Data Jobs Salaries in Mexico in February 2023

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

Data Jobs Salaries in Mexico in August 2022

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):

- Business Analysts (BA)

- Data Analysts (DA)

- Data Architects (DR)

- Data Engineers (DE)

- Data Scientists (DS)

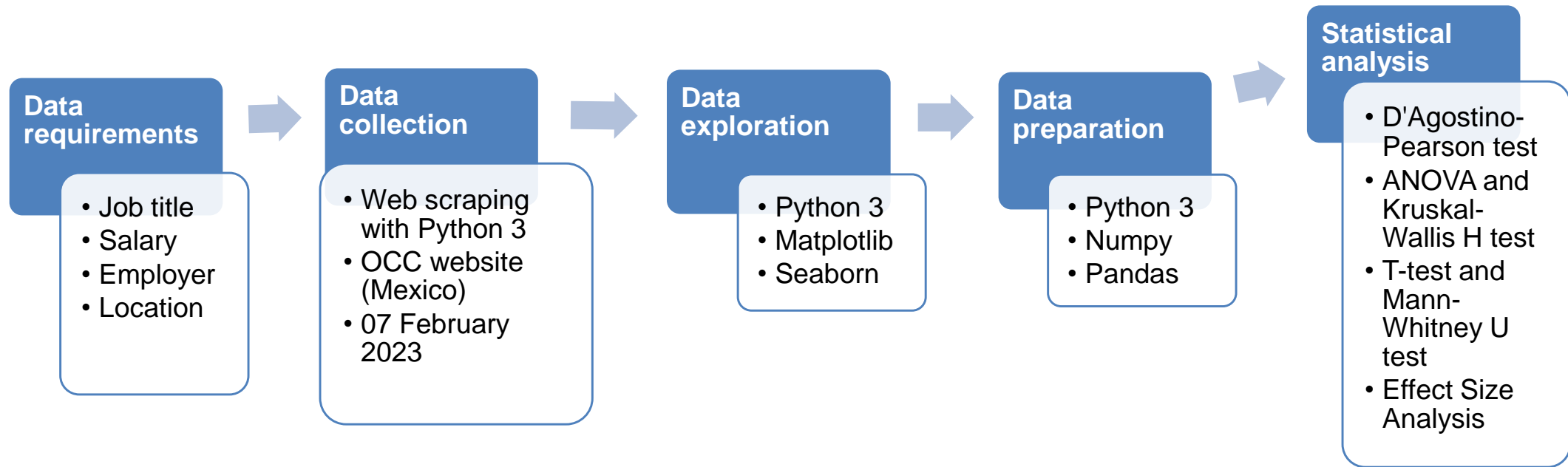- **Which one is the most valued in the Mexican labor market currently?**

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 February 2023 according to the OCC website?

Data requirements
- Job title
- Salary
- Employer
- Location

Data collection
- Web scraping with Python 3
- OCC website (Mexico)
- 07 February 2023

Data exploration
- Python 3
- Matplotlib
- Seaborn

Data preparation
- Python 3
- Numpy
- Pandas

Statistical analysis
- D'Agostino-Pearson test
- ANOVA and Kruskal-Wallis H test
- T-test and Mann-Whitney U test
- Effect Size Analysis

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

3. Data Jobs Demand Analysis...

- **258 data jobs found.**

- What is the most demanded data job? **Data Analyst.**

Legend:
- Data Analyst
- Data Scientist
- Data Engineer
- Data Architect
- Business Analyst
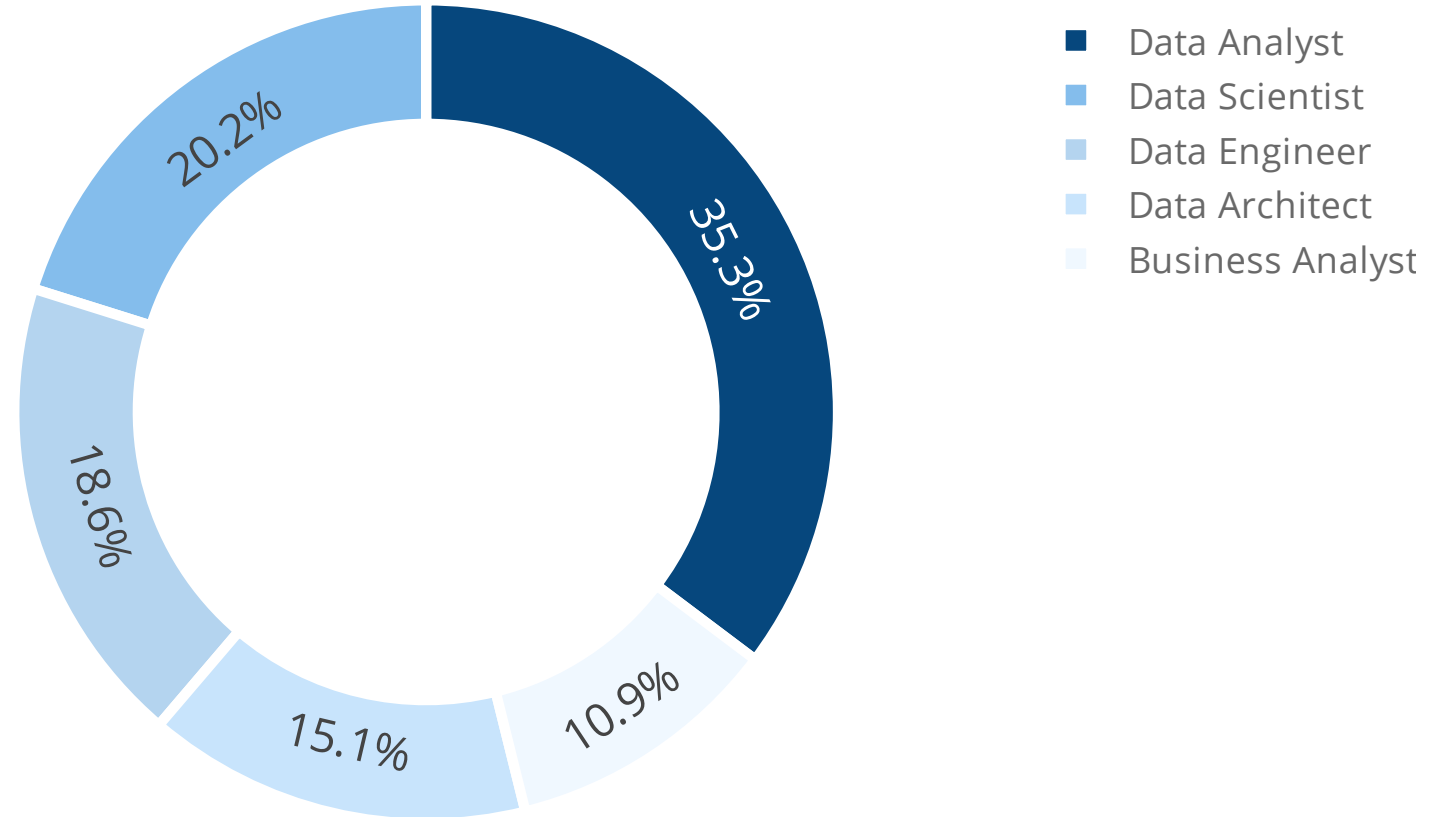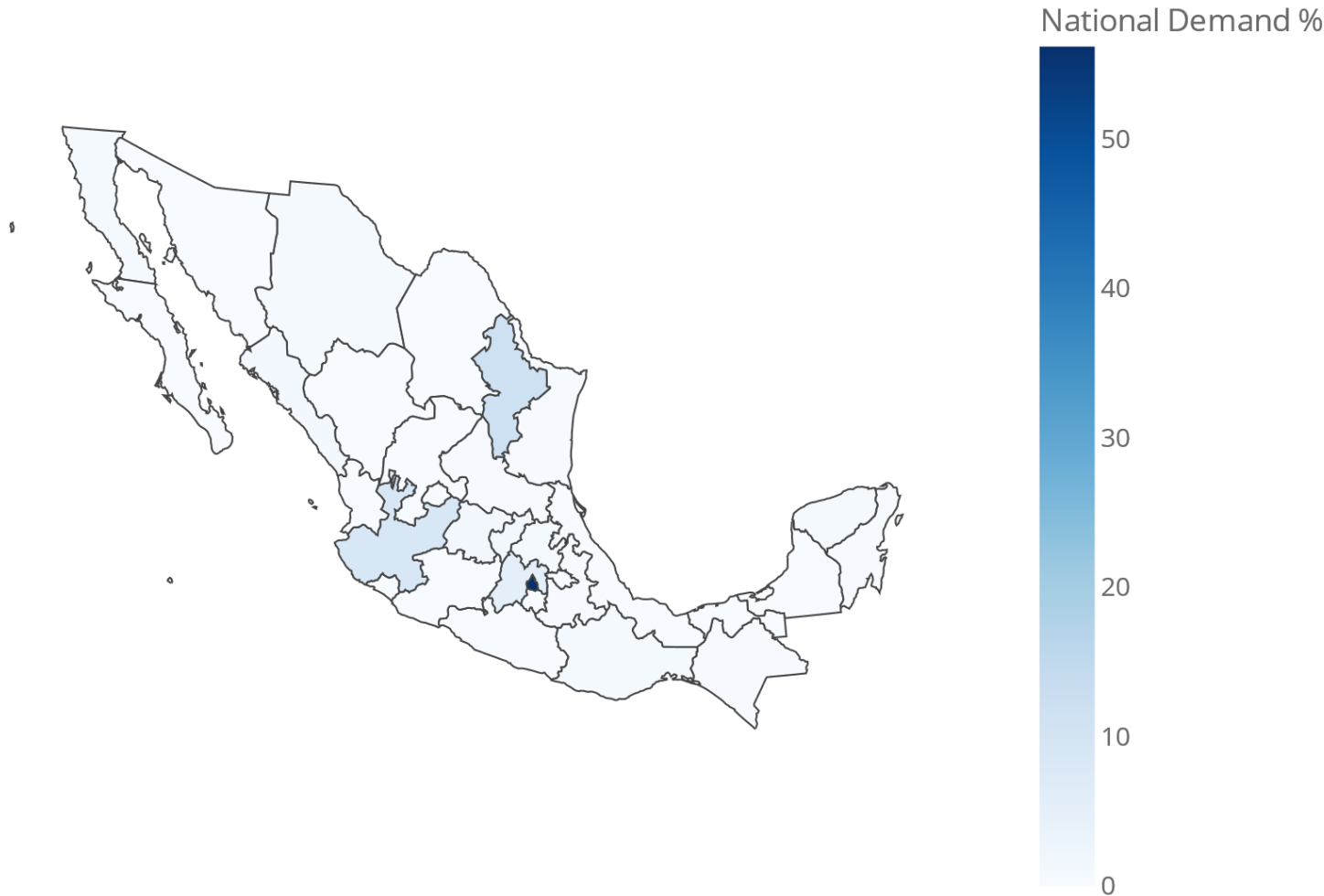
(Chart values: 35.3%, 10.9%, 15.1%, 18.6%, 20.2%)

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

...Data Jobs Demand Analysis...

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

National Demand %

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

...Data Jobs Demand Analysis...

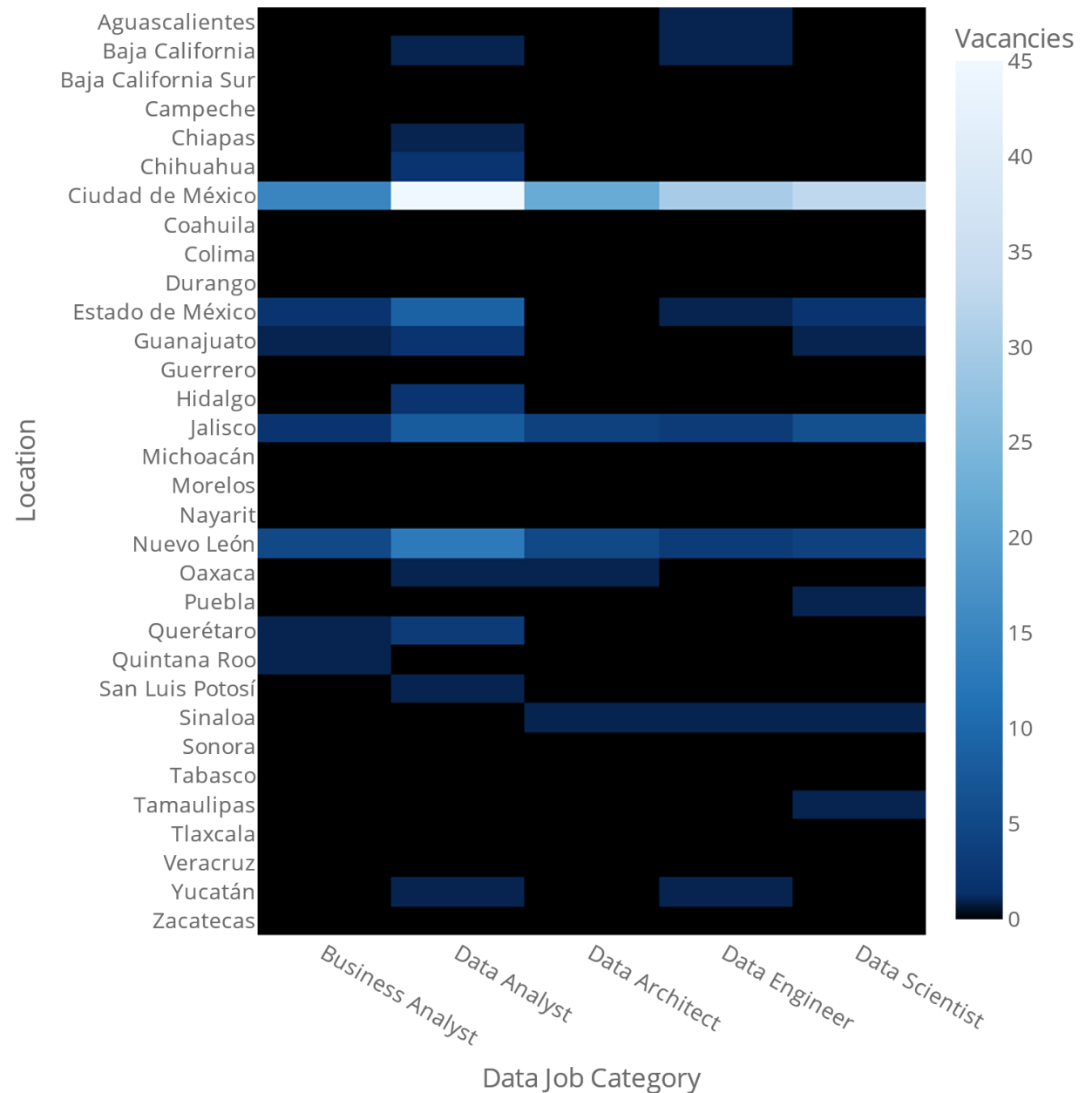- What data job is the most demanded across the locations? **Data Analysts, and Data Scientists.**

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

…Data Jobs Demand Analysis…
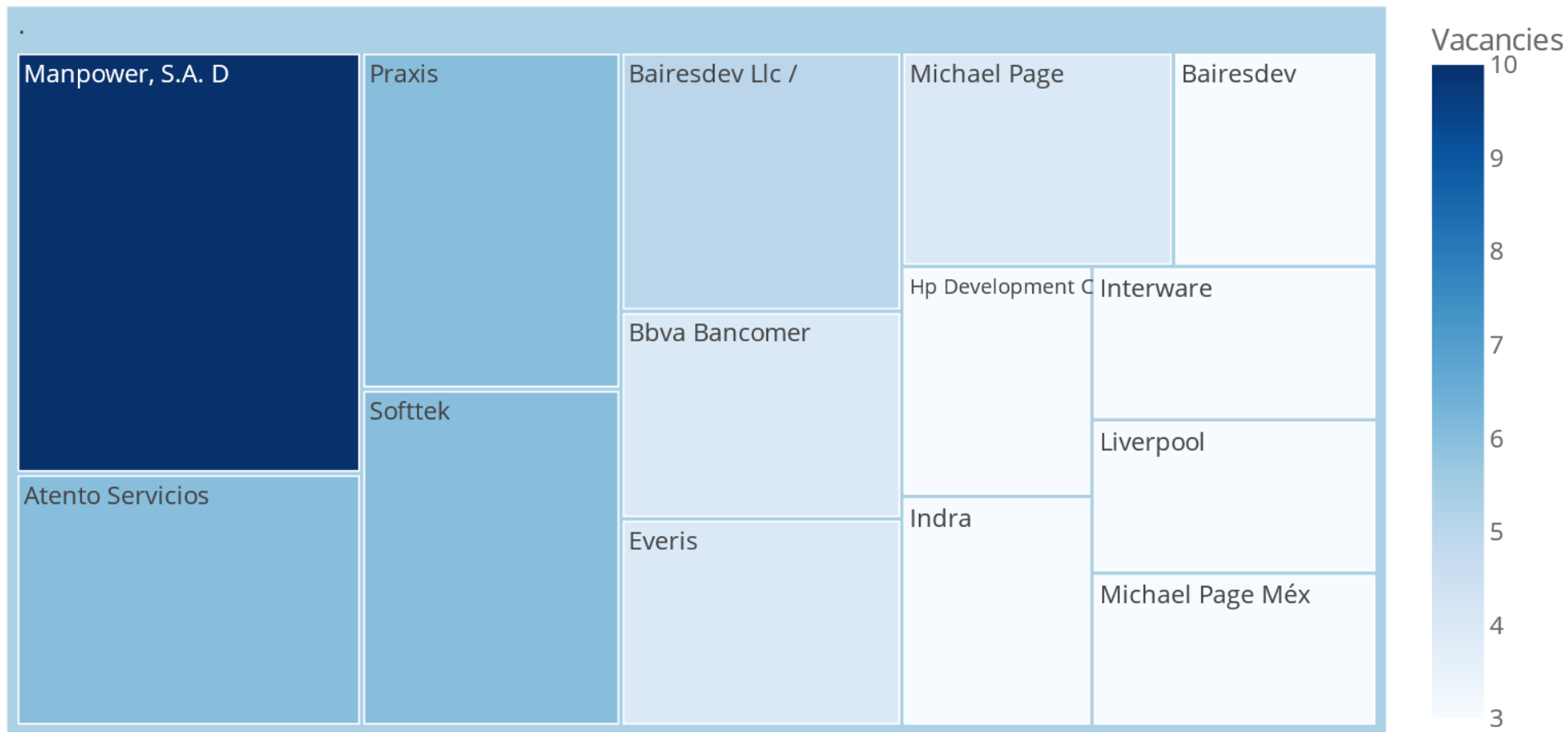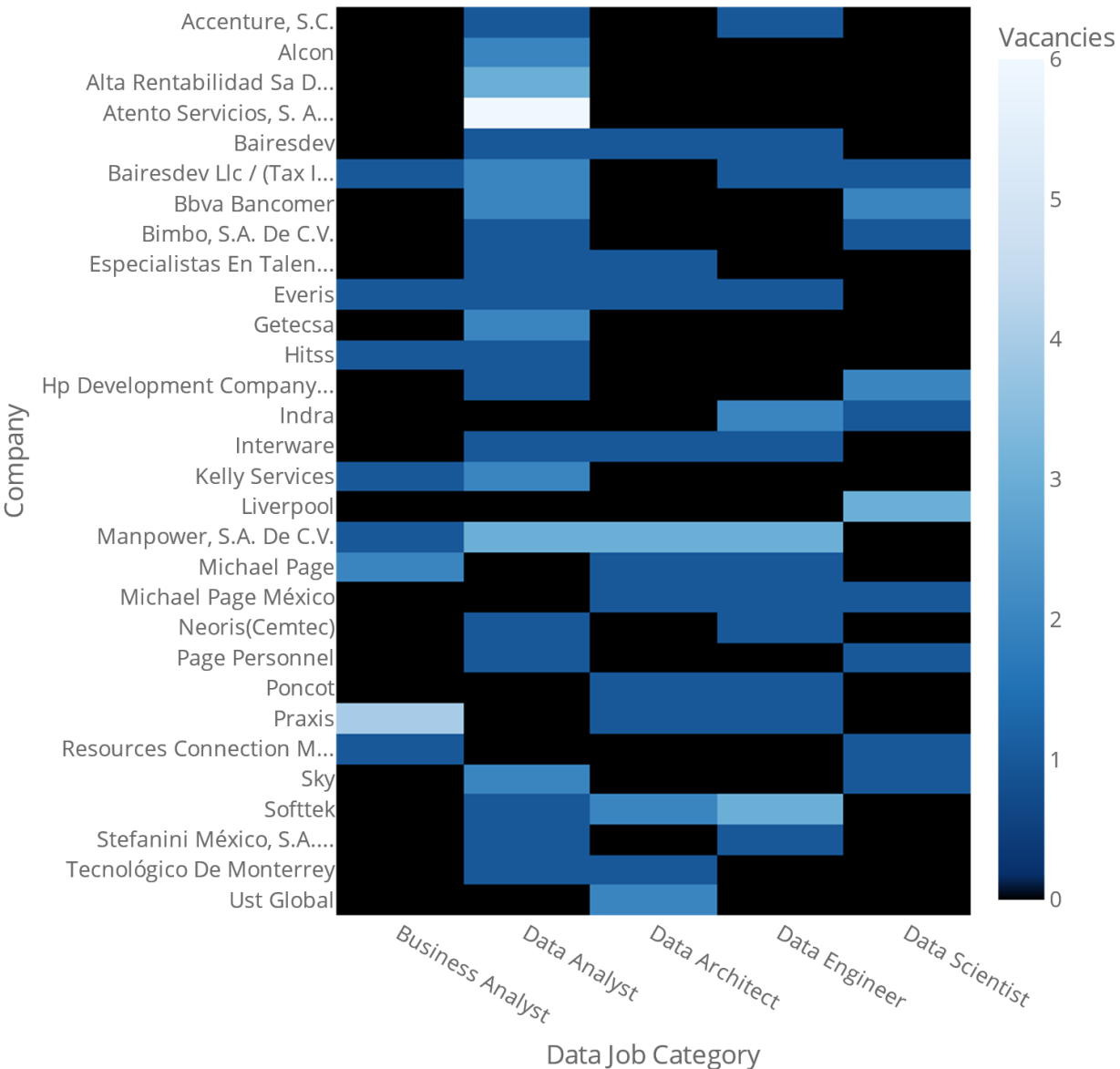
- What companies demand the most jobs in data?

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

...Data Jobs Demand Analysis...

- How is the data jobs demand per company? **Data Scientist and Data Architect positions are more likely to be found in tech companies.**

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

...Data Jobs Demand Analysis

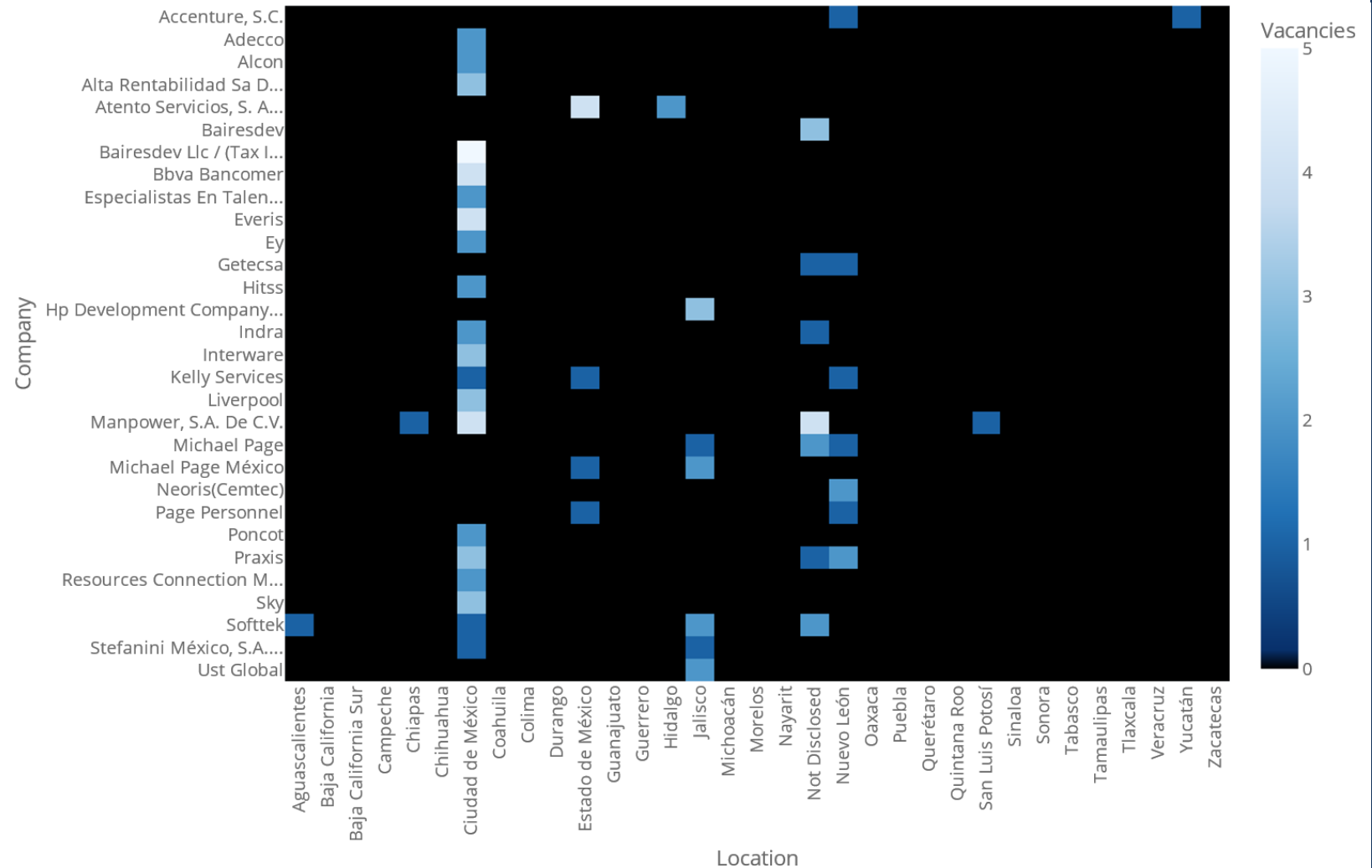- Where do companies demanding data jobs locate? **Mostly in Ciudad de México, Nuevo León, and Jalisco.**

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

4. Salary Analysis...

- Sample of 105 jobs.

- For all data jobs: Average salary of **$35,757 MXN per month**.
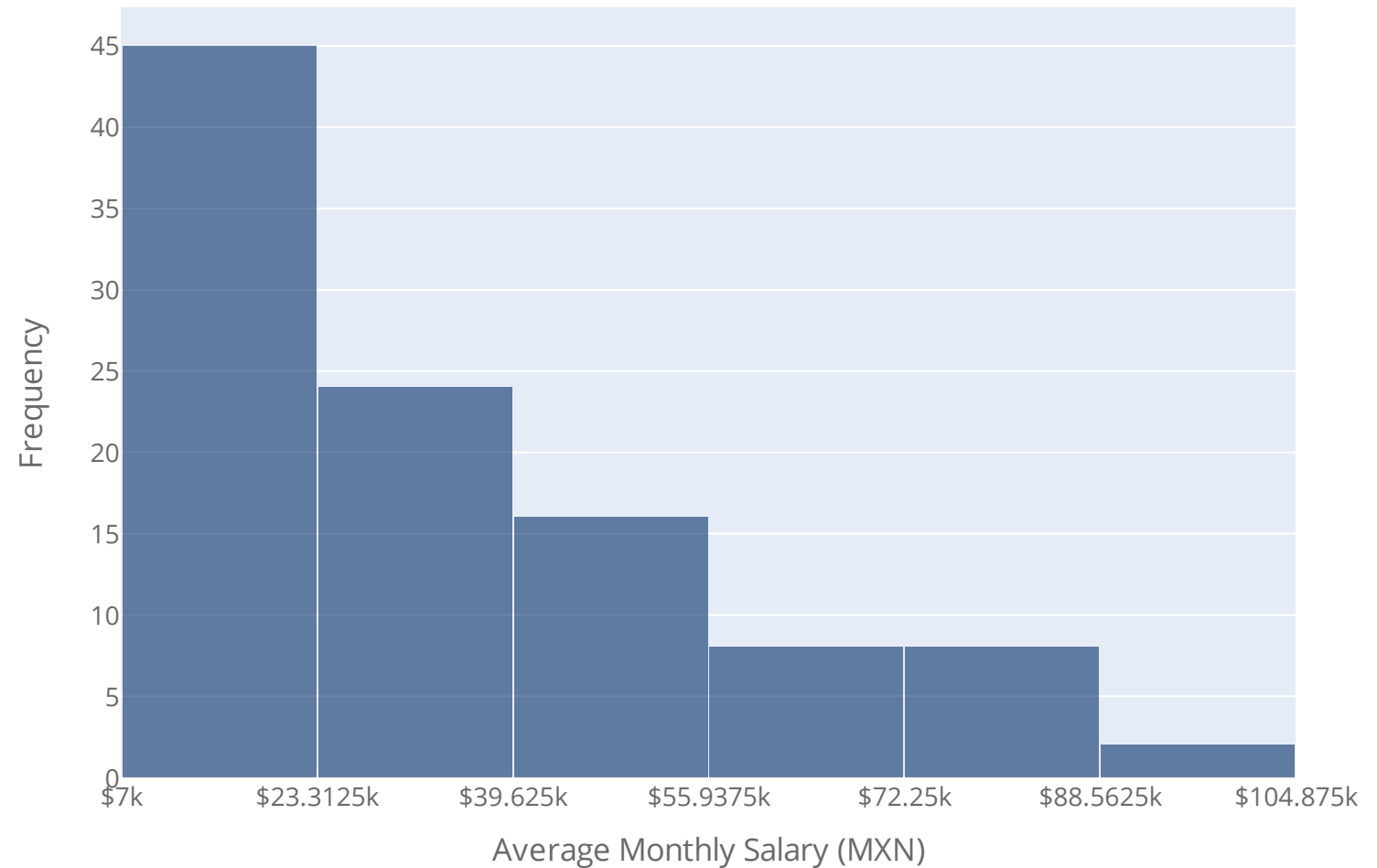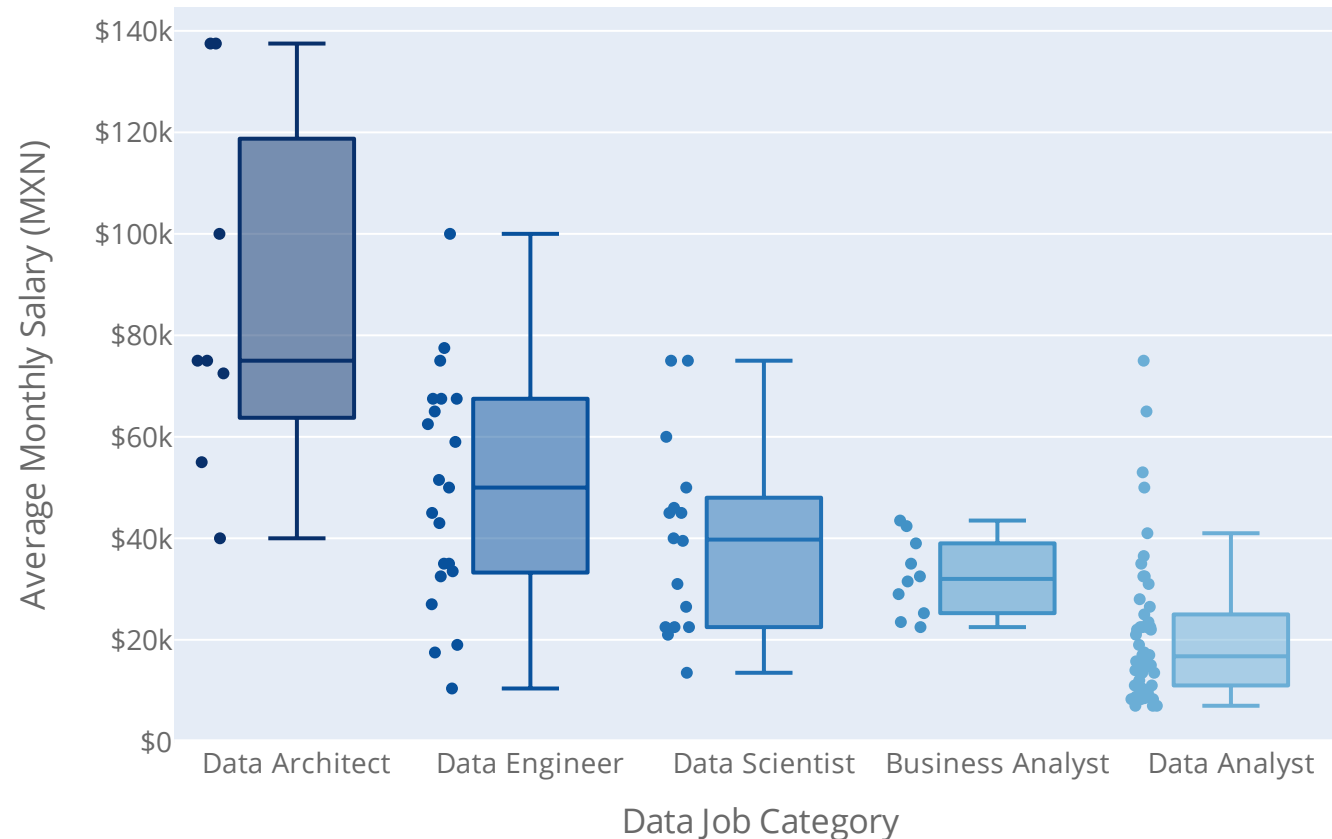
- Non normal distribution

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

...Salary Analysis...

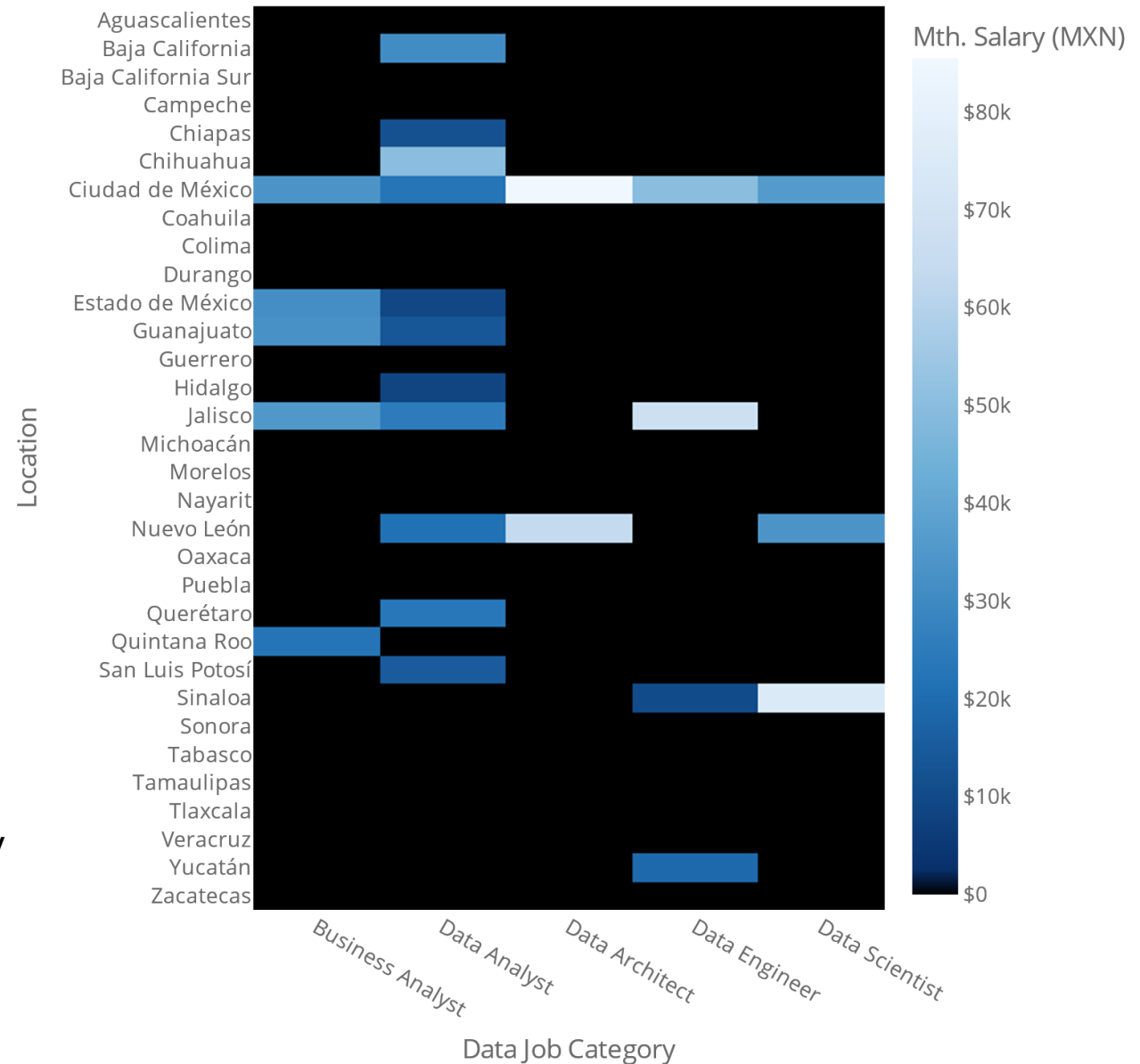- Which data job category has the highest average salary? **Data Architect**

Data Job Category	Average Monthly Salary (MXN)
Data Architect	$86,562
Data Engineer	$49,567
Data Scientist	$39,687
Business Analyst	$32,415
Data Analyst	$21,240

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

…Salary Analysis…

- Where are the highest salaries for data jobs? **Depends on the data job. However, Data Architects are better paid in Ciudad de México.**

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

...Salary Analysis...

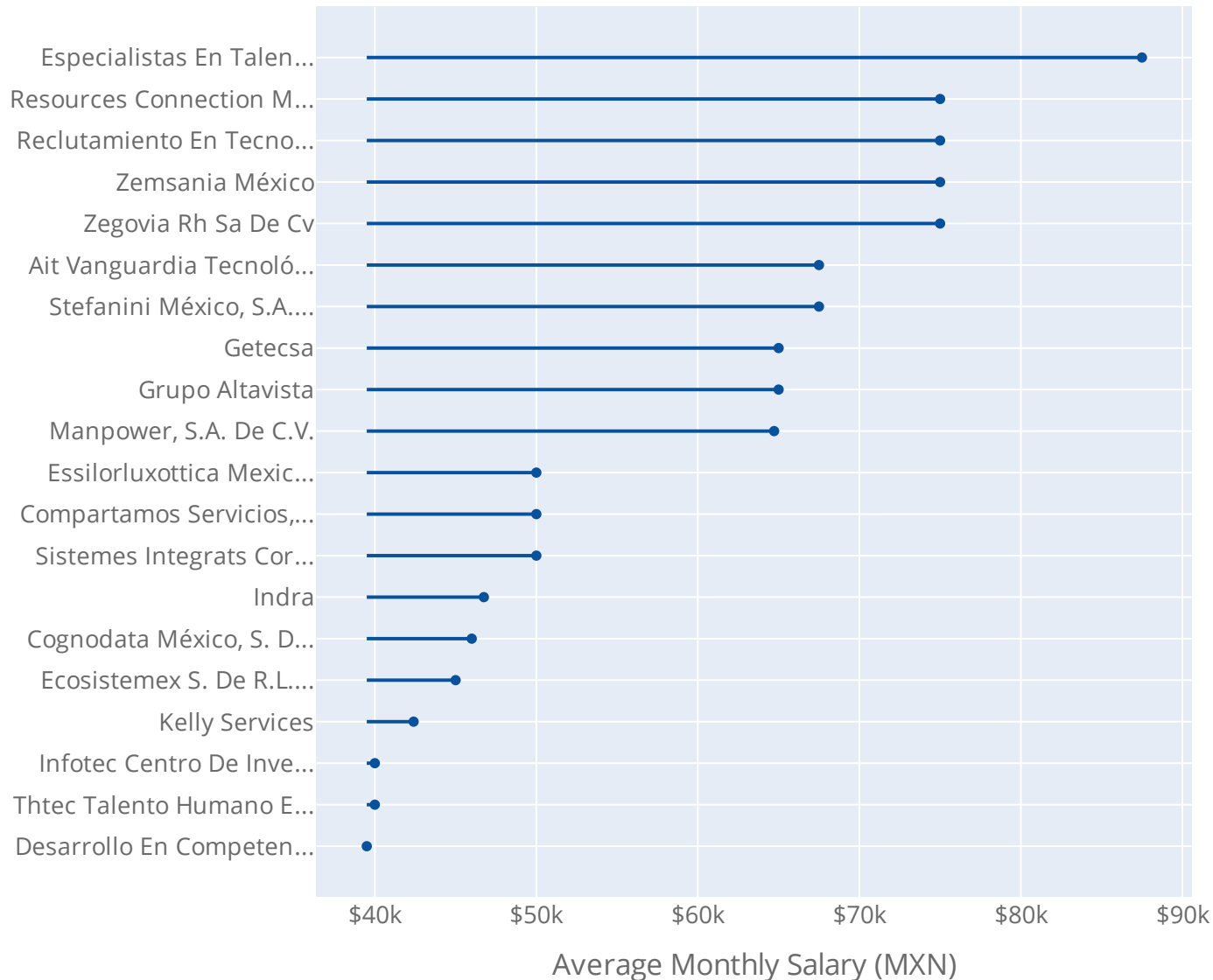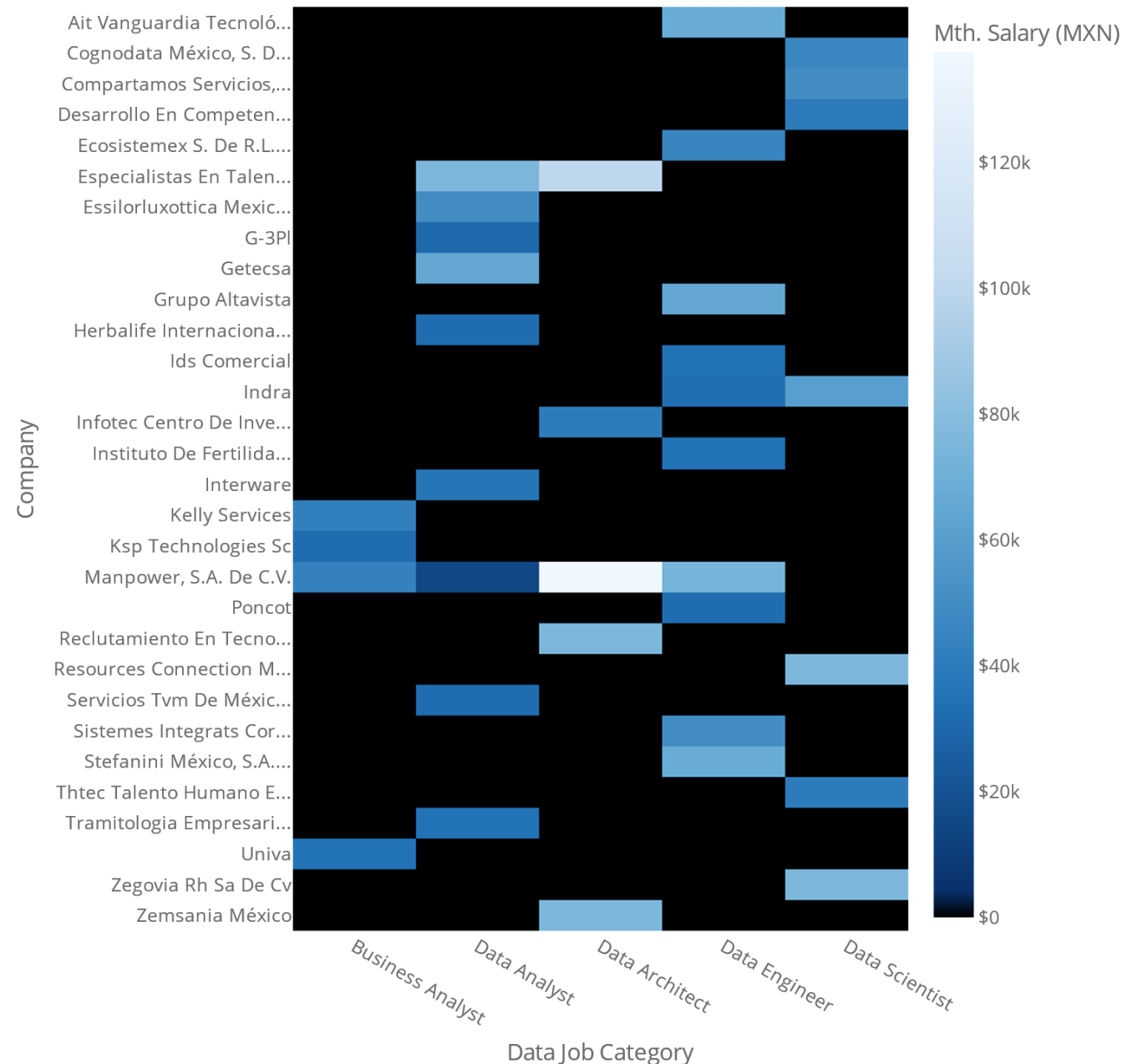- What companies offer the highest salaries for data jobs? **Especialistas en Talento.**

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

5. Conclusions…

- **Data Architect** is the data job category with the **highest salary** in the Mexican labor market in February 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** and the **highest salaries**.

...Conclusions...

- **Data Architect** and **Data Scientist** positions are **concentrated** in Ciudad de México, Nuevo León, and Jalisco, and are most likely to be found in **recruitment agencies and tech consulting firms**.

- **Data Analyst, Data Scientist,** and **Data Engineer** positions are more demanded **across different type of organizations and locations.**

- **Manpower, Atento Servicios, Praxis** and **Softek** exhibited the **highest demand** of data jobs positions; while **Especialistas en Talento, Zemsania México, Resources Connection México, Zegovia RH,** and **Reclutamiento en Tecnología** offered the **highest salaries**.
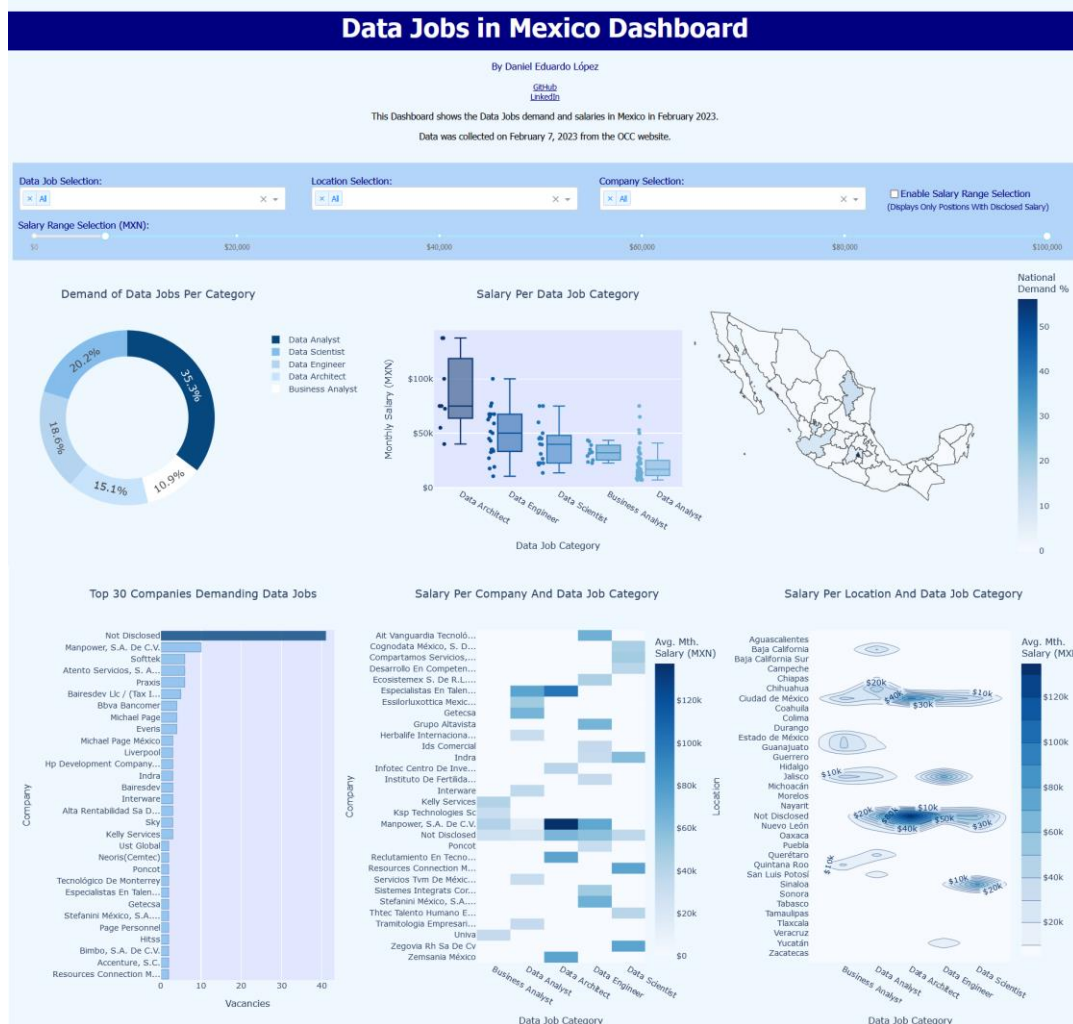
... Conclusions

- This study had **limitations**:
  - Only used OCC as source of information during a very short period of time (just 07 February 2023).
  - Very few salary observations were retrieved for Data Architect and Business Analyst 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 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

- **Axis Talent. (2020).** *The Ecosystem of Data Jobs - Making sense of the Data Job Market.* Retrieved from Axis Talent: https://www.axistalent.io/blog/the-ecosystem-of-data-jobs-making-sense-of-the-data-job-market

- **Rollins, J. B. (2015).** *Metodología Fundamental para la Ciencia de Datos.* Somers: IBM Corporation. Retrieved from https://www.ibm.com/downloads/cas/WKK9DX51

7. Dashboard App

- Please check the **interactive Dashboard App** at https://github.com/DanielEduardoLopez/DataJobsMX2023

8. **Do you want to know more?**

- Please check the **full report** at

  https://github.com/DanielEduardoLopez/

  DataJobsMX2023

Thank you for your attention!

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