

MAY 12-13, 2025
WASHINGTON, DC
WALTER E. WASHINGTON
CONVENTION CENTER

Data Visualization to Drive Engagement and Member Value

Sandstorm®
Janna Fiester and Laura Chaparro



**THE FUTURE
IS YOURS TO CREATE**

Hello, we're Sandstorm

sandstorm®



Janna Fiester
she/her/hers
Vice President of UX
and Creative



Laura Chaparro
she/her/hers
Senior Account Director



About Sandstorm

sandstorm®

Accessibility-certified,
creative technology
agency for 25+ years
for **purpose-driven
brands**

**Association,
nonprofit, healthcare &
higher ed** expertise

Team leads with **decades
of experience**

Interdisciplinary team:
UX/UI, strategy,
technology, data, AI

Certifications: CPACC
(accessibility), DEIB,
Drupal, Pantheon,
Acquia, and WBENC
(women-owned)

UX practice started by
Ph.D in human factors
in 2006



What's Ahead Today

sandstorm®

Power of Visualization

Opportunities for Association Engagement

7 Key UX Insights That Drove the Experience

Your Association's Next Moves



What is data visualization?

- ✓ A **graphical representation** of data
- ✓ Use charts, graphs, and maps
- ✓ **More accessible** way to identify trends, and patterns in data



Why use data visualization?

DID YOU KNOW

Interactive visualizations lead to a **60% increase in user engagement.**

- ✓ Instant **access to real-time, proprietary data**
- ✓ **Highly visual, interactive data exploration**
- ✓ Quick view of KPIs
- ✓ **Easily share insights** across teams
- ✓ **Better data understanding** for smarter decisions

<https://www.numberanalytics.com/blog/10-surprising-statistics-modern-data-visualization-trends>



Why does it fail?

DID YOU KNOW

BARC survey revealed that **only 20% of dashboards achieve widespread adoption** within organizations.

- ✗ **Bad UX or UI**
- ✗ **Does not reflect an organizational need**
- ✗ **Lack of context** leading to misinterpretation
- ✗ **Too much data with no interactivity**
- ✗ **Inaccurate or outdated data**

<https://www.dataversity.net/putting-a-number-on-bad-data/>



Opportunities for associations

DID YOU KNOW

Companies leveraging modern data visualization have, on average, **experienced a 20% boost in overall business growth.**

- Monetize **your proprietary research**
- Create **non-dues revenue streams**
- **Attract new audiences** — media, public, etc
- **Showcase industry leadership**
- **Share timely, valuable insights**

<https://www.numberanalytics.com/blog/10-surprising-statistics-modern-data-visualization-trends>



Common data tools

sandstorm®



Redesign in Action: Deloitte Insights' ConsumerSignals

- **Static data** with limited interactivity
- **Lacks context** for interpretation
- Unclear or **missing timeframes**
- **Outdated** or hard-to-read visuals

Deloitte.

Global State of the Consumer Tracker

As pandemic concerns gradually begin to ease, consumers confront new challenges in the form of inflation and geopolitical uncertainty. The Deloitte Consumer Industry center continues to collect data to better understand the shifts in the current consumer mindset and explore the potential implications for an ever-evolving post-pandemic world.

For more than two years, we've been exploring shifting priorities, financial well-being, share-of-wallet spending intentions, climate change attitudes and more. This exploration continues to prompt new questions, new data, and new insights.

Deloitte's Global State of the Consumer Tracker is an online panel survey fielded monthly across 23 countries. Monthly waves target approximately 1,000 adults (18 years and older) in each country. The country level approximate margin of error is +/-3%. Responses are weighted at the country level to mirror publicly available sources of age, gender and income distribution. India and South Africa are only weighted by age and gender. Response data from India and South Africa are likely to be over representative of urban, higher income populations.



Sentiment

Spending Intent

Consumer/Retail

Travel/Hospitality

Automotive

Tracking the consumer recovery

Country: United States ▾ Age: (All) ▾ Income: (All) ▾ Survey Date: 31 May 2022 ▾



Optimistic financial situation will improve within 3 yrs
57% ...more on spending



Concerned prices for everyday purchases are going up
84% ...more on CPG/retail



Plan to spend on leisure travel in the next 4 weeks
56% ...more on travel



Plan to buy a vehicle in the next 6 months
30% ...more on auto

Safety and financial sentiment

Country: United States ▾ Age: (All) ▾ Income: (All) ▾ Survey Date: 31 May 2022 ▾

I feel safe...

*Hover over each circle to see the longitudinal views

■ Safe ■ Unsafe/neutral



Going to the store



Going to a restaurant



Engaging with one-on-one services



Staying in a hotel



Taking a flight



Attending in-person events

I'm concerned about...

■ Concerned ■ Unconcerned/neutral

I am currently...

■ Agree ■ Disagree/neutral

We conducted in-depth user research to inform the new ConsumerSignals Dashboard

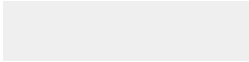
- ✓ Design-Thinking Workshops
- ✓ User Research
- ✓ Competitive Analysis
- ✓ User Personas
- ✓ User Journeys
- ✓ UX/UI Design
- ✓ Usability Study
- ✓ Accessibility Compliance



Overview of the Personas



The

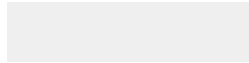


The [] is always **hunting for the next new, creative idea**. They are constantly **looking to the future and getting ahead of the competition** by changing the playing field.

The [] goes to Deloitte Insights to back themselves up when they are trying to convince The [].



The

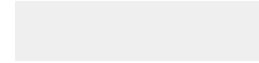


The [] is most concerned with **staying on top of high-level trends and keeping up with the competition**. They're not interested in rocking the boat, but instead **sticking with tried-and-true strategies** that are backed by solid research.

The [] turns to Deloitte Insights to access the latest information on compliance and industry best practices.



The



The [] is invested in **staying compliant and implementing best practices**. Not concerned with trends, their primary focus is **how to correctly execute tasks** associated with their daily work or **implement directives** passed down from senior leadership.

The [] goes to Deloitte Insights to understand the current landscape to ensure that what they're about the implement makes sense.



Persona 2

Anu is a 29-year-old in accounting who lives on her own in the city. She works from home in a room full of houseplants. Anu plays club volleyball on the weekends and is training for her fourth marathon.

Anu is a meticulous fact-checker and the one people on her team rely on to get things done. She pays close attention to new guidelines, standards, and rules so that she always stays within compliance. Anu often conducts deep and specific research, which she then summarizes for her team.

A good day for Anu is one where she can check ten things off her to-do list. She values evidence, facts, and concrete benchmarks against which she can update her tasks and processes. She always looks for places to streamline and organize. In short, Anu dives into the details to ensure she and her team are efficient.





The

GOALS & EXPECTATIONS

Review the data and its sources to be sure it is trustworthy

Expects content to be relevant, detailed, and specific

Case studies, facts, and data to backup ideas with leadership

Identify/Gain Awareness

Research

Strategize

Align

GOALS

Finds out changes for the upcoming tax year and how to make them actionable for her company

Identifies changes that will have a positive impact

Compiles changes and strategizes the implementation for a streamlined, standardized effort with her peers

Conducts meeting with her peers to go over the changes she has discovered

THINKING & SAYING

“What’s new in my emails today?”

“Where should I note all these changes and where do I save this for everyone to access?”

“I think this could really resonate with my team.”

“What is the competition doing and how are they responding to changes in the market?”

FEELING

Composed, nervous, unsure

Upbeat, focused, frustrated

Cautious, driven, tired

Confident, optimistic, prepared

DELOITTE INSIGHTS

Read newsletters and including Deloitte Insights as well as Google Alerts

NEUTRAL

Gov- and industry-specific websites; Google searches

Collect content to create comprehensive overview

Collect images, graphics and charts

View webinars and webcasts

Update and share documentation

Create topics alerts

OTHER RESOURCES

TOUCHPOINTS

✉ G Forbes

🐦 G 📄

in reddit

in 🐦 📄

Forbes G

🐦 ✉ in

📄 📱 G

OPPORTUNITIES & IDEAS

- Weekly email updates
- Breakdown of the industry and the competition

- Ensure search is dynamic and filterable
- Create a topic and industry menu
- Highlight the source of the content to build reputation and trust
- Industry webinars - to hear first hand from leaders about the industry

- A place to brainstorm and have thought-provoking conversations
- Ideas for brainstorming workshops
- Forecasting data models

- Case studies, graphs, and fact-heavy content about current state of the industry
- Report and presentation templates
- Comparison charts

Confidential: Sandstorm®

th tech N... | VentureBeat

NBA news, sc...acher Report

NBA - SBNation.com

Google News

Engadget

Gizmodo | We ...m the future

GeekWire - Br...y & Business

iDownloadBlo...

iOS - Mac

Quartz - Glob...and Insights

Polygon

Al Arabiya En...

| Home Page

Our Wo

sability @ Tue Jan 24, 2023 10:30pm - 11:30...

Google Calendar - Week of January 22, 2023

Post Attendee - Zoom

figma.com

Consumer Center

SECTORS

BLOG

RESEARCH CENTERS

US-EN

SIGN UP

SIGN IN

UPDATED DECEMBER 16, 2022

Global state of the consumer tracker

Deloitte's online monthly panel surveys consumers across 24 countries, targeting 1,000 adults per country (18 years and older).

Global Financial Wellbeing Index

Consumer perception of personal financial wellbeing (12-items presented as an indexed score)

100

90

80

70

60

50

40

30

France

Global

Canada

+ Refine Data

4 in 10

Consumers feel their financial situation worsened over the past year

1 in 3

Optimistic that their situation will improve next year

Alma Meshes

Deloitte.

Insights



7 Key UX Insights That Drove the Experience





Insight 1

Real-time insights with context matter



Presenting timely insights

sandstorm®

Show the most recent update date

Add a short summary or intro to orient users

Highlight key takeaways at the top

The screenshot shows the Deloitte Insights ConsumerSignals page. A green bar at the top contains the Deloitte Insights logo, navigation links (SPOTLIGHT, TOPICS, MORE), a search icon, and a 'FOR YOU' dropdown. Below this, a red 'UPDATED' badge and 'MARCH 2025' are highlighted. The main heading 'ConsumerSignals' is followed by a paragraph explaining the platform's purpose. A callout box on the right highlights the 'Global financial well-being' index at 102.4, with a summary of its recent decline. At the bottom, a grid of four sections is shown: 'Financial well-being', 'Spending intent', 'Retail & consumer products', and 'Travel & hospitality', each with a brief summary and an 'Explore' link. The 'Automotive' section is partially visible on the right.

Deloitte
Insights

SPOTLIGHT TOPICS MORE

UPDATED MARCH 2025

ConsumerSignals

ConsumerSignals is a longitudinal exploration of consumer spending behavior and the drivers behind it. Every month, we survey thousands of consumers across more than a dozen countries about their sense of financial well-being, spending intentions, and upcoming purchases big and small—from their next trip to the grocery store to upcoming vacations, next vehicle purchase, and more.

Now in its fourth year, ConsumerSignals provides a view into consumers' everyday finances and the spending strategies being used to navigate an unpredictable world. We invite you to explore our interactive data dashboard, collection of proprietary consumer indices, and deep-dive articles. **1**

Global financial well-being
102.4
The global financial well-being index decreased to 102.4 in February, down from 103.1 last month, and down from 103.0 a year ago.

FINANCIAL AND SPENDING SENTIMENT

Financial well-being
Financial well-being sentiment continues to recover from 2022 lows. But the recovery's pace is losing momentum.
[Explore financial well-being](#)

Spending intent
The recovery in financial sentiment has yet to translate to stronger discretionary spending intentions so far in 2024.
[Explore spending intent](#)

JUMP TO SECTOR INSIGHTS

Retail & consumer products
The percentage of respondents engaging in cost-saving behaviors at grocery stores remains in flux as many across the globe acclimate to a jump in food prices.
[Explore retail & consumer products](#)

Travel & hospitality
While a run of strong leisure travel intent shows signs of easing, many continue to prioritize leisure travel ahead of other discretionary categories.
[Explore travel & hospitality](#)

Automotive
Global vehicle purchase intent shows mixed signals across key markets.
[Explore automotive](#)

Presenting timely insights

sandstorm®

Provide in-context ways
to explore deeper details

Use tooltips to explain
research methods and
data sources

The screenshot displays the Deloitte Insights ConsumerSignals website. The header includes the Deloitte Insights logo, navigation links for SPOTLIGHT, TOPICS, and MORE, a search icon, and a 'FOR YOU' dropdown. A red 'UPDATED' badge with the date 'MARCH 2025' is visible. The main section is titled 'ConsumerSignals' and includes a paragraph about the longitudinal exploration of consumer spending behavior. A 'Learn More' button is present. To the right, a box highlights 'Global financial well-being' with a value of '102.4' and a brief description of the index's recent decline. Below this, there are sections for 'Financial well-being' and 'Spending intent', each with a brief description and a 'Learn More' button. A 'Travel & hospitality' section is also visible. A tooltip is overlaid on the 'Learn More' button for the 'Spending intent' section, providing detailed information about the research methodology, including the online consumer panel, sample size (N=1,000), age range (18+), and the weighting of data by country and income level. The tooltip also mentions that the data represents higher-income consumers compared to national income distributions and that soft quotas and weighting are used to hold sample income distributions consistent with the wave.

Deloitte
Insights

SPOTLIGHT TOPICS MORE

UPDATED MARCH 2025

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[Explore travel & hospitality](#)

Automotive
Global vehicle purchase intent shows mixed signals across key markets.
[Explore automotive](#)

Financial well-being
Deloitte's financial well-being index (FWBI) captures changes in how consumers perceive their current financial health and future financial security. Unlike consumer surveys that often focus on consumer opinion about economic conditions (e.g., health of the economy, confidence in the government, etc.), the FWBI is based on consumers' own assessment of their financial well-being.

Learn More

Research methodology

- Online consumer panel
- N=1,000 consumers per country each wave, adults age 18+
- Country margin of error ±3% (does not apply to averages of two or more study countries)
- Response data for Australia, Canada, France, Germany, Italy, Japan, Netherlands, South Korea, Spain, United Kingdom, and the United States are weighted at the country level according to publicly available age and income profiles
- Response data for Brazil, China, India, Mexico, and South Africa, are not weighted by income. Data represents higher-income consumers compared to national income distributions. Soft quotas and weighting are used to hold sample income distributions consistent with the wave





Insight 2

Curated, Personalized Content is Key



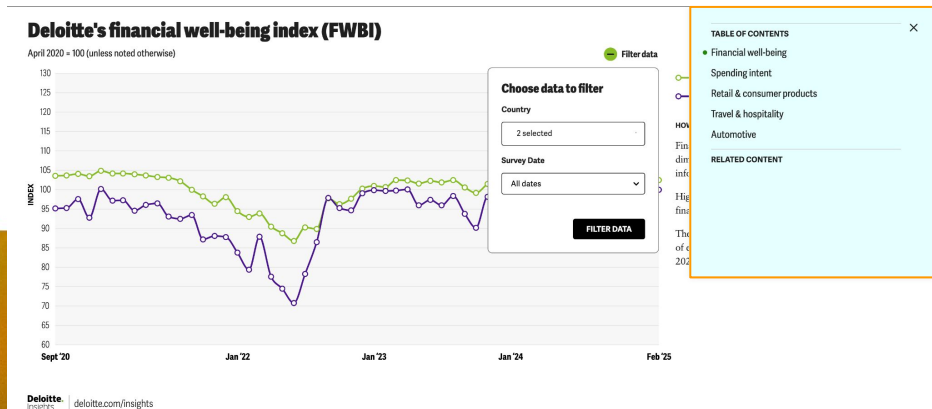
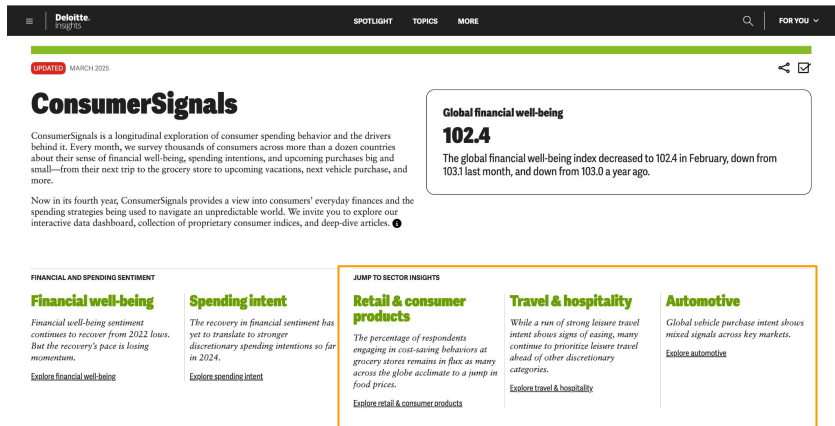
Curated content based on industry

sandstorm®

Ability to access curated content by industry sector

Available at the top of the page

And through the table of contents





Insight 3

Raw data they can analyze themselves



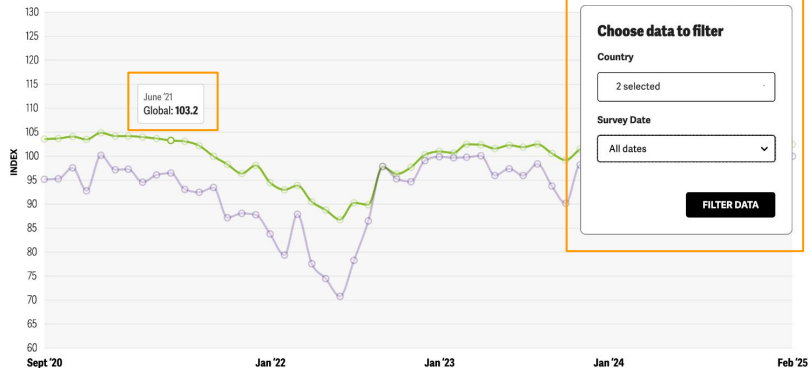
Interactivity to increase engagement sandstorm®

Data points are enhanced with hover states

Ability to manipulate data by filtering

Deloitte's financial well-being index (FWBI)

April 2020 = 100 (unless noted otherwise)



Deloitte. insights | deloitte.com/insights

KEY TAKEAWAYS

The global financial well-being index decreased to 102.4 in February, down from 103.1 last month, and down from 103.0 a year ago.

DIVE DEEPER

Global financial well-being: A robust recovery losing momentum

ARTICLE • 8-MIN READ

Supporting deeper exploration

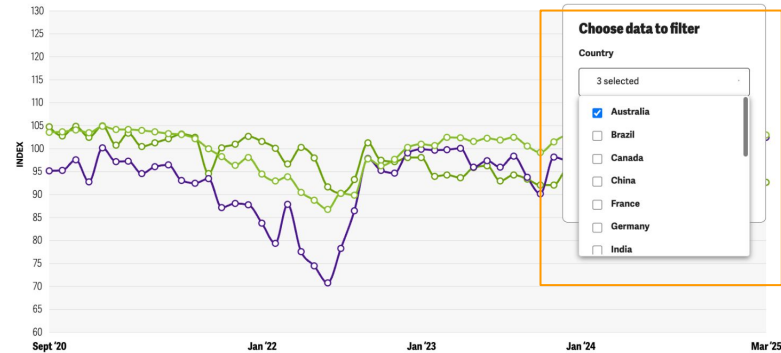
sandstorm®

Allowed for additional filter capabilities

Shared related content to allow users to dig deeper

Deloitte's financial well-being index (FWBI)

April 2020 = 100 (unless noted otherwise)



Deloitte Insights | deloitte.com/insights

KEY TAKEAWAYS

The global financial well-being index increased to 102.9 in March, up from 102.4 last month, and no change from a year ago.

Note: Our most recent survey was fielded before the reciprocal tariff news came out.

DIVE DEEPER

Global financial well-being: A robust recovery losing momentum

ARTICLE • 8-MIN READ

Consumers navigate financial ups and downs

ARTICLE • 4-MIN READ

TABLE OF CONTENTS



Insight 4

Seek tactical, actionable content that can be easily used in reports and shared



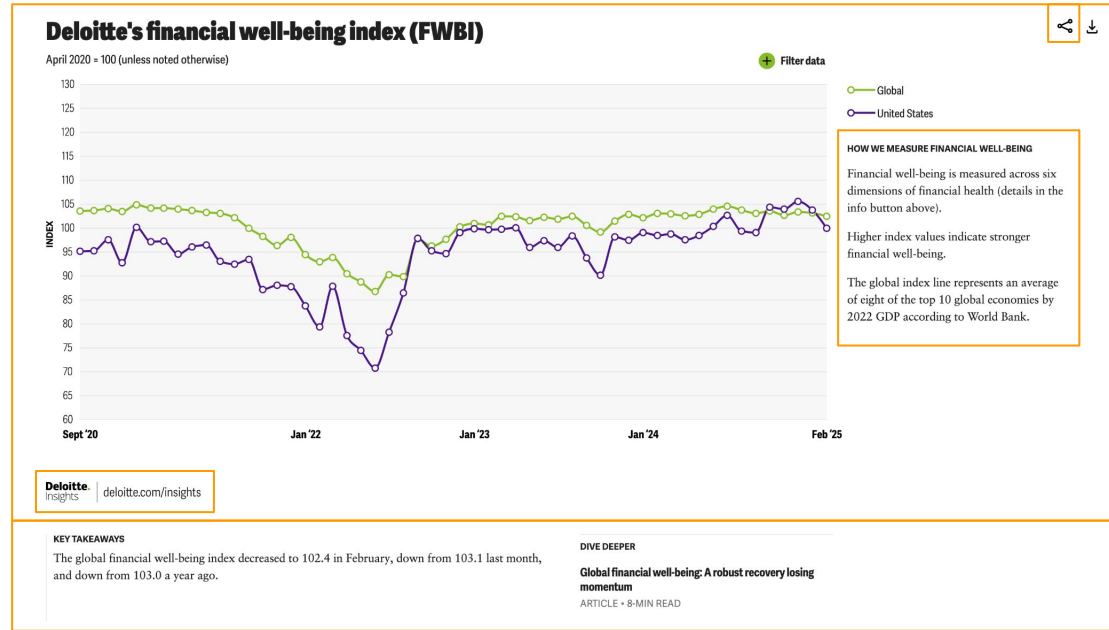
Making content easy to share

sandstorm®

Graphs are branded for and designed in a format for presentations

Methodology and the key are presented together

Ability to share each chart





Insight 5

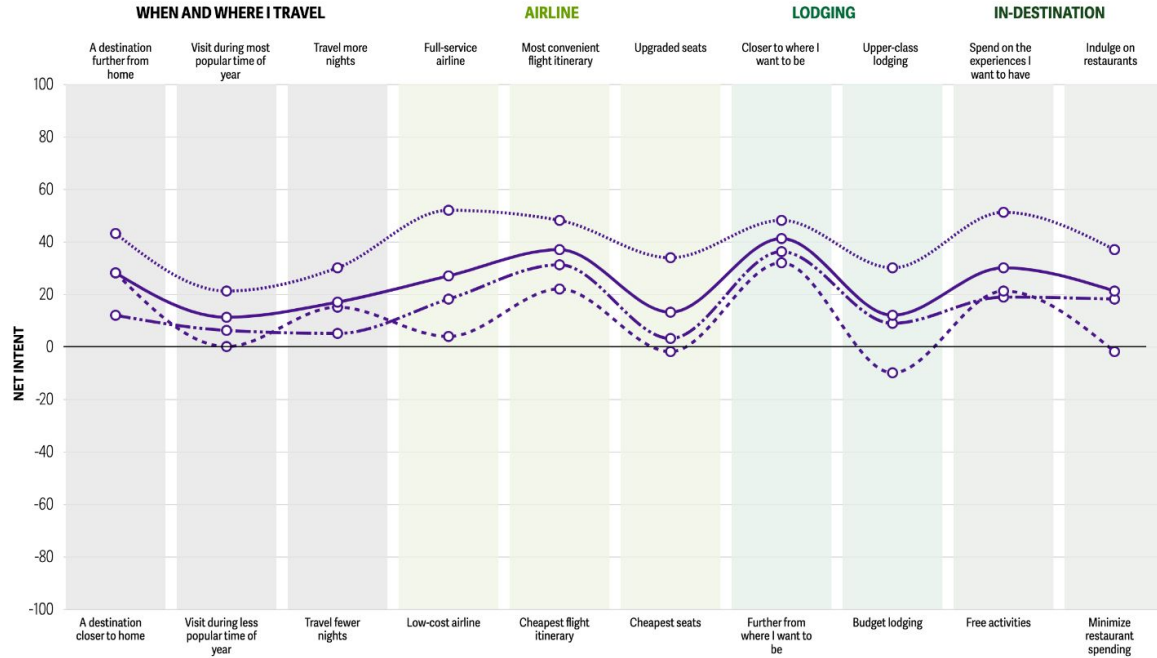
Choose the Right Visual, Tell a Better Story



Travel planning (net intent)

Which statements best describe how you're thinking about your next leisure trip? (among survey respondents planning to travel for leisure within the next three months) ⓘ

+ Filter data



United States

..... High

--- Med

--- Low

— Total

Age: All

Source: Deloitte Travel Survey

METHODOLOGY NOTE

Net intent represents the percentage of survey respondents that selected the more expensive trip option (top row) minus the less expensive trip option (bottom row).

Deloitte Insights | deloitte.com/insights

Splurge purchases

Insight into where consumers are splurging, how much they're spending, and what's driving it

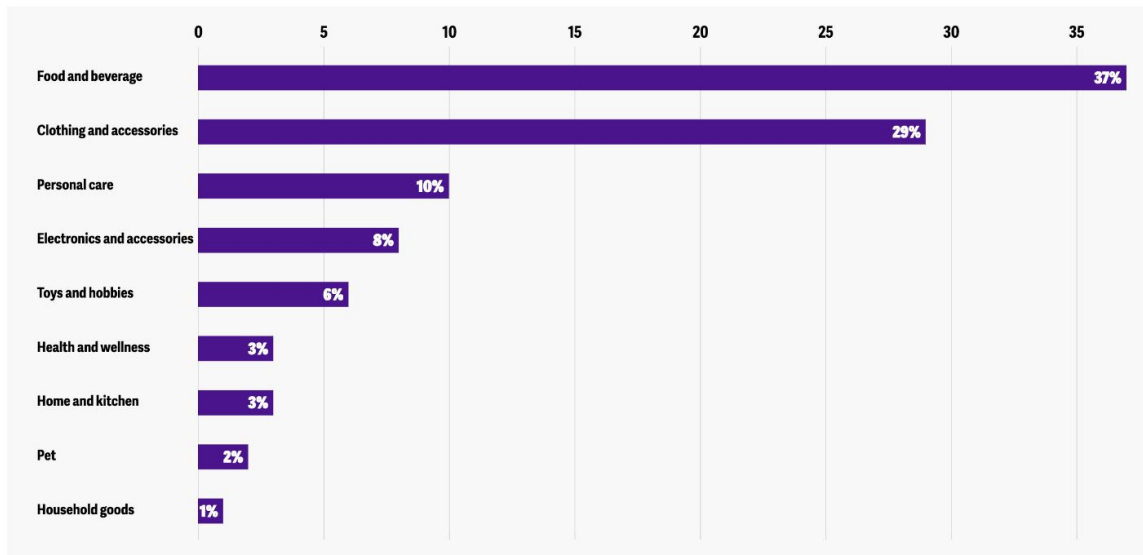
KEY TAKEAWAYS

69% of US respondents in March made at least one splurge purchase to treat themselves, down from 70% from last month, and down from 82% a year ago.

US\$50

Median amount of last splurge purchase

+ Filter data



United States

Age: All

Income: All

METHODOLOGY NOTE

Data shown represents the percentage of survey respondents who made their last splurge purchase in a particular category (rolling two months).

Deloitte insights | deloitte.com/insights

Food frugality behaviors

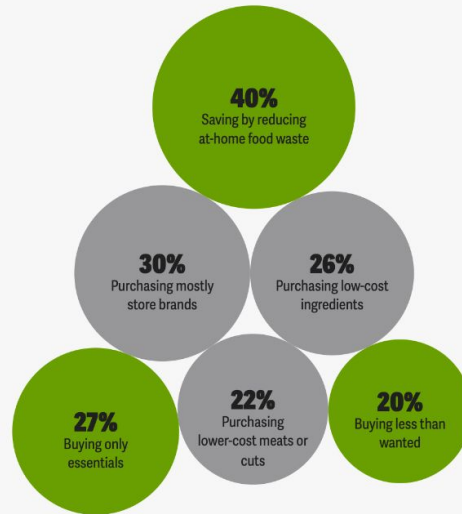


Explore the cost-saving behaviors that comprise Deloitte's FFI

KEY TAKEAWAYS

Globally, saving by reducing at-home food waste and only buying essentials are among the two most popular ways consumers continue to navigate higher food prices.

Filter data



United States

Age: All

Income: All

Survey date: March 2025

Economize

Trade-off

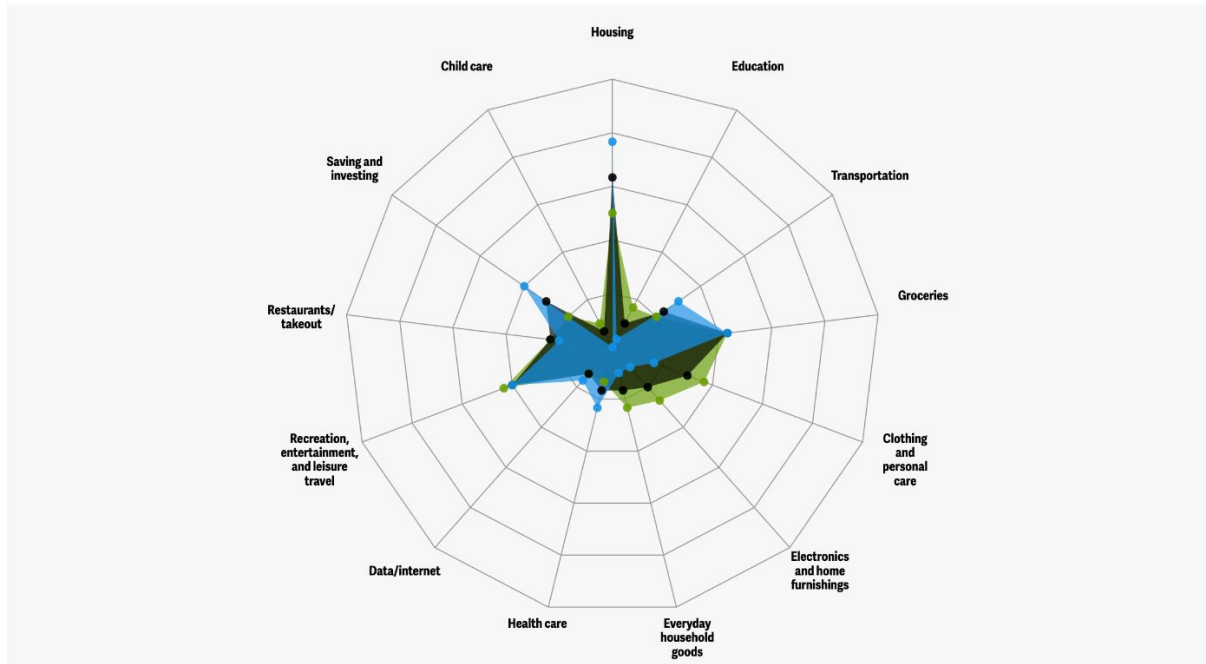
Deloitte. | deloitte.com/insights



Share of wallet

Estimated monthly spending amount ⓘ

+ Filter data



United States

Age: All

Demographic: Age

18-34

35-54

55 and over

METHODOLOGY NOTE

Child care category added in March 2022.

Deloitte insights | deloitte.com/insights

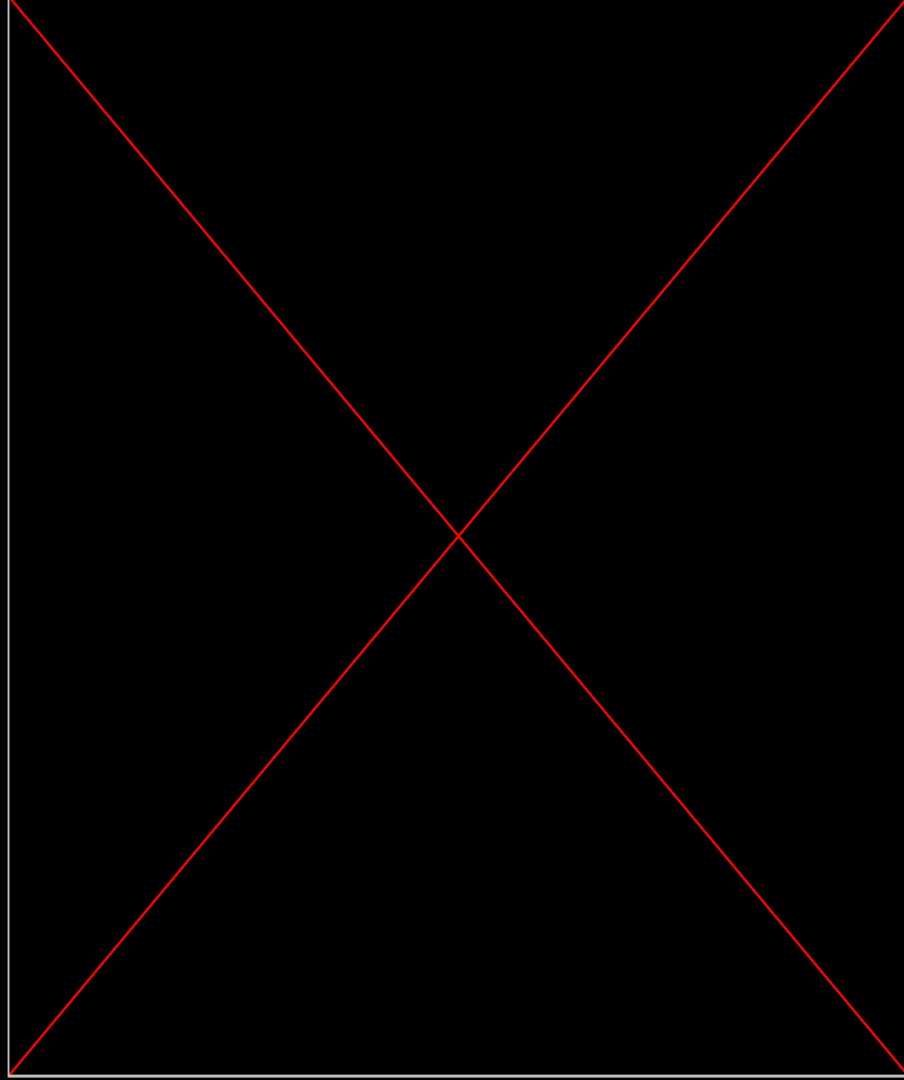




Insight 6

Mobile Experience is Secondary for In-Depth Research







Insight 7

Accessibility is still key



Accessibility as a Design Imperative

WCAG 2.1 standards
influenced color, contrast,
and interactivity

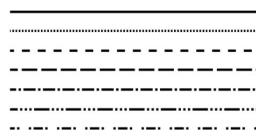
Corporate line styles +
markers to differentiate
data

Chart Styles

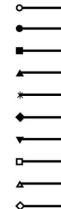
Australia
Belgium
Brazil
Canada
China
Denmark
France
Germany
India
Ireland
Italy
Japan
Mexico
Netherlands
Norway
Poland
Republic of Korea
Saudi Arabia
South Africa
Spain
Sweden
Switzerland
UAE
United Kingdom
United States



Line Styles



Marker Styles



✓ Proof of impact

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51% increase in traffic

170% more file downloads

22% reduced bounce rate

8x increase in scrolling through the dashboard



Marcom Awards
UX & UI Design



**Communications
Arts**
Interactive Media



Proof of impact

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AND
**ConsumerSignals is
the most visited page
on all of Deloitte properties**



FUTURE ENHANCEMENTS

Integrate AI

- AI-powered search with natural language query
- Insight summaries for non-technical users
- Chat-based guide to navigate data and understand terms
- Predictive analytics



TAKEAWAYS

Driving Member Value Through Better Data Visualization

- ✓ Personalization drives engagement
- ✓ Context build trust
- ✓ Design influences adoption
- ✓ Deeper exploration adds value
- ✓ Reinforces your authority in the industry



Email us to get the deck

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Laura Chaparro

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Complete Your Session Evaluation

