding immigration to the US.
- *Locating information* provides three contact persons.
- *Child assessment* uses different instruments including the HOME-Short Form, an instrument administered to mothers to provide data on the physical, intellectual and emotional environment for their children, as well as child assessment tools used in the National Longitudinal Survey of Youth (NLSY). It is also expected to collect information from schools attended by immigrant children and the children of immigrants.

5.4 Implementation

Interviews in the NIS are normally described as 'computer-assisted in-person interviews' (CAPI). These interviews are conducted in the respondent's preferred language, although it is expected that about 72 per cent of all interviews will be in either English or Spanish. Skilled bilingual interviewers who are sensitive to the cultural setting are recruited and trained. Hard copies of the survey instrument are translated into other languages for use in interviews without computer assistance.

Although the CAPI is the principal mode of interview, the NIS also expects to use 'computer-assisted telephone interviews' (CATI), and the intention is to alternate CAPI and CATI in the first waves. A specific assessment of the situation of children will be

conducted every four years and will be exclusively in the form of face-to-face interviews. The length of each interview depends on the category of respondents. The immigrant interview takes on average 90 minutes, the interview of the spouse lasts about 60 minutes and child assessments average 20 minutes.

A distinctive feature of the NIS is the provision to follow sampled immigrants wherever they may locate after arrival in the US, even if they subsequently leave the country. In particular, there is a financial provision to conduct a 25-minute phone interview with up to 300 interviewees overseas in each wave. To increase participation and tracking, respondents are offered US\$ 10 (£6.70) for their participation and different methods (door-to-door, tele-matching service, directory assistance, National Address Changes File) are used to track respondents.

A pilot survey (NIS-P) has already been completed (Jasso *et al.* 2000a). Its main aims were:

- to assess the cost-effectiveness of alternative methods for locating sampled immigrants and maximising initial response rates;
- to explore the costs, feasibility and effectiveness of alternative methods of tracking sampled immigrants after the initial contacts (a necessary feature for a longitudinal survey of a highly mobile population);
- to obtain useful information that would both aid in the design of survey instruments for a follow-up full survey and immediately provide new information on recently admitted legal immigrants.

The NIS-P conducted a baseline survey with 1,984 persons, then a three-month follow-up with half of the sample, a six-month follow-up with the entire sample and a one-year follow-up. Interviews were conducted with adults (aged 18 and over) and with parents or caregivers of the sampled children. The pilot study exclusively used telephone interviews for cost reasons. The NIS-P set up an incentive scheme of US\$ 5 (£3.30) to each respondent.

The pilot study was judged to be very successful and informative. Its three basic aims and especially its results were very important in attracting interest in the NIS. With regard to the first two aims, the pilot

study provided key lessons for the main survey:

- A lack of phone numbers on the INS records and difficulty in identifying sampled individuals' phone numbers any other way made it clear that the first wave of interviewing needs to be in person.
- Immigrants are highly mobile. It is important to make contact as soon as possible after the green card is issued.
- Immigrants are generally co-operative and a large incentive payment is not necessary.
- Sensitive questions did not appear to be problematic.

The NIS uses post-enumeration audit to assess the quality of the data collected. Household roster and principal applicant contact are generally checked during the audit.

5.5 Analysis

Like the LisNZ, the NIS in the United States has not yet been implemented, so it is not possible to describe any analyses that have been undertaken. However, some publications have emerged from the NIS-P, which focus on marriage patterns (Jasso *et al.* 2000b), and family, schooling, religion and mobility (Jasso *et al.* 2000c).

5.6 Evaluation

It is also difficult to draw any clear conclusions from the experience so far with the NIS. However, one important point can be made on costs: the NIS, like many longitudinal surveys, is an expensive operation. Additional funding is currently being sought for the project, after partial funding from the National Institute of Child Health and Human Development, The National Institute on Aging, the National Science Foundation (NSF), the Immigration and Naturalization Service, the Department of Health and Human Services (HHS) and the Pew Charitable Trusts. The cost of the first five years of the project is estimated at US\$ 22 million (£14.4 million).

Chapter 6: Conclusions

The objective of this paper was to review the experiences of the longitudinal surveys of immigrants in Australia, Canada, New Zealand and the United States of America. This final chapter seeks to draw together this experience, and to highlight issues of particular relevance to the UK. Summary tables which compare the experience of the four countries are provided in Appendix 3.

6.1 Context and Objectives

All four countries reviewed here are countries of immigration for which migrants' settlement and performance matter a lot. Indeed these countries can be regarded as traditional countries of immigration, and the long-term historical experience of immigration and settlement has practically defined such countries' *raison d'être*, as well as contributing in fundamental ways to the shaping of their societies. These countries have considerable amounts of data on migrants through different surveys and censuses; even so, all of them acknowledge major information gaps.

The UK shares some similarities with the four countries treated here. Migration is a long-term historical process, which has made great contributions economically and culturally. The first large-scale immigrations – of Irish, Jews and Italians – started more than a century ago. The decades after the Second World War saw major labour migrations from Ireland, the Caribbean and South Asia; these were vital to Britain's post-war economic growth. Now the pattern is shifting again: to classic labour migration have been added highly-skilled migration, flows of asylum-seekers and the arrival of other types of migrant.

In the UK, as in the other four countries (and in many EU countries too), wider-scale processes are also at work to fundamentally transform migratory dynamics over the past two decades: globalisation in its various guises and facets; changes in national migration policies towards greater control and selectivity; and shifts in the geographical and social patterns of origins of migrants. In the development of transnationalism, the blurring of former migration dichotomies (temporary/permanent, forced/voluntary, documented/undocumented migration) clearly indicates that the questions asked to frame our

understanding of the functioning of international migration have a different array of answers. New questions and approaches are needed (King 2002). This was also the recommendation in all the countries reviewed when information gaps were acknowledged.

The LS is widely recognised as the best way to fill this information gap, and gain an understanding of migration dynamics and settlement processes. Using the LS, it is possible to provide timely policy-relevant information, and directly evaluate the effectiveness of immigration policy, a goal that cannot be achieved through a survey that is not longitudinal. The overall key objective is that of providing policy-relevant information on migrants: this becomes especially important as such calls for information have been more insistent since the 1990s, reflecting the changed economic, demographic and policy environment. Four common issues of interest are:

- the timeframe surrounding settlement: for example, an LS can pinpoint *when* problems occur in terms of immigrants' access to the labour or housing markets;
- factors facilitating or hindering migrants' settlement and performance, notably the role played by education after arrival;
- the effectiveness of immigration programmes and services; and
- immigrants' social and economic outcomes.

6.2 Survey Design

The longitudinal survey is a powerful method to disentangle causes and outcomes especially when it come to a dynamic and evolving process such as migration. However, there are many types of longitudinal survey design, each with its advantages and shortcomings; the choice depends on the issues to address (Buck *et al.* 1995).

All but one of the studies reviewed adopted a cohort follow-up approach. Only the Longitudinal Immigration Data Base (IMDB) in Canada employs administrative data linkage using a retrospective approach. A similar system is used in Australia for the general population in the LDS 1% sample, though this is not linked to the immigration database. The IMDB's design is relatively cheap and cost-effective, as long as the original data are accurate and have large coverage, as is the case for IMDB. However, this method has

difficulties in capturing short or repetitive events or other important details (IMDB, for instance, cannot distinguish part-time and full-time jobs).

The other surveys interview one cohort (Canada, New Zealand) or two cohorts (USA, Australia) in a number of waves. One important aspect of the LS is the design (sample frame) of the project. All the surveys reviewed were based on the administrative records of new immigrants. This procedure, while being cost-effective and allowing the sample to be representative of all new migrants, hinders the sampling of a national-born (control) group and irregular immigrants.

All the field surveys covered a large set of issues with a long questionnaire. They did not report major problems with respondents apart from the issue of tracking people over time, as they are highly mobile. They do however suggest that it is important to gain the sampled migrant's consent for sharing his/her personal details.

With regard to the interview design, the direct personal interview is the most-used method but the NIS plans to use telephone interviews after a baseline in-home interview. It should be noted that the LSIC and the NIS make use of computer-assisted interview. They have developed an electronic questionnaire and software application that can be loaded onto a laptop computer, and used during the interview. This method reduces the time between data collection and data availability for analysis.

Hence, the collection and management of any specialised dataset on migration are not straightforward. Key issues are:

- the issue of time-frames: when should surveying begin, how many waves, and with what interval between them?
- the question of how to retain contact with members of a sample cohort, particularly amongst groups that might be expected to be more residentially and occupationally mobile than established populations: *this is perhaps the key obstacle to maintaining a large and representative sample;*
- the question of whether to remove a migrant from the cohort sample if their legal or other personal status changes (e.g. an individual gains nationality, or a permanent right to stay, or indeed leaves the UK);

- issues relating to confidentiality and the anonymity of individuals;
- how such a survey is likely to be received by the 'target' populations, leading to refusals to cooperate.

6.3 Users and Consultation

A comprehensive survey of immigrants should incorporate many different aspects of migrants' life experiences, which may interest many departments, organisations and individuals. It is therefore important to consult with a wide range of knowledgeable groups. All the surveys reviewed here have advisory committees or user consultation groups.

Although the LS is usually considered highly useful by different stakeholders, it is important to note that national/federal governments are the main users and very few regions or provinces are able to obtain reliable estimates at the local level. At the same time, useful time-series data on immigrant adaptation can be obtained from other sources. For example, Smith and Jackson (2002) use annual longitudinal data from Canada's Survey of Labour and Income Dynamics (SLID) to analyse the labour market experiences of recent immigrants from 1995–1998, and although this provides a less rich source of data on immigrants than a dataset such as the IMDB, it may still prove valuable in analysis (Hum and Simpson 2002). Indeed, the lack of a control sample in LS focused specifically on immigrants highlights the need to ensure some comparability between these surveys and other longitudinal surveys.

One alternative way of generating a longitudinal panel of immigrants is to use existing panel surveys, over-sampling immigrant groups in order to ensure there are enough in the panel for worthwhile analysis. There is then a built-in control group, and there is arguably less need to do a bespoke survey. Two examples are the German Socio-Economic Panel Survey (GSOEP), which over-samples five immigrant groups: Turks, Italians, Yugoslavs, Greeks, Spanish (Reitz *et al.* 1999). Meanwhile, the US Panel Survey of Income Dynamics (PSID) was not stratified for immigrants, but does now have a deliberate over-representation of Hispanics in order to track their experiences. Of course, these strategies are more helpful where there is a small number of clearly dominant groups of immigrants, which is increasingly not the case in the UK. Nonetheless, consideration could be

given to ensuring that a sufficiently large and representative survey of immigrants, or particular immigrant groups, is included in the British Household Panel Survey.

6.4 Lessons

This review has shown that there is considerable experience of running longitudinal surveys of immigrants in Canada and Australia, as well as current activities in the US and New Zealand that can inform the development of such a survey in the UK. A longitudinal survey of immigrants to the UK would provide a highly valuable source of information for government in the current changing economic and migration environment, and could help to dispel public stereotypes of the 'burden' placed by immigrants on the UK. Longitudinal surveys conducted in Canada and Australia in particular have been influential for immigration and settlement policy, providing a robust method against which to judge the performance both of immigrants and of government and non-government services provided to them. Meanwhile, although the survey takes time (about 4 years), important findings can be available soon after the baseline or pilot survey, as has already been found in the US.

Some important lessons can also be learned about how such LS of immigrants should be carried out. First, in order to access and especially to track immigrants over time, the addresses obtained from the administrative record (immigration services) are usually insufficient and need to be coupled with additional tracking strategies. Such strategies include: filling out a contact form and providing the addresses of two or three contact persons for each selected immigrant at entry points (after immigration formalities); and liaising with other service providers to immigrants to use their records or to contact directly the selected immigrants.

Secondly, a number of other survey design issues are important to ensure that the LS is as rich as possible. For example, in order to capture cohort effects, the project should be flexible enough to incorporate new cohorts. Building in comparability with other LS that include the native-born also enhances the range of analysis that can be performed. It may also be important that provisions are made (through an appropriately flexible sampling design) to study specific groups of special policy interests (e.g. children, immigrants from particular geographic or

linguistic zones). This helps to make an LS useful to organisations dealing with these specific groups, and may be more useful to them than bespoke surveys on refugees or business migrants, for example.

It is also important, given the increasing number of changes in migrant status, and the rise in in-country applications for asylum, that a different sample frame is found to that of visas issued for permanent settlement – the basis for the existing LSIA and LSIC studies. In this regard, further examination of the NIS and LisNZ in-country sampling frames would be particularly valuable.

Thirdly, regarding language, the surveys reviewed here have adopted various strategies of use (or non-use) of migrants' own languages in administering questionnaires and interviews. A rigorous assessment of the importance of migrant-language use in achieving greater response rates and accuracy of respondent information cannot be given since no survey simultaneously tested the same instrument using a paired control of host-country and migrant languages. However, the ÉNI survey stressed the utility of successive waves' ability to indirectly assess language acquisition. This survey gave respondents the option of using host-country languages (French and English) for the survey; migrants' language integration can thus be monitored through successive waves (Renaud *et al.* 2001: 105–126).

Fourth, there are lessons relating to cost. The most expensive survey in terms of cost per respondent is the NIS, which we estimate to cost around £1,300 per respondent. This reflects the fact that the NIS includes four waves, a separate assessment of children, and includes the capacity to conduct computer-assisted interviews, using a range of languages, and following up immigrants who leave the country during the survey. In contrast, the least expensive survey is LSIA 2, which costs £167 per respondent, reflecting the fact that this is a two-wave survey conducted only in English. That the field survey is put out to tender does not appear to influence cost, as the most expensive and cheapest surveys were both contracted out, whilst there was a dramatic difference in cost between surveys done by government statistics services in Canada (£1,100 per respondent) and New Zealand (£373 per respondent).

These cost comparisons do need to be viewed with considerable care, since the surveys have rather different characteristics, including geographical coverage, number of cohorts and waves, duration and the detail of questionnaires. In addition, although the IMDB was much cheaper per 'respondent' than any of the surveys (the cost was around 90p per observation), the amount of information available on each person in the database was substantially lower than in any of the other surveys, making this a much more limited resource for research and policy evaluation in many respects. One important issue affecting the cost of surveys is the question of whether questionnaires or interviews are translated into languages other than English. Translation and the use of immigrants' own languages might be seen as vital for data accuracy if immigrants are not fluent in the official language(s), although the LSIA has been successfully implemented in English.

Finally, whatever the design used, our review suggests that all existing LS of immigrants are forced to compromise in some respect, and therefore omit or fail to deal with particular kinds of data or analysis. For example, except for the IMDB, all the other surveys excluded undocumented or irregular immigrants. Meanwhile, the IMDB was only able to track a relatively small number of variables on economic activity and outcome over time, or it would become administratively unwieldy. How choices are made depends on the policy questions to which the survey intends to provide answers. In this sense, the success or limitation of each study is related at least in part to the specific context of each country. Nonetheless, the UK starts with the opportunity to build on a range of experiences, in order then to tailor an LS to its particular needs.

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Appendix 2: List of websites

Canada

<http://www.statcan.ca/english/survey/household/immi/immi.htm>

- Detailed information on the LSIC.

<http://data.library.ubc.ca/rdc/pdf/LSICContentOverview.pdf>

- An overview of the content of the LSIC

<http://www.cic.gc.ca/english/srr/research/reports-a.html>

- Site listing publications that have been derived from analysis of the IMDB:
 - *Economic Returns of Immigrants' Self-Employment*, July 2001
 - *Immigrants' Propensity to Self-Employment*, July 2001
 - *Inland Determination Refugees Before and After Landing*, July 2001
 - *The Interprovincial Migration of Immigrants to Canada*, January 2000
 - *The Economic Performance of Immigrants: Education Perspective*, May 1999
 - *The Economic Performance of Immigrants: Immigration Category Perspective*, December 1998
 - *The Economic Performance of Immigrants: Canadian Language Perspective*, October 1998
 - *The Changing Labour Market Prospects of Refugees in Canada*, March 1998

Australia

www.immi.gov.au/research/lisia

- The Home Page of the LSIA, which includes an overview of the LSIA 1 and 2 surveys, and links to relevant publications and other longitudinal surveys.

New Zealand

http://www.immigration.govt.nz/research_and_information/lisnz.html

- The Home Page of LisNZ, which includes an overview of the survey, and regular updates.

US

<http://www.pop.upenn.edu/nis/about/about.htm>

- The Home Page of the NIS, which includes an overview of the survey, and information about the researchers, the pilot survey, and publications.

Appendix 3: Fact Sheets

Fact sheet: Canada

	IMDB Canada	LSIC	ÉNI Montreal
Objectives	Provide data to understand the performance and impact of the immigration programme by linking outcomes to immigration policy levers	Collect information on new immigrants' integration in Canada; understand the factors and constraints of adjustment; study the timeframe surrounding integration; identify immigrants' contributions to Canada's economy and society	Provide relevant and up-to-date policy information on new immigrants to Quebec to help in improving immigration programmes and actions
Organiser	STC and CIC	STC and CIC	CEETUM
Main users	Federal and provincial governments; researchers	Federal and provincial government; researchers	Provincial government of Quebec; city of Montreal; researchers.
Period covered	1980–90, 1998 onward	Oct 2000 – Oct 2004	1989–99
Sample size	1.5 million	20,000 in Wave 1 expected to produce 12,000 responses, and 5,000 in the last wave	1,000 in 1989–93; 429 in 1999
Population	Landed immigrants' taxfiles	Non-inland landed immigrants cohort of Oct 2000–Sept 2001 aged 15 and over	1989 cohort of immigrants to Montreal aged 18 and over
Number of waves	Annual from 1985–95 and then since 1998	3	4
Inter-wave interval	Year	1 year and 2 years	1 year for the 3 waves then 7 years
Cost	Can\$ 3 million (£1.3 million)	Can\$ 16.4m (£7.1 million)	Can\$ 2 million (£0.9 million)
Survey design	Taxfile and CIC data linking	Two-stage stratified clustered sample	Simple random sample
Language(s)	N/a	15 languages	24 languages
Data collection	Administrative data	CAPI and CATI	Personal interview
Pilot study	No	Yes	Yes
Objective of pilot	N/a	Test feasibility and field instruments	Test feasibility and instruments; provide initial base information
Population excluded	Non tax-filers; temporary residents; children under 18; inland applicants	Temporary residents; other cohorts; asylum-seekers; children under 15	Temporary residents; other cohorts; asylum-seekers; children under 15
Main advantages	Large coverage; at least 10 observations; cost-efficient and cheap	Very informative on social factors; captures settlement process	Very informative on settlement; captures detailed timeframe (in weeks)
Main limitations	Little on social and cultural factors; limited access for users; no distinction between part-time and full-time jobs	Single cohort; limited possibility for estimates at local/provincial level	Single cohort; limited sample size in the 10-years follow-up

Fact sheet: Australia

	LSIA1	LSIA2
Objectives	Generate up-to-date data to facilitate the monitoring and evaluation of specific immigration and settlement programmes; and assess programmes' provision of services to recently-arrived migrants	Same, except assess the effect of change in policy
Organiser	BIMPR, then DIMA after closure of BIMPR	DIMA
Main users	Federal government	Same
Period covered	1993–99	First two years of settlement
Sample size	5,192	3,124
Population	1 Sept 1993 – 31 Aug 1995 cohort of visaed permanent settlers aged 15 and over	1 Sept 1999 – 31 Aug 2000 cohort of visaed permanent settlers aged 15 and over
Number of waves	3	2
Inter-wave interval	4-6 months after arrival, then 1 year later, then 2 years later	4-6 months after arrival, then 1 year later
Cost	A\$ 3 million (£1.1 million) for data collection	A\$ 1.4 million (£0.5 million) for data collection
Survey design	Stratified sample by visa	Same
Language	English, use translation	Same
Data collection	By a private company using personal interviews	Same
Pilot study	Yes, with 100 applicants	Same
Objective of pilot	Test feasibility and field instruments	Test field instruments
Population excluded	New Zealand citizens; undocumented migrants; temporary residents; onshore visa approvals; children aged under 15	Same
Main advantages	Very informative on settlement; cost modelling of immigrants' selection and settlement	Too early to say
Main limitations	Excludes major growth groups of New Zealanders, on-shore visa approvals, long term temporary residents	Same

Fact sheet: New Zealand and USA

	New Zealand	USA
Objectives	To provide reliable authoritative statistics about migrants' initial settlement experiences in New Zealand and the outcomes of immigration policies	To provide better immigration data and fill perceived information gaps, in particular children, re-migration out of the US, the role of irregular immigration, factors affecting assimilation and the contributions and costs of immigrants to the economy
Organiser	Department of Labour and Statistics New Zealand	Researchers at University of Pennsylvania, New York State University and RAND Corporation
Main users	Federal and regional governments; researchers	Researchers
Period covered	2001–08	2000–10
Sample size	7,500 in first wave and 5,000 expected in last wave	11,000 in first wave
Population	Permanent settlers aged 16 and over, including onshore and offshore applicants who have already arrived in New Zealand	All permanent settlers in 2001, including in-country and out-of-country applicants
Number of waves	3	4
Inter-wave interval	6, 18 and 36 months after residence	1 year for the first three years then 2 years
Cost	NZ\$ 9 million (£2.8 million)	US\$ 22 million (£14.4 million)
Survey design	Sample frame of onshore and offshore applicants, covering principal applicants and accompanying family members aged 16 and over; stratified by visa and business category	Stratified sample which over-samples certain categories of immigrant
Language	English, Samoan and Chinese	English, Spanish, other languages
Data collection	CAPI	CAPI and CATI
Pilot study	Yes	Yes
Objective of pilot	Trial the questionnaires and assess the methodology; interview 700 sampled applicants in Wave 1 and 500 in Wave 2.	Test the methodology and survey instruments
Population excluded	Australian citizens; children aged 16 and under	Undocumented immigrants
Main advantages	Includes both onshore and offshore applicants; remarkable communication and consultation	Large sample size; includes children; flexibility; follow-up with those who subsequently leave the US
Main limitations	Single cohort	High cost