## KiwiSaver Detailed Demographic Study

June 2023

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## 1 Executive Summary

1.1 Purpose

Melville Jessup Weaver (MJW) has been engaged by the Retirement Commissioner to collect detailed demographic data on KiwiSaver. This report presents that data.
1.2 Method

MJW approached several KiwiSaver providers asking for aggregated data covering the membership of their schemes. Providers were asked to fill in a simple spreadsheet giving member balances for different age and gender combinations by fund.

Data was provided in early 2023 giving a snapshot as at 31 December 2022.
This is the first detailed report. However, two similar reports have been issued covering membership by age and gender with data as at 31 December 2021 and 31 December 2022, respectively.

### 1.3 Universe and data

Following our KiwiSaver Demographic Study of March 2023, the largest KiwiSaver schemes were asked to submit more detailed data. There is significantly more complexity in this project, therefore for timeliness and accuracy reasons, a smaller sample was accepted.

Providers covering 2,147,944 members with total balances of $\$ 54.14$ billion responded.
According to the IRD¹, in December 2022 there were 3,249,512 KiwiSaver members in total, meaning that this survey covered approximately two thirds of the total KiwiSaver member base.

While a large sample, it is possible that the results reflect some biases and due caution should be applied to interpreting the results.

Also, it should be noted that some gender information was unavailable. In this report, total figures include data relating to members where gender is unknown or neither male nor female. However, the analysis of males and females excludes data relating to members where gender is unknown.

### 1.4 Author

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1.5 Data sources

Data has been provided from KiwiSaver providers. While quality control checks have been performed, MJW is unable to certify the accuracy of the analysis presented in this report. MJW is not liable for any action taken as a result of this report.

[^0]
## 2 Grouping method

### 2.1 Introduction

In this report we investigate the relationship between age and level of investment risk undertaken. In order to get credible and presentable results, we have grouped ages and risk levels into bands. The bands applied are given in the following sections.

Investment risk level was measured by considering the level of growth assets ${ }^{2}$ and grouping similar funds into bands. These bands were defined at our discretion and include three more categories than the FMA's guidance note on naming classifications ${ }^{3}$.

## $2.2 \quad$ Fund type

Funds were grouped into eight categories based on their target growth asset allocation and given labels as follows:

- Shares

100\% growth assets

- Aggressive
$90 \%$ to $100 \%$ growth assets
- Growth
$63 \%$ to $90 \%$ growth assets
- Balanced
$50 \%$ to $63 \%$ growth assets
- Moderate
$35 \%$ to $50 \%$ growth assets
- Conservative
$10 \%$ to $35 \%$ growth assets
- Defensive
$0 \%$ to $10 \%$ growth assets
- Fixed interest

0\% growth assets
The lower bound is exclusive and the upper bound is inclusive (except for the Aggressive category). For example, a fund with a target of exactly $50 \%$ invested in growth assets would be classified as Moderate.

We note that the categorisation is based on the target asset allocation, and funds' actual asset allocation may vary (in some cases materially) from their target from time-to-time.

### 2.3 Age bands

Members were grouped into four categories based on their ages, and given labels as follows:

- "Youth"
- "Middle age"
- "Nearing retirement"
- "Retired"

30 and under
31 to 50
51 to 64
65 and older

The labels chosen are used for notation purposes only and do not necessarily reflect the living situation of all members in each category.

[^1]
## 3 Assets by category

### 3.1 Introduction

In this section we show the total amount invested by each cohort of age and risk level. We then go on to compare males and females within each cohort.
3.2 Total fund balances

| Total balance |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Fund type | Total | Youth | Middle age | Nearing retirement | Retired |
| Shares | $446,353,884$ | $24,683,010$ | $199,161,535$ | $173,068,439$ | $49,440,900$ |
| Aggressive | $1,259,095,803$ | $140,884,374$ | $615,260,674$ | $445,176,257$ | $57,774,497$ |
| Growth | $20,356,676,999$ | $3,105,199,750$ | $9,826,494,429$ | $6,018,337,432$ | $1,406,645,388$ |
| Balanced | $9,949,007,032$ | $776,844,670$ | $3,238,688,501$ | $4,399,470,224$ | $1,534,003,637$ |
| Moderate | $6,999,745,920$ | $393,792,012$ | $2,108,925,130$ | $3,386,531,268$ | $1,110,497,511$ |
| Conservative | $12,381,795,217$ | $1,119,417,554$ | $3,526,121,776$ | $5,467,649,962$ | $2,268,605,925$ |
| Defensive | $70,248,831$ | $12,145,484$ | $23,391,532$ | $24,434,737$ | $10,277,078$ |
| Fixed interest | $2,679,838,502$ | $298,577,489$ | $916,066,879$ | $771,922,715$ | $693,271,419$ |
| Total | $54,142,762,187$ | $5,871,544,342$ | $20,454,110,456$ | $20,686,591,033$ | $7,130,516,356$ |



We make several observations of interesting features.

- Most of the money in the KiwiSaver system is attributable to those in middle age and near retirement. This is expected because the majority of KiwiSaver members fall into these categories.
- Growth funds have the greatest total funds under management at over $\$ 20$ billion ( $38 \%$ of the total in this study). Within this, those in middle age have the largest amount invested in growth funds.
- As we reach the nearing retirement category, the amount in growth funds falls and conservative funds are about on par. Interestingly, growth funds still account for a large portion of balances for members nearing retirement.
- The split between fund types is most even for retirees.


### 3.3 Fund type distribution by age group

The distribution of member funds into investment fund type is shown for each age group.

| Percent of age group total |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Fund type | Total | Youth | Middle age | Nearing retirement | Retired |
| Shares | 0.82 | 0.42 | 0.97 | 0.84 | 0.69 |
| Aggressive | 2.33 | 2.40 | 3.01 | 0.81 |  |
| Growth | 37.60 | 52.89 | 48.04 | 2.15 | 19.73 |
| Balanced | 18.38 | 13.23 | 15.83 | 21.51 |  |
| Moderate | 12.93 | 19.71 | 10.31 | 21.27 | 15.57 |
| Conservative | 22.87 | 0.21 | 17.24 | 16.37 | 31.82 |
| Defensive | 0.13 | 5.09 | 0.11 | 26.43 | 0.14 |
| Fixed interest | 4.95 | 100.00 | 4.48 | 0.12 | 9.72 |
| Total | 100.00 |  | 100.00 | 3.73 | 100.00 |



We make several observations of interesting features.

- As expected, the allocation to growth assets generally decreases with age. This shows the effect of "lifestyling" - the transition out of equities and into bonds as members approach retirement.
- Growth funds account for about half of youth and middle age investment balances.


### 3.4 Fund type split by age group: females

The distribution of investment fund type for female member balances is shown for each age group.

| Percent of age group total (females) |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Fund type | Total | Youth | Middle age | Nearing retirement | Retired |
| Shares | 0.58 | 0.38 | 0.77 | 0.51 | 0.44 |
| Aggressive | 2.15 | 2.33 | 2.89 | 1.94 | 0.61 |
| Growth | 34.96 | 53.05 | 46.63 | 25.81 | 16.11 |
| Balanced | 17.77 | 11.66 | 15.15 | 20.86 | 20.68 |
| Moderate | 13.92 | 6.77 | 11.35 | 17.46 | 16.21 |
| Conservative | 25.18 | 20.31 | 18.48 | 29.30 | 35.01 |
| Defensive | 0.13 | 0.20 | 0.12 | 0.12 | 0.16 |
| Fixed interest | 5.31 | 5.30 | 4.61 | 4.00 | 10.78 |
| Total | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |



### 3.5 Fund type split by age group: males

The distribution of investment fund type for male member balances is shown for each age group.

| Percent of age group total (males) |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Fund type | Total | Youth | Middle age | Nearing retirement | Retired |
| Shares | 1.05 | 0.46 | 1.16 | 1.13 | 0.94 |
| Aggressive | 2.54 | 2.54 | 5.19 | 2.38 | 1.01 |
| Growth | 40.59 | 54.38 | 50.47 | 32.38 | 23.14 |
| Balanced | 17.15 | 11.93 | 14.13 | 20.22 | 21.67 |
| Moderate | 12.40 | 18.84 | 9.78 | 15.76 | 15.18 |
| Conservative | 21.41 | 0.22 | 16.67 | 24.45 | 29.13 |
| Defensive | 0.13 | 5.05 | 0.11 | 0.12 | 0.13 |
| Fixed interest | 4.74 | 100.00 | 4.48 | 3.56 | 8.80 |
| Total | 100.00 |  | 100.00 | 100.00 | 100.00 |



### 3.6 Fund type split by age group: male versus females

The analysis in this section shows the difference in proportion (males minus females) in each cohort.
We have used a heat map to highlight the biggest differences. A positive number (green shading) means the male proportion is higher in a particular cohort, a negative number means the female proportion is higher (orange/red shading).

| Percent of age group total (males minus females) <br> Fund type | Total | Youth | Middle age | Nearing retirement | Retired |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Shares | 0.46 | 0.08 | 0.39 | 0.63 | 0.50 |
| Aggressive | 0.39 | 0.20 | 0.31 | 0.43 | 0.40 |
| Growth | 5.63 | 1.33 | 3.84 | 6.58 | 7.03 |
| Balanced | -0.62 | 0.28 | -1.01 | -0.64 | 0.99 |
| Moderate | -1.52 | 0.06 | -1.58 | -1.72 | -1.01 |
| Conservative | -3.76 | -1.74 | -1.80 | -4.84 | -5.90 |
| Defensive | -0.01 | 0.03 | -0.01 | 0.00 | -0.03 |
| Fixed interest | -0.57 | -0.25 | -0.13 | -0.44 | -1.97 |

As an example of how to interpret this analysis, the proportion of male member balances in growth funds is $40.59 \%$ and for females it is $34.96 \%$ (per the tables in the previous sections). The difference between these gives the 5.63 shown in the first column of the table. In other words, there is a 5.63 percentage point difference between the proportion of male member balances and female member balances in growth funds.

On the other hand, the proportion of male member balances in conservative funds is $21.36 \%$ and for females it is $25.12 \%$. The difference between these is the -3.76 shown in the first column of the table.

We comment on several interesting features.

- Overall, there is a tilt to more risk-seeking funds for males. A greater proportion of male balances are in Shares, Aggressive and Growth funds than female balances.
- The differences are very small in the youngest category, "youth", and tend to gradually increase with age.
- The largest differences between males and females are seen at older ages, with more money invested by males remaining in growth funds into their older years, while females' balances tend to shift into more conservative funds more significantly.
- A study by the New Zealand Society of Actuaries' Retirement Income Interest Group ${ }^{4}$ found that investment choice was driven by investment balance size, rather than gender. Given that males on average have a higher KiwiSaver balance than women (approximately $\$ 31,000$ versus $\$ 25,000$, as at 31 December 2022), we cannot conclude from this data that males are more risk-seeking. A possible alternative explanation is that it is males' higher balances (on average) which have led them to be more risk-seeking on average.

[^2]
## A Spreadsheet template

Dollars invested as at 31 December 2022
Total

|  |  |  |
| :--- | :--- | :--- |
|  | Age | Fund 1 name |
| 30 and under ("youth") |  |  |
| 31 to 50 years old ("middle age") |  |  |
| 51 to 64 years old ("nearing retirement") |  |  |
| 65 and older ("retired") |  |  |

## Females

|  | Age | Fund 1 name |
| :--- | :--- | :--- | Fund 2 name (add funds as necessary) | 30 and under ("youth") |  |  |
| :--- | :--- | :--- |
| 31 to 50 years old ("middle age") |  |  |
| 51 to 64 years old ("nearing retirement") |  |  |
| 65 and older ("retired") |  |  |

Males

| Age | Fund 1 name | Fund 2 name (add funds as necessary) |
| :--- | :--- | :--- |
| 30 and under ("youth") |  |  |
|  |  |  |
| 31 to 50 years old ("middle age") |  |  |
| 51 to 64 years old ("nearing retirement") |  |  |
| 65 and older ("retired") |  |  |


[^0]:    ${ }^{1}$ https://www.ird.govt.nz/about-us/tax-statistics/kiwisaver/datasets

[^1]:    ${ }^{2}$ Equities, property, infrastructure, et cetera.
    ${ }^{3}$ https://www.fma.govt.nz/assets/Guidance/Guidance-note-on-risk-indicators-and-description-of-managed-funds.pdf (page 11)

[^2]:    ${ }^{4}$ https://actuaries.org.nz/content/uploads/2022/11/Insights-into-current-KiwiSaver.pdf

