



# Use of ICT in Colombian Households

**Information and Communication Technologies Survey in Households (ENTIC) and Quality of Life Survey (ECV) – ICT Module**

September 2025



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# ENTIC and ECV Household surveys

## Methods for the Household Survey

<b>Main Objective:</b>	Obtain information that allows the analysis and comparison of ICT ownership and use in Colombian households, enabling the monitoring and formulation of policies focused on the development and use of ICT, as well as the monitoring of the variables necessary for the design and implementation of public and public-private policies, plans, and programs for the promotion and social diffusion of ICT in Colombia, with greater technical coordination and conceptual consistency.
<b>Reference period :</b>	Last twelve (12) months to the collection period
<b>Data collection period:</b>	August–December 2024
<b>Sampling design:</b>	Probabilistic, stratified, multistage sampling
<b>Sample:</b>	Households with complete surveys: 53,570 Individuals with complete information: 148,700
<b>Geographic coverage:</b>	National total and areas (capital city - population centers and scattered rural areas). Departmental.

<b>Main Objective:</b>	Obtain information that allows for the analysis and comparison of the socioeconomic conditions of Colombian households, enabling the monitoring of variables necessary for the design and implementation of public policies.
<b>Reference period :</b>	Last seven (7) days, thirty (30) days and last twelve (12) months to the collection period
<b>Data collection period:</b>	August–November 2024 and 2023
<b>Sampling design:</b>	Probabilistic, stratified, multistage sampling
<b>Sample:</b>	Households with complete surveys: 53,570 Individuals with complete information: 148,700
<b>Geographic coverage:</b>	National total and areas (capital city - population centers and scattered rural areas). Departmental.
<b>Principal indicators:</b>	Indicators of ICT ownership at the household level (computer ownership, Internet connection, landline and cell phone ownership, use of signal to watch TV). Indicators of ICT use among individuals aged 5 and older (use of computer, Internet, cell phone, ICT skills, listening to radio signal within the home).



## ENTIC

**Measures the conditions of ownership and use of ICTs in Colombian households.**

- **MODULE I.** Characterization of dwellings.
- **MODULE II.** Ownership of ICT goods and services in the home.
- **MODULE III.** Characteristics and composition of the household.
- **MODULE IV.** Use of Information and Communication Technologies (ICT).
- **MODULE V.** Internet safety and responsible use.



## ECV

- **MODULE.** Ownership of ICT goods and services in the home.



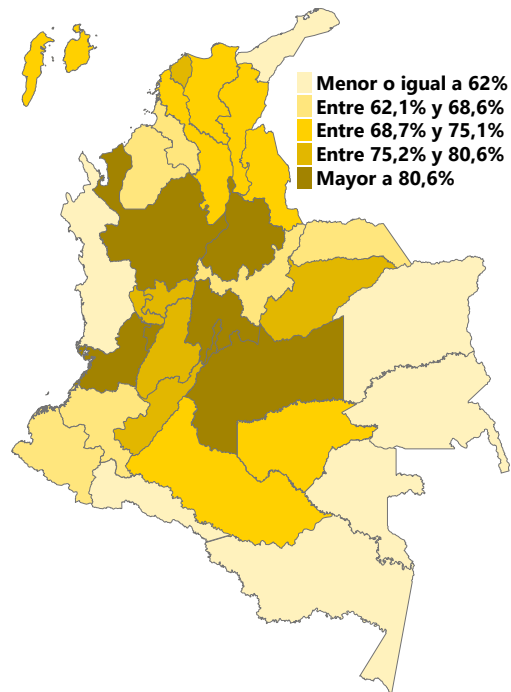
**ECV**

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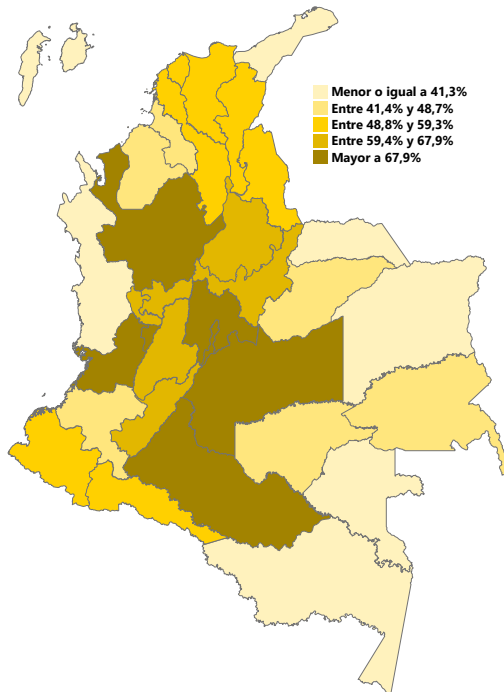
**Results 2024**



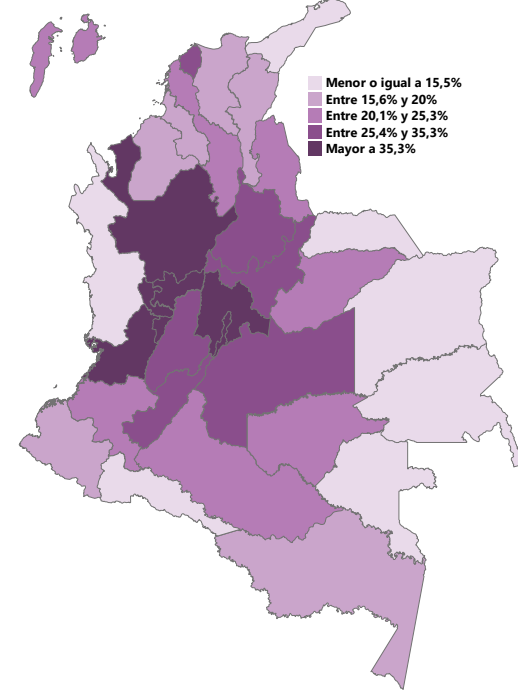
### Percentage of people aged 5 and older who used the Internet anywhere and from any device



### Percentage of households with Internet access



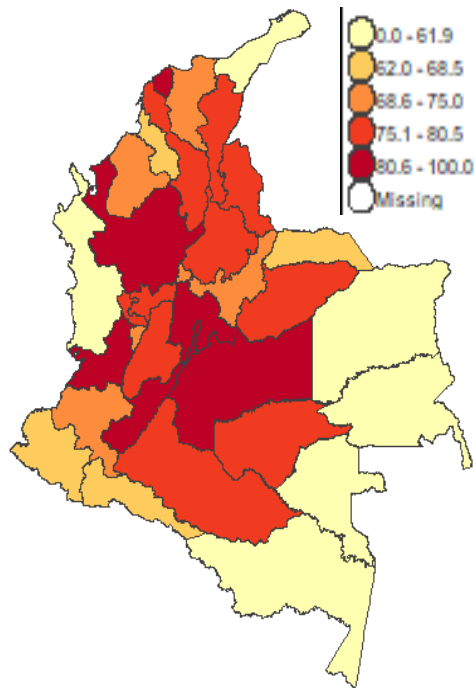
### Percentage of households that own a desktop computer, laptop, or tablet



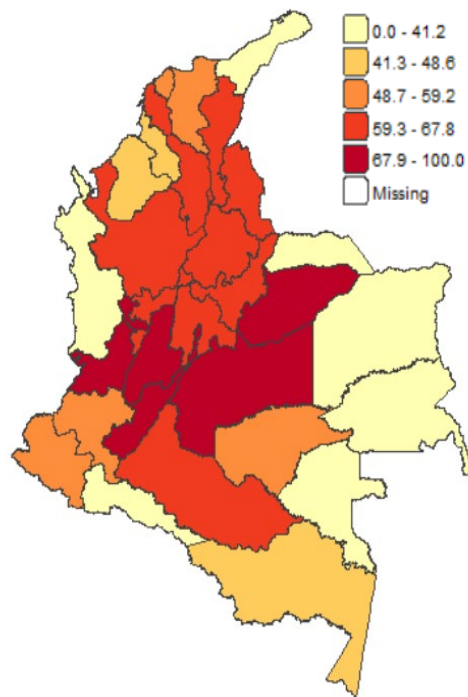
In 2023, nationwide, 77.3% of people aged 5 and older used the Internet (anywhere and from any device); 63.9% of households had an Internet connection, and 34.0% had a desktop computer, laptop, or tablet.



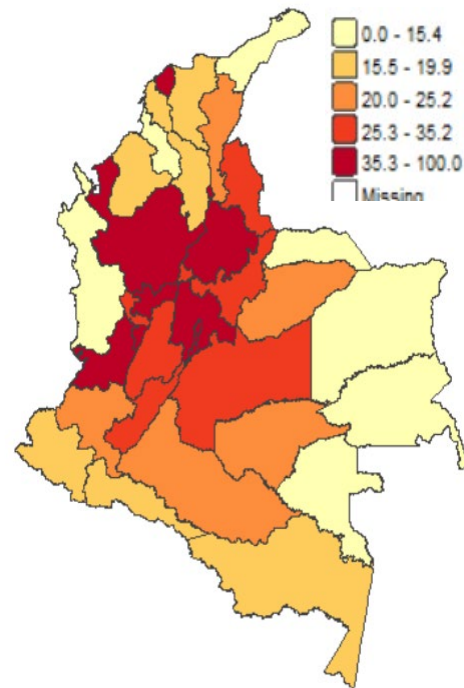
**Percentage of people aged 5 and older who used the Internet anywhere and from any device**



**Percentage of households with Internet access**



**Percentage of households that own a desktop computer, laptop, or tablet**





**ENTIC**

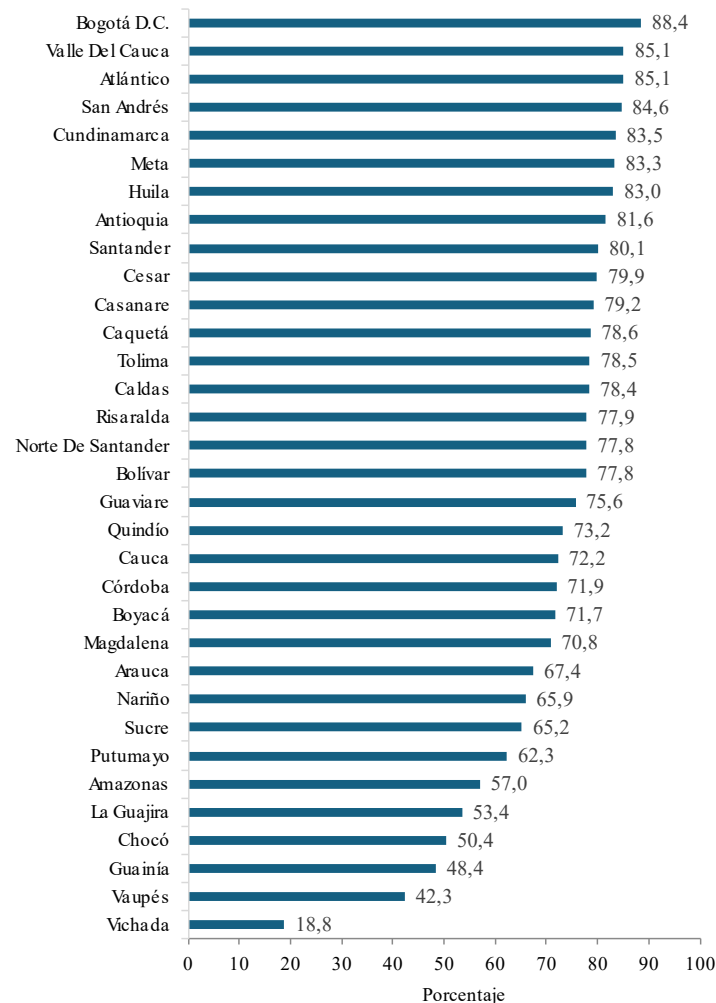
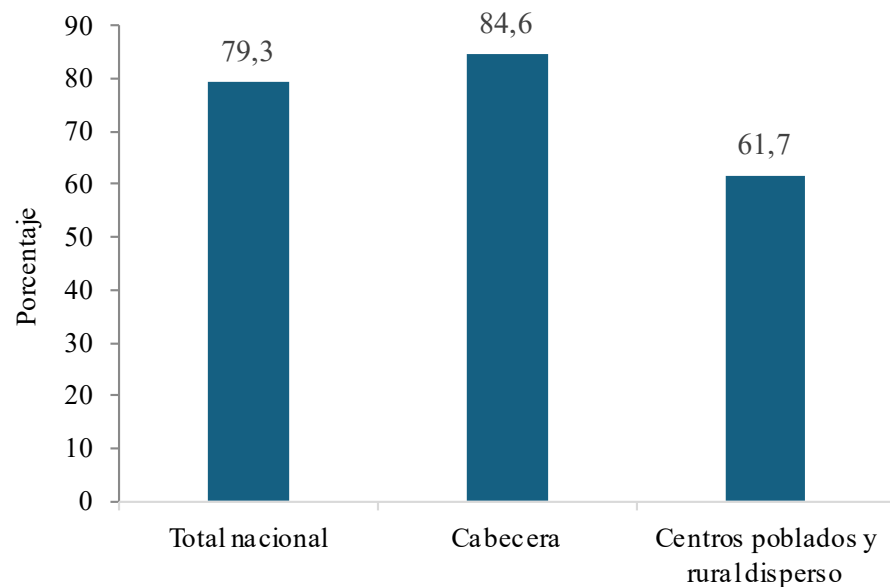
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**Results 2024**



## Internet usage

**Percentage of people aged 5 and over who used the Internet**  
**National total, departmental, county seat and population centers, and**  
**scattered rural areas**  
**2024**



Fuente: DANE, ECV.

Nota: Los datos del presente indicador básico son tomados del módulo TIC de la Encuesta de Calidad de Vida 2024.

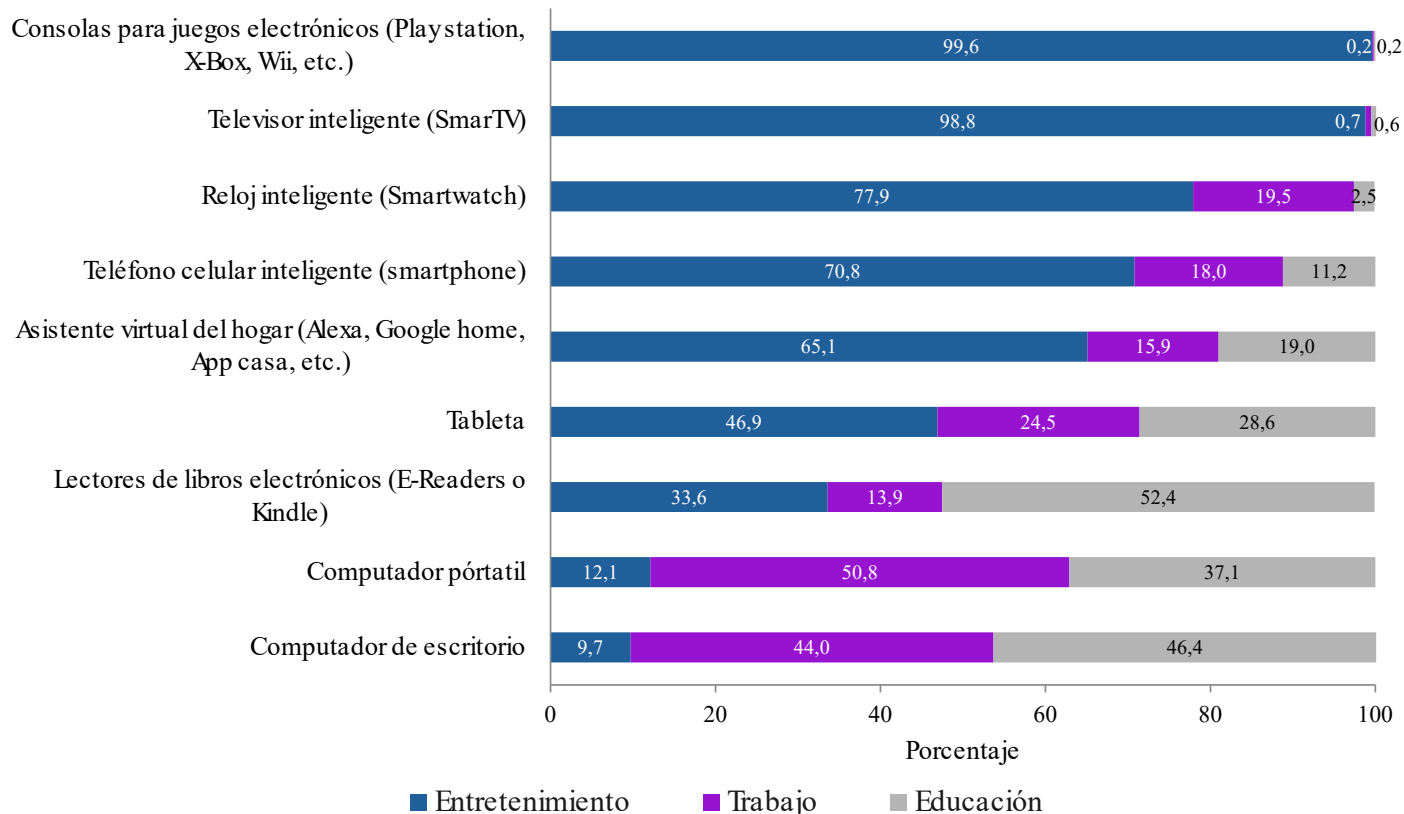
# Devices and purposes in the use of the Internet



## Distribution of persons aged 5 and over who used devices to access the Internet, by purpose of use

National Total

2024



Fuente: DANE, ENTIC.

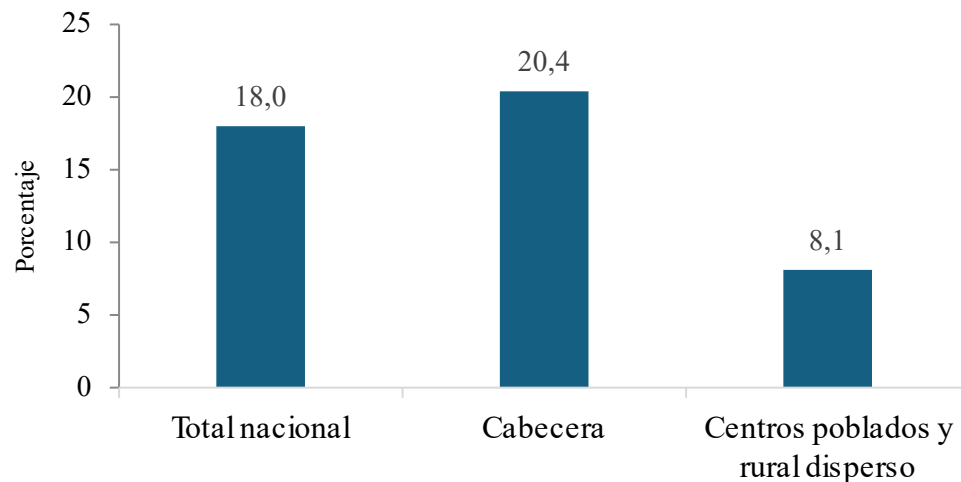
Nota: La suma de las distribuciones puede no dar 100% debido a la aproximación en el nivel de dígitos utilizados.

# Internet usage activities – Use of AI tools

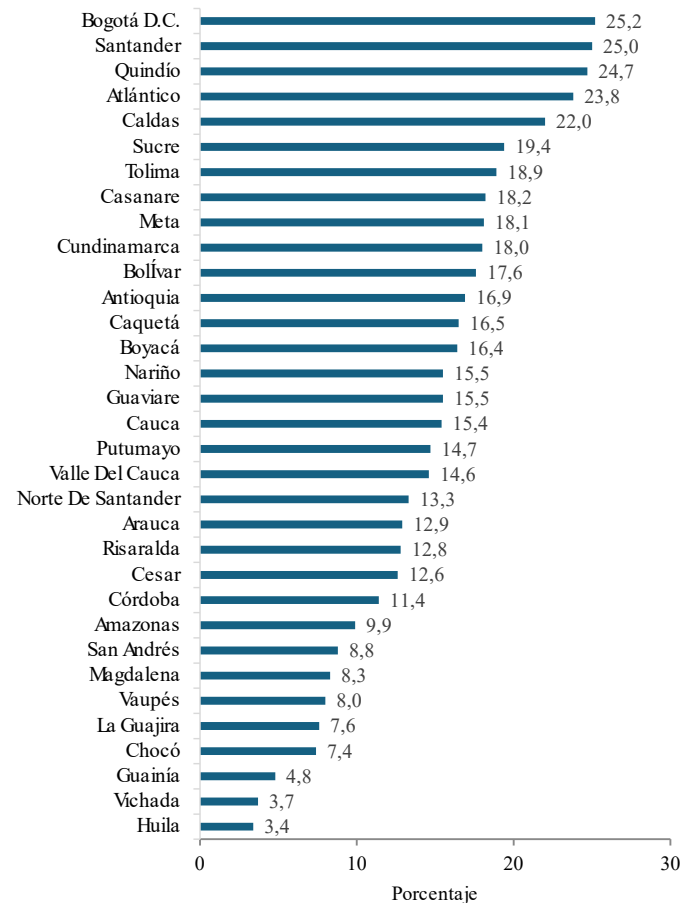


Proportion of people aged 5 and over who used Artificial Intelligence tools via the Internet

National total, Departamental, county seat, population centers, and scattered areas  
2024



Fuente: DANE, ENTIC.

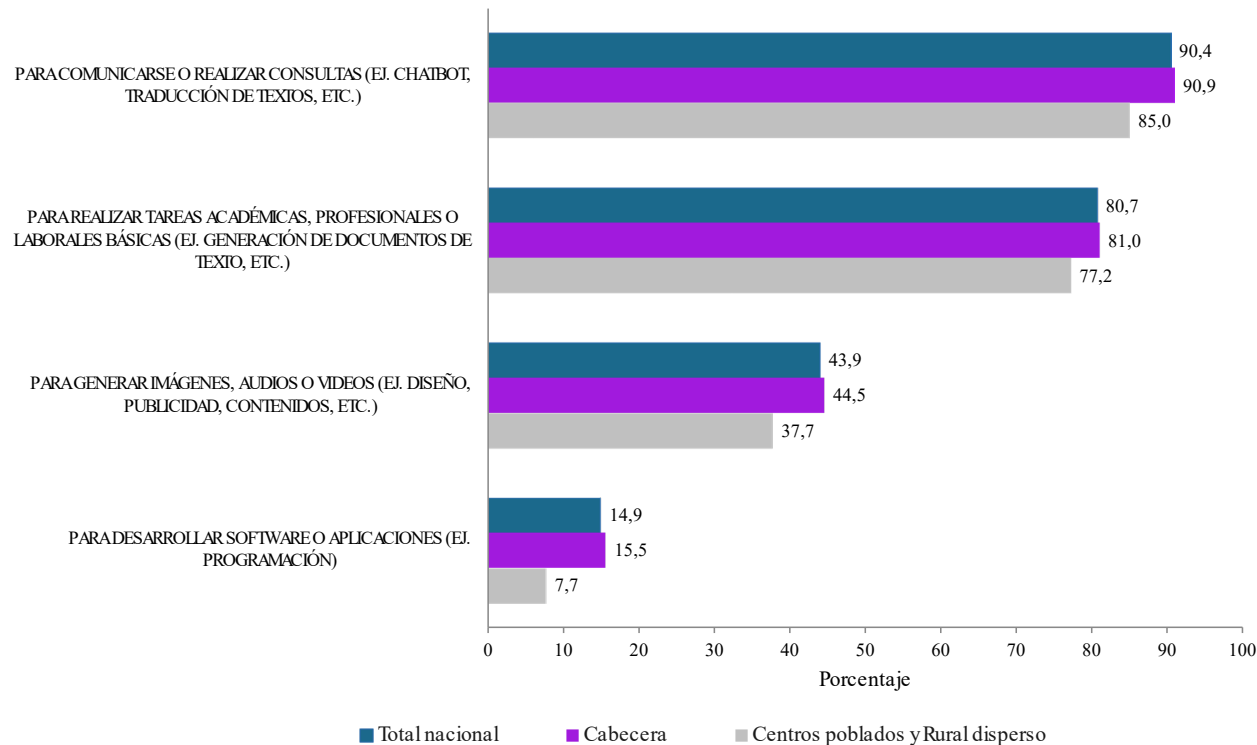


# Internet usage activities – Use of AI tools



Percentage of people aged 5 and over who used artificial intelligence tools via the Internet, by activity performed using this technology

National total, county seat, population centers, and scattered rural areas  
2024



Fuente: DANE, ENTIC.

Nota: Las proporciones de las diferentes actividades realizadas a través de Inteligencia Artificial no suman 100% porque las opciones de respuesta no son excluyentes.



## Research

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## Research problem

Differences between same question in ECV and ENTIC  
2024



### Difference between percentage of households with Internet access

The ECV and the ENTIC provide different results for the same questions. For this reason, we decided to explore several approaches:

- Sample validation.
- Bias assessment exercises.
- Small area estimation using two independent samples with different outcomes



## Percentage of households with Internet access

National total, county seat, population centers, and scattered rural areas  
2024



Área	Total Household*		Household with internet				
	ECV	ENTIC	ECV	ENTIC	% ECV	% ENTIC	Dif. ECV-ENTIC
Total	18.489	18.561	12.138	14.323	65,6	77,2	-11,5
Cabecera	14.343	14.410	10.399	11.736	72,5	81,4	-8,9
Centros poblados y rural disperso	4.146	4.151	1.739	2.587	41,9	62,3	-20,4

- Data expanded with population projections based on the 2018 CNPV. Figures in thousands.
- **Note:** The difference in the population projection for households in ECV vs. ENTIC is due to the cut-off date for data collection, with ECV closing in October 2024 and ENTIC in December 2024.



## Conclusions

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## Conclusions and future work

**Plans for collecting statistical information on the different dimensions:** Within the scope of DANE's competence, its mission focuses on measuring access to and use of ICTs through surveys.

**Barriers/obstacles to the production of ICT statistics:** Resources for financing, particularly for measuring specialized indicators through independent surveys that provide information on the current status of ICT adoption and use.

### Collaboration with ICT statistics users

- Statistical information is produced using the GSBMP statistics production model.
- The first phase of the GSBPM model is the identification of information needs, for which regular working groups are organized with the main external users.
- Once the information has been refined and is ready for dissemination, committees are formed with external users, where not only is a presentation made for the correct interpretation of the data.
- The results are made available through the consultation channels available to the public (the entity's Specialized External Processing Room (SPEE), website).

**Small area estimation for reconciling differences in two surveys:** We are working on a investigation of small area to review wich of the estimators have better performance and if we can give one estimator from both surveys using as a reference the paper from Teng Liu, F. Jay Breidt and Jean D. Opsomer "A small area estimation approach for reconciling differences in two surveys of recreational fishing effort"

## Conclusions and future work

The ECV and ENTIC are independent surveys that use different collection instruments, different sample sizes, different selected segments, different collection times, and different objectives.

The ECV addresses different dimensions of household living conditions, one of which is access to and use of ICT, which is measured using basic indicators through an inserted module. For its part, ENTIC aims to measure specialized indicators on access to and use of ICT that cannot be measured in the ECV.

The concepts defined for households with Internet access according to connection type are the same, indicating that there are no conceptual differences between the two surveys. This may be a matter of interpretation of the source.

The ECV has been measuring and publishing the basic indicator of Percentage of Households with Internet since 2012, meaning that there is a historical series of 13 years, compared to the ENTIC Households, which has measured three non-continuous reference periods (2020, 2021, and 2024), preventing better monitoring. If the atypical ENTIC indicator for 2024 becomes official, there is a risk that the indicator in 2025 will maintain the ECV growth trend and show an inconsistent decline (compared to 2024) that is difficult to justify.



## Thanks

### Team:

**Zaura Sierra Hernandez** - [zsierrah@dane.gov.co](mailto:zsierrah@dane.gov.co)

**Edgar Arlex Garzon Alarcon** - [eagarzona@dane.gov.co](mailto:eagarzona@dane.gov.co)

**Juan José Rubio Mesa** - [jjrubiom@dane.gov.co](mailto:jjrubiom@dane.gov.co)

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