

#### Contents

- 1. Introduction
- 2. Methodology
- 3. Data Jobs Demand Analysis
- 4. Salary Analysis
- 5. Conclusions
- 6. References
- 7. Dashboard App



Image Source: https://www.istockphoto.com/es/foto/gr%C3%A1fico-de-cerca-financial-en-la-pantalla-del-ordenador-port%C3%A1til-gm1201802513-344790230

#### 1. Introduction

- With the emergence of the big data, new jobs have appeared demanding new sets of skills and expertise for extracting value from data (Axis Talent, 2020; ai-jobs.net, 2023):
  - Business Intelligence Analysts (BI)
  - Business Analysts (BA)
  - Data Analysts (DA)
  - Data Architects (DR)
  - Data Engineers (DE)
  - Data Scientists (DS)
  - Machine Learning Engineers (ML)
- Which one is the most valued in the Mexican labor market currently?

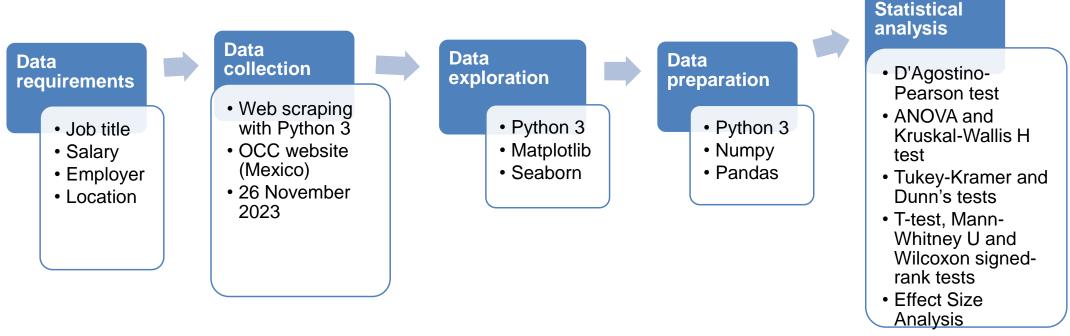


Image Source: https://www.pexels.com/es-es/foto/foto-de-primer-plano-de-la-hoja-de-calculo-de-la-encuesta-590022/

#### 2. Methodology

#### **Research question:**

Which data job category has the highest salary in the Mexican labor market in November 2023 according to the OCC website?

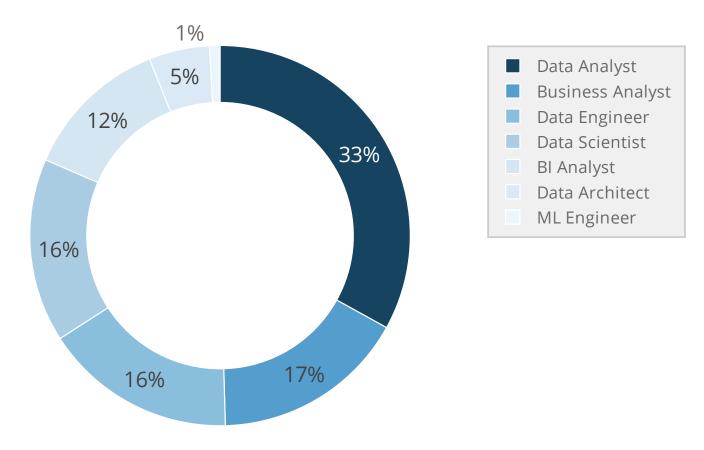


Based on Rollins' Foundational Methodology for Data Science (2015).

#### 3. Data Jobs Demand Analysis...

563 data jobs found.

 What is the most demanded data job?
 Data Analyst.



**Figure 1.** Proportion of vacancies for each data job category in Mexico in November 2023 (own elaboration).

#### ...Data Jobs Demand Analysis...

National



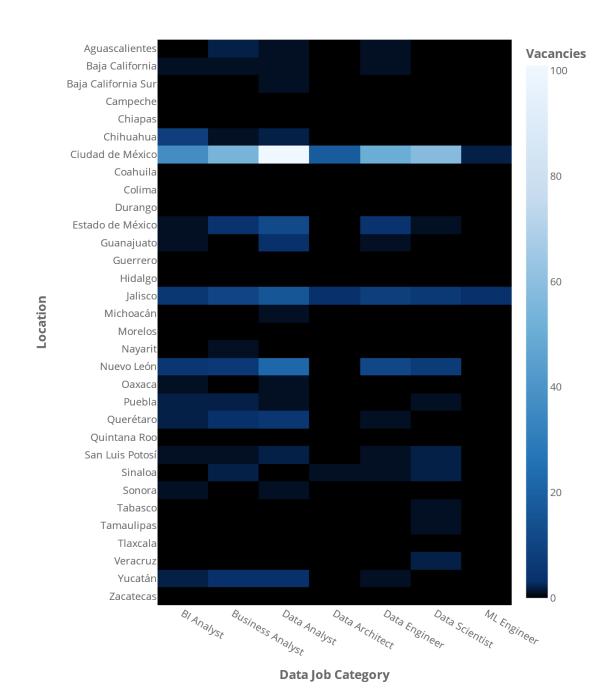
 Where do the most data jobs locate? Ciudad de México.

**Figure 2.** Data jobs demand per state in Mexico in November 2023 (own elaboration).

## ...Data Jobs Demand Analysis...

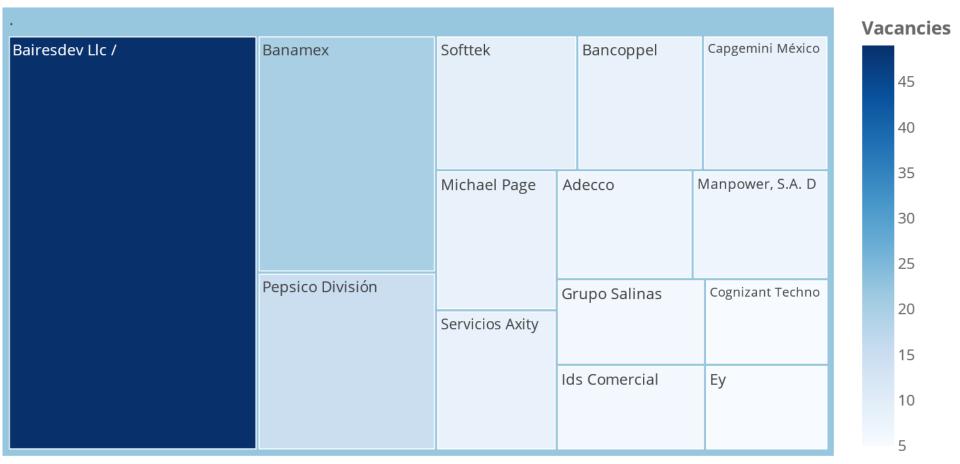
 What data job is the most demanded across the locations? Data Analysts, and Business Analysts.

**Figure 3.** Data jobs demand per category and location in November 2023 (own elaboration).

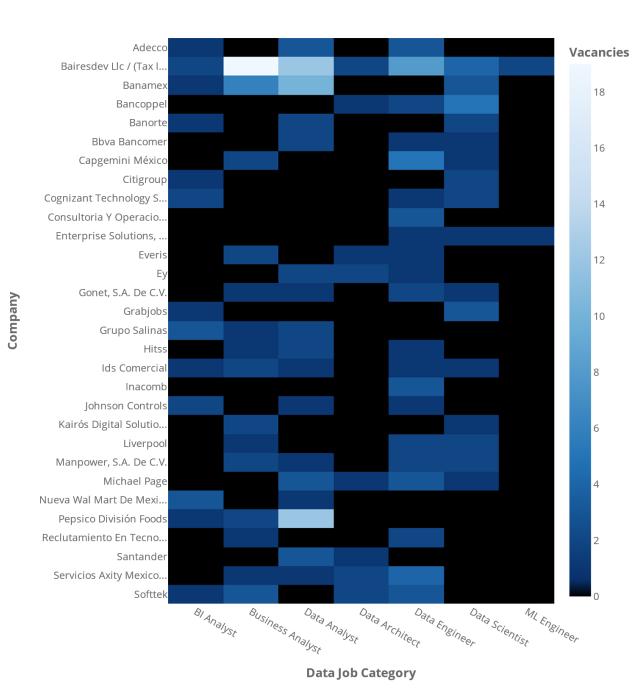


#### ...Data Jobs Demand Analysis...

What companies demand the most jobs in data?



**Figure 4.** Top 15 companies with the greater demand of data jobs in Mexico in November 2023 (own elaboration).



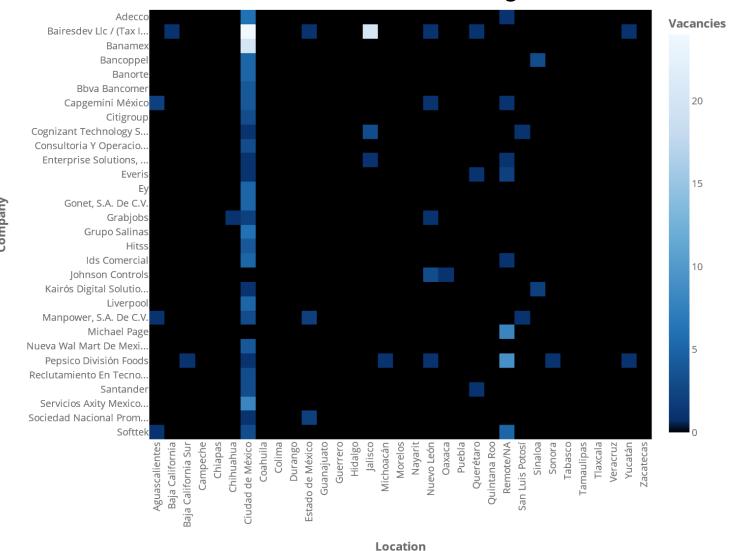
#### ...Data Jobs Demand Analysis...

 How is the data jobs demand per company? ML Engineer and Data Architect positions are more likely to be found in tech consultancy firms and banks.

Figure 5. Data jobs demand per category and company (top 30) in November 2023 (own elaboration).

## ...Data Jobs Demand Analysis

 Where do companies demanding data jobs locate? Mostly in Ciudad de México and Remote.



**Figure 6.** Top 30 companies demanding data jobs per location in November 2023 (own elaboration).

#### 4. Salary Analysis...

Sample of 197 jobs.

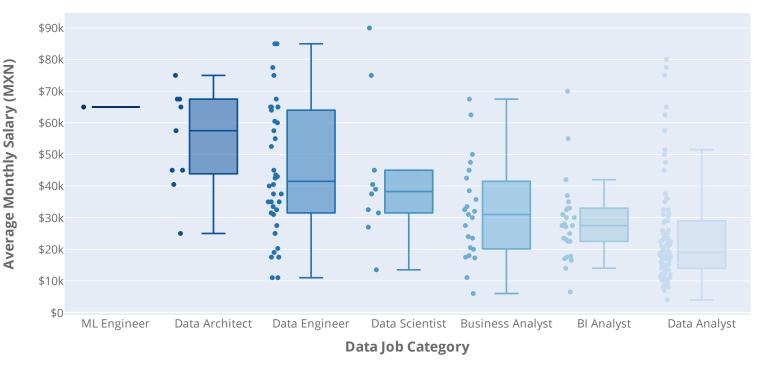
For all data jobs:
 Average salary of
 \$32,163 MXN per
 month.

Non-normal distribution.



**Figure 7.** Histogram of salary distribution of the data jobs in Mexico in November 2023 (own elaboration).

## ...Salary Analysis...



**Figure 8.** Box plot of salary distributions for each data job category in Mexico in November 2023 (own elaboration).

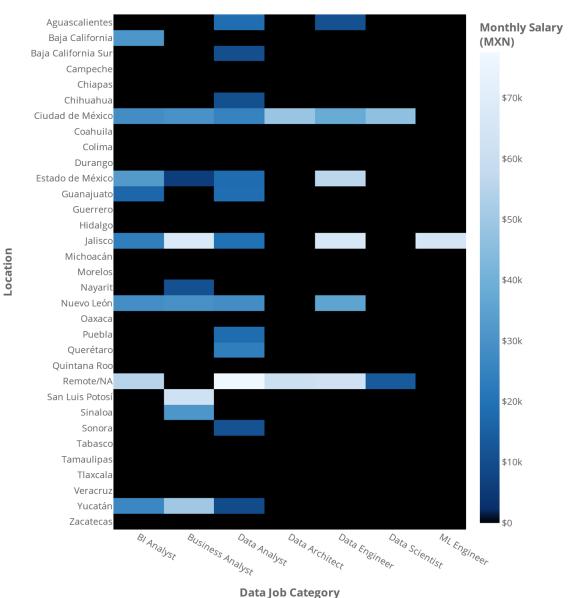
 Which data job category has the highest average salary?
 Data Architect and ML Engineer.

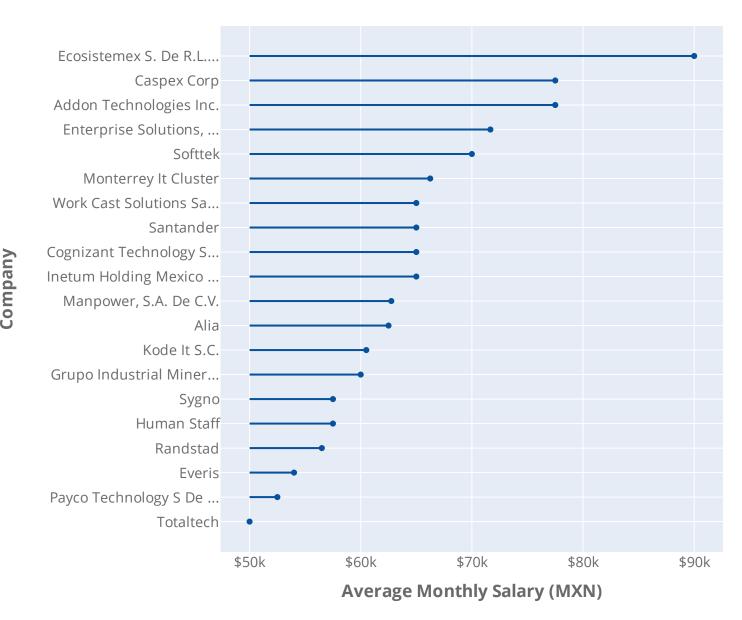
Data Job Category	Mean Monthly Salary (MXN)	Median Monthly Salary (MXN)
ML Engineer	\$65,000	\$65,000
Data Architect	\$54,222	\$57,500
Data Engineer	\$45,033	\$41,500
Data Scientist	\$43,150	\$38,250
Business Analyst	\$31,893	\$31,000
BI Analyst	\$28,633	\$27,500
Data Analyst	\$24,026	\$19,000

## ...Salary Analysis...

 Where are the highest salaries for data jobs?
 Depends on the data job.
 However, the highest salaries can be found in remote positions and Jalisco.

**Figure 9.** Average salaries by data job category and location in Mexico in November 2023 (own elaboration).





## ...Salary Analysis...

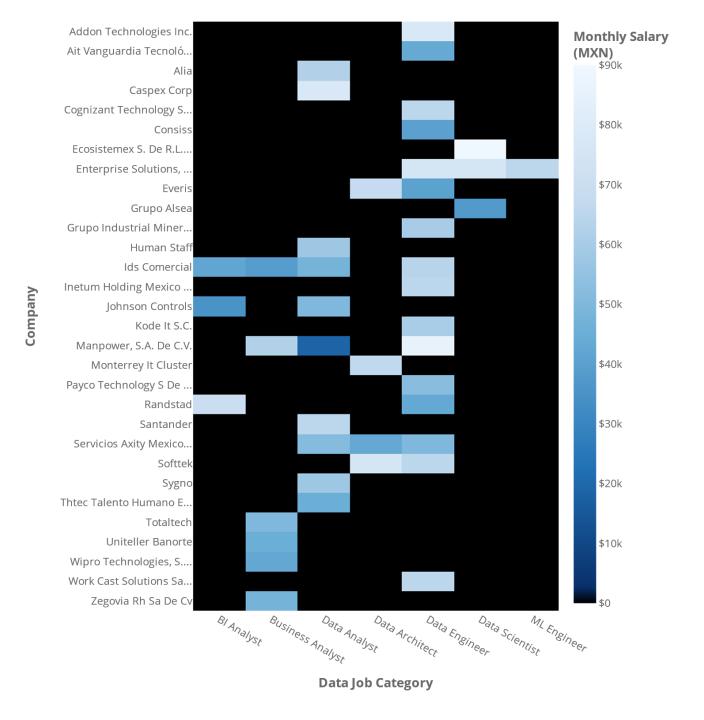
 What companies offer the highest salaries for data jobs?
 Ecosistemex.

Figure 10. Top 20 companies with the highest average salaries for data jobs in Mexico in November 2023 (own elaboration).

#### ...Salary Analysis

 What companies offer the highest salaries for data jobs per data job category?

Figure 11. Top 30 companies with the highest average salaries by data job category in Mexico in November 2023 (own elaboration).



#### 5. Conclusions...

- ML Engineer and Data Architect are the data job categories with the highest salaries in the Mexican labor market in November 2023 according to the OCC website.
- Data Analyst is the data job category more demanded in the current Mexican labor market and across the different Mexican states, even though it was also the one with the lowest salary.
- Ciudad de México is the place where it is possible to find the highest jobs demand. However, the highest salaries could be found in remote positions and Jalisco.

#### ...Conclusions...

- Data Architect and ML Engineer positions are concentrated in Ciudad de México, Nuevo León, and Jalisco, and are most likely to be found in tech consulting firms and banks.
- Data Analyst, Business Analyst, and Data Engineer positions are more demanded across different type of organizations and locations.
- Bairesdev, Banamex, Pepsico and Softek exhibited the highest demand of data jobs positions; while Ecosistemex, Caspex Corp, Addon Technologies, Enterprise Solutions, and Softek offered the highest salaries.

#### ... Conclusions

#### This study had limitations:

- Only used OCC as source of information during a very short period of time (just 26 November 2023).
- Very few salary observations were retrieved for ML Engineer, Data Architect, and Data Scientist positions.
- Collected data mostly correspond to Ciudad de México, Estado de México, Nuevo León and Jalisco.
- No distinction was made among entry level, middle and senior positions.

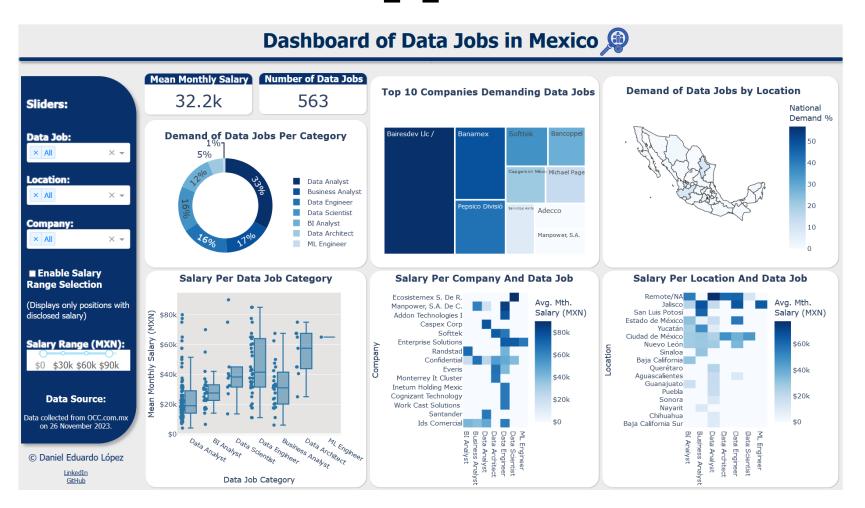
#### Future perspectives:

- Gather data from more job websites.
- Retrieve information for a longer time span.
- Collect more salary observations for ML Engineer, Data Architect, and Data Scientist positions.
- Collect more salary data for other Mexican states.
- Make a distinction among entry level, middle and senior positions.

#### 6. References

- ai-jobs.net (2023). Machine Learning Engineer vs. Business Intelligence Data Analyst. <a href="https://ai-jobs.net/insights/machine-learning-engineer-vs-business-intelligence-data-analyst/">https://ai-jobs.net/insights/machine-learning-engineer-vs-business-intelligence-data-analyst/</a>
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- Rollins, J. B. (2015). Metodología Fundamental para la Ciencia de Datos.
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#### 7. Dashboard App



Check the interactive Dashboard at <a href="https://data-jobs-mx-nov2023.onrender.com">https://data-jobs-mx-nov2023.onrender.com</a>

# DATA JOBS SALARIES IN MEXICO IN NOVEMBER 2023



Daniel Eduardo López

14 January 2024

## 8. Do you want to know more?

Please check the <u>full report</u>.

## Thank you for your attention!

#### **Contact Data:**



