

Data Visualization

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Senior Performance Auditor
Multnomah County Auditor's Office

Opening Remarks



Moderator
Kinney Poynter
Executive Director
NASACT



Presenter
Nicole Dewees
Senior Performance Auditor
Multnomah County Auditor's Office

Is it
necessary?

Is it easily
understood?

Does it
convey
what you
intended?

Would it be
more
powerful as
a graph?

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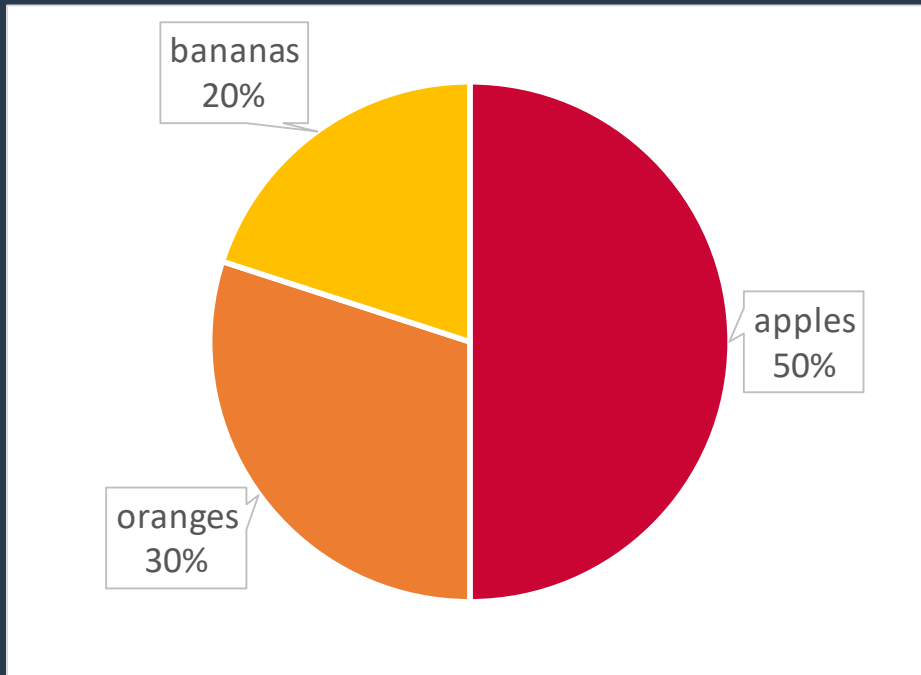
Would it be
more
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a graph?



Eye Tracking Studies

People look at:

- Roughly 20% of text
- Nearly 100% of visuals



I spent countless hours preparing this report. This text is really important. Failure to read it may cause significant injury. Just kidding. Wait, were you looking at the graph first? That is a completely normal thing to do. In fact, many people skim reports by just looking at the charts. Make sure the chart is really important. This chart is silly and useless.



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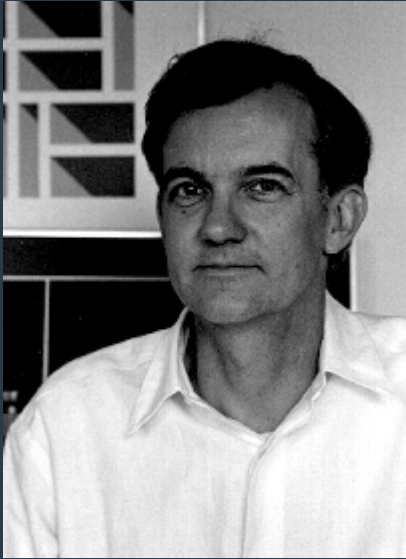
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Edward Tufte

“Forego chartjunk.”

“Compared to what?”

“It is not about you anymore.
It’s about your audience’s
relationship with your
content.”

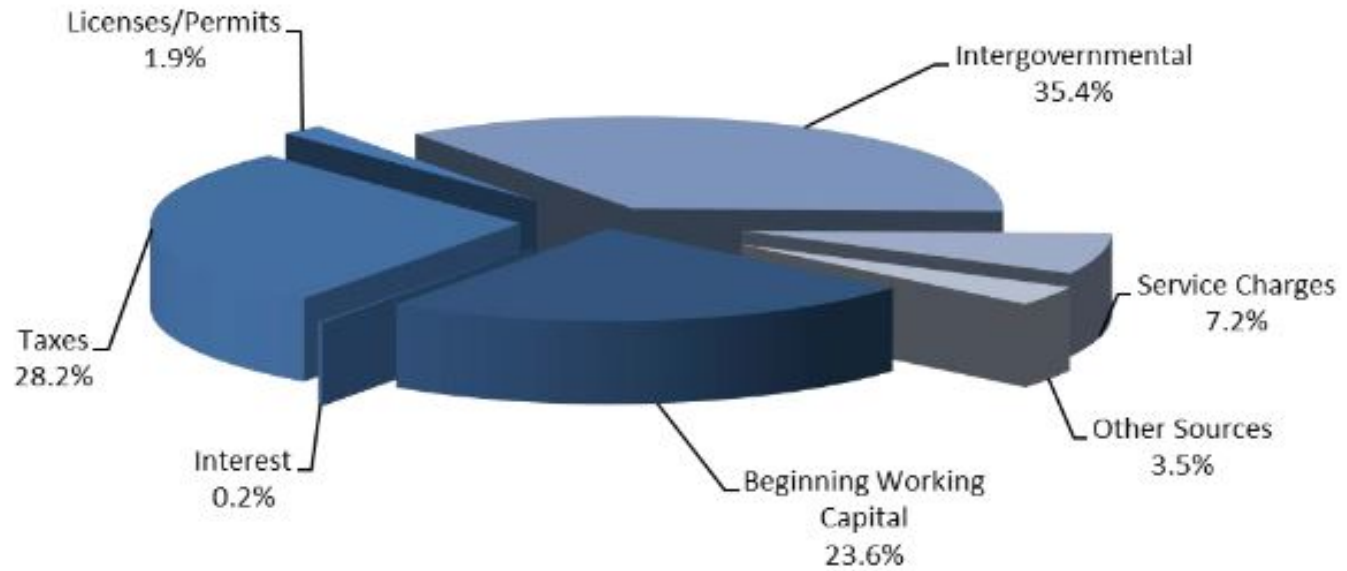


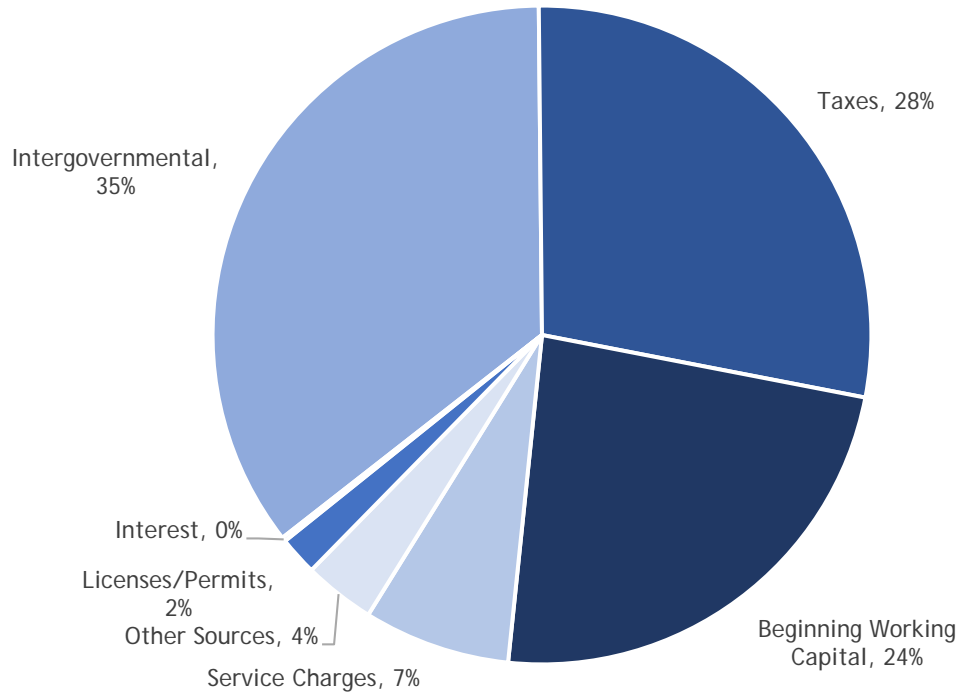
Stephanie Evergreen

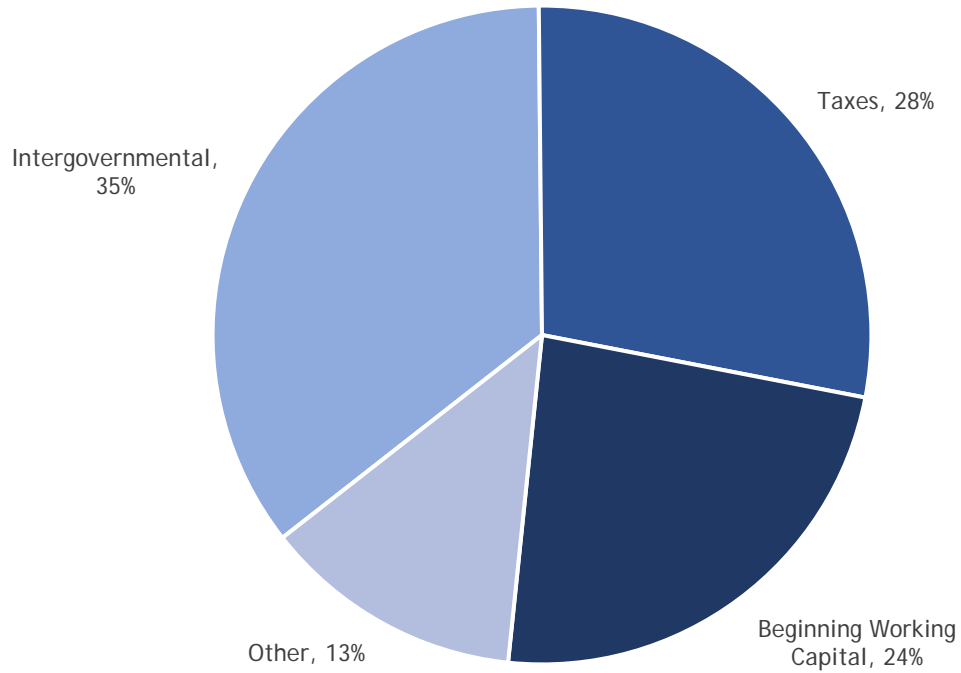
“What can I remove?”

“What story are you trying to tell?”

Directly label charts
Highlight what is important

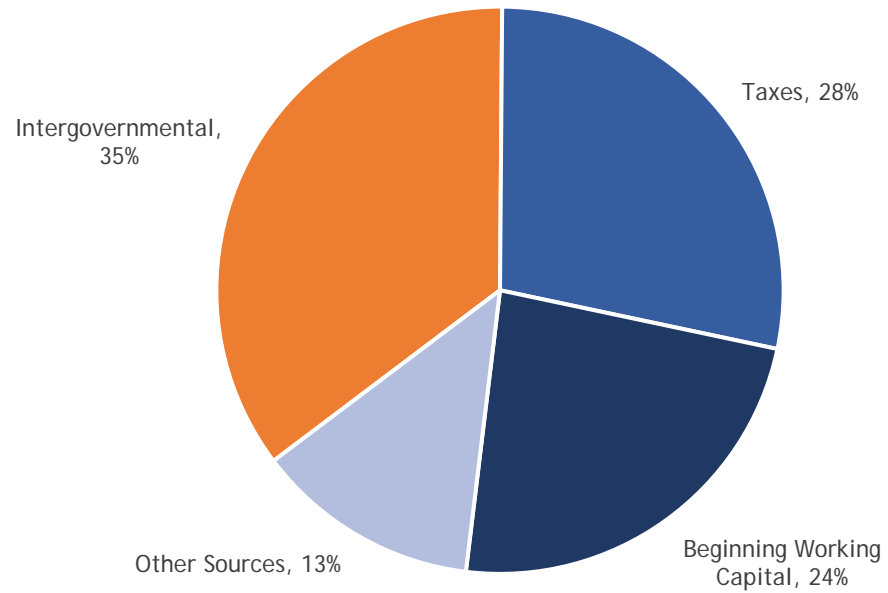


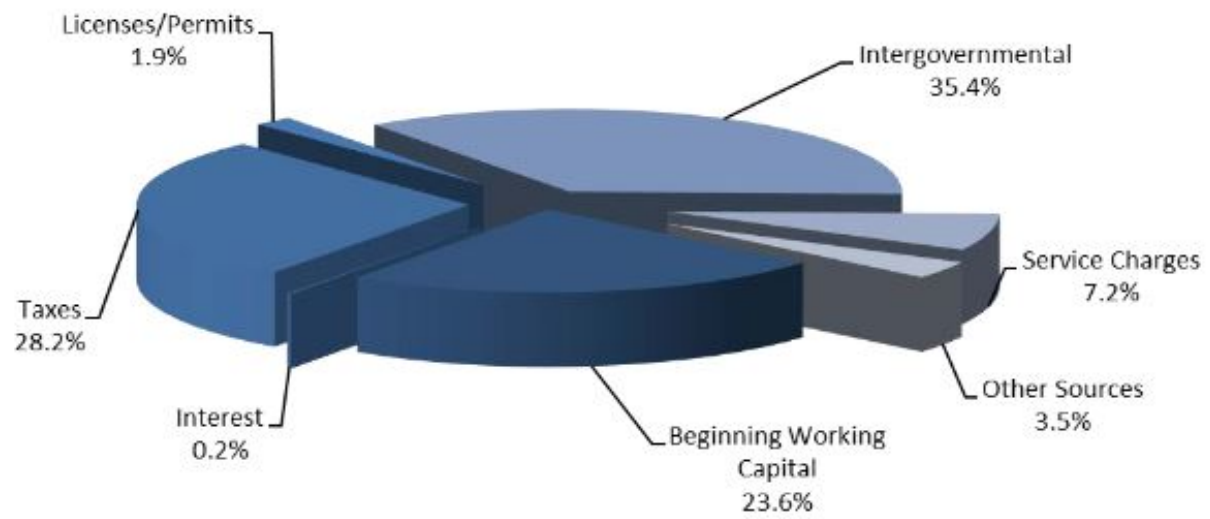




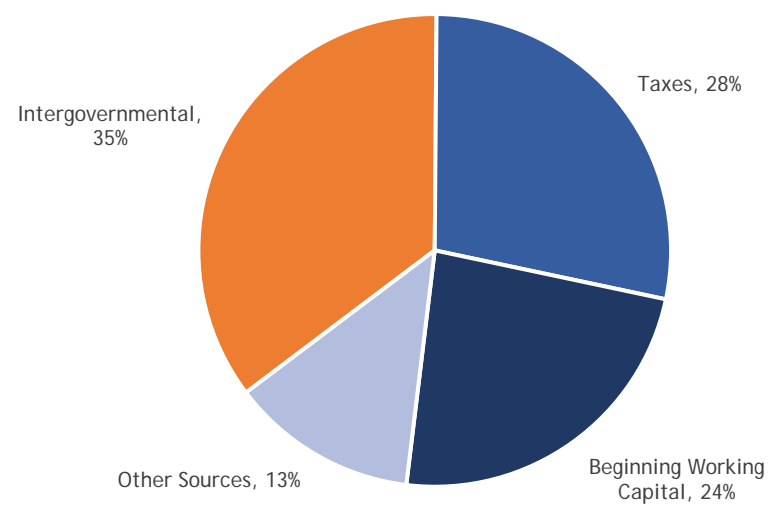


The most volatile source of income is **Intergovernmental**, which constitutes over one third of revenues.



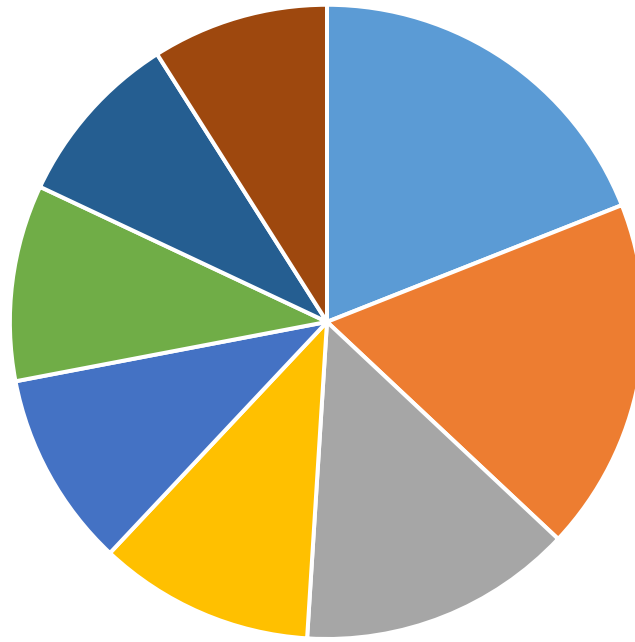


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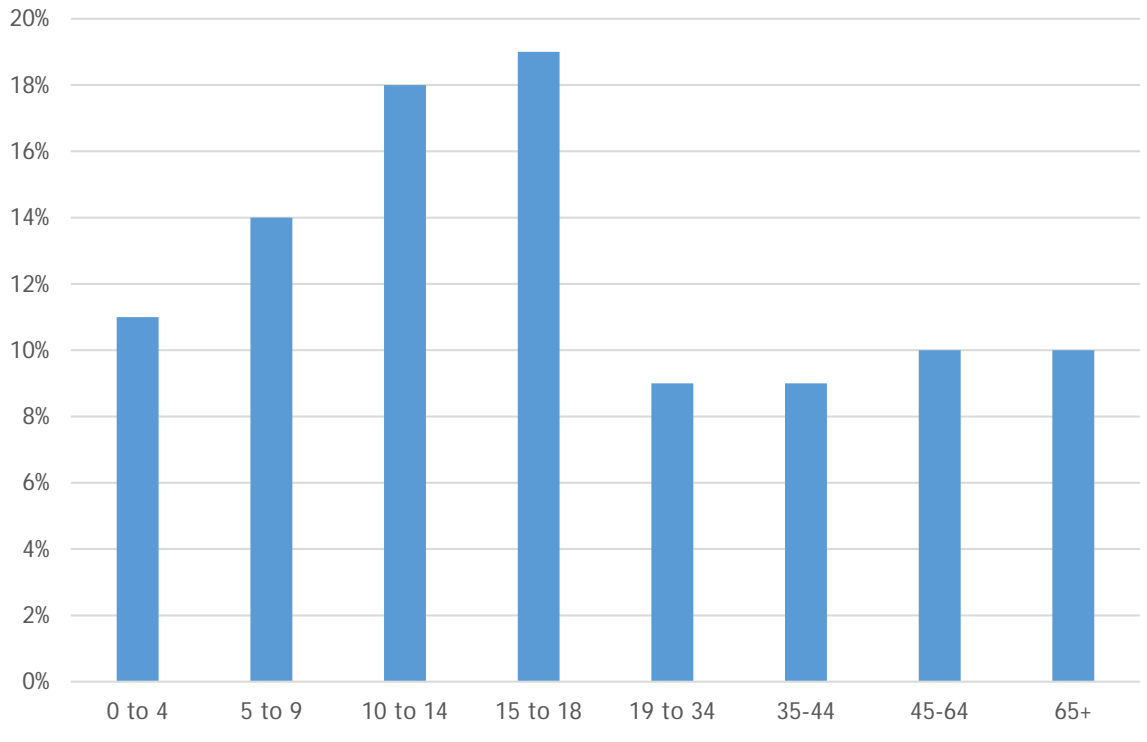
Age of Clients



■ 15 to 18 ■ 10 to 14 ■ 5 to 9 ■ 0 to 4 ■ 45-64 ■ 65+ ■ 19 to 34 ■ 35-44

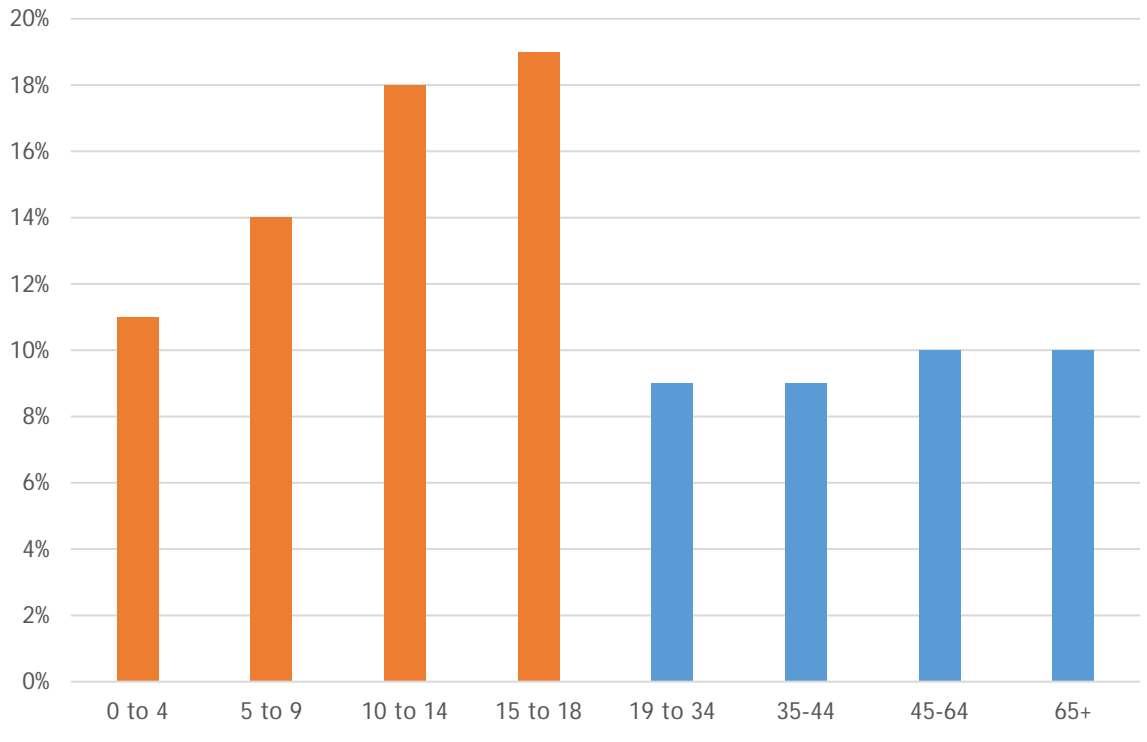


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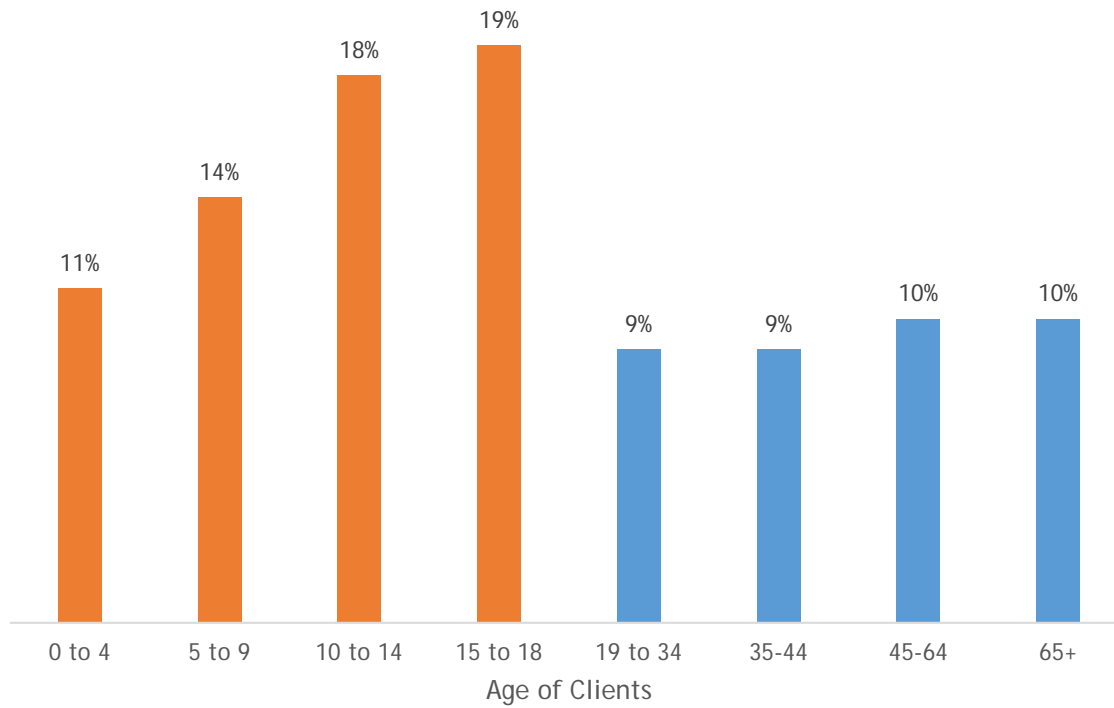


Nearly 2 out of 3 clients are 18 or younger



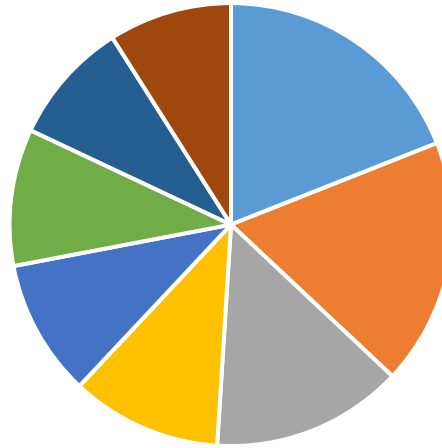


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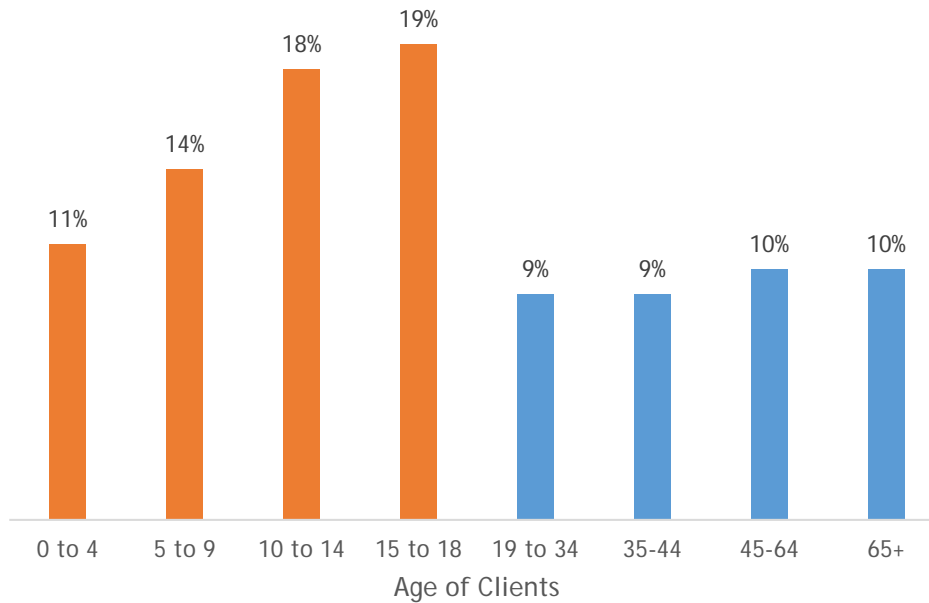


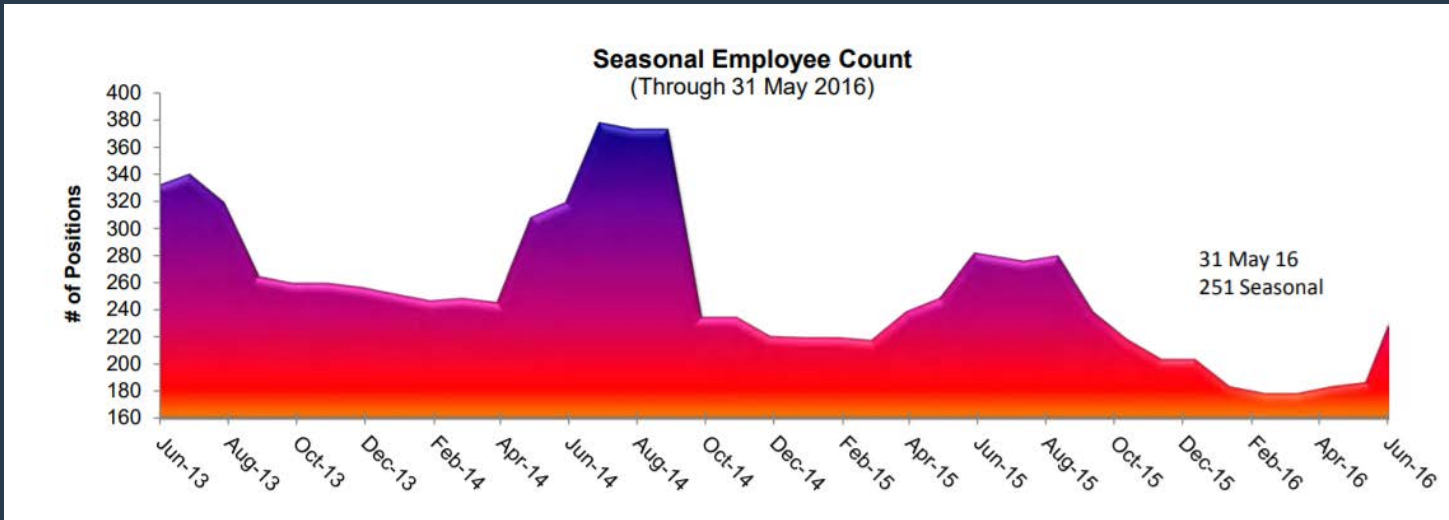
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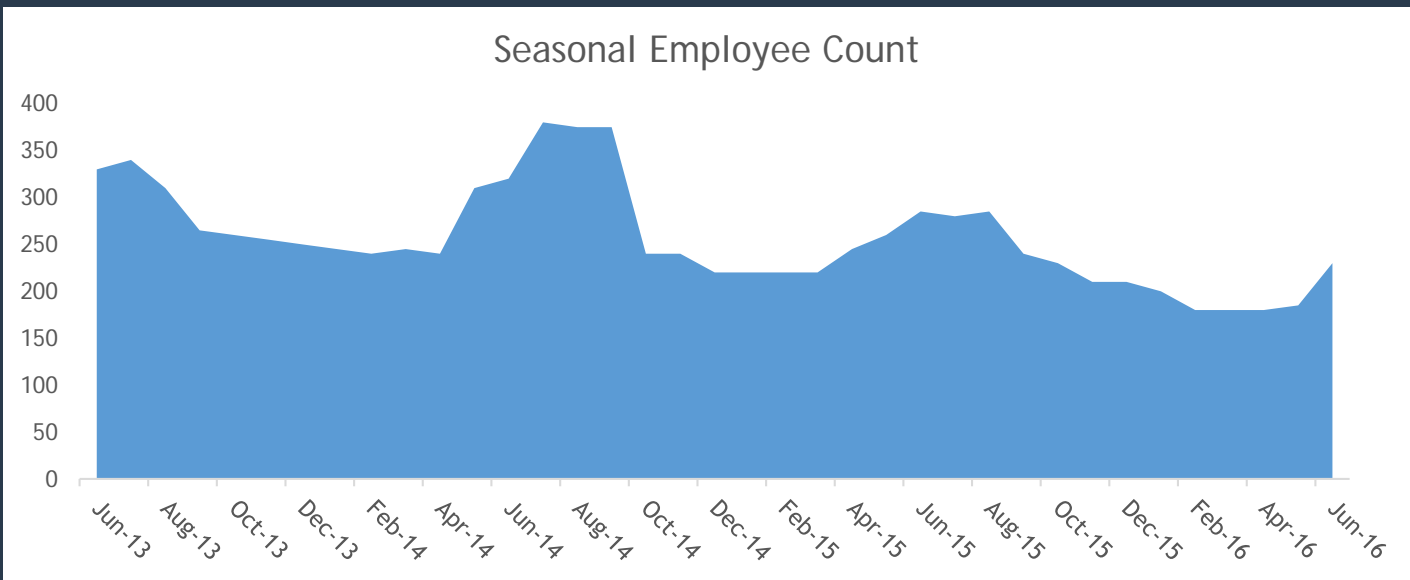


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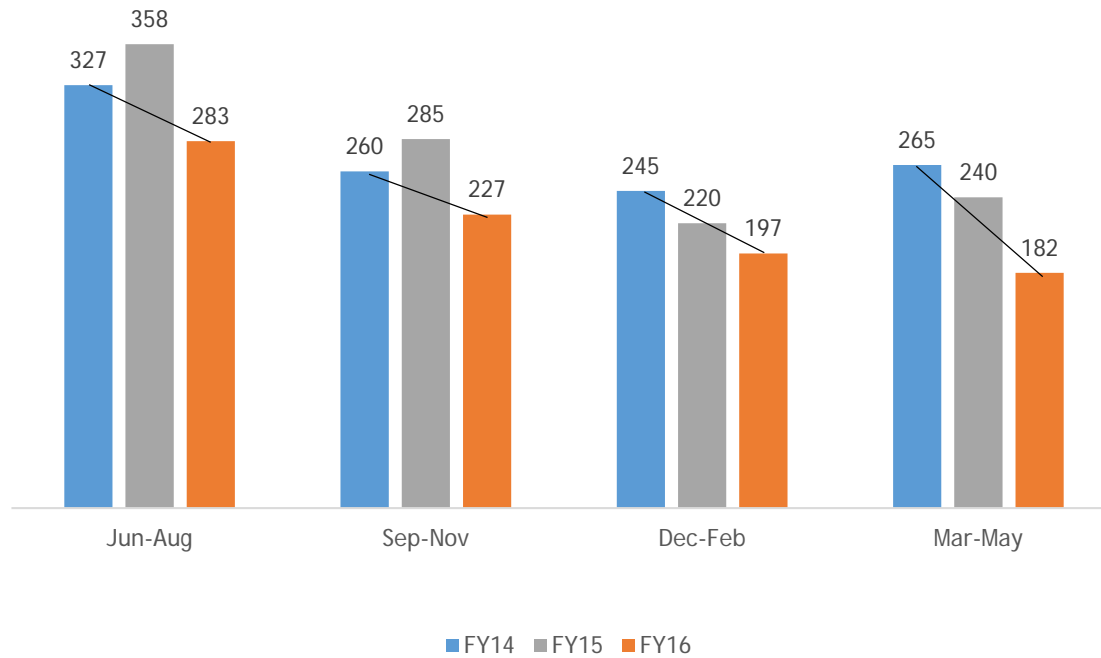


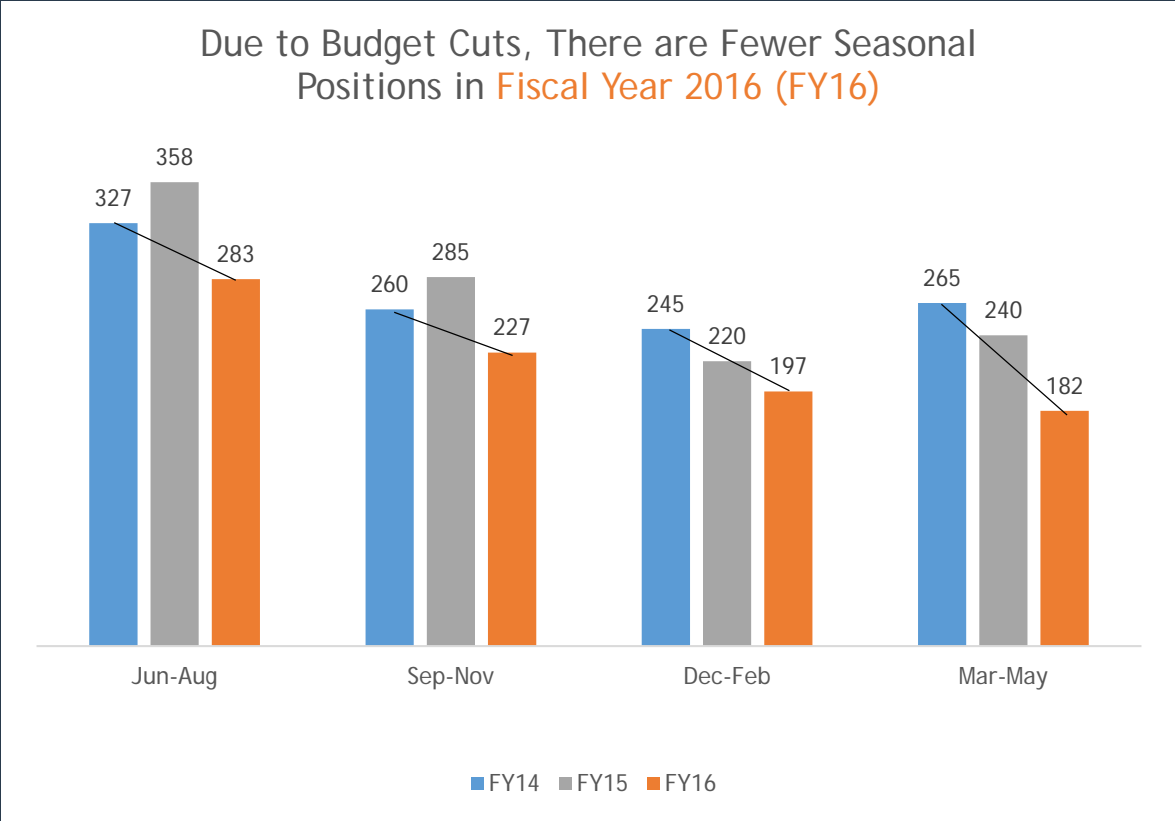
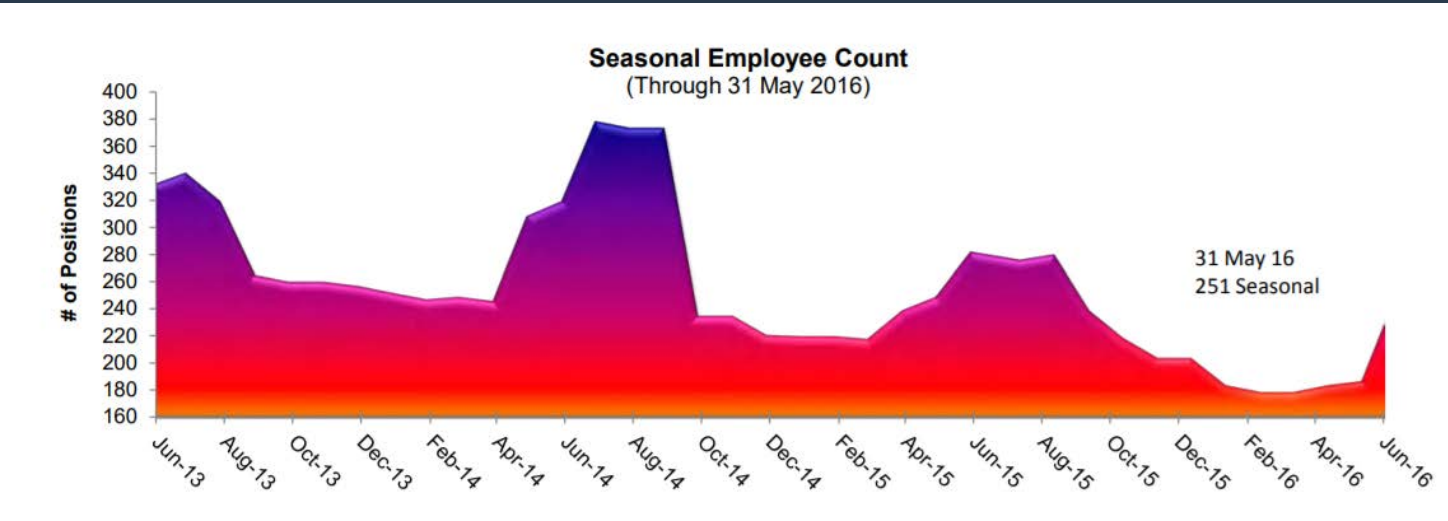






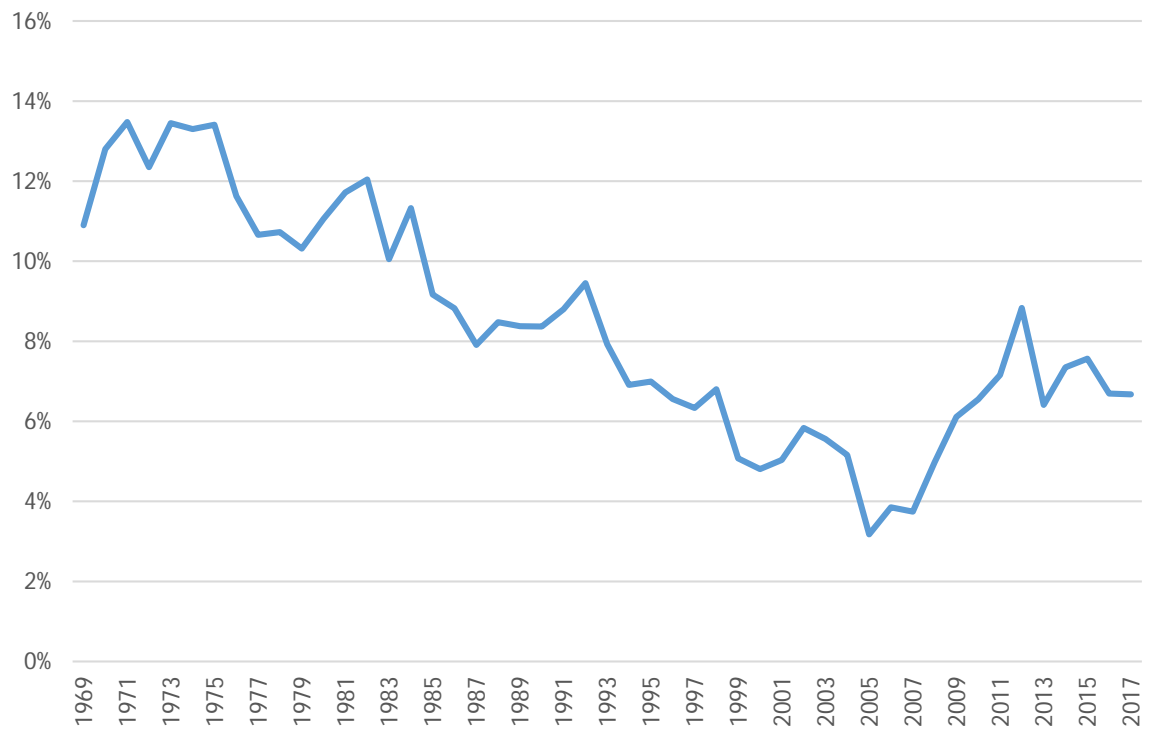
Due to Budget Cuts, There are Fewer Seasonal Positions in Fiscal Year 2016 (FY16)







Personal Saving Rate





1

Select Data Source

Chart data range: =Sheet1!\$A\$7:\$A\$55,Sheet1!\$I\$7:\$I\$55

Legend Entries (Series)

Series1

2

Format Data Series

Series Options ▾

Plot Series On

Primary Axis

Secondary Axis

3

Choose the chart type and axis for your data series:

Series Name	Chart Type	Secondary Axis
Series1	Line	<input type="checkbox"/>
Series2	Clustered Column	<input checked="" type="checkbox"/>




OK Cancel



4

Format Data Series

Series Options ▾

▲ **Series Options**

Plot Series On

Primary Axis

Secondary Axis





Series Overlap

Gap Width

5

Format Axis

Axis Options ▾ Text Options

▲ **Axis Options**

Bounds

Minimum Auto

Maximum

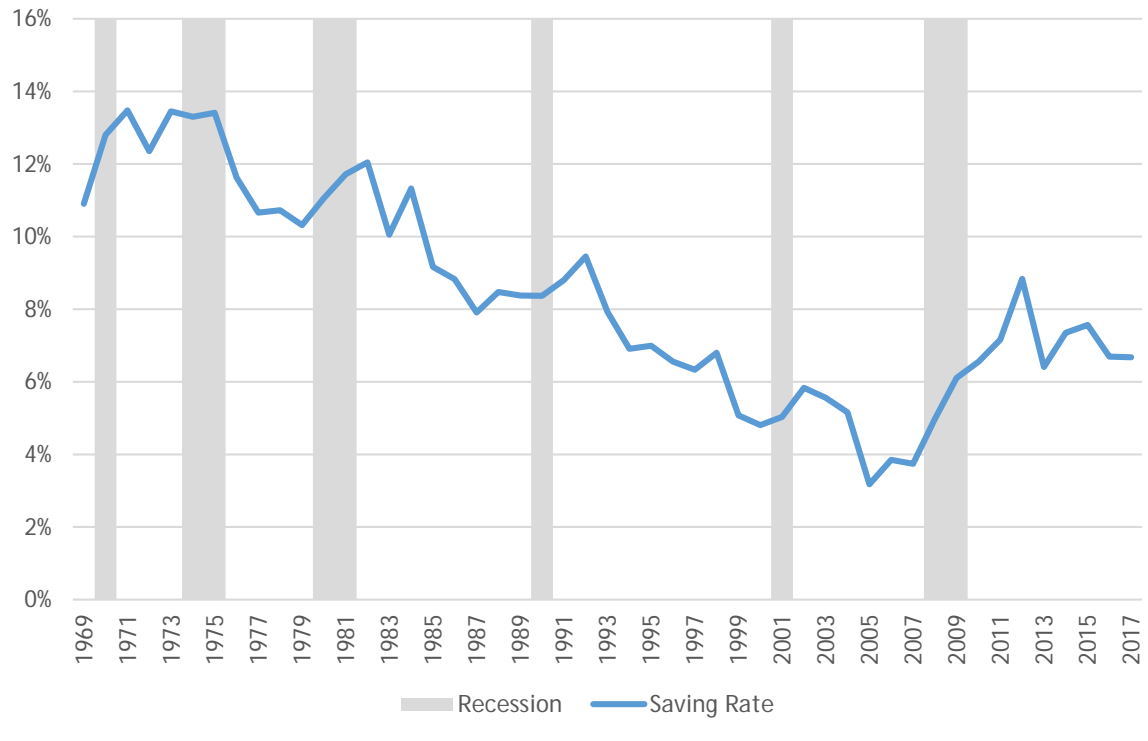
6

▲ **Labels**

Label Position



Personal Saving Rate Increases During Recessions

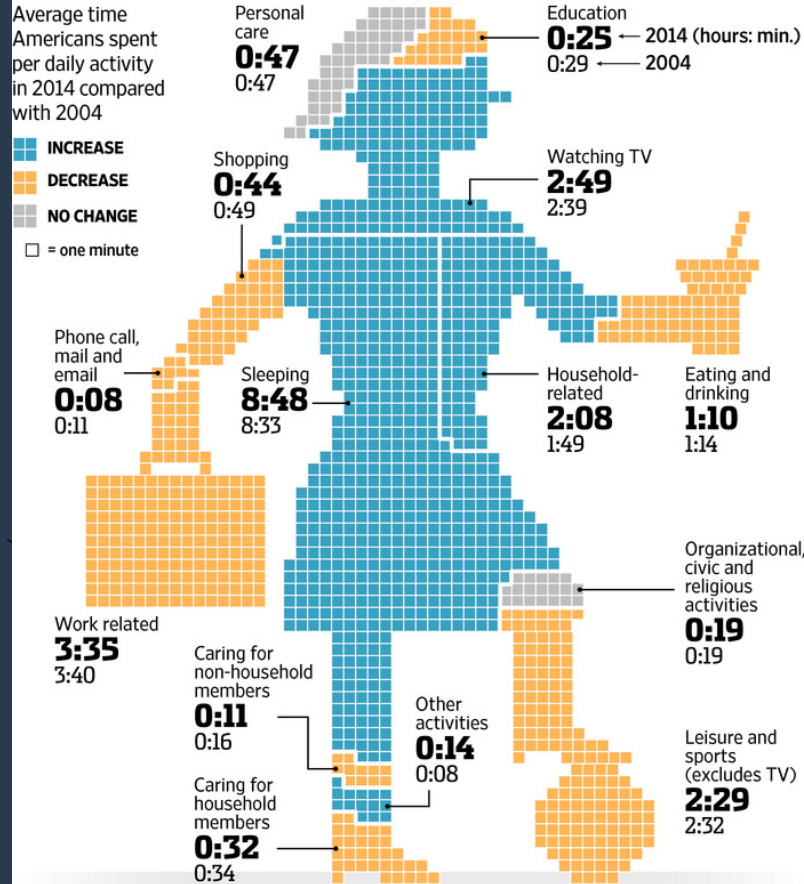




A Day in the Life

Average time
Americans spent
per daily activity
in 2014 compared
with 2004

- INCREASE
- DECREASE
- NO CHANGE
- = one minute



Note: Time may not total 24 hours due to rounding.
Source: Labor Department

Christopher Kaeser/THE WALL STREET JOURNAL



Americans Spend More Time **Watching TV** Than Caring for Members of Their Household

169 Minutes Per Day



Watching TV

32 Minutes Per Day



Care of household members



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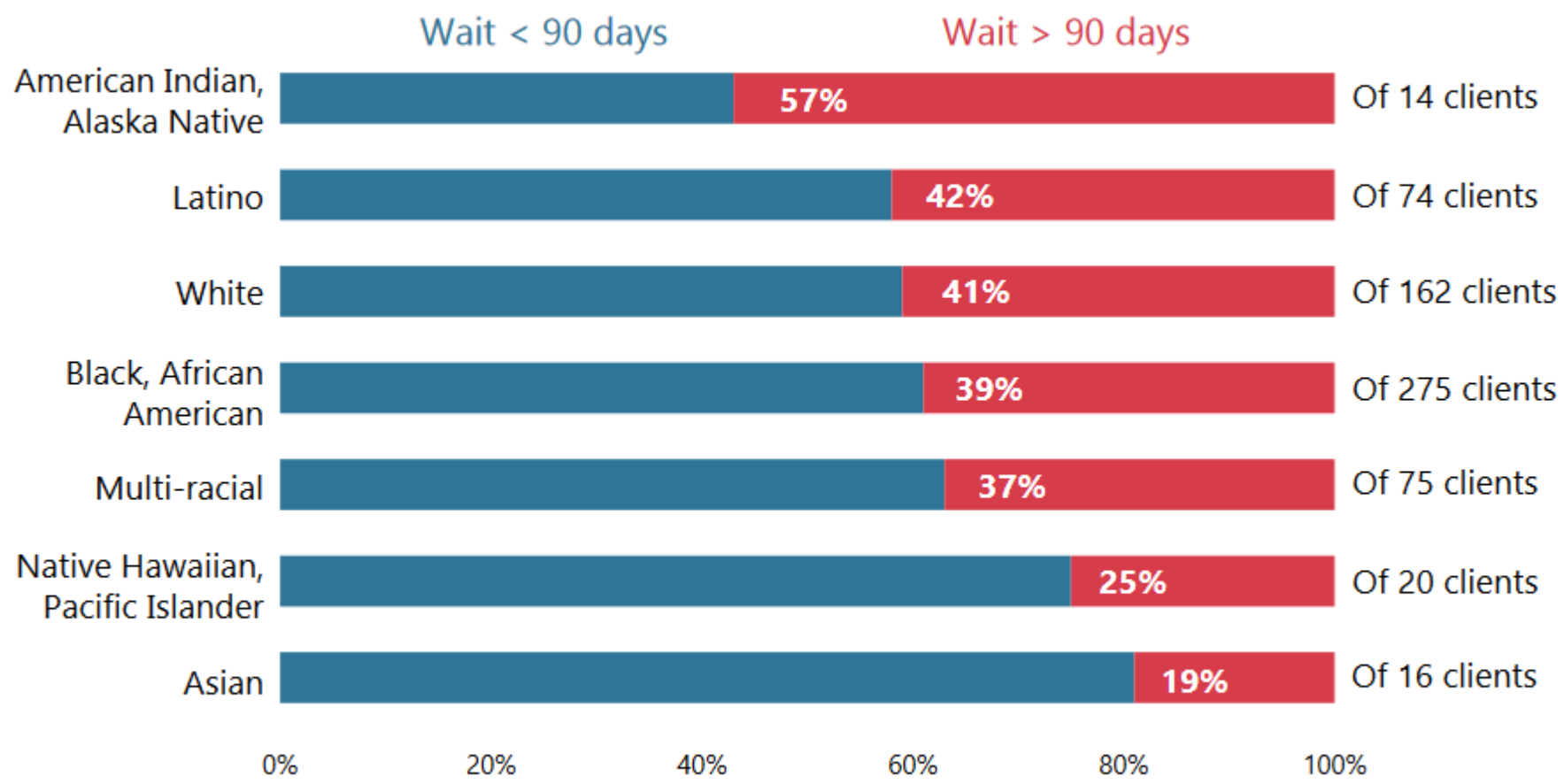


Only about
22%
of short-term
rentals are
permitted





American Indians, Alaska Natives wait longest from assessment to housing enrollment



Source: King County Auditor's Office analysis of CEA data from Department of Community and Human Services

Questions and Answers



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