

Expanding Access to Community Data Program Dashboards using Tableau Public

Lessons learned from
the Social Planning Council of Ottawa

SOCIAL PLANNING
COUNCIL
of Ottawa

A Catalyst for Sustainable Social and Economic Development Since 1928



Le CONSEIL de
PLANIFICATION SOCIALE
d'Ottawa

Un catalyseur du développement social et économique durable depuis 1928

Webinar Agenda

- The benefits of publishing CDP dashboards online.
- About Tableau Public.
- The Process steps & Examples.
 - Prerequisites & Limitations.
 - Notes & Tips.
 - Additional resources.
- Questions.



Objective and Benefits

- Community Data Dashboards provide an easy access to data. They can be a valuable resource to a range of users with various data skills.
- There is a library of dashboards created by the CD team that can be seen at the Interactive Infographics and Dashboards Portal:
<https://communitydata.ca/content/interactive-infographics-and-dashboards>
- All work that requires professional skills and knowledge of data and technology is done by CD team. The data tables are already downloaded from the catalogue, imported to Tableau, connected, analyzed, and visualized.
- Publishing the dashboards online can expand the access to this resource. More consortium members and local communities will have the opportunity to make good use of the data presented in Tableau.



Complying with CDP Data Sharing Agreement

- Community Data Program management team gave a green light to move forward on this idea with a few important notes:
 - In order to comply with the CDP end user agreement, the data access is limited to the local consortium area – in our case Ottawa & Region.
 - Before publishing, to verify with CDP data team if any of the data in the dashboard are subject to further restrictions.
- CDP team supported the project with professional and technical assistance.



Community Recovery Dashboard

- It was Community Recovery Dashboard (CRD) that inspired us to search for ways to expand the access to it.
- Community Recovery Dashboard connects data from a variety of sources, including the Census and Labour Force Survey.
- It presents many views of the data at different geography levels across Canada.
- The size of CRD is accordingly large, raising the question what can we do to share this great resource with our data community?
- We used a two steps approach:
 - Limit geographical extent to Ottawa and Region (Eastern Ontario townships).
 - Limit the data to a subset of the variables available – share a series of individual thematic parts of CRD.



Community Recovery Dashboard continued

- We choose to use Tableau Public as a sharing platform.
- The benefits of publishing only part of a CRD, a specific theme or geographic level:
 - Reduced data volume – also needed to comply with Tableau Public size limitations.
 - Reducing the geography extent to specific region or municipality makes it easier to find an area of interest.
 - Improved online performance of the dashboard.
 - Option to focus on a content that is of current interest to the community.
- The outcome: Community Recovery Dashboard, Labour Force and Income for Ottawa and Region, click [here](#) to see the dashboard embedded to a website.



Tableau Public - About

- Tableau Public is an open platform to publicly share and explore data visualizations online: <https://public.tableau.com/>
- In addition to the online platform, Tableau Public offers a desktop application.
- Visualizations created online or in the desktop app are shared via the Tableau Public cloud service - up to 10 Gb free space can be used for your visualizations.
- Many online resources exist for learning Tableau Public: documentation, how-to videos, sample datasets, user forums, extensive library of data visualizations, etc.
- Main limitation: Visualizations published to Tableau Public are available for anyone to see online.



Tableau Public - Overview

- Once you have a Tableau Public account, you can create an online profile providing details about your organization or research project.
- Using the online platform, you can create and publish a visualization.
- Using the Tableau Public desktop app, you can create new or open existing workbook.
- Creating a new data visualization using Tableau public is very similar to using Tableau professional. The resources from CD workshops on how to use Tableau can be used for the public version.
- Changes/edits to a dashboard can be performed both in desktop app and online.
- The Tableau Public Workbook is saved online only, and not locally.
- Clicking on the Save button in your desktop app, will prompt you to save the workbook to *public.tableau.com* portal.



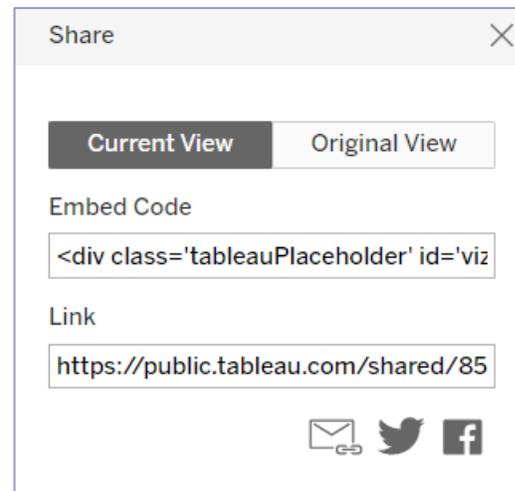
Tableau Public – Share your work

Dashboard sharing and viewing options can be modified from the online settings of the Viz. For each visualization we can decide on:

- Show or not the Viz on your profile.
- Show or not the sheets of the dashboard.
- Allow others to download the dashboard and data, or only as an image, PDF file and Power point.

Share:

Clicking on the share icon opens a window with options to copy a link or embed code.



Download:

Various format options for download.

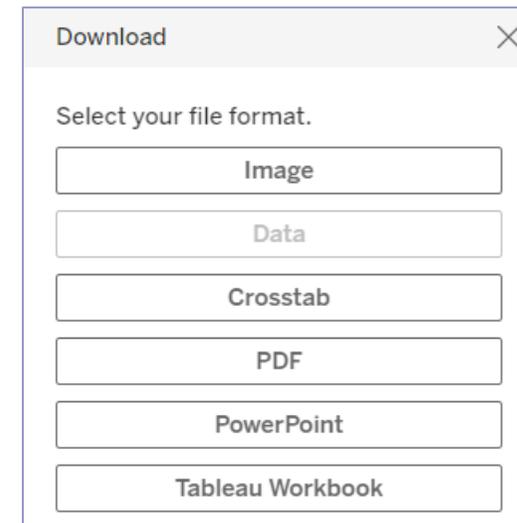


Tableau Public – Limitations Summary

- Tableau Public is an open platform with a public access, not suitable for private data. Visualizations published to Tableau Public are available for anyone to see online.
- Tableau Public is limited in size.
 - Tableau Public works with max of 15 millions rows of data.
 - If a dashboard is larger, Tableau Public can not be used.
- Workbooks saved to Tableau Public can only use Data Extracts.
- Saving locally and refreshing data are limited.
- When publishing on Tableau Public server and/or embedding to a website, dashboard design, layout & size might have to be adjusted.

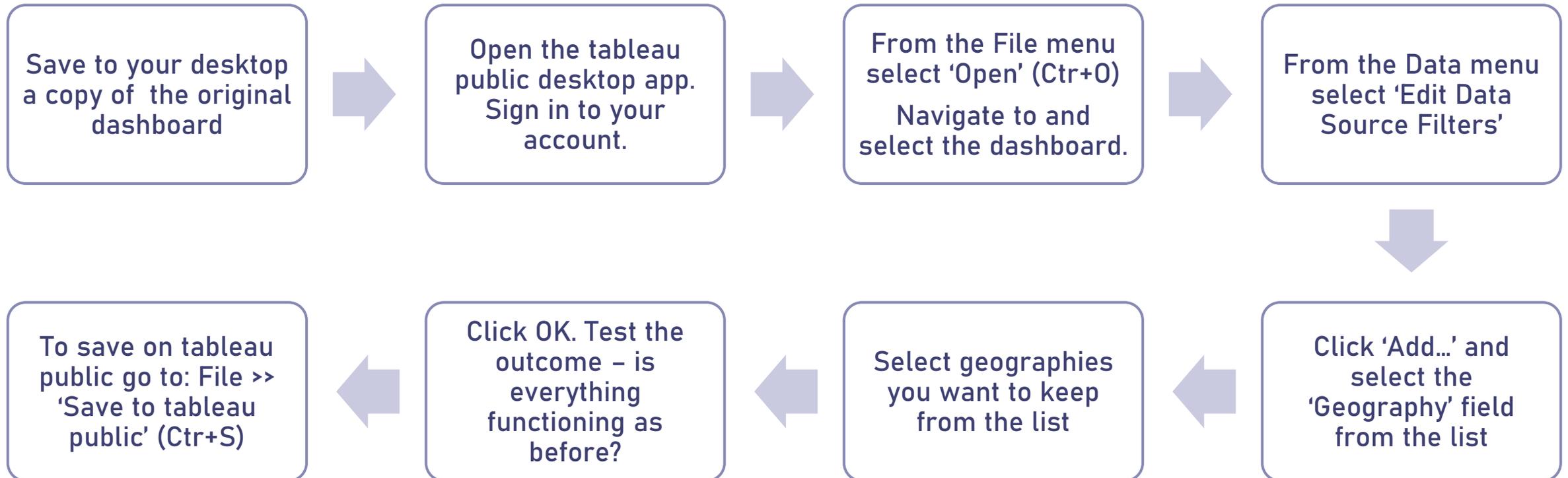


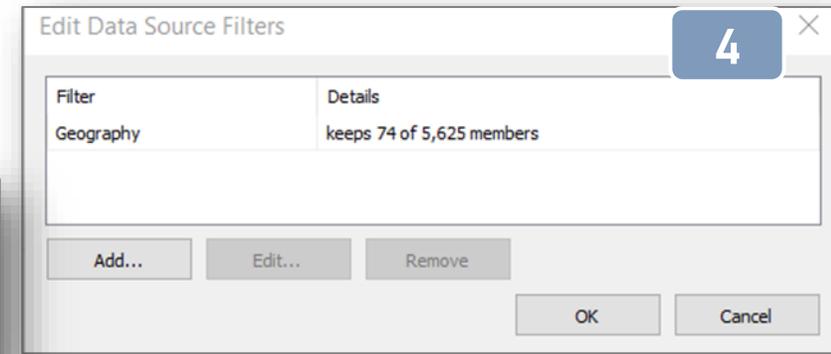
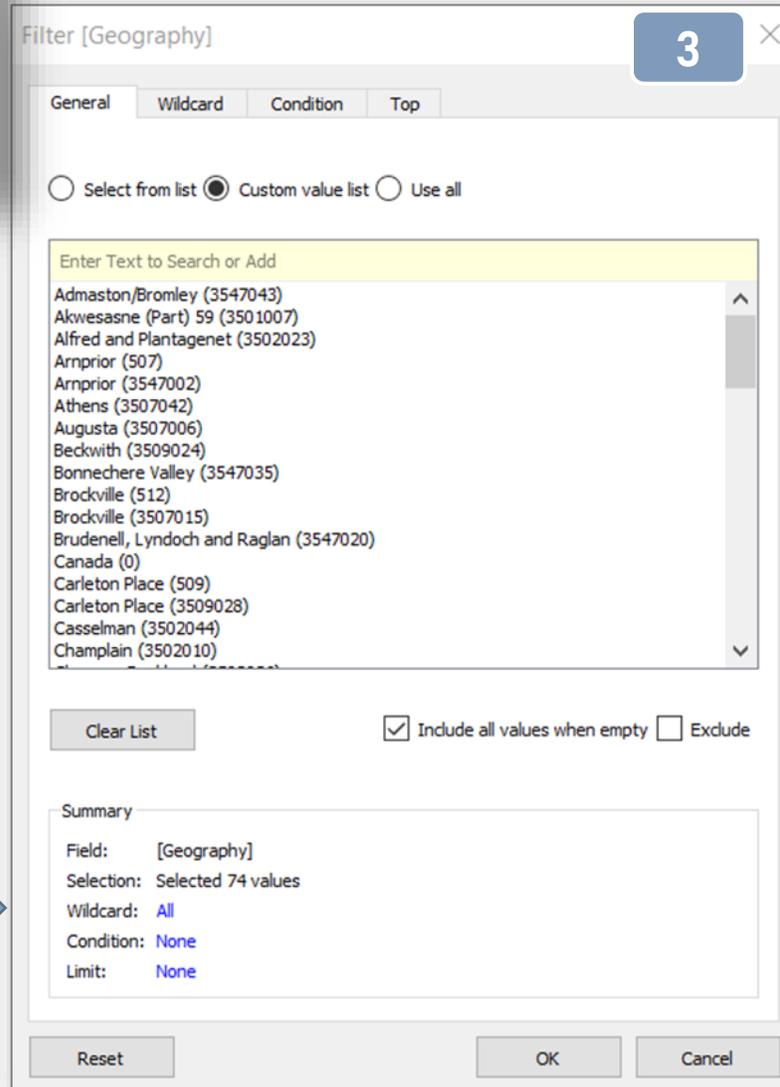
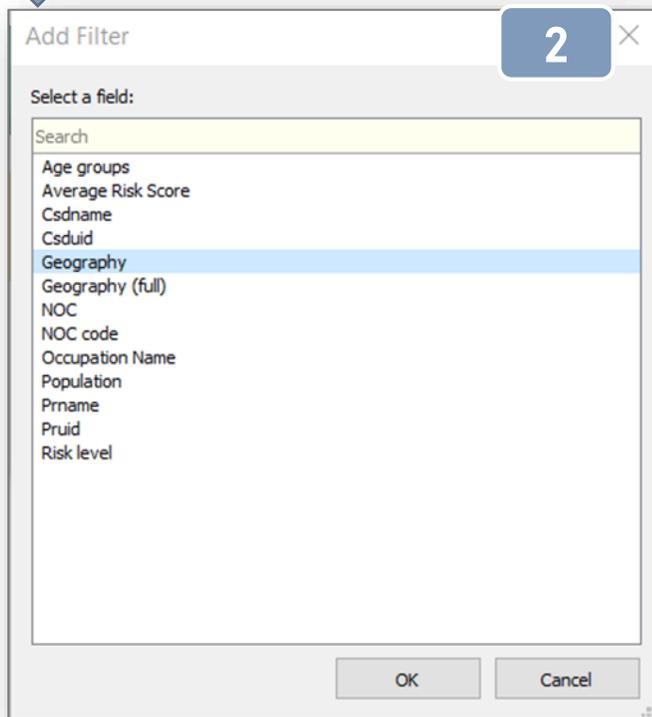
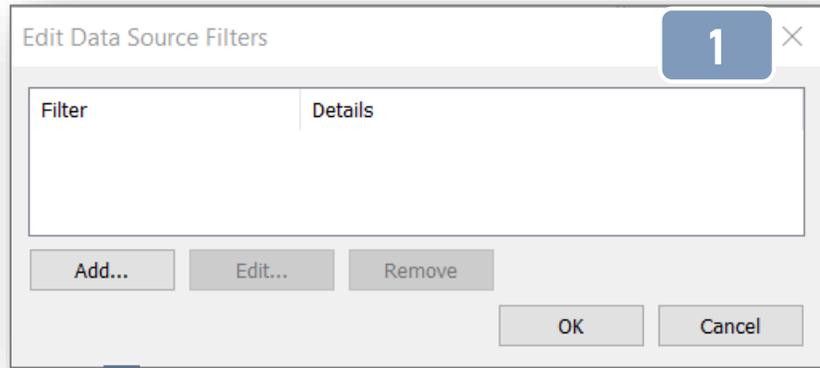
Notes on preparing a CD Dashboard for publishing

- Limiting geographies to the local consortium area is necessary in order to comply with data sharing agreement and to reduce the data volume of a dashboard.
- The demonstrated approach of applying filters on geographies is:
 - Just one of the many possible ways to limit geographical area and reduce the data volume.
 - It will not apply to all dashboards – they are organized differently, based on the represented data.
- If applying filters, the outcome should be verified with the original dashboard or original data source.
- Further reducing the size of a large dashboard can be done by:
 - Sharing the thematic tabs one at a time. Sharing the different geography tabs one at a time.



Publishing a CDP dashboard to Tableau Public Workflow





'Edit Data Source Filters' - Process snapshots

Tableau Public - Demo

- Create and set up an online Tableau Public Profile.
- Publish a CD Dashboard: **2021 Census Population**
 - Save a copy of the original dashboard on your desktop.
 - Open the tableau public desktop app. Log-in to your account.
 - From the File menu select 'Open'. Navigate to and select the dashboard.
 - Make necessary changes:
 - Limit geographies to consortium area
 - Add a note to the Welcome page
 - Click Save or go to: File >> 'Save to tableau public'
 - In the online platform, adjust the view, the description and the settings.
 - Share the link or embed to a website.



Examples

Shared on Tableau public server

- <https://public.tableau.com/app/profile/spco>
- https://public.tableau.com/app/profile/spco/viz/DIYInfographic-Villageof100_16455455894980/Villageof100Dashboard
- <https://public.tableau.com/app/profile/manitoba.collaborative.data.portal/viz/shared/58XR38KW3>

Embedded to a website

- <https://dataforpurpose.ca/>
- <https://raisingthevillage.ca/neighbourhood-comparison-dashboard/>

Shared as a link on a webpage:

- <http://www.mbcdp.ca/demographic-dashboards.html>



In Summary - Tips and Notes

- To get started, chose a smaller in size dashboard or create your own data view.
- To limit the displayed geographies:
 - Download a copy of the original CD dashboard.
 - Have handy a list of geographies you will keep and their corresponding unique codes.
 - Make sure you understand the way data within a workbook are organized.
 - Many CDP dashboards are complex and figuring out how to add filters might be tricky.
 - After setting up filters on data check if the dashboard is functioning as designed.
 - Verify the outcome with the original dashboard or original data source.
- Consider publishing thematic parts of a larger dashboards separately.
 - If a workbook is too large, e.g., CRD, it might be easier to publish one theme at a time.



Tableau Public Resources

- Create a Tableau Public account and download Tableau Public desktop application: <https://public.tableau.com/>
- Tableau Public Resources: <https://public.tableau.com/en-us/s/resources>
- Tableau Public FAQ: <https://community.tableau.com/s/tableau-public-faq>
- Tableau Public Technical Support:
https://www.tableau.com/support/public?_ga=2.157776186.1656119054.1649344357-1601095953.1649098085
- Tableau Public Blog: <https://public.tableau.com/en-us/s/blog>
- Learn from experts and find inspiration:
<https://public.tableau.com/app/discover/authors>
<https://public.tableau.com/app/discover/viz-of-the-day>



Tableau Public Resources

- Tableau Public Viz of the Day: <https://public.tableau.com/en-us/s/viz-of-the-day/subscribe>
- Using Google Sheets as an only supported live data connection: <https://community.tableau.com/s/tableau-public-faq#subhead19a>
- Embedding Tableau Public Views: https://kb.tableau.com/articles/howto/embedding-tableau-public-views-in-iframes?lang=en-us&_ga=2.76268178.662376734.1643299279-827884500.1642175549
- Embed Code for Custom Views: https://help.tableau.com/current/pro/desktop/en-us/embed_code_custom_view.htm
- TechSoup Canada: <https://www.techsoup.ca/eligibility>
<https://www.techsoup.ca/product-catalog>



Thank you!

Questions?

Get in touch: stefkap@spcottawa.on.ca

Check out some of our current and ongoing projects using data from Community Data Program:

- ✓ [2021 Census Highlights for Ottawa and Region](#)
- ✓ [Eastern Ontario Atlas](#)
- ✓ [Ottawa Neighbourhood Equity](#)
- ✓ [Data in Action](#)

