



Dane - Colombia

Challenges when Using Administrative Data

November 2023



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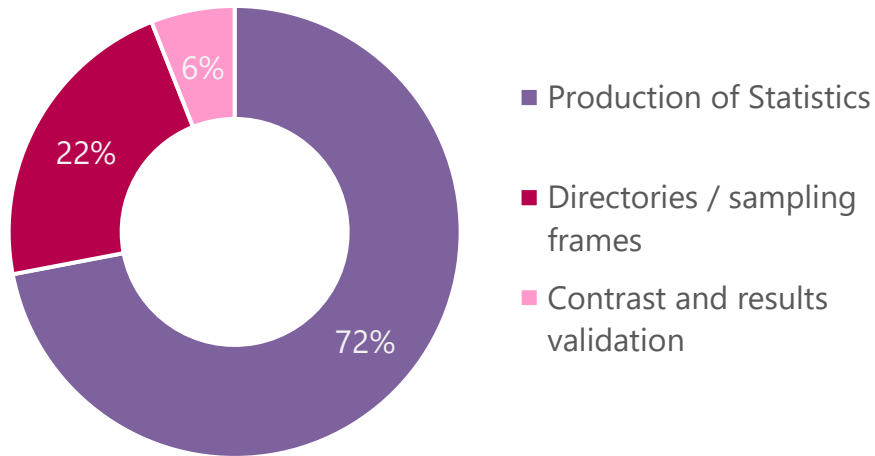
3. Challenges in the Statistical Process



Current Situation

Current Situation at DANE

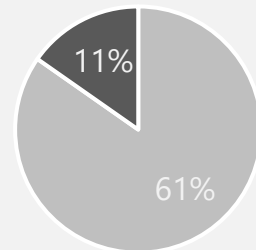
Use of Administrative Records:



- **Areas with intensive use National Accounts (68,52%) and Geoespacial information (13,58%).**
- **General statistic production uses 11,11% and Census and Demography 6,17%.**

Production of statistics

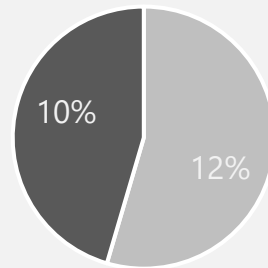
72%



- Direct sources for statistical production
- Estimates and Imputation

Directories / sampling frames

22%



- Created
- Updated



Quality Framework

National Quality Assurance Frameworks (2021): adaptation of UN manual (2019)

QUALITY FOR ADMINISTRATIVE REGISTERS

• Statistical System:

• *Administrative Records Quality Improvement Program:*

- **Quality diagnostic** and improvement plan.
- **Quality peer review** and improvement plan.
- Recommended practices when **designing administrative records**.
- Database **anonymization** methodology.

• Statistical Process:

- Creation of **specialized data management team**
- **Administrative data quality checks:** 10 Hyperdimension's (Netherlands, 2009).
- Recommended practices to integrate administrative data (in process).
- **Technical Standards of statistics Quality:** procedures to ensure that statistical output is fit-for-use according to the user needs.

Current Situation at DANE

Use of Administrative Records:

DANE continues with the transition from producing statistics based on surveys to producing statistics based on administrative data (statistical registers).

2023

Three teams were created focused of administrative data collection, quality assurance and the consolidation of statistical registers.

2024

An independent area will be created to produce statistics based on administrative data.

The business and population Statistical registers are consolidated. The real estate and activities statistical registers are in their initial stages of development



Challenges in the Statistical System and Institutional Environment

Challenges in the Statistical System

Challenges



Insufficient cooperation of the administrative data provider due to legal concerns about breaching confidentiality of their sources: private sector information (list of members, cell phone calls, lists of financial transactions).

Legal challenges obtaining access to administrative records considered "sensitive" or "strategic": tax records, lists of electronic wallet transactions, information about minors, information about medical conditions.

No obligation to notify changes in the administrative data variables or methodology

No obligation to implement quality guidelines to administrative registers used in official statistics production.

Impact on Output



Timeliness and punctuality

Reduced number of sources or lack of continuity in data provision

Accuracy and reliability



SOLUTION

Statistical Law Update (Oct 2023)

Access to administrative and alternative data sources is directly mentioned in the law.

Specific exemptions to report information to DANE directly mentioned in the law.

Obligation to inform DANE of modifications on the production of administrative data.

Mandatory adoption of quality guidelines by administrative data used in official statistics production.

Details on confidentiality obligation and Data protection

Challenges in the Statistical System and Institutional Environment

Challenges

Difficulties processing high volume of request of administrative data.
Lack of centralization of administrative data requests from different areas at DANE increased the respondent burden.

Impact on Output

Timeliness and punctuality
Accuracy and reliability

SOLUTION

Development of a Customer Relationship Management software designed to organize the identification, request and collection process of administrative data required by the NSO.

This software was developed with the collaboration of the Economic Commission for Latin American and the Caribbean (ECLAC) and will be used by the NSO of Colombia, Chile, Peru and Bolivia, starting 2024.



HOME



1. Inventory



2. Requests



3. CRM of
Suppliers



4. Projects



5. Collection
process



Challenges in the Statistical Process

Challenges in the Statistical Process

Challenges

Lack of standard procedures to integrate administrative data and/or surveys to create Statistical Registers.

Lack of tools to share statistical registers to internal users, with low security and privacy risks.



Impact on Output

Negative impact on the quality of the integration due to the lack of standardization.

Timeliness and punctuality

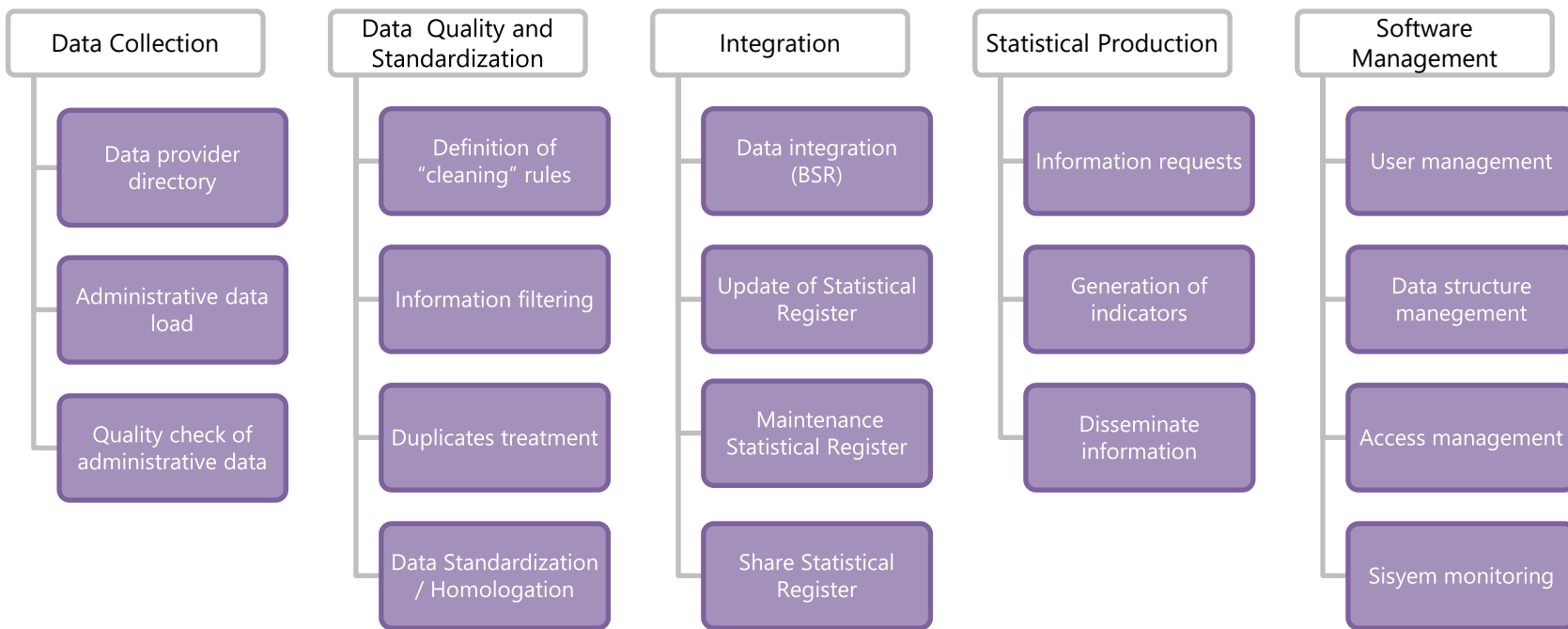


SOLUTION



Colombia's integrated management system of administrative records (SIGRAC)

SIGRAC is a system developed by DANE in collaboration with KOSTAT – OCEAN IT, designed to automatically integrate administrative records, generate information and arrange it according to the specific needs of each area.



Challenges in the Statistical Process



SIGRAC uses Example: Integration to validate survey information

Contrast between new tax report question included at the household survey with official tax report administrative record to validate answers.

Household Survey – tax report	Administrative register of Tax report to DIAN	
	Yes	Missing
Yes	13.40%	0.30%
No	85.30%	75.80%
NA	0.80%	0.30%
Minors	0.50%	23.60%

85,3% of the identified taxpayers at the official revenue service administrative record, answered in the household survey that they didn't had to report taxes.



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