Integration of Population Base Statistical Register with International Migration Statistical Register

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October / 2019

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Introduction

At this moment Colombia doesn´t have a way to determinate international emigration at subnational level, i.e., departmental level.

There are 2 exercises that are developing in the DANE
1. Population Base Statistical Register – PBSR
2. International Migration Statistical Register – IMSR

By the integration of both, now we have the opportunity to know, for the first time, the distribution of international emigration.

It is also important because It is the base to the population projections

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Population Base Statistical Register (DANE, 2019)

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Population Base Statistical Register (DANE, 2019)
1. Inventory

Area	Registers
Health	BDUA- Single Database of Health Affiliates – Ministry of Health
	EPS Health Promoting Entities
	SISBEN Beneficiary Selection System for Social Programs - National Planning Department
Education	SIMAT - Integrated Educational Enrollment System – Ministry of Education
	SNIES – National Higher Education Information System
	SIET – Work Education Information System
Births and Deaths	Vital Statistics – DANE
Vaccination	PAI - Expanded Immunization Program – Ministry of Health
Social Security Contributions	PILA Integrated Payments Settlement Form – Ministry of Health
Victims of the armed conflict	RUV – Single Register of Victims - Unit for Victims
Tax registration	RUT – Single Tax Register

Fuente: DANE.

Population Base Statistical Register (DANE, 2019)
2. Define the variables

Variable type	Variable
Identification	Identification Document number
	Type of document
	Complete name
	Birth date
	Sex
Demographics	Birth place
	Civil status
	Kinship
	Date of death
	Age
Location	Department
	Municipality
	Address
	Phone number
	Place of residence
Register	Status
	Provider
	Consistency
	Duplicate marking

Fuente: DANE.

## Population Base Statistical Register (DANE, 2019)
3. Standardization and validation of administrative records

1. Standardization: Adapt the definitions of the variables of each administrative record to the standardized definitions of the PBSR.

2. Validation:
   - Inconsistency Analysis: determine if the information in each record is consistent with the person's information
   - Debugging and imputation: amend incorrect information and impute missing information
   - Duplicity analysis: identify duplicates to debug the register

Fuente: DANE.

Population Base Statistical Register (DANE, 2019)
4. Integration and improvement of administrative records
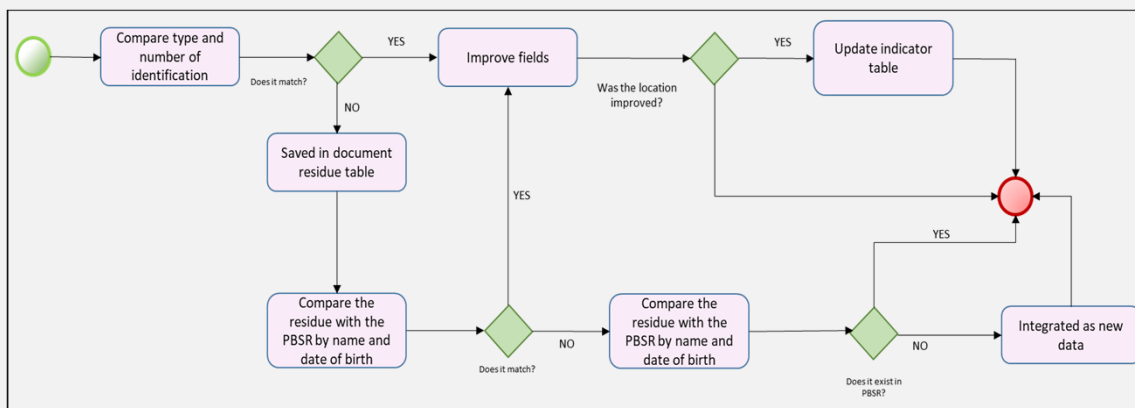
Fuente: DANE.

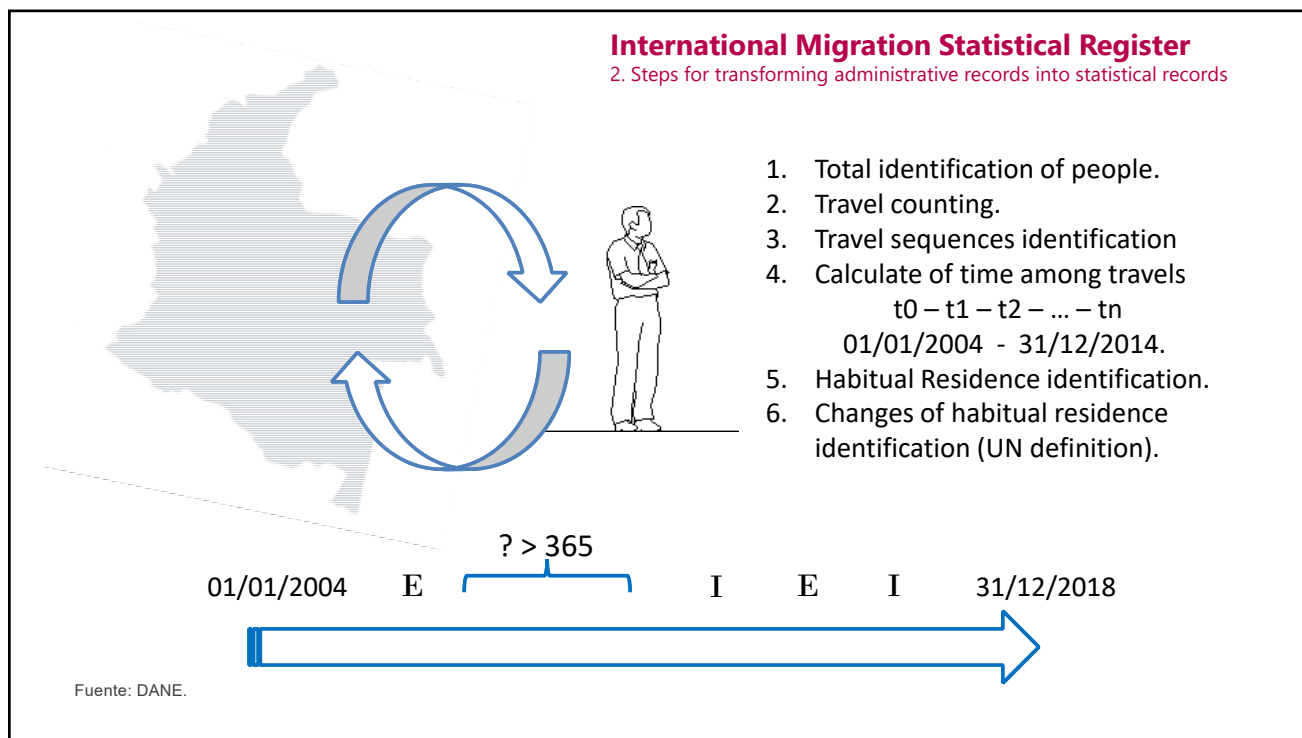# International Migration Statistical Register

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International Migration Statistical Register
1. Variables in the administrative record

Variable Type	Description of Information
Individual identifier	Type of document
	Id number
Administrative	Document type
	Country issuing passport
	Check Point
	Means of transport
Flow type travel	I: income
	E: outcome
Temporality	Date of trip
Demographics	Sex
	Birthday
	Country of birth
	Traveler's nationality
Geographic	Residence country
	Country Destination / Origin

Fuente: DANE.

International Migration Statistical Register
2. Steps for transforming administrative records into statistical records

1. Total identification of people.
2. Travel counting.
3. Travel sequences identification
4. Calculate of time among travels
   $t_0 - t_1 - t_2 - ... - t_n$
   01/01/2004 - 31/12/2014.
5. Habitual Residence identification.
6. Changes of habitual residence identification (UN definition).

? > 365

01/01/2004   E   I   E   I   31/12/2018

Fuente: DANE.

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Integration of registers

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Integration of registers

IMSR

137'870.943 trips

BPSR

3'773.990 Migrants flows

47 million records

44% immigration
56% emigrations

1,577,350 matches

987,688 emigrants

Fuente: DANE.

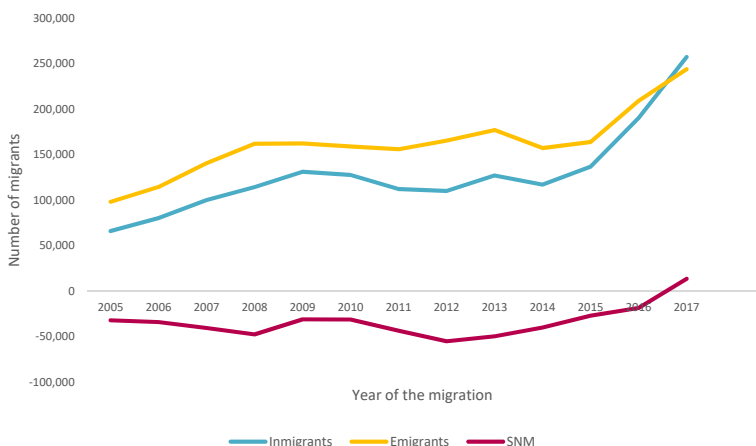
I N F O R M A C I Ó N   P A R A   T O D O S

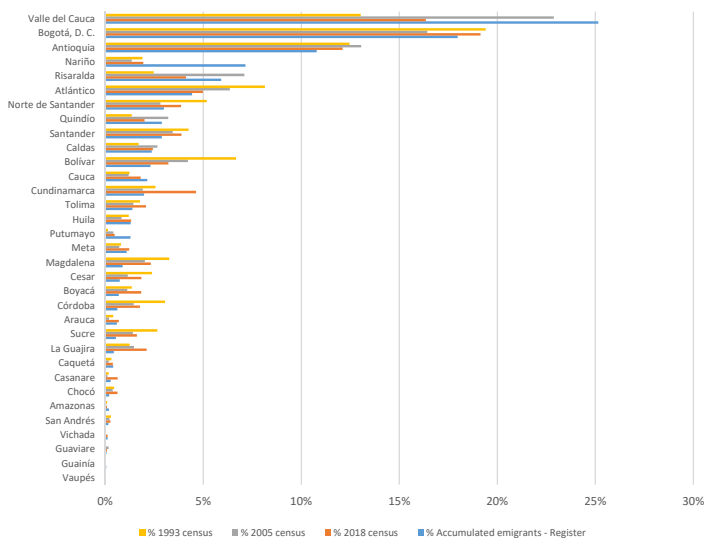## Results

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Total International Migrants and Net Migration

For the first time in recent Colombian history in 2017 there was a change in the trend of the net migratory balance

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Comparison between censuses and statistical registers
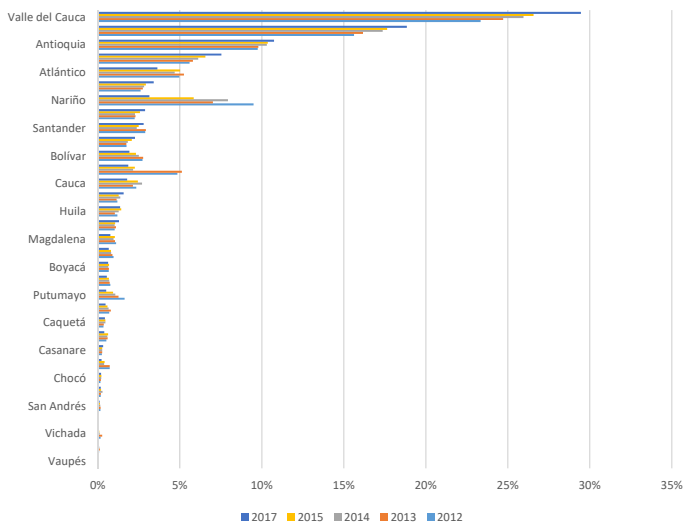### Subnational location of emigrants

There is a correlation of **0.93** with the distribution of the 2018 CNPV of mothers with children outside Colombia..

For the first time there is the origin of emigration with emigrant information

	Pearson correlation
1993 census	0.8518
2005 census	0.9662
2018 census	0.9321

Last 5 years of Emigrants

Valle del Cauca
Antioquia
Atlántico
Nariño
Santander
Bolívar
Cauca
Huila
Magdalena
Boyacá
Putumayo
Caquetá
Casanare
Chocó
San Andrés
Vichada
Vaupés

0% 5% 10% 15% 20% 25% 30% 35%

■2017 ■2015 ■2014 ■2013 ■2012

In the last years of
measurement,
concentration of
emigration is observed in
the same departments

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Conclutions

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- Of the total international migrants present in the 3,775,783 international migration statistical register, 1,544,379 records (41%) were matched, of which 978,110 (63%) correspond to emigrations.

- The other objective, perhaps the most important one, was to determine the sub-national origin of international emigration. From the total number of emigrants present in both registries, 958,663 (97%) have information on the residence department.

- The departments that have an emigrant tradition, are very well reflected with the integration of the records

- This finding becomes one of the inputs of which there was not enough information, since the census data may have biased and omitted information

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