Information Graphics # 1
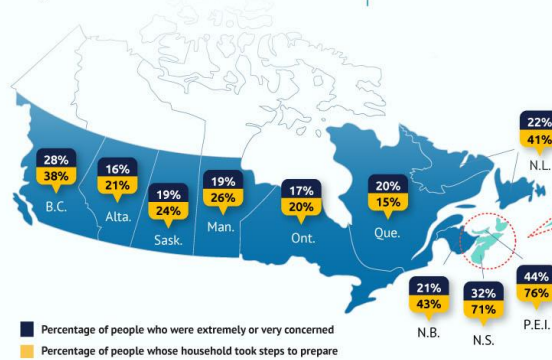

PREPARING FOR
WEATHER-RELATED EMERGENCIES
IN CANADA

In fall 2022,
1 in 5 Canadians
were extremely or very **concerned** about the **risk of a weather-related emergency or natural** disaster affecting their household.

20% Extremely or very concerned
30% Somewhat concerned
50% A little or not concerned

Nearly
1 in 4 people
said that in the previous year, their household **had taken steps to prepare** in the event of a weather-related emergency or natural disaster.

24% People whose household took steps to prepare
76% People whose household did not take steps to prepare

22% **41%** N.L.

28% **38%** B.C.
16% **21%** Alta.
19% **24%** Sask.
19% **26%** Man.
17% **20%** Ont.
20% **15%** Que.

21% **43%** N.B.
32% **71%** N.S.
44% **76%** P.E.I.

P.E.I. residents were the most concerned about the risk of such emergencies or natural disasters and, along with Nova Scotians, among those most likely to have taken steps to prepare for them.

Hurricane Fiona touched down in Atlantic Canada in September 2022, just before these data were collected.

■ Percentage of people who were extremely or very concerned
■ Percentage of people whose household took steps to prepare

People who said their household would be unable to cover an unexpected $500 expense were more likely to be concerned about the risk of such emergencies or natural disasters and less likely to have taken steps to prepare.

	Percentage of people who were extremely or very concerned	Percentage of people whose household took steps to prepare
Household **able** to cover an unexpected $500 expense	18%	26%
Household **unable** to cover an unexpected $500 expense	26%	20%

Note: The data reflect the responses of the population aged 15 years and older in Canada's 10 provinces.

Source: Statistics Canada, Canadian Social Survey (wave 7) – Quality of Life and Cost of Living, October to December 2022.

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Statistics Canada   Statistique Canada

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Canada

The presented data visualization includes a mixture of multiple charts that depict the exact information it needs its readers to understand. It is a great example of effective data visualization that conveys the message it is meant for.

The gauge charts on the left side show a comparison of 3 different categories. The color scheme used in this part is very thoughtful and purposeful. It aids in a quick comparison without including any legend information. The red shows the percentage of the people concerned, and the green shows the percentage of people not so much concerned about the environmental changes, which is quite simple and straightforward.

On the right-hand side, there is another comparison of how many people took action to prepare for any natural disaster. At this point, if the information regarding household income had been included here, it would have caused a bigger impact and shown a clear picture of affordability. Furthermore, the titles, labels and descriptions in both graphics are well-written and concise. These labels provide exact information to the readers, hence minimizing the chances of ambiguity.

The next graphic is a map showing the different provinces of Canada. The map is logical, and it puts extra emphasis on P.E.I, which has the highest percentage of concerned people. It also has the highest percentage of people who took steps for safety. The data markers displaying percentages at each province not only indicate the specific values but also draw the viewer's attention to these critical data points.

However, the reader still must go through all the data points to make sense of the displayed information. Adding different colors will make the graphics more interesting, and it can easily draw the viewer's attention to a specific point. A representation order by an increasing/decreasing percentage of concern can give a much clearer perspective of the areas and their distress.

It is also very important to note that the graphics mentioned the time this survey was taken. It was recorded in September 2022, shortly after Hurricane Fiona hit Atlantic Canada. Including such information gives the viewer a different perspective of the reasons associated with different percentages. Additionally, if some information regarding natural disasters in some previous years were included, that would have made the graphics more enlightening. However, the designer made a great effort to clearly display all the information without cluttering the space.

At last, another comparison is made, which indicates the affordability of people to unexpected damages. The table representation makes it very clear and easy to compare that people who cannot afford to prepare beforehand were also the people who won't be able to bear the unexpected expenses caused by any disaster.

Overall, the graphics tell a compelling story. It excels in convening the integral message precisely and accurately. The evidence shows that the most concerned people and the ones taking steps for safety are from Atlantic Canada. However, there needs to be a mention of data sources or links to the survey results. Including references and evidence is a very important

part of data visualization. Finally, including some information that could answer the "why" present in this visual would enhance it further and make it more impactful.

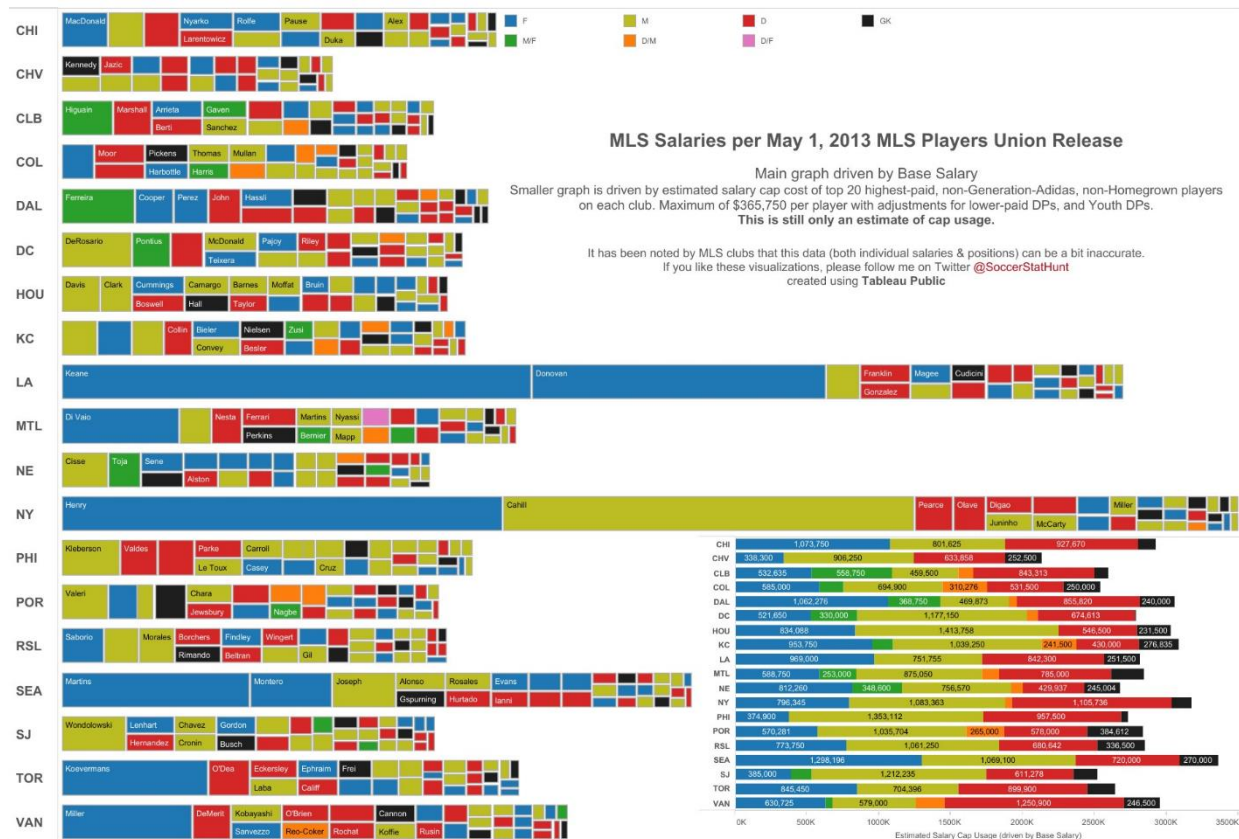(Word count: 534)

Information Graphics # 2

Image source:
https://public.tableau.com/views/MLSSalaries/MLSPUDashboard?%3Aembed=y&%3AshowVizHome=no&%3Adisplay_count=y&%3Adisplay_static_image=y

The presented data visualization is a horizontal bar chart combined with a tree map. The visualization intended to represent MLS Players' salaries driven by base salaries. While bar charts are one of the best ways to equate data and compare different categories, however, in this visual the stacks are too small to distinguish. These smaller slices designed using a tree map are cramped together, making it even more challenging to understand and analyze.

Although a lot of important information is present in this visual, which can be used to infer important decisions. However, at first glance, the reader has to go through a lot of struggle to understand how this visual is designed. The absence of data labels and axis labels makes it

nearly impossible to find the exact salaries of players. The viewers are left wondering about the significance of each stack and the message it is trying to convey. The visual's utility is compromised, thus making it difficult to be used for analysis and decision-making processes. A clear legend should be present to explain the representation of different colors in depth. The titles and description of the axis help the viewer understand the variables being compared.

There is also a need for more context and details. The reader is left alone to make sense of the data presented in the chart. It is dangerous as every reader will reach their own conclusion about the data. There is usually a story aligned with any visual, and the designer wants all the viewers to come to the same conclusion rather than everyone's own.

Tree maps in data visualization represent a one-to-whole relationship. They are beneficial when it needs to be displayed how one category contributes to the whole dataset. It clearly shows the relative importance of different elements. However, there are way too many categories to establish a relationship within this example. Hence, a better approach would be if this single complex visual is divided into more straightforward and convenient visuals.

Splitting a single visualization into multiple segments is very important in presenting the data effectively. This approach allows the viewers to focus their attention on specific details without getting overwhelmed or distracted by the cluttering. The more the data is present in the visual without any emphasis or significance, the more the viewer will be bored by it. The designer can focus on the most critical insights by breaking the complex display into smaller, digestible, and understandable visuals. The graphics will then help the stakeholders to make crucial decisions based on the data represented in the visual.