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## Measuring Emigration

# A new measure of Italian emigration by the integration and analysis of administrative data sources

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# Background

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Comparison between statistics produced by different countries on the same migration flow has highlighted an asymmetry between the quality of data on immigration and emigration as it is easier to count an arrival than a departure.

Most countries have problems to register emigration using administrative data as often those who leave the country have usually no incentive to notify their change of residence

# Italian research project

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- United Nation (Guidelines for Exchanging Data to Improve Emigration Statistics), Spain (INE) and other studies on big data and new data sources
- A research project developed in Istat - Italian National Statistical Institute (2018 – 2021): ‘A measure of Italian emigration through integration and analysis of administrative data’ in cooperation with the Institute for Research on Population and Social Policies (National Research Council) and University of Naples Federico II

# Data sources

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- A new micro-demographic accounting information system called ANVIS (ANagrafe Virtuale Statistica) has been developed to improve the quality of demographic statistics. ANVIS is a longitudinal statistical register that is continuously fed by administrative individual flows from the population register and allows longitudinal analysis but also cross-sectional observation of the population at any reference date.
- Istat has implemented a thematic and integrated archive of usual resident population (AIDA) based on the sign of presence that is monthly and indicates whether a person is present or not and in which territory.

# Data integration: a different use of administrative information

## Registrations and cancellations by type of administrative procedure. Years 2011-2021

Year	Immigration	Emigration	Registrations for other reasons	Cancellations for other reasons
2011*	63,089	12,507	13,977	10,337
2012	321,782	188,811	63,597	82,087
2013	295,592	149,666	87,277	112,836
2014	281,385	147,403	99,140	144,345
2015	286,880	137,551	101,139	215,138
2016	254,662	155,627	181,887	208,450
2017	312,852	146,135	159,897	221,531
2018	304,042	164,793	161,356	236,330
2019	267,873	119,138	153,574	284,259
2020	193,346	119,728	109,387	201,721
2021	278,752	118,613	93,797	169,585
<b>Totale</b>	<b>2,860,255</b>	<b>1,459,972</b>	<b>1,225,028</b>	<b>1,886,619</b>

\* from 9 October 2011 (Census date)

Source: elaboration on Istat data

## Cancellations “for other reasons”

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Longitudinal approach allows to distinguish two types of “cancellations for other reasons”:

- the cancellations of individuals who reappear after some time and are re-enrolled for reappearance;
- the cancellations of individuals who do not reappear after years and do not leave sign of presence on the territory. In this case, we can consider these administrative movements as emigration and include them in migration statistics

- A longitudinal analysis of the flows makes it possible to compute the actual stay of a migrant.
- We consider as “entries” in the resident population both registrations for abroad and registration for other reasons, as “exits” both cancellations for other reasons and cancellations for abroad.
- The 12-month rule has been applied to all entries and exits allowing the exclusion of pairs of movements who have a distance of less than one year

As there is no evidence that a long distance between cancellation and subsequent registration for other reasons is due to a real movement abroad of the individual, the presence on the territory of individuals for whom cancellations followed by registrations for other reasons are observed, has been checked and verified by the corresponding signs of presence on the territory (AIDA database).

The movements for other reason where considered as migration only if AIDA confirms the absence of “signs of life” on the territory.



# New measure of international migration by type of data. Years 2012-2020

Year	Immigration			Emigration			Net migration	Net migration (official statistics)
	Total	<i>of which registration for other reasons</i>		Total	<i>of which cancellation for other reasons</i>			
		<i>a.v.</i>	<i>%</i>		<i>a.v.</i>	<i>%</i>		
2012	362,520	55,862	15.4	241,878	64,921	26.8	120,642	244,556
2013	348,437	71,386	20.5	220,497	86,549	39.3	127,940	181,719
2014	335,815	76,094	22.7	239,607	109,490	45.7	96,208	141,303
2015	327,126	66,838	20.4	282,580	163,661	57.9	44,546	133,123
2016	359,886	134,848	37.5	294,482	160,431	54.5	65,404	143,758
2017	389,550	111,357	28.6	287,228	163,769	57.0	102,322	188,330
2018	383,226	110,170	28.7	316,207	176,810	55.9	67,019	175,364
2019	348,700	104,250	29.9	339,493	239,321	70.5	9,207	153,273
2020	257,465	78,668	30.6	279,881	174,623	62.4	-22,416	87,642
<b>Total</b>	<b>3,112,725</b>	<b>809,473</b>	<b>26.0</b>	<b>2,501,853</b>	<b>1,339,575</b>	<b>53.5</b>	<b>610,872</b>	<b>1,449,068</b>

Source: elaboration on Istat data

# Comparison between emigration from official data and the new measure by citizenship. Years 2012-2020

Year	Italians		Foreigners		Total	
	Official data	New measure	Official data	New measure	Official data	New measure
2012	67,998	127,411	38,218	114,467	106,216	241,878
2013	82,095	95,728	43,640	124,769	125,735	220,497
2014	88,859	99,574	47,469	140,033	136,328	239,607
2015	102,259	118,769	44,696	163,811	146,955	282,580
2016	114,512	147,044	42,553	147,438	157,065	294,482
2017	114,559	138,877	40,551	148,351	155,110	287,228
2018	116,732	156,916	40,228	159,291	156,960	316,207
2019	122,020	173,148	57,485	166,345	179,505	339,493
2020	120,950	146,206	38,934	133,675	159,884	279,881
<b>Totale</b>	<b>929,984</b>	<b>1,203,673</b>	<b>393,774</b>	<b>1,298,180</b>	<b>1,323,758</b>	<b>2,501,853</b>

Source: elaboration on Istat data

# Conclusions

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The work highlights the potential offered by the integrated use of available data sources and by the longitudinal approach

- The amount of information produced can be expanded by the micro demographic accounting and by the longitudinal perspective. The migration trajectory of each individual can be followed over time allowing to capture new aspects and types of migration, such as return migration and circular migration.
- Quality improvements concerns the accuracy, relevance, clarity and coherence of the statistics produced.

# Conclusions

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