

# GeoPacks

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## Overview

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GeoPacks are designed to work with your data without having to be incorporated and stored into your source database. Packs provide three types of data:

1. [Geographical Labels](#)
2. [Geographical Fields](#) (Points, and sometimes Polygons)
3. [Demographic Metrics](#)

GeoPacks are structured to have one or more levels of geographical data. When there are multiple levels, the data will be structured in a logical hierarchy. Each level of the hierarchy will contain **Geographical Labels** of different formats and a **Geographical Field** containing a Point (and sometimes a Polygon). The pack may also have **Demographic Metrics**, which will be associated with the lowest level of the hierarchy which are automatically aggregated up depending on which hierarchy level you are using at the time.

See [GeoPack Setup](#) for more information.

## Geographical Labels

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In order to identify the various levels of data in the pack, and link the pack to your own data, Geographical Labels are included and displayed in multiple formats.

If we look at a simplified version of the Australian Postcode GeoPack it contains the following three level hierarchy:

1. State
2. LGA (Local Government Area)
3. Postcode

Some levels of this hierarchy may have different ways to identify the geography. For example, the State level can be identified by its full name, or using a three letter code. In this case, there are multiple **Geographical Labels** for the State field; State Label and State Code. An example of possible label fields for this pack would be:

State Label	State Code	LGA Code	LGA Label	Postcode
Victoria	VIC	LGA23430	Kingston	3195
Victoria	VIC	LGA23430	Kingston	3196
Victoria	VIC	LGA25900	Port Phillip	3205

These label fields are used to link the pack data to your source data, and as such you must select the label that matches the formatting in your source database. For example, if you're linking on State field and your data is stored as **VIC**, you would link on the **State Code** field. If your data is stored as **Victoria**, you would link on the **State Label** field.

See [GeoPack Use](#) for more information.

## Geographical Fields

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Once a pack is linked, using **Geographical Label** fields, the **Geographical Fields** become available for reporting use. Each level of the pack hierarchy contains one **Geographical Field**. This field contains a centroid Point, and may also contain Polygons, depending on the pack design. The **Geographical Field** can be selected by a user and added to a map, and depending on the map type, Yellowfin will choose to use either the Point OR Polygon (where available).

See [GeoPack Use](#) for more information.

## Demographic Metrics

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Finally, the packs also contain **Demographic Metrics**. These are fields that explore various values associated with census demographics available in the geographic area.

If we look at the same simplified Australian Postcode GeoPack as above, it contains various different fields of census information. Most packs contain many demographic fields, but this simplified example contains two; Total Population and Median Age:

Postcode	Total Population	Median Age
3195	34102	39
3196	23590	39
3205	9317	37

The **Demographic Metrics** are designed to provide additional levels of context to your mapping, providing you with the ability to compare your data with census information for richer analysis.

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