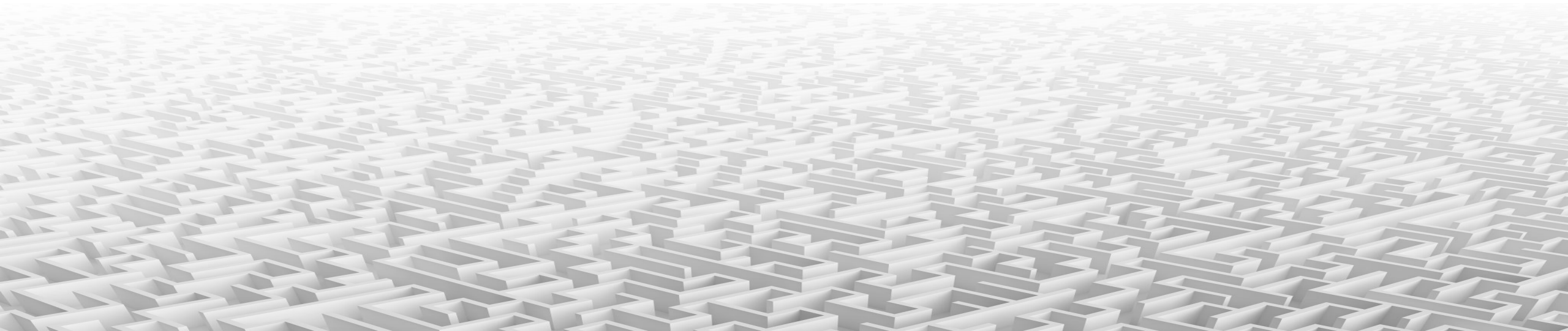
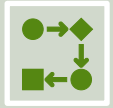


# Data visualization by Hannah Osinga

State of Oregon Research Academy | December 8, 2022



# Agenda



My story and process



5 tips for a great data visualization



Makeover exercise



Resources and questions

# My story

## Today

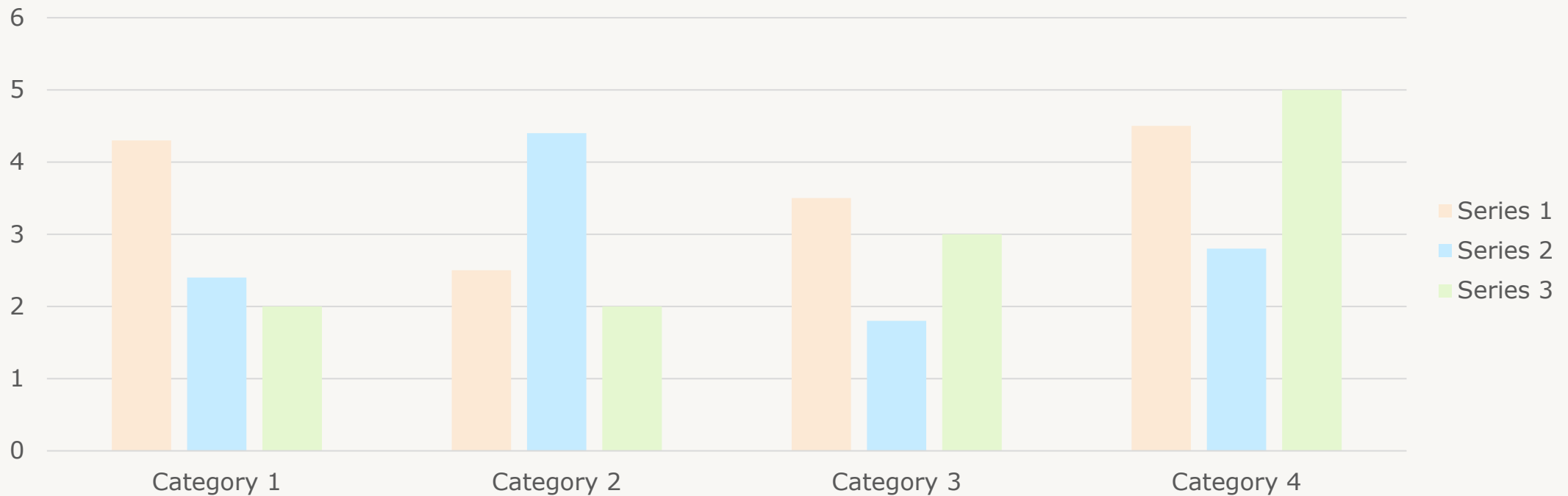
Data visualization nerd!



# My story

## 5 years ago: Data visualization novice!

Example



# Assumptions

- ① A data visualization is needed.

# Assumptions

- 1 A data visualization is needed.

**57%**

response rate

# Assumptions

- 1 A data visualization is needed.

**57%**  
response rate

**Our 57% survey response rate is strong!**



# Assumptions

- ① A data visualization is needed.
- ② We know the audience and what we'll be asking of them or informing them.



# WARNING



Good data visualizations often take time to make.

Plan time for that into your schedule.

# 5 tips for great data visualizations

- 1 Use a takeaway title.**

# 5 tips for great data visualizations

- 1 Use a takeaway title.
- 2 **Label your data series directly.**

# 5 tips for great data visualizations

- 1 Use a takeaway title.
- 2 Label your data series directly.
- 3 **Label your axis.**

# 5 tips for great data visualizations

- 1 Use a takeaway title.
- 2 Label your data series directly.
- 3 Label your axis.
- 4 **Use color to differentiate your data points.**

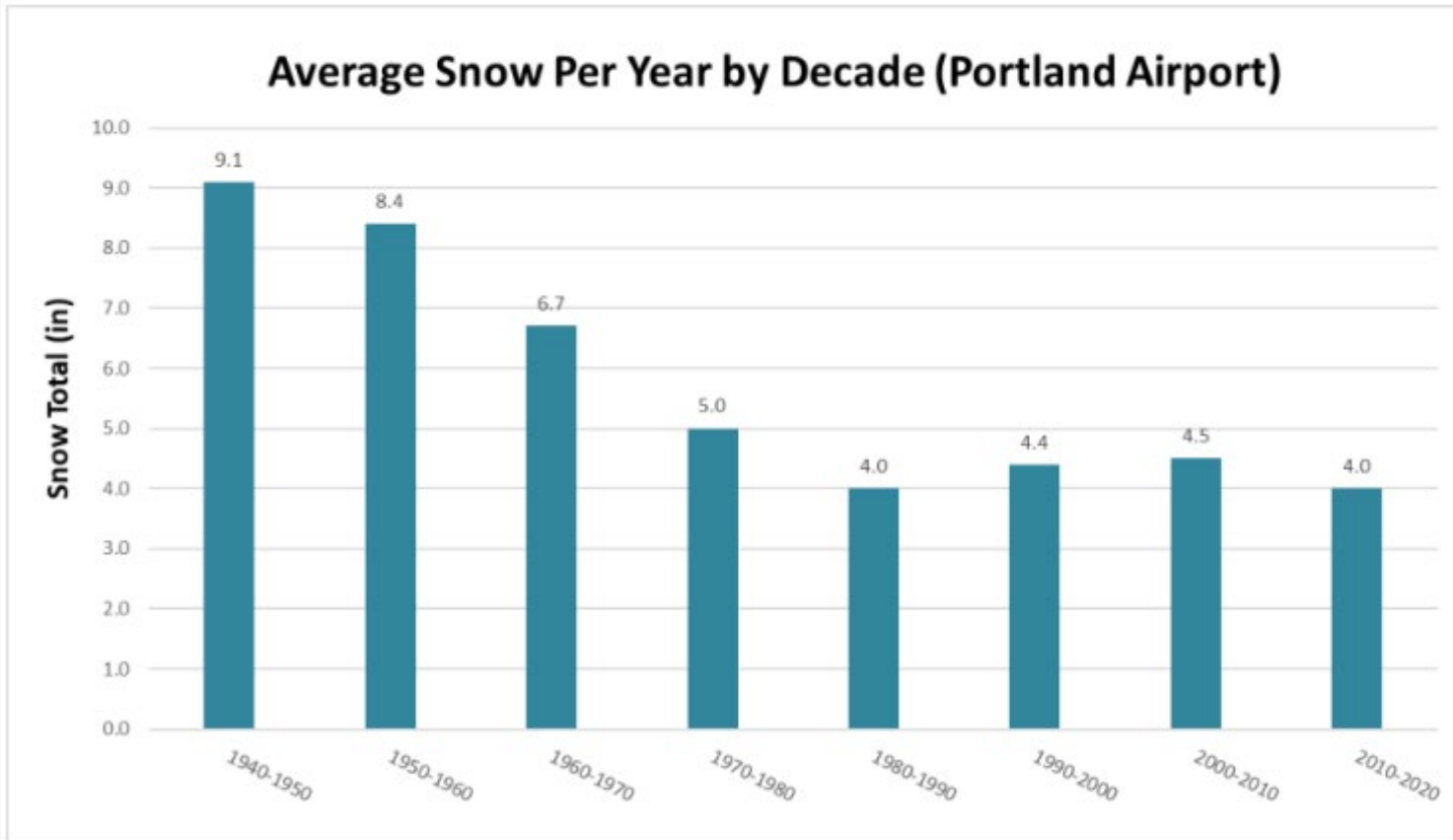
# 5 tips for great data visualizations

- 1 Use a takeaway title.
- 2 Label your data series directly.
- 3 Label your axis.
- 4 Use color to differentiate your data points.
- 5 **Look for opportunities to remove clutter.**

# Makeover

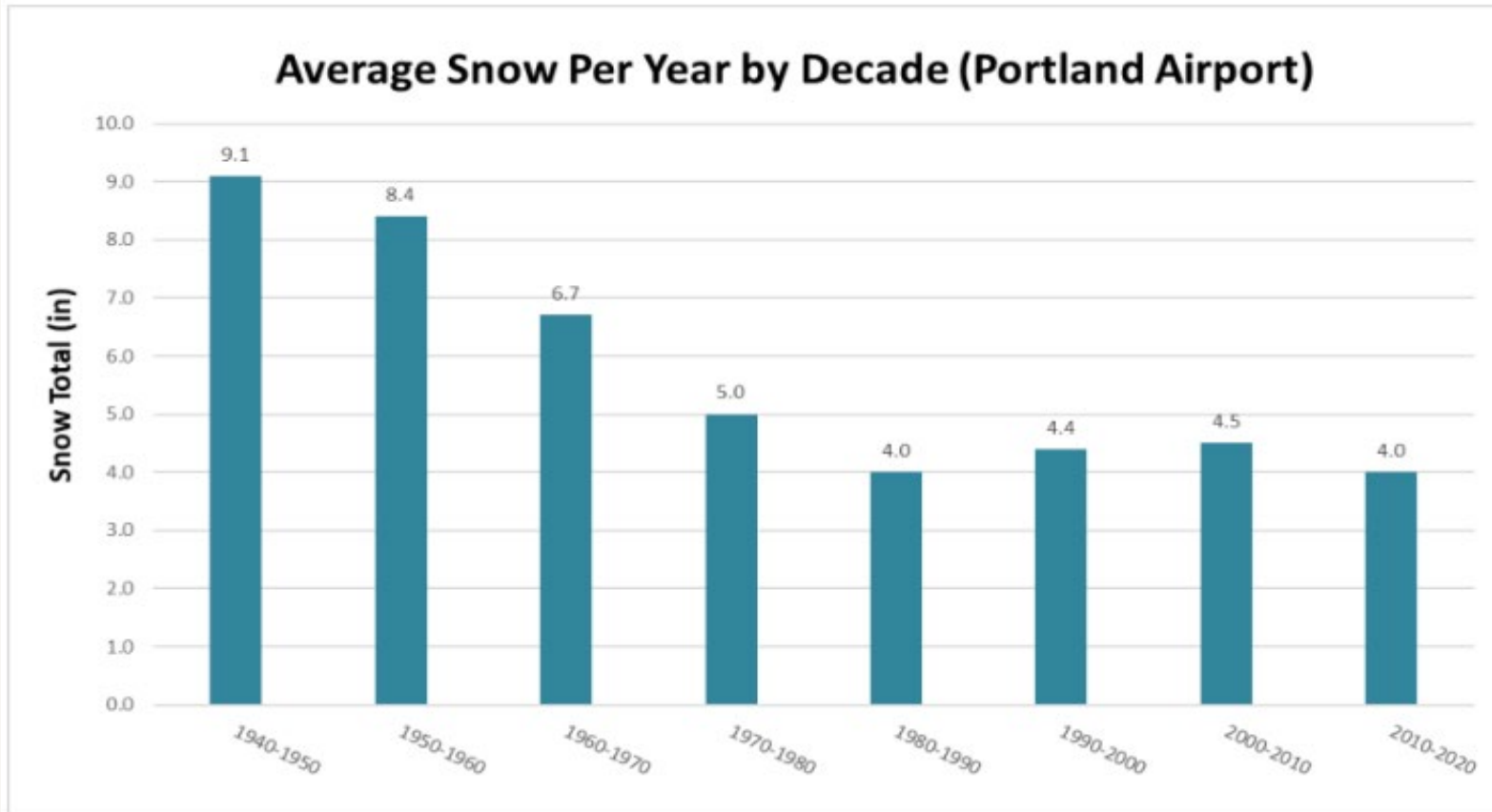


# Makeover





# Makeover



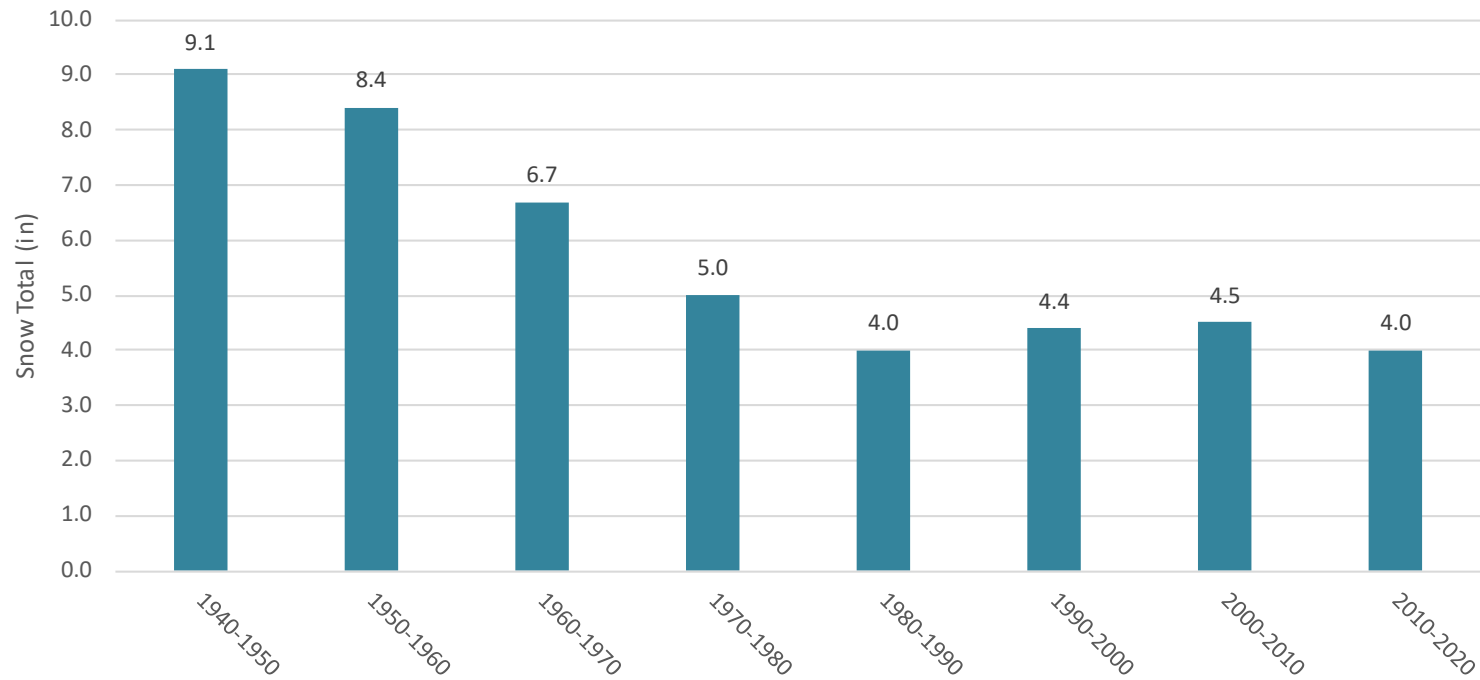
**TIP** ①

Use a takeaway title.

# Makeover

## Average snow fall has declined over the decades.

In the last 40-50 years, average snow per year has been 4-5 inches.



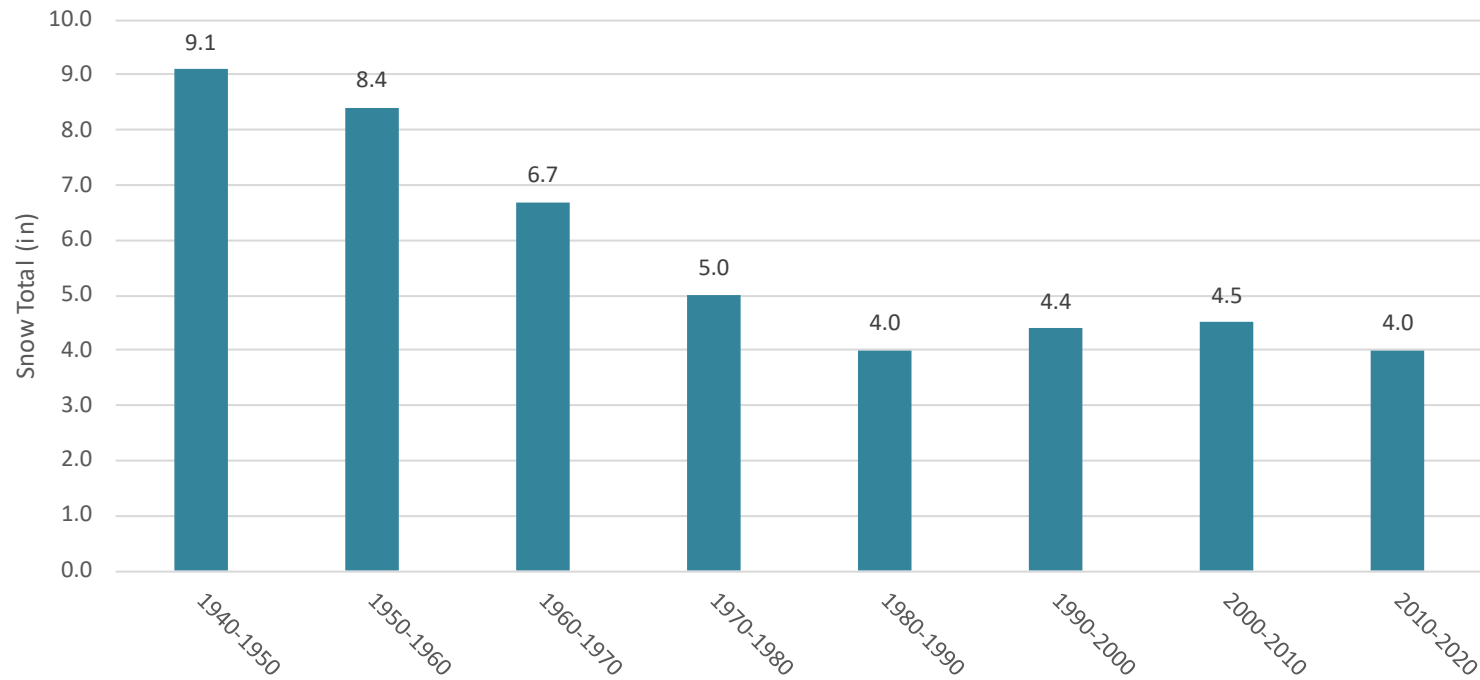
**TIP** 1

Use a takeaway title.

# Makeover

## Average snow fall has declined over the decades.

In the last 40-50 years, average snow per year has been 4-5 inches.



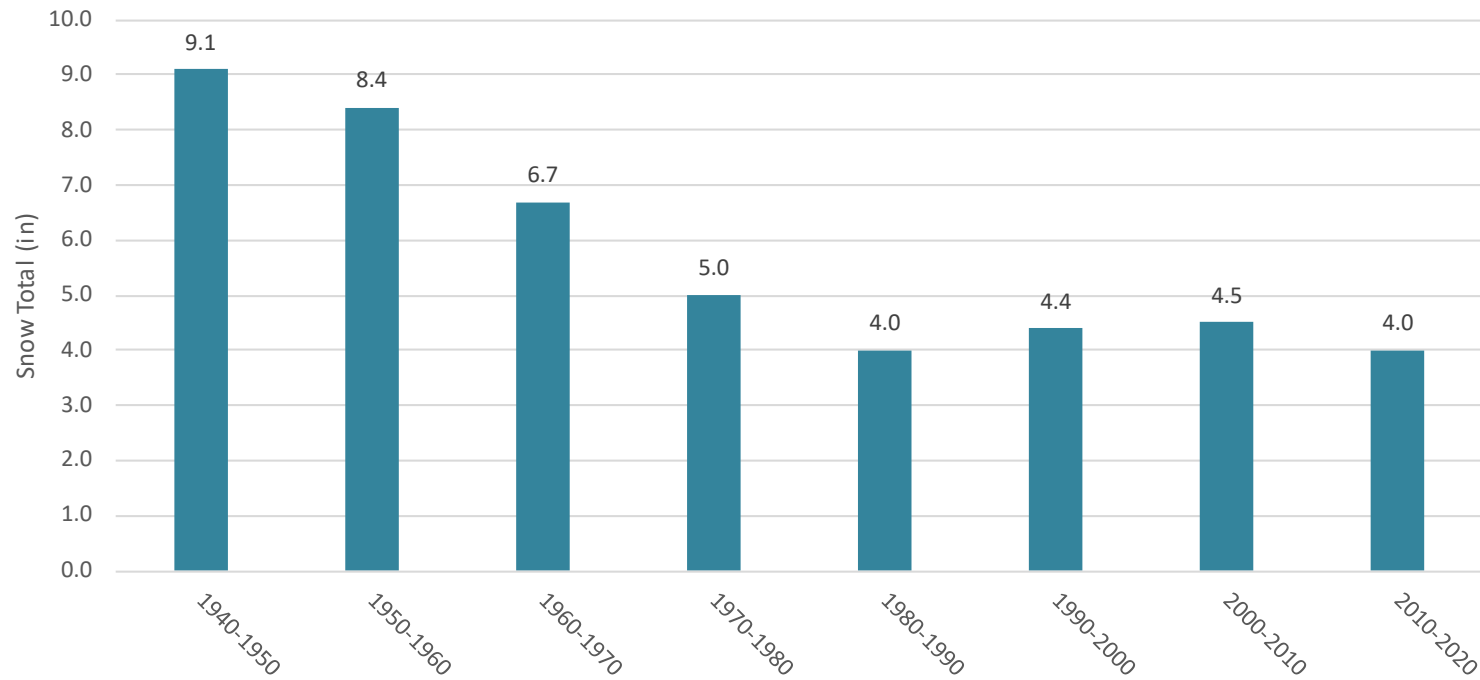
## TIP 2

Label your data series directly.

# Makeover

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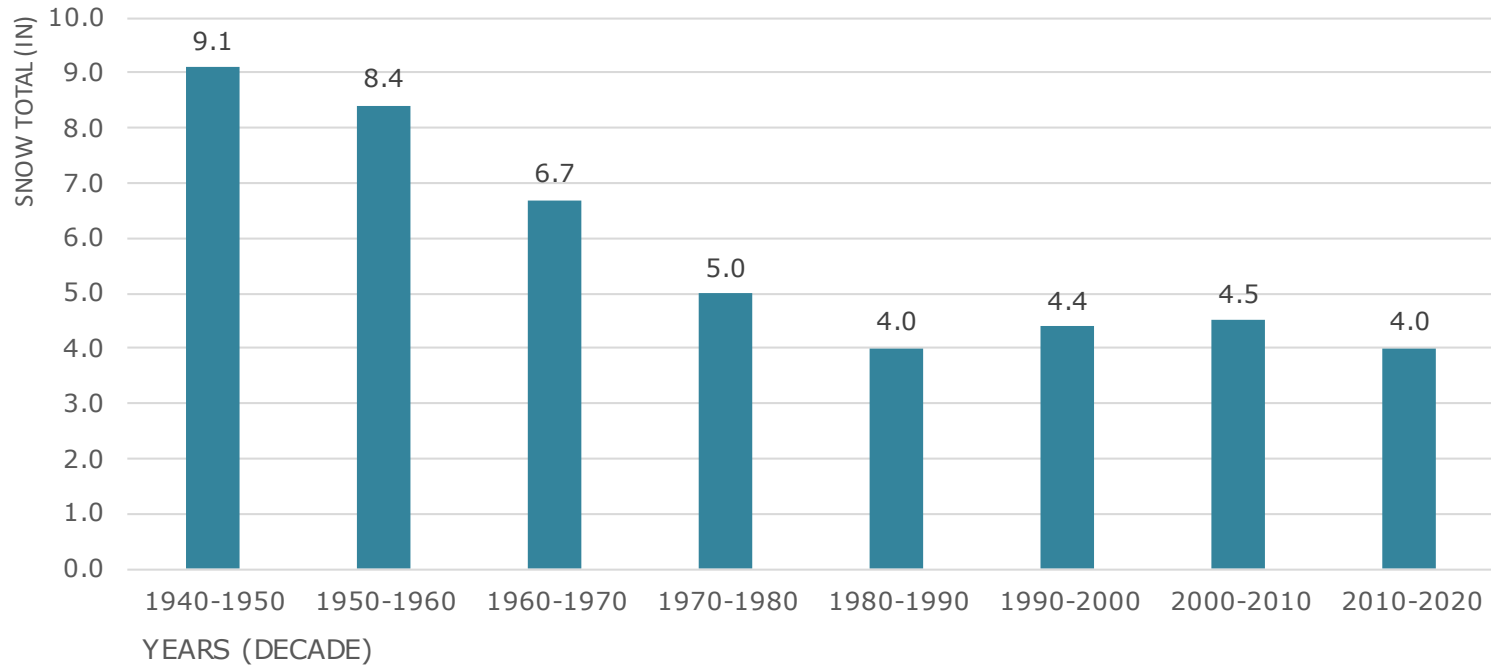
**TIP** 3

Label your axis.

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## Average snow fall has declined over the decades.

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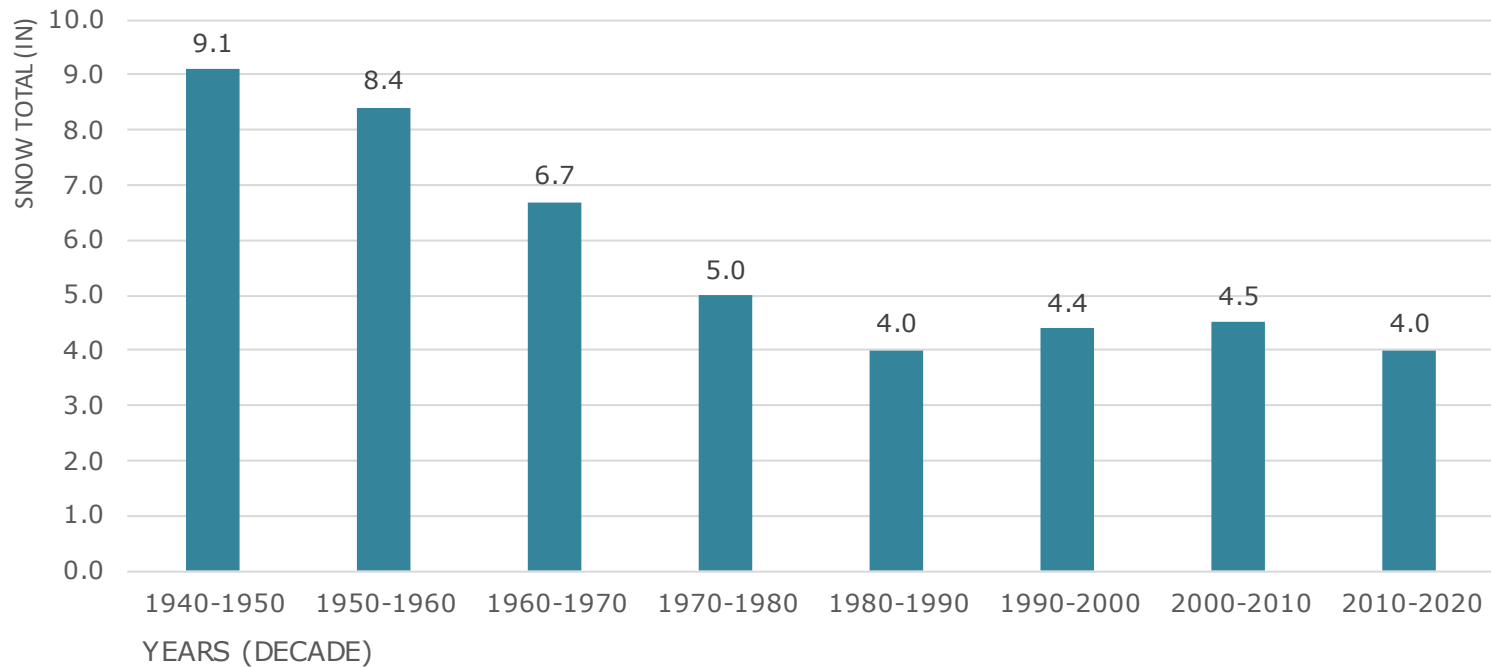
**TIP** 3

Label your axis.

# Makeover

## Average snow fall has declined over the decades.

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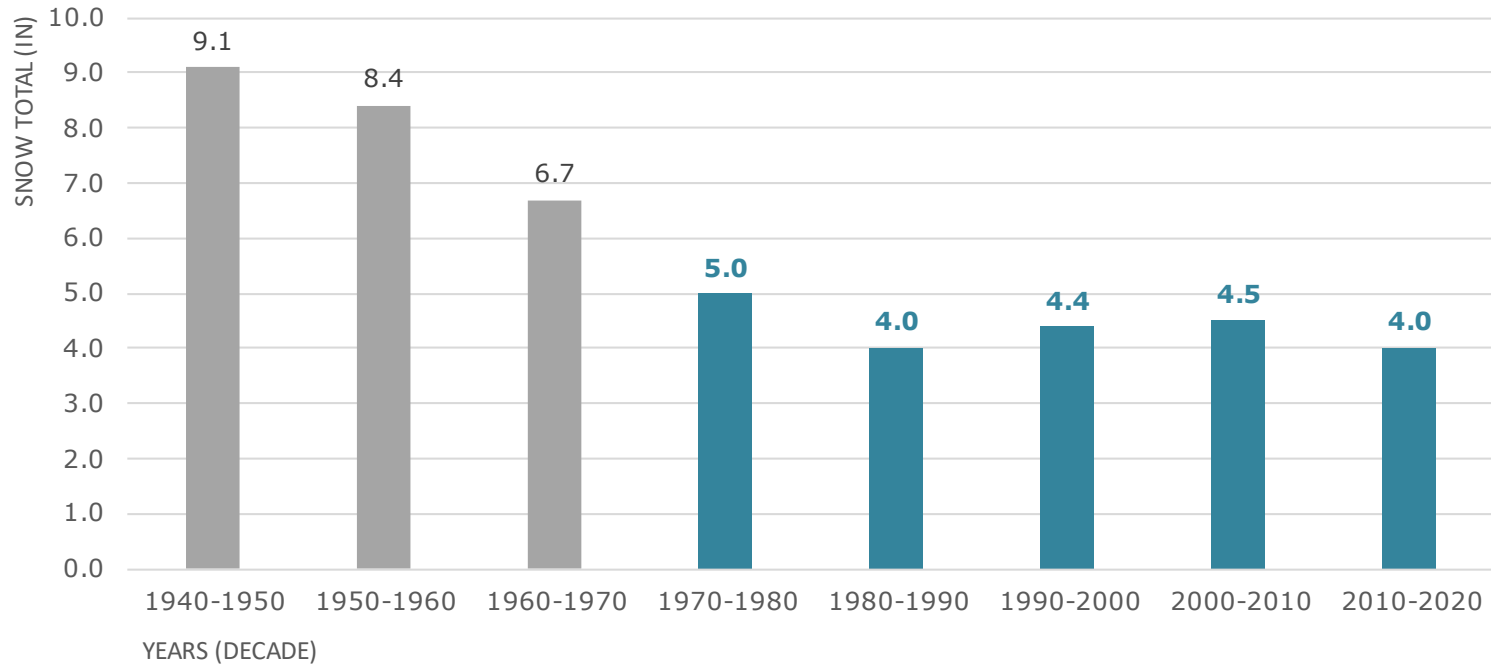
## TIP 4

Use color to differentiate your data points.

# Makeover

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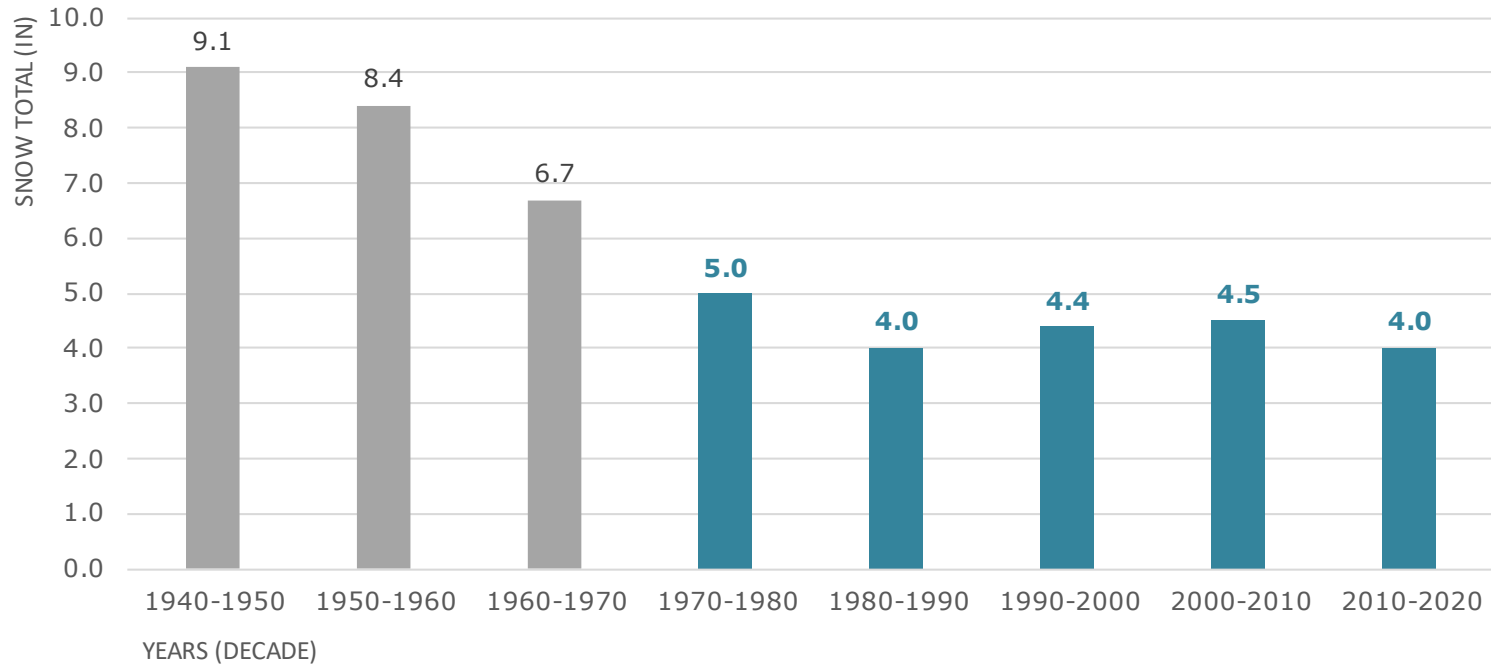


## TIP 4

Use color to differentiate your data points.

# Makeover

**Average snow fall has declined over the decades.**  
In the last 40 -50 years, average snow per year has been 4-5 inches.



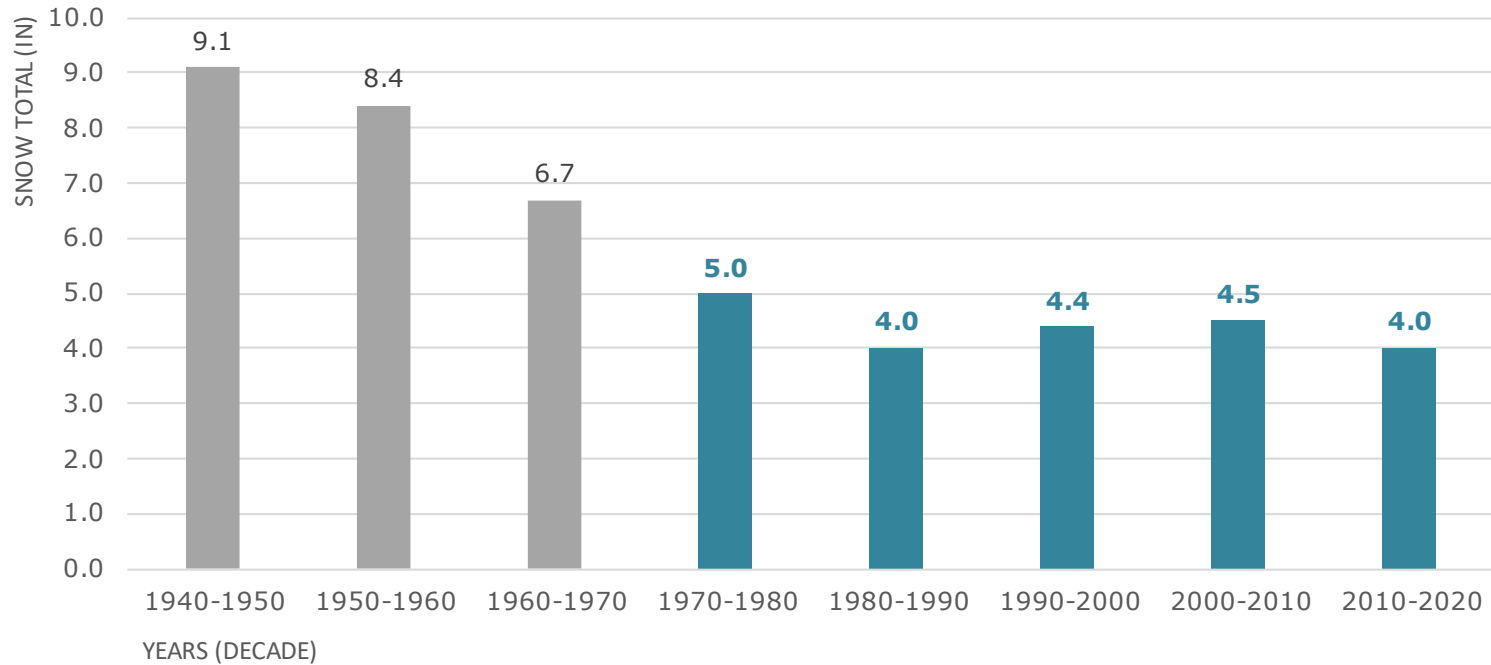
## TIP 4

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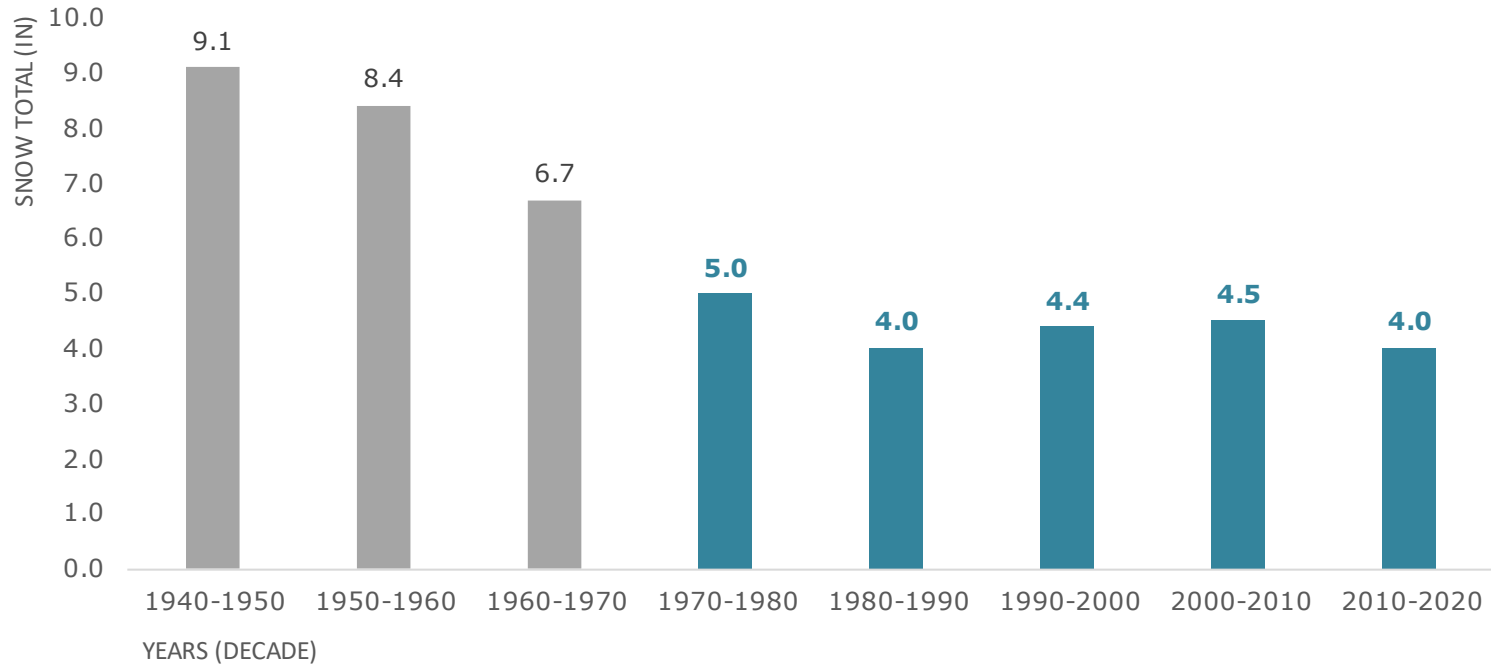


## TIP 5

Look for opportunities to remove clutter.

# Makeover

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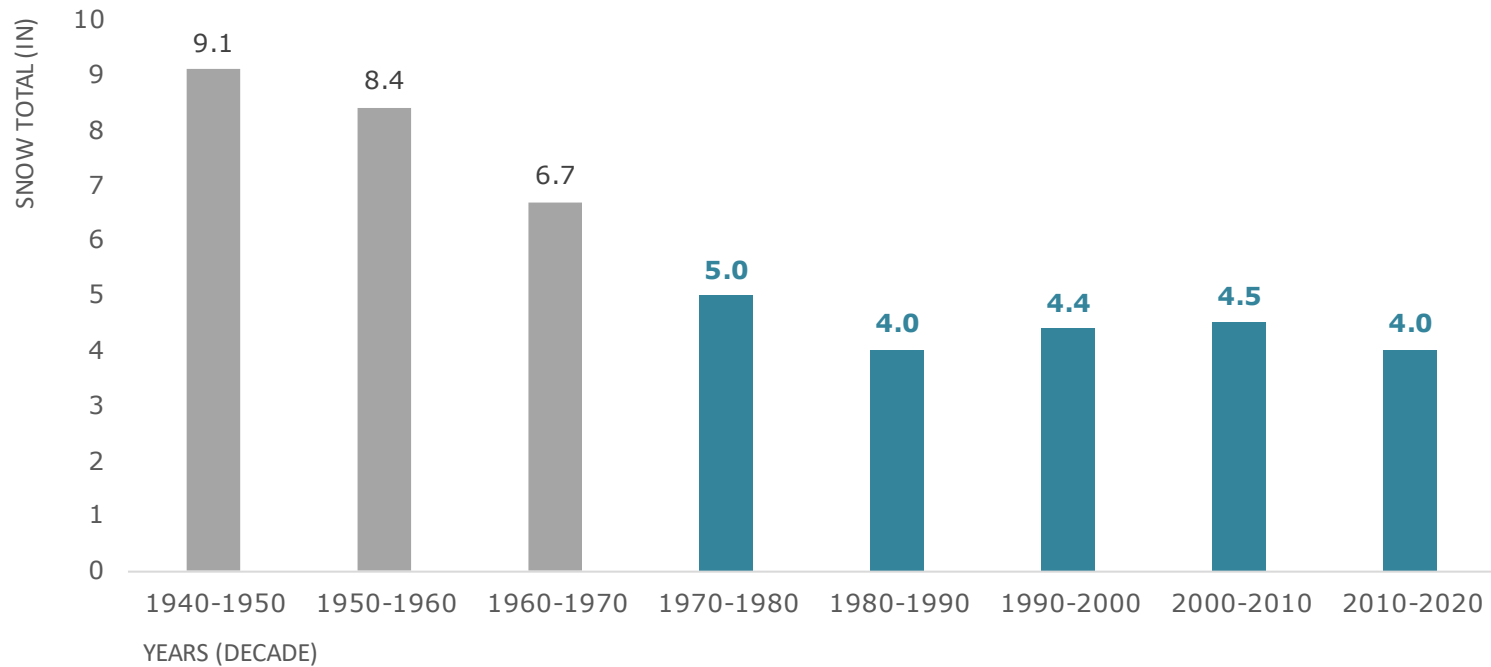


## TIP 5

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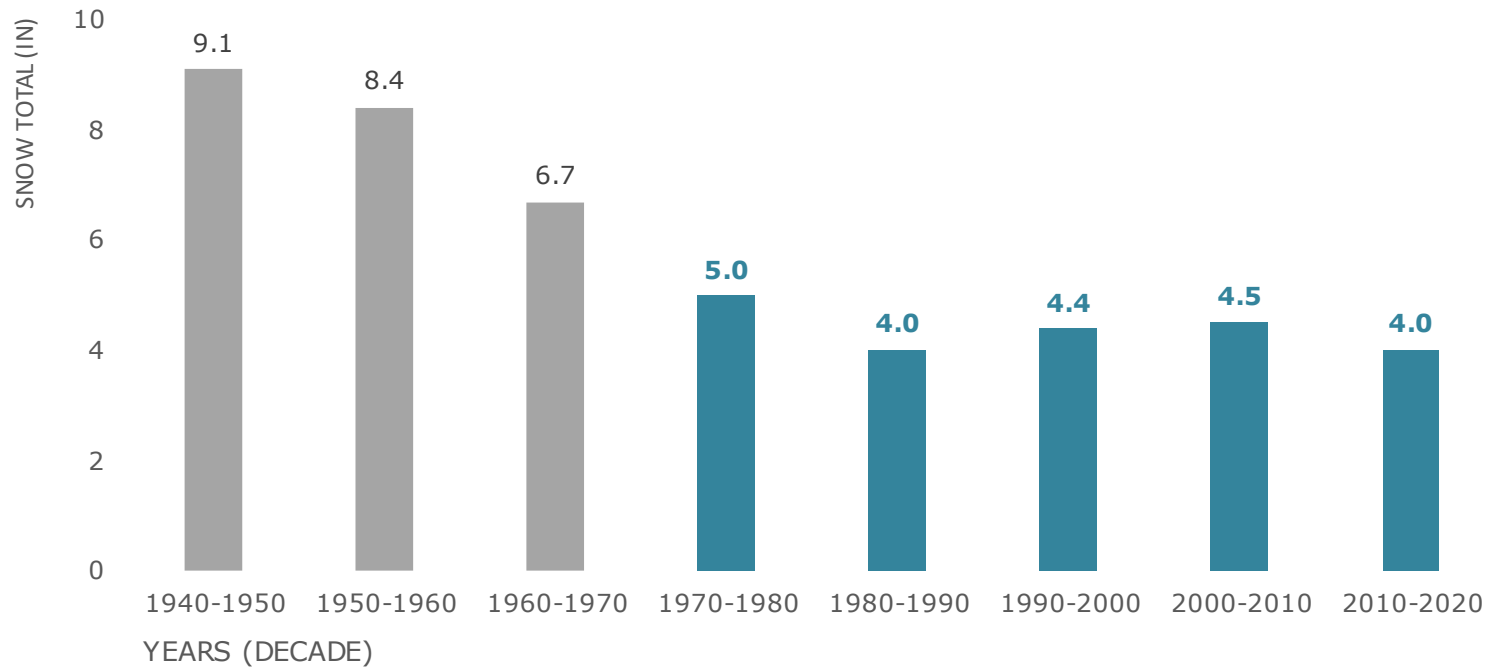


## TIP 5

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# Makeover

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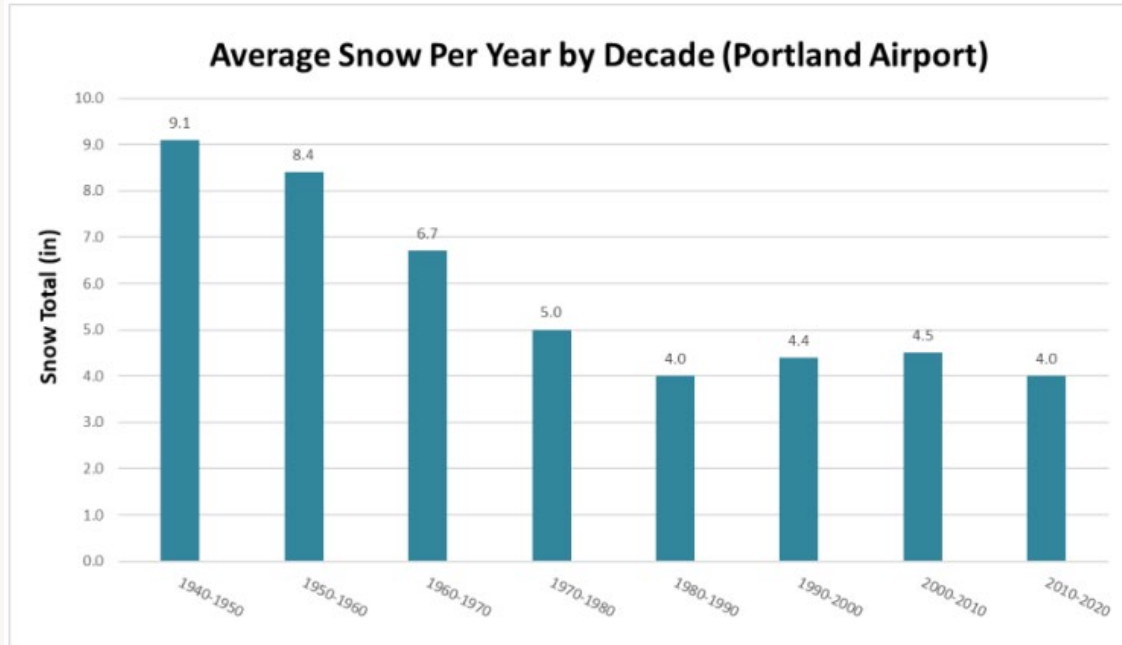


## TIP 5

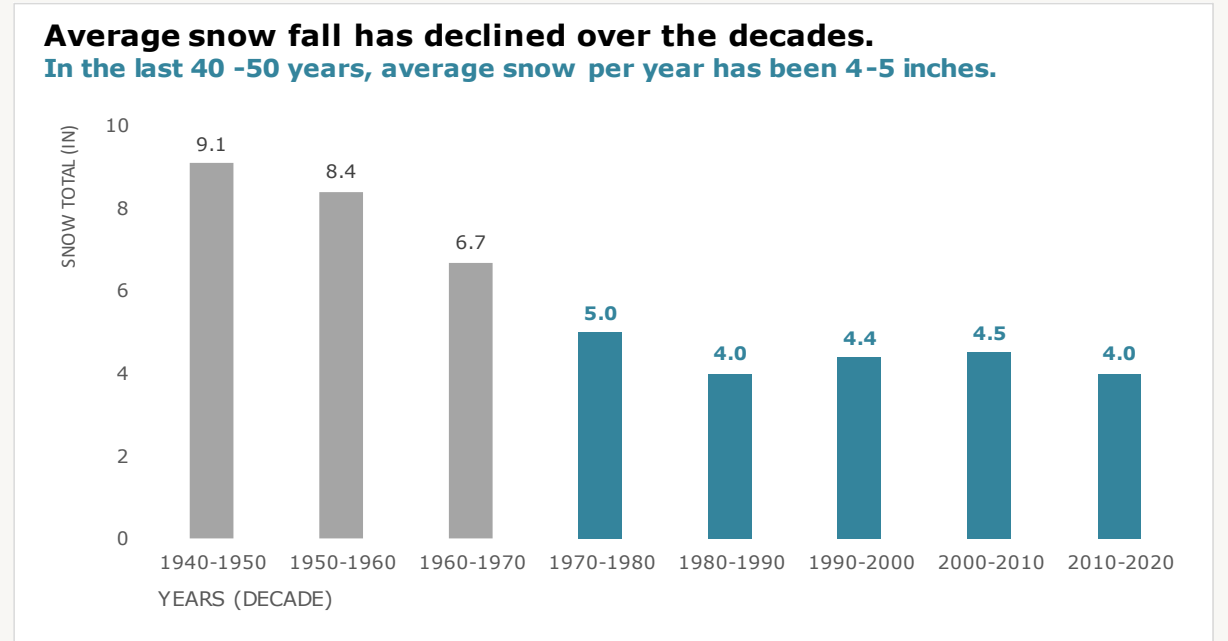
Look for opportunities to remove clutter.

# Makeover

## BEFORE



## AFTER



# Resources

## **Storytelling with data by Cole Nussbaumer Knaflic**

Blog (<https://www.storytellingwithdata.com/>) and books

- Storytelling with Data: A Data visualization Guide for Business Professionals
- Storytelling with Data: Let's Practice
- Storytelling with You

## **EvergreenData by Stephanie Evergreen**

Blog (<https://stephanieevergreen.com/>) and books

- Presenting Data Effectively
- Effective Data Visualization