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Item 4 of the provisional agenda

**CHALLENGES IN DEFINING AND MEASURING DIFFICULT-TO-COUNT
MIGRANTS**

**THE CENTRE SAMPLING TECHNIQUE IN SURVEYS ON FOREIGN MIGRANTS.
THE BALANCE OF A MULTI-YEAR EXPERIENCE***

I. INTRODUCTION

1. Is it possible to undergo the difficulties of migrants counting by using new alternative statistical methods? The paper introduces the technique commonly used to estimate the number of foreign migrants in The Lombard region in Italy.
2. First of all, let's have a short look back at the starting point of the constantly increasing phenomenon of foreign immigration in Italy. How and why did the migration start?
3. The researchers agree on the importance of the petroleum shocks, which have led to the significant changes in the attraction power of various regions of Europe. In general the migration policies used during the petroleum crisis by the traditionally immigration European countries could be considered to be significantly closed, trying to protect their own economies by the debarment of new migrants and by the effort of expelling the unemployed ones presented in their

* This paper has been prepared by Gian Carlo Blangiardo, Fondazione Ismu, Università di Milano, Bicocca, at the invitation of the secretariat.

territory. These policy trends triggered the appearance of two new tendencies for everyday European reality. The first one was the enlargement of the area of migration attraction to the south, when the traditionally emigration countries like Spain, Italy and later Greece and Portugal started to face the constantly increasing pressure of migrants inflows. The second one was the expansion of the illegal migration. Another significant growth and change of migration flows have arisen after the Velvet Revolution in 1989 and the subsequent border opening.

4. The big changes in the structure, the origins and the quantity of migration in Italy and in other European countries have resulted in the necessity to monitor and analyze the increasing number of migrants presented in the territory and in some way to try to manage them.

5. The available information based on the number of stay permits and the population register data, the so called “anagrafe”, confirm the future accelerated growth of phenomenon and stress the necessity of the exhaustive information needed to handle the changing situation.

6. Under these conditions it is essential to integrate and evaluate the official statistical system and enrich it by the new alternative statistical methods, which can connect the methodological experiences and progress reached during the last twenty years.

II. THE UP-DATED PICTURE

7. According to some evaluations made on the latest official data (Istat, 2007), it has been estimated that foreign population regularly established in Italy on the 1st January 2007 reaches more than 3,5 million individuals, who represent about 621,000 more than those reported by similar estimates referring to the same date of the last year. If we also add the likely presence of further 349,000 irregular migrants at the beginning of 2007, the total balance of foreign immigration in Italy will be very close to the threshold of 4 million individuals.

8. Table 1 compares the number of foreign citizens living in Italy in 2006 and 2007 according to their legal status.

Table 1 – Foreign citizens living in Italy (2006-2007)

	1.1.2006	1.1.2007 (a)	Variation	Variation
	Thousands			%
<i>Total regular migrants</i>	3.012	3.633	621	+20,6
Of which:				
- residents	2.671	2.939	268	+10,0
- non-residents	341	694 (b)	353	+103,5
<i>Total irregular</i>	650	349	-301	-46,3
<i>Total presence</i>	3.662	3.982	320	+8,7

(a) Estimated value; (b) Including 400,000 individuals, irregular at the beginning on 2006 that obtained the residence permit by the Italian law on incoming flow 2006.

Source: Istat data and Ismu Foundation estimates

9. The framework of regular migration from “high migration pressure countries” (HMCs)¹ changed in the last decade from the predominant position of Northern African migrants to dominance of Eastern European ones.

10. There are reinforced signs of a progressive strengthening of a “new” East-European migration. In fact, among the first ten nationalities there are countries such as Romania and Ukraine. On the other side, a weakening of the relative position is reported among the “traditional” countries of origin, such as Morocco, Tunisia, Senegal and Philippines.

Table 2 - Regular (documented) migrants by nationality in 2007, Italy (thousands)

Rank	Countries	Residents at 1.1.2007
1	Albania	376
2	Morocco	343
3	Romania	342
4	P.R China	145
5	Ukraine	120
6	Philippines	101
7	Tunisia	89
8	Serbia e M.	74
9	Macedonia	72
10	Ecuador	70
	Top 10	1732
	All Countries	2.939

Source: Istat data processed by Ismu Foundation

III. ILLEGAL MIGRANTS, THE PROBLEMATIC ONES ?

11. Illegal migrants have always represented a crucial problem in the debate on migration in Italy, especially with respect to the solutions of emergency in the form of the legalizations. Very rarely, however, such a problem has been dealt with the necessary instruments, which involve the availability of correct data about the real proportions of the problem itself, its structural features and distribution in the Italian territory.

12. Only in the late 80s some official estimates concerning the phenomenon of illegal immigration in Italy emerged. The figure referring to the illegal migrants in 1989 was indirectly reckoned² as running as high as 500 000; in other words, one out of two migrants was illegal.

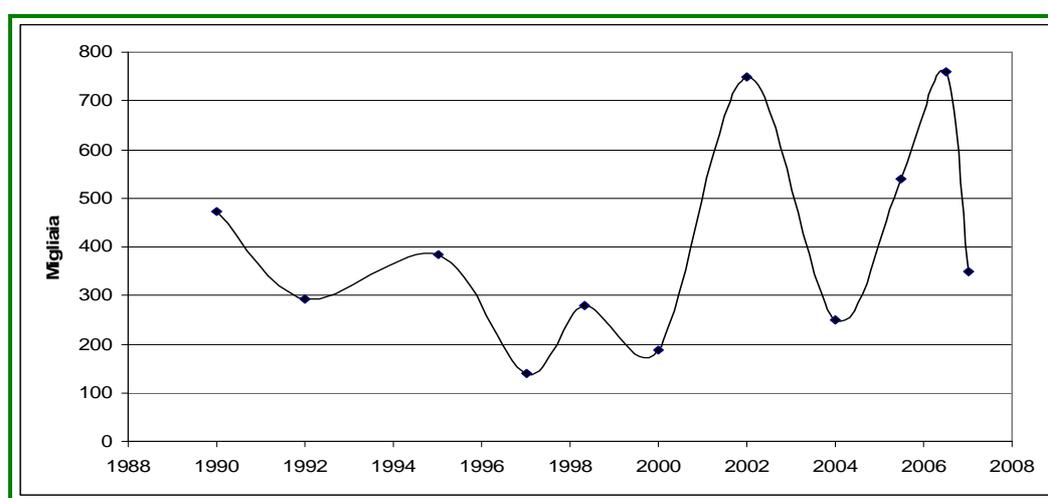
¹ It is referred to LDCs⁴ and the East European Countries, inclusive of all neocomunitarian members (with the exception of Malta).

² The data were obtained by subtracting the total number of residence permits at 31st December 1989 from the total estimate of all immigrants on the same date.

13. Such a high figure refers to a specific period which was characterized by both, constant migration waves into Italy and the lack of a specific legislation.

14. The total estimated number of undocumented migrants on the 1st January 2007 was about 350,000, which looks like a new signal of the decreasing trend of the irregularity. The cycling dynamic of illegal migration in the last 20 years seems to be highly fostered by repeated amnesty laws reaching a point of (relative) minimum at the beginning of 2007, thanks to the grant of a work permit of stay to about half a million of illegal foreigner (according to the extension of the incoming flows 2006 law, that was de facto a new amnesty). Anyway it must be stressed that at the end of the year 2007 a further flow of almost 700,000 foreigners, mostly illegally presented in Italy, applied for a work permit to stay.

Chart 1 - Estimated irregular migrants in Italy (1990-2007 in thousands)



Source: Ismu Foundation

15. In fact the roller-coaster trend characterising the incidence of the irregulars seems to indicate a two-fold effect of the subsequent amnesty processes:

- a) a so-called *recall effect*, i.e. the increase of irregularity in the period immediately preceding the amnesties³;
- b) an *amnesty effect*, i.e. the reduction of irregularity immediately after the amnesty processes in 1990, 1994, 1998, 2002 and (informally) 2006. The physiological minimum amount of undocumented migrants can be observed in 1997 and in 2000, while the maximum was in the years before the last “great 2002 regularization” - the so-called Bossi-Fini regularization- and in 2006, when a further regularization was expected.

³ Similar to recall effect of previous amnesties were the effects of regular flows programmed in 2006 (March) and 2007 (December). Their notice were generally read by foreigners as a new amnesty “de facto”, and this was really confirmed by the 2006 decree law experience.

16. It is important to notice that in general, smuggled and undocumented migrants have benefited from the regularization process in order to transit indefinitely to a legal status. Only exceptionally, migrants who have been regularised once became irregular again. An emblematic case in this regard is represented by the Lombardy region, where reliable surveys stress that 91% of migrants who have been regularised in 2002 had never been regularised before in any of the amnesty processes (Blangiardo, 2003). It is opportunity to recall, however, that smuggling (as well as over-staying) seems to be a rule rather than an exception in the migration histories of foreigners living in Italy: in 2003, as stated by the same source, 62% of migrants from “high migration pressure countries” (HMCs) living in Lombardy reveal to have benefited from at least one of the amnesties (Blangiardo, 2005).

17. Another interesting moment to take into the consideration is the effect of the amnesty on the number of regular and irregular component of the migration. As we can see from the following table (3) and from chart 2, in the Lombard region, after the last two formal and informal regularizations (i.e. in 2003 and in 2007) the number of *irregular migrants* rapidly decreased and the number of *regular but not resident* increased.⁴ The reason is that the irregular component turned into the group of regular migrants (as regard stay permit) but not (yet) *resident* in the so called “anagrafe”. In the main time the *resident* migrants have increased (i.e. in 2004-2005) because of the influence of the family reunifications and the second generations born in Italy and because of the increase of neo-regular migrants (i.e. the 2003 wave of regular but not residents) who later on asked for the status of *residents* obtained through the inscription in the “anagrafe”.

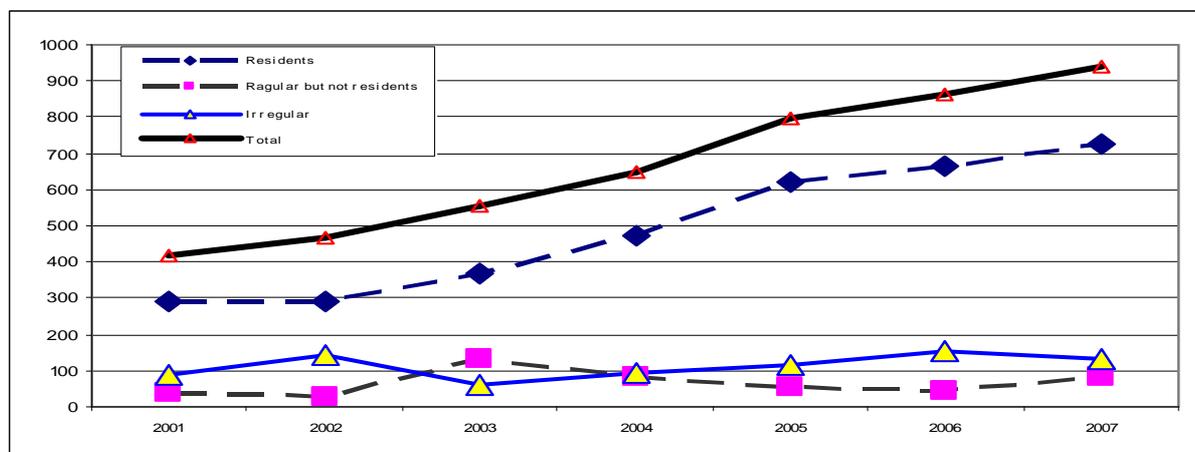
Table 3 – The transition of foreign immigrants HMCs form illegal to resident status in the Lombard Region (2001-2007 in thousands)

Year	Residents	Regular but non residents	Irregular	Total
2001	291,9	40,7	87,1	419,7
2002	293,5	28,2	143,6	465,3
2003	365,5	129,9	61,9	557,3
2004	473,0	81,4	93,2	647,6
2005	622,1	56,2	115,9	794,2
2006	663,4	44,8	151,8	860,0
2007	726,3	82,3	129,6	938,2

Source: Ismu Foundation

⁴ According to their juridical status migrants are legally or illegally presented in Italy. The group of legal migrants is divided into two groups. The first one is the group of residents, which consists of migrants recorded in the population register called “anagrafe”. The second one is the group of the so called “regular, but not residents”, meaning the migrants legally presented in Italy, but not recorded in the population register. The illegal migrants are those without (clandestine migrants) or with expired (irregular migrants) permit of stay.

Chart 2 – Foreigners HMCs in relation to their juridical status in the Lombard region (2001-2007 in thousands)



Source: Ismu Foundation

18. From a qualitative point of view, table 4 compares summary statistics of some characteristics concerning documented and undocumented migrants from a representative sample of HMCs living in Lombardy Region. The immediate conclusion that can be drawn, is that there are wide differences between these two groups.

19. The undocumented migrants are slightly younger and have roughly the same level of education comparing to the documented ones. It is more probable to have a migrant household headed by a woman if she is undocumented. Illegal migrants are also less likely to be married, live in smaller households, are more belike to have left spouse and/or children in the origin country, are more likely to come from Eastern Europe and Latin America, have spent less time in Italy, are less likely to be employed and, if so, they earn less. Illegal migrants' earnings are more volatile than the earnings of legal migrants.

20. As shown the official statistics, however fundamental they may be, do not represent the only reference for the analysis of the migratory phenomenon. Researches over the last years have in fact produced many interesting results and one of them, which deserves the special attention, is the survey developed in the Milan area and then extended to the whole Lombard Region whose first suggestion were provided by tables 3 and 4.

Table 4 – Characteristics of households and heads of household. The Lombard region (years 2004-2006)

		Documented migrants from HMCs		Undocumented migrants from HMCs	
Number of individuals in the sample		14061		2837	
Gender	% with female head of household	30.6		37.6	
Civil status	% single	40.7		58.6	
	% married	50.0		33.2	
	% widowed	1.8		1.8	
	% divorced	7.5		6.4	
Relatives abroad	% spouse abroad (married individuals)	47.9		90.9	
	% children abroad (individuals with children)	51.5		91.3	
Education	% no education	10.0		12.7	
	% compulsory	36.5		34.8	
	% high school	40.1		41.3	
	% university	13.4		11.1	
Origin area	Sub-Saharan Africa	20.2		17.1	
	East Asia (and Pacific)	6.2		2.9	
	East Europe and Central Asia	24.1		37.9	
	Latin America	12.8		17.7	
	Middle East and North Africa	25.1		18.7	
	South Asia	11.6		5.7	
Accommodation	own property	12.9		1.1	
	rented flat	72.6		59.1	
	hotel	0.3		0.5	
	free accommodation	6.5		17.8	
	c/o job place	7.3		15.9	
	irregular accommodation	0.3		5.5	
Employment status	employed	86.6		76.8	
	self employed	8.6		6.7	
	unemployed	4.8		16.4	
		mean	median	mean	median
Number of household members		2.14	1	1.30	1
Number of children:	total	1.11	1	0.86	0
	in Italy	0.59	0	0.09	0
Years of permanence in Italy		7.59	6	2.38	2
Age		34.45	34	31.67	30
Wage		1120.70	1000	837.22	800
Wage standard deviation		481.8		515.7	

Source: the calculations of G.C.Blangiardo, F.Fasani, B.Special using ISMU data⁵

⁵ More in: G.C.Blangiardo, F.Fasani, B.Special, *Consumption, Savings and Remittances Behaviour of Undocumented Migrants in Italy*, Quaderni del Dipartimento per lo Studio delle Società Mediterranee, Università di Bari, 2008.

IV. THE CENTRE SAMPLING TECHNIQUE AND THE CONTRIBUTION OF THE ISMU FOUNDATION'S GROUP

21. The last 80's brought significant changes in methodological and empirical research of migration in Italy. Some quantitative research experiences started and opened the door to new approaches to the phenomenon, so that nowadays it is possible to dispose of representative sample much more numerous and efficient. Where such sample is carried on, details on migrant's main qualitative features are available and the estimates of the proportion of *residents* and of legal migrants derived from the sample research, together with the official information from the population register "anagrafe", can be used to generate quantitative evaluations about the migrants' citizenship and the juridical status of their presence.

22. The introduction of "The centre sampling technique (CS)" brought the interesting step forward in the field of the empirical research and thus stimulates the qualitatively new statistical methods to be used to support the institutional and public administration.

23. One of the first signs of increasing interest in new methods arose in 1996 when, after some academic experiences since 1991, the ISMU Foundation financially supported new sample research in the city of Milan, with the aim of monitoring the phenomenon. The originality and the effectiveness of collected data have led to the enlargement of the research program to the whole Lombardy region and to the start of the "Regional Observatory for integration and multi-ethnicity" in 2001. Since then the research based on using CS technique has made available to create the representative sample of the foreigners living in the Lombard region without regard to their juridical status. The survey is carried out once a year with the number of 8,000 units (since 2006 of 9,000 units) originated from the HMCs.

24. In comparison with the official data resources, these Lombard surveys give more precise and detailed information concerning the migration and its qualitative and quantitative aspects. The official data resources take into the consideration only the stable migration component, it means give information (many times also incomplete) only about the regular foreign residents without concentrating on the specific characteristics as structural aspects or the life conditions. On the contrary, the information gained from the above mentioned surveys represent more detailed picture of migration phenomenon. Moreover the results provided by the surveys offer the opportunity to characterize the image of the migratory phenomenon in the Lombard Region (as well as in its territorial details) with respect to the most significant features of the bio-demographic, cultural, religious, social, economic-employment and family profile and the life conditions of immigrants (the habitation, the structure of family living in Italy and in the country of origin, the level of remuneration, the working conditions, the type of contract, the remittances sent to the country of origin, the legal status, the marital status, the consumption structure, the migration experience, the expectations to the future etc.). The available statistics also made it possible to study, detailed by country of origin and by territorial distribution, the factors such as gender differences and level of integration. A series of indicators have been also produced to express the degree of maturity of the migratory phenomenon corresponding to the main countries of origin.

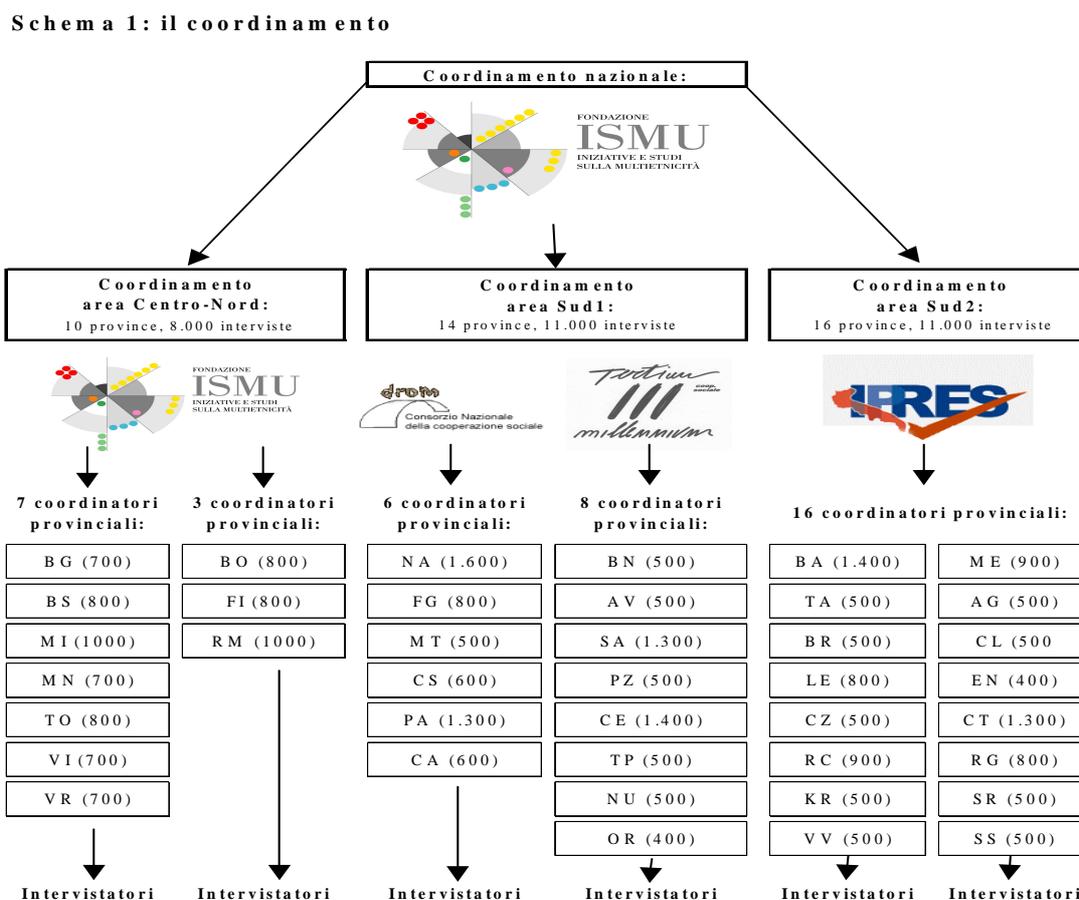
V. THE IMPLEMENTATION OF REGIONAL EXPERIENCE IN THE NATIONAL TERRITORY

25. In 2005 the CS technique was spread and used in the whole Italian territory. The ISMU Foundation led the research financed by the Ministry of Labor with the aim to get more detailed and specific information about the effect of the 2002 regularization of migrants on the labor market and the social environment.

26. The research covered forty Italian provinces, thirty of them exhaustively situated in the six regions-Basilicata, Calabria, Campania, Puglia, Sardinia and Sicilia, plus ten chosen provinces of regions located in the Centre-North of Italy.



The following scheme represents the coordination of the research :



27. The research has brought new and detailed information about the effects of the legalizations on the living conditions of immigrants and about the irregular component of the phenomenon. On the basis of results, the estimate of total foreign population presented in Italy on 1st July 2005 was calculated.

Table 5 - Estimate of the total number of foreign residents coming from HMCs and living in Italy on 1st July 2005

	<i>Italy</i>	<i>Northern & Central</i>	<i>Southern</i>
	<i>Absolute numbers (in thousand)</i>		
Legal foreigners	2,817	2,455	362
<i>Of which RNR *</i>	318	267	51
Illegal foreigners	541	408	133
Total	3,358	2,863	495
	<i>% Value (every 100 residents)</i>		
Legal foreigners	83.9	83.7	73.1
<i>Of which RNR *</i>	9.5	9.3	10.3
Illegal foreigners	16.1	14.3	26.9
Total	100.0	100.0	100.0

Sources: ISMU Foundation

* Regular not residents (not yet recorded in the population register of any Italian municipality)

VI. FINAL REMARKS: THE MAIN ISSUES OF THE CENTRE SAMPLING TECHNIQUE

28. The starting point of CS proposal is that the official data are essential for migration studies, but they have also two significant limits:

- a) they reflect only the regular component of the migration and as long as the illegal one is significantly present as well, the official resources cannot give the comprehensive image of the situation;
- b) the quality and the details of the official data seem to be quite general without focusing on the specific characteristics of the phenomenon.

29. Solutions to these limits can be found using appropriate sampling methods, available to consider the whole foreign population, both legal and illegal, and to make possible the collection of a wider set of information.

30. As regard the CS technique has been successfully used because enables to carry out a probability sample also in case of incomplete (or totally missing) list of statistical units representing the universe of reference, that is the rule in a survey whose object are all the migrants without regard to their juridical status.

31. The rationale of CS technique is that with reference to each local area under enquiry, we can imagine that the universe of foreign citizens present there at the time of the survey is made up of a list of H statistical units, each of which by necessity keeps a set of contacts with some centres or gathering places located in the area (institutions, places of worship, entertainment,

care, meetings, etc.). Once a sufficiently wide set of ‘centres’ is identified, the universe of foreign citizens can be formally described by either a simple nominative list as stated by the following table (type A):

List A

Sequence	Names W(i)
1	A
2	b
...	...
I	w(i)
...	...
H-1	y
H	z

or a double entry table which also reports the relationships that each individual keeps with the pre-defined ‘centres’ as follows (type B list):

List B

Sequence	Names W(i)	List of centres possibly attended						
		Centre 1	Centre 2	Centre 3	...	...	Centrek-1	Centre k
1	a	1	0	0	...	...	0	1
2	b	0	0	1	...	...	0	0
...
i	...	...	1	0	...	...	1	0
...
H-1	w	0	1	1	...	...	0	0
H	z	1	1	0	...	...	1	1
		Tot. H(1)	Tot. H(2)	Tot. H(3)	...	...	Tot. H(k-1)	Tot. (k)

(*) In each column the value is 1 if the subject attends that centre, else 0. It follows that the total of a given column identifies the number of individuals (among the H constituting the universe) attending that centre⁶.

32. In practice, if we have to sample N statistical units to be interviewed among the H units which form the relevant population so that the statistical representativeness criteria are respected, we may proceed in two ways:

- a) if a type A list is available (or, equivalently, the data contained in the first two columns of the type B list), N rows-names can be sorted randomly from the list, in order to obtain a simple random sample for which the properties of the most commonly used estimators are well known;
- b) on the contrary, if the only piece of information available is represented by the list of centres labelled in the second row of the heading in the type B list, N column-centres must first be selected randomly with replacement and then, in each selected centre, one statistical unit is randomly chosen among the H(j) (j=1,2,...k) persons who attend it.

⁶ We can also consider “how many time” is spent in each centre. In this case the attendance can be formally expressed by a value X ($0 \leq X \leq 1$) proportional to the time spent in the centre.

33. The basic principle of the method supposes that each statistical unit (the migrant) frequents the local centre of aggregation of any character (institutions, places of worship, entertainment, care centre, meeting points, call centre, etc). According to this assumption it is at first necessary to identify all the centres located in the chosen territory and frequented by the migrants. It is not necessarily important to identify the corresponding number of attendees. The centres can be of different characters and can be divided into the following categories:

- a) centres where the complete list of participants is available (population register or “anagrafe”, language courses, medical and care centre);
- b) centres with the limited number of participants (social assistance centre with the limited number of places-beds);
- c) centres with none information available (shopping centre, bars and discos, squares, parks).

34. After identifying the criteria of representativeness and the set of centres of aggregation in the chosen territory, the interview section can start. To keep the representativeness of the chosen sample, it is very important to choose it at random. This requirement can be satisfied in many different ways. Let's assume that in the chosen territory there are five centres frequented by the migrants. These centres are of different size. In practice, the number of the interviews in the certain centre depends on its size. If the centre is considered to be small, a small number of interviewees will be chosen. On the contrary, the bigger the centre is and the more migrants frequent it, the more attendees will be interviewed.

35. Afterwards the interviewees (the chosen individuals) are asked to fulfill questionnaires with questions concerning the structural characteristics, both, individual and familiar ones as for example: sex, age, civil status, citizenship, education, religion, regular position of the staying, residence, housing conditions, economic activities, remittances, family structure etc. They are also asked which of the centres indicated on the list in the questionnaire they frequent.⁷ Once the questionnaires are fulfilled, the foreign citizens are given profiles according to the centres they frequent (all the individuals who attend the same centres are given the same profiles). The individual probability of inclusion in the sample depends:

- a) directly on the number of the selected centres the person really attends;
- b) and inversely on the number of the individuals from the population who attend that centre.

36. In other words the more centres the individual attends, the stronger probability he has to be interviewed and consequently he will receive the lower value of his weighting coefficient. But, the received coefficient also depends on the number of individuals who attend those centres. The bigger and more frequented the centre is, the lesser probability is to choose the certain individual and so that the value of weighting coefficient of this individual is higher.

37. Let's assume the migrant number one with his profile (1,0,0,0,1) and the migrant number two with different profile (0,1,1,0,0). It is evident that first migrant frequents two of five existing centres as well as the second one. So the probability of both migrants to be interviewed seems to be equivalent. As we can see from the profiles, they frequent two different centres (1,0,0,0,1) and (0,1,1,0,0). Let's then assume that two centres frequented by first migrant (1,0,0,0,1) are the shopping centre and the worship place. These places are usually frequented by a big number of participants, so that the probability of being chosen is smaller and consequently the weighting coefficient is bigger. The second migrant frequents also two centres (0,1,1,0,0), for example two small bars, but these are less frequented with respect to the shopping centre and the worship place, so that the probability to be chosen there is higher. First migrant, who frequents two centres (the shopping centre and the worship place), which are the centres frequented by many people receives the bigger value of weighting coefficient because of he is more difficult to be chosen and the second one, on the contrary, receives the lesser value of weighting coefficient, because the centres, he frequents, are smaller and so that he is more easy to be chosen.

38. Following those probabilities, a set of weighting coefficients can be devised so that the weighted sample has the same representativeness of a hypothetical simple random sample drawn proportionally to the distribution of the profile of attendance profiles to the centres of whole population in the universe of reference. After computing the coefficients, it is possible to calculate the estimates using the official and sample data.

VII. CONCLUSIONS

39. The international migration phenomenon has rapidly changed over the last 30 years. Italy, the former country of emigration has transformed and has become more and more exposed to the migration inflows, which reached nearly four million last year. In fact, the immigrants represent the small subpopulation living within the domestic population and have become the everyday reality. The more rapidly the foreign population grows, the more attention and consciousness should be dedicated to its analysis and studies, consequently to the migration policies and their international harmonization and cooperation in this field.

REFERENCES

- G.Baio, G.C.Blangiardo, M.Blangiardo (2008), Centre sampling technique in foreign migration surveys (forthcoming).
G.C.Blangiardo (2003), L'immigrazione straniera in Lombardia. La terza indagine regionale, Fondazione ISMU, Milano, pp.50-53.
G.C. Blangiardo (2005), I processi di immigrazione: dall'irregolarità alla regolarizzazione, in: M.Livi Bacci (a cura di), L'incidenza economica dell'immigrazione, Giappichelli, Torino.
Istat, Bilancio Anagrafico della popolazione straniera, <http://demo.istat.it/>
