

General landscape of the labor market in Medellin

OBJECTIVE

Identify human talent gaps in the city through the dynamics of supply and demand of the labor market in Medellin.

- Occupational profile:** Evaluates the most relevant skills for companies and graduates.
- Labor demand prospective:** It seeks to design technological and productive transformation trends in regional strategic sectors.

METHODOLOGY

SAMPLE

Graduated

Poll aimed at graduates of higher education programs of the HEIs of Medellin, which inquires about training, employability, skills and the job prospective

Enterprises

Poll aimed at companies in the region to identify the most requested skills and profiles. Additionally, it inquires about the labor models after covid and the demanded job prospective.

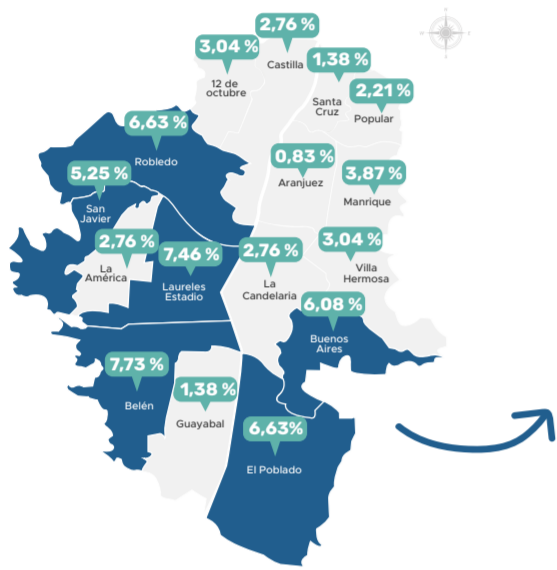
Labor prospective

Through an experts workshop, context documents and technological surveillance, strategic variables were obtained that allowed the construction of two alternative scenarios in the city labor market for 2030.

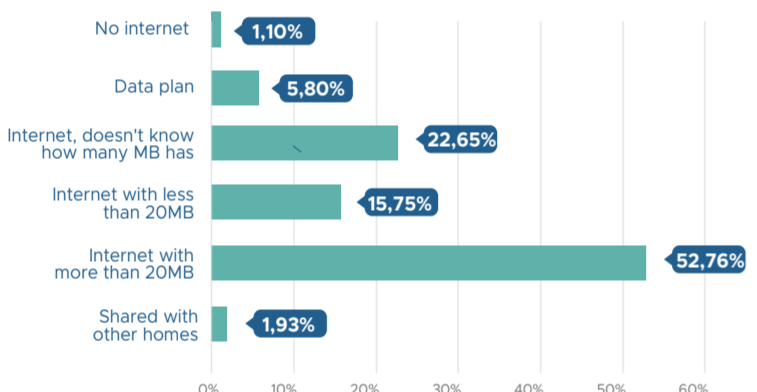
Chapter 1 Graduated

83% of those polled have college education, while 17% have technological education.

Age	Men	Women
19-25	19,8%	29,3%
26-31	49,6%	43,6%
32-37	15,2%	13,2%
+38	15,2%	13,7%



The student population is concentrated in the Belén, Laureles, Poblado, Robledo Buenos Aires and San Javier communes. On the other hand the districts have the minor percentage of graduated.



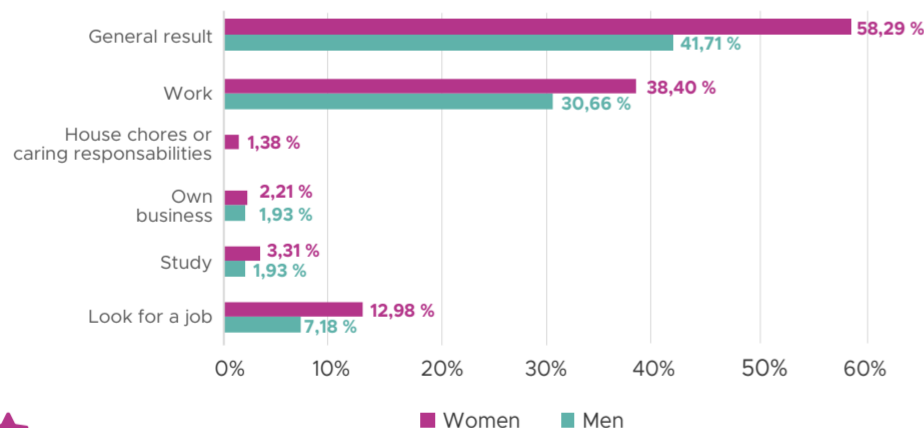
Types of internet connection

After graduating, 48% took complementary courses from online platforms such as Platzi, Udemy, Coursera, among others and 73% invested in technology and infrastructure for remote work.

Areas of knowledge

Areas of knowledge	Percentage
Agronomy, veterinary and related	0,28%
Fine arts	1,93%
Educational Sciences	2,76%
Health sciences	12,43%
Human and social sciences	16,30%
Economy, Administration, Accounting and related	33,15%
Engineering, Architecture, Urban planning and related.	31,77%
Math and Natural Sciences	1,38%

Most performed activities

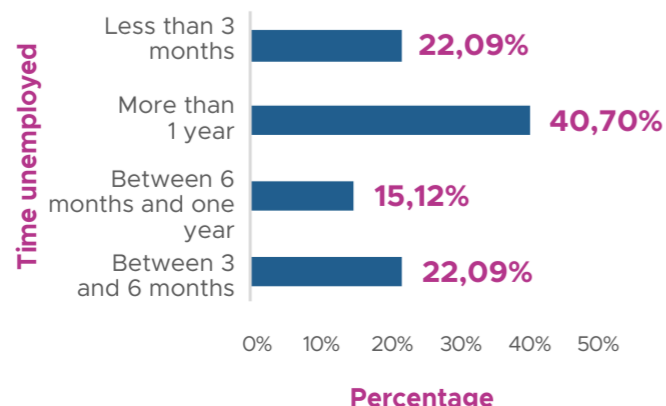


TOP 5 Skills and competences (Graduated)

- ### Domain of Competences
- Ability to learn and update constantly
 - Skills to search, process and analyze information coming from different sources.
 - Ability to motivate and move towards common goals
 - Ability to identify, plan and solve problems
 - Ability to abstract, to analyze and to summarize

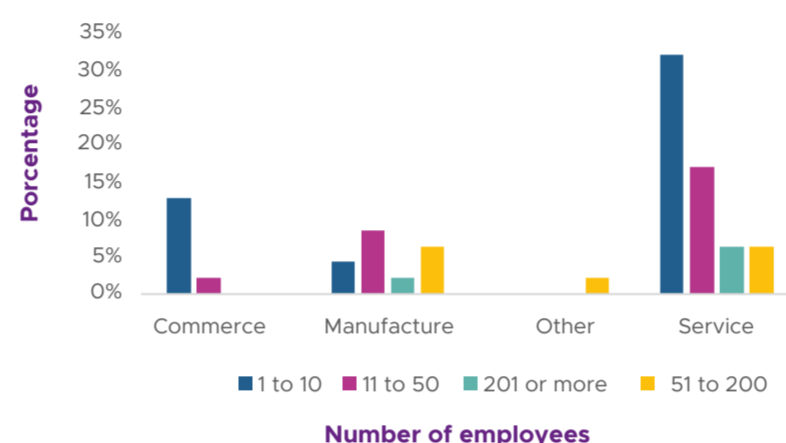
- ### Skills to strengthen
- Programming and data analysis
 - Languages
 - Information and communication technologies
 - Emotional intelligence and some soft skills
 - Team work

Unemployment in the graduates



Chapter 2 Enterprises

Companies according to economic sector and size of the workforce



Tools used by the enterprises

Open Office
The Dude Hubspot Linux
Hubspot Siigo ICG Manager
Postgres Apache Siesa
Python HGI Zentyal
Q10 Microservices

TOP 5 Relevant competences for the enterprises

- Emotional intelligence
- Problem solving skills
- Ability to identify
- Ability to learn
- Team work

Relevant factors for recruitment

- Soft skills
- Technical competences
- Experience
- Transversal competences
- Study

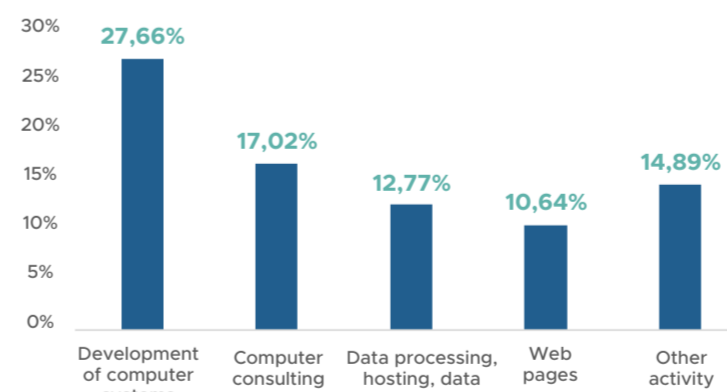
TOP 5 Most demanded technological profiles

- Developers
- Social network experts
- Data scientist
- Network technician
- Software architect

Most demanded profiles

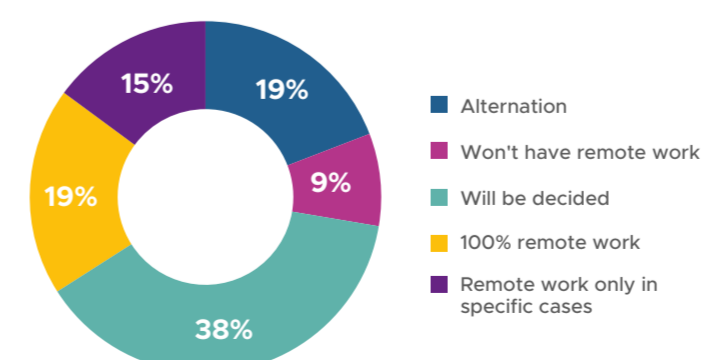
- Sales representatives
- Customer service
- Graphic designer
- Administrative assistant
- Technology developers

Enterprises with ICT activities



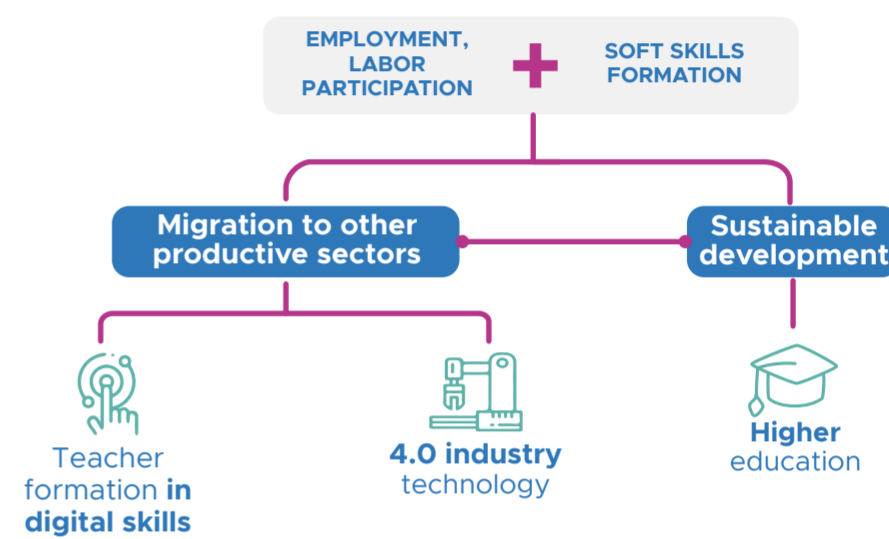
Of all the companies, 40.4% carry out some ICT activity

Strategies about remote work



Chapter 3 Labor market prospective

Relationship of strategic variables prioritized by experts



Characteristics of labor market scenarios for the 2030 horizon

1. Neural networks

- Creation of **Neural Articulation Centers-CNA** for the activation of projects, including digital literacy, physical and cyber security and digital training of teachers in the whole educational system.
- Creation of the unified virtual education platform where entrepreneurs and experts in education, unify objectives and training programs in the short and medium term.
- 40% of the workforce is located in fields related to software development, digital content creation, consulting of digital product building and universal translators, in the same quantity, the population over 15 years of age goes to formation courses for work.

- Growth of 3% in the number of people with some type of remote work contract in an enterprise with a tax base in other country.

- The Public Employment Office leads the repository of labor market information that comes from its databases as well as from HEI graduate offices, thus allowing a two-way interaction. In addition, HEIs and other entities have made a commitment to include a minimum of 10% of the credits in soft skills formation.

2. Entropy

- Some workers combine their work in Colombia with remote work abroad, while others have chosen to emigrate to other cities where hardware companies have developed.
- 30% of the enterprises are working in fields related with the 4.0 industry.
- Education insitutions have not adapted to the new technologies or depend on services given by international platforms, in addition to this, the low coverage of the teachers digital competences training program, which has restricted the use of available technologies such as 3D videoconference and the options of Metaverse platforms.
- The accreditation processes have not evolved, generating barriers in the evaluation and opening of new educational programs.
- Due to the lack of strengthening of soft skills, employability has been reduced in 35% of the graduates of the HEIs of Medellin.