Sunny®

Social Connection in the Modern World:

Insights from the U.S. Census Household Pulse Survey

Authors

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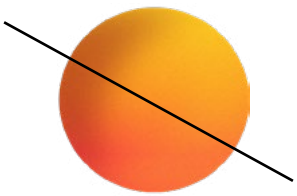


Introduction

About this report

At Sunny, we believe social connection is the foundation of a healthy and fulfilling life. In a world increasingly marked by disconnection, we are dedicated to countering this trend by empowering individuals, communities, and workplaces to foster more meaningful relationships. Our commitment to addressing the loneliness crisis starts with understanding it—and that's where data becomes our ally.

This report represents an unprecedented exploration of the current state of social connection in the United States, leveraging data from the U.S. Census Bureau's 2024 Household Pulse Survey. Sunny is excited to be among the first to share comprehensive social health insights from this incredible data set. Our findings highlight critical trends in loneliness, social support, and isolation—offering valuable insights and clear priorities for building a more connected world.

Why this data set is so remarkable

For decades, the role of social connection in human well-being has been well-known, but large-scale, timely data on its day-to-day implications has been scarce. The 2024 Household Pulse Survey (HPS) changes that, offering a window into how Americans are connecting—or struggling to connect—in our modern world shaped by rapid technological and societal changes.

The HPS is a monthly, 20-minute survey that has been completed by over a million US adults since April 2020. Its purpose is to collect data on critical social and economic matters affecting households post-COVID. Each month, a representative sample of over 60,000 US adults respond, and their submissions are then weighted to represent the entire US population, down to the level of states and large metro areas. (See Appendix for more on data methodology).

Beginning January 2024, seven key indicators of social connection were added to the survey:

- Feeling lonely
- Receiving social and emotional support
- Talking on the telephone with family/friends/neighbors
- Texting/messaging with family/friends/neighbors
- Getting together in-person with friends/relatives
- Attending church/religious services
- Attending meetings of clubs/organizations

This article shares the insights from these questions for various demographic sub-groupings, including age, sex, income, and remote working frequency. These additional measures allow us to shed new light on the pressing question: **What is the state of social connection in the U.S., and how can we improve it?**

Which demographic groups are loneliest and most lacking in support?

Responses to survey questions #1, "How often do you feel lonely?" and #2, "How often do you get the social and emotional support you need?" serve as our social connection outcomes in this section.

Younger and low-income groups experience the most frequent levels of loneliness.

In keeping with trends highlighting the mental health challenges of young adults, we see that younger populations struggle most with loneliness. Those with lower income are similarly affected.

More than **40%** of Americans reported feeling lonely sometimes, usually, or always. This rises to **~60%** for those **aged 18-29** and those earning **<$25K annually**.

Larger bars represent worse social outcomes on all charts. Blue bars include data from red bars.

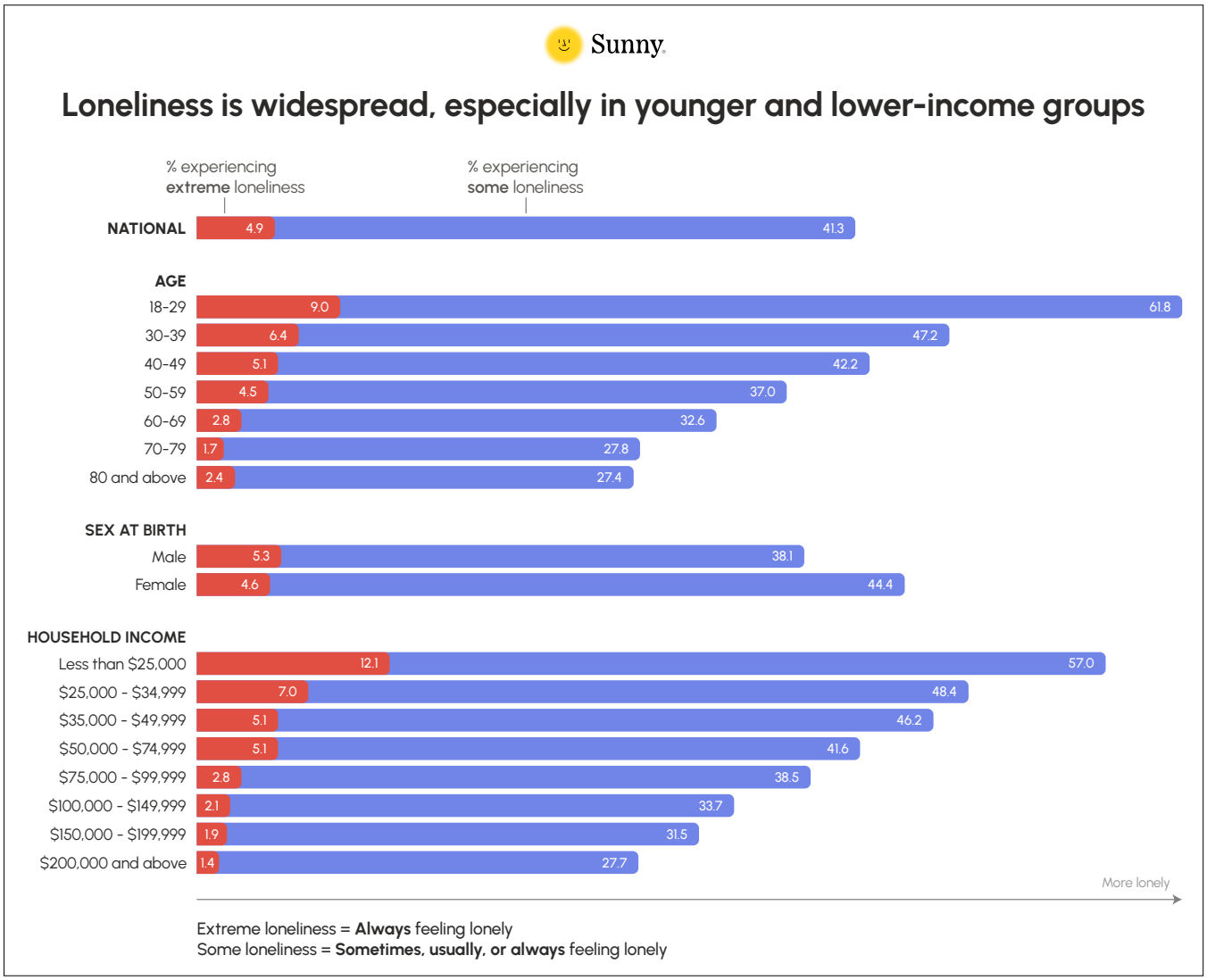


Figure 1. Feelings of loneliness (sometimes/often/always) and extreme loneliness (always) by age, sex, and income

Middle-aged adults experience the highest levels of **extreme** lack of support.

40% of Americans reported lacking the social/emotional support they needed at least sometimes. This rises to **~50%** of those earning **<25K annually** and those **aged 18-29**. While young people struggle most with lack of support, those **aged 40-60** struggle most with ***extreme*** lack of support (never receiving the support they need). This mid-life period often brings demands from work, children, and aging parents simultaneously.

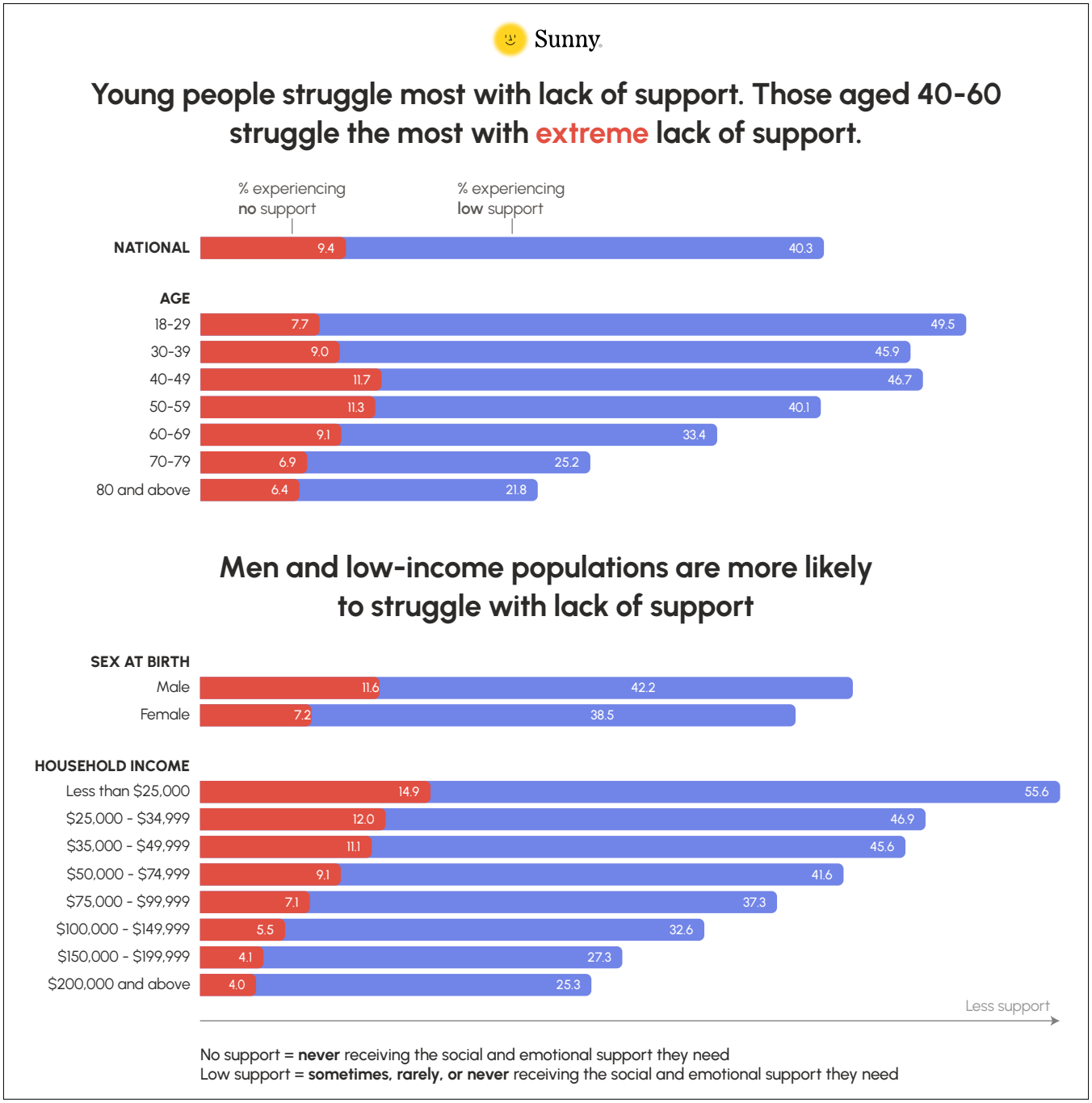


Figure 2. Low (sometimes/rarely/never gets) and no (never gets) social and emotional support by age, sex, and income.

Gender plays a role in loneliness vs. lack of support.

Though males tend to receive less social and emotional support, females report feeling lonelier overall. This contrast demonstrates how it's possible to have social and emotional support, but still be lonely (on average, the trend in females) or to lack social and emotional support, but not be lonely (on average, the trend in males).

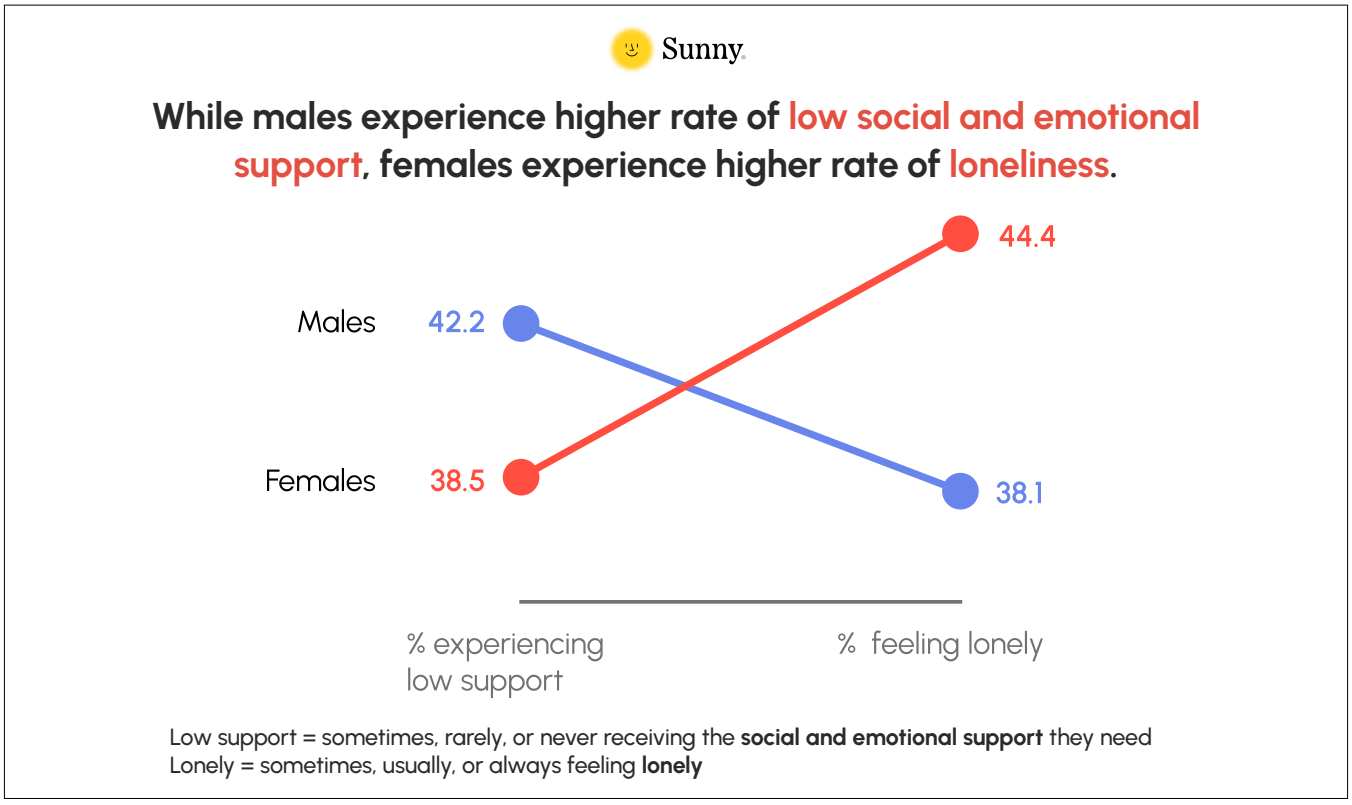


Figure 3. Males versus females in feelings of loneliness versus low social/emotional support.

> It's possible to have social and emotional support, but still be lonely.

Which groups experience the highest levels of extreme isolation?

We defined a third social connection outcome, "extreme isolation," as those who neither talked on the phone with family/friends/neighbors nor got together with friends/relatives even once a week. This response pattern indicates that in a typical week, while participants may have texted, they didn't gather in person or have a social phone call.

Loneliness ≠ Isolation.

Overall, **about 12%** of Americans are in extreme isolation. Notably:

- While the youngest adults experience the most loneliness (Fig. 1), they are not the most isolated, which demonstrates how social contact alone is insufficient to protect against loneliness.
- Echoing the trend of extreme low social support in midlife (Fig. 2), those in their **30s and 40s** also experience extreme isolation more than other ages.
- By income, almost **17%** of those earning **<$25K annually** are extremely isolated versus 10% for those earning >$200K.

12%

of Americans are in extreme isolation

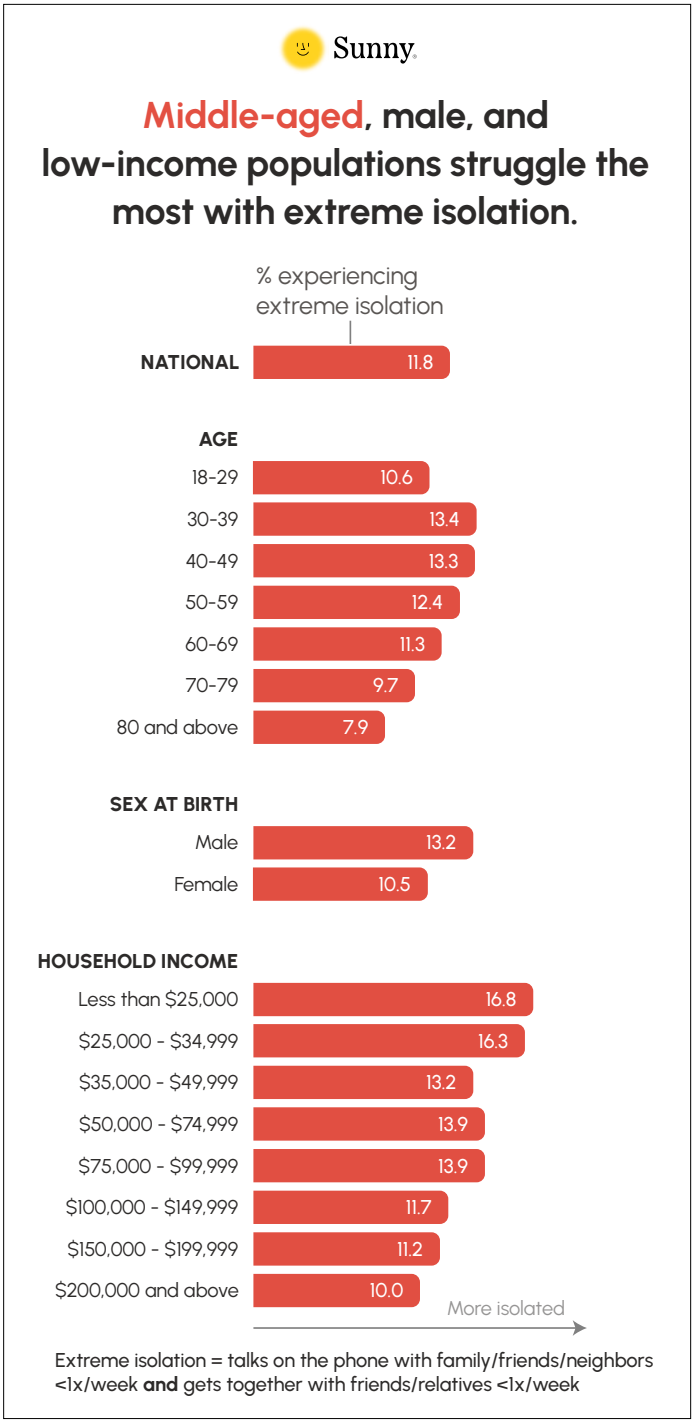


Figure 4. Extreme isolation (talks on the phone <1x/week and gets together <1x/week) by age, gender, income.

3. DIFFERENCES IN SOCIAL BEHAVIORS BY GROUP

How do different demographic groups vary in social behaviors?

The Household Pulse Survey provides valuable insight into the frequency of five specific social behaviors:

- Texting or messaging family/friends/neighbors
- Talking on the phone with family/friends/neighbors
- Getting together with friends/relatives
- Attending meetings of clubs/organizations
- Attending church/religious services

We analyzed the frequency of these social behaviors and then used them as "predictors" for social outcomes of loneliness and social support.

nearly

20%

of people don't have a single phone call with family/friends/neighbors in a typical week.

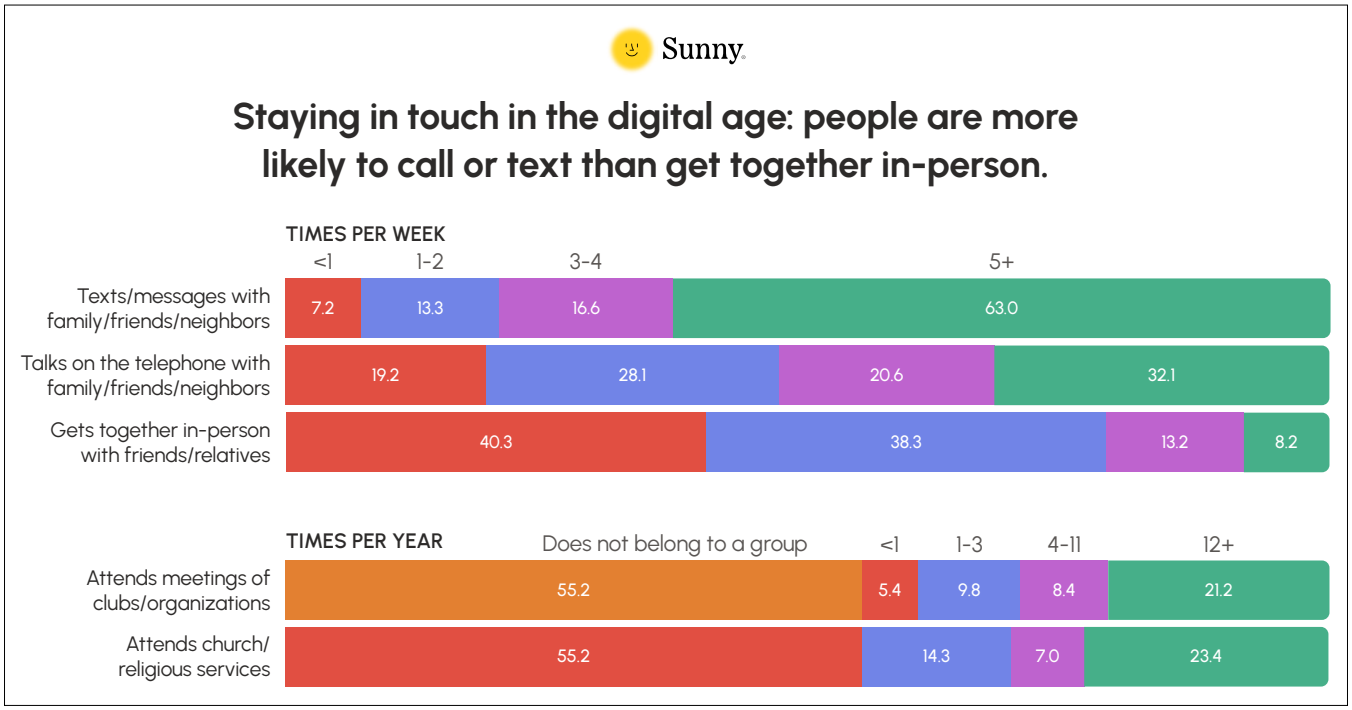
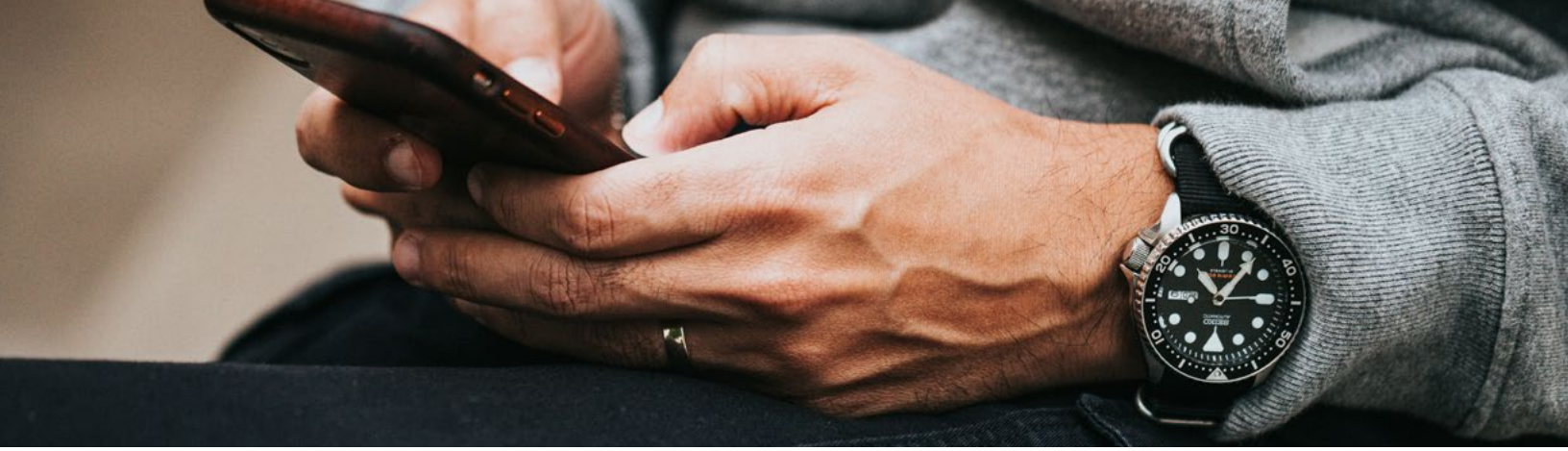


Figure 5. National frequency of social behaviors.



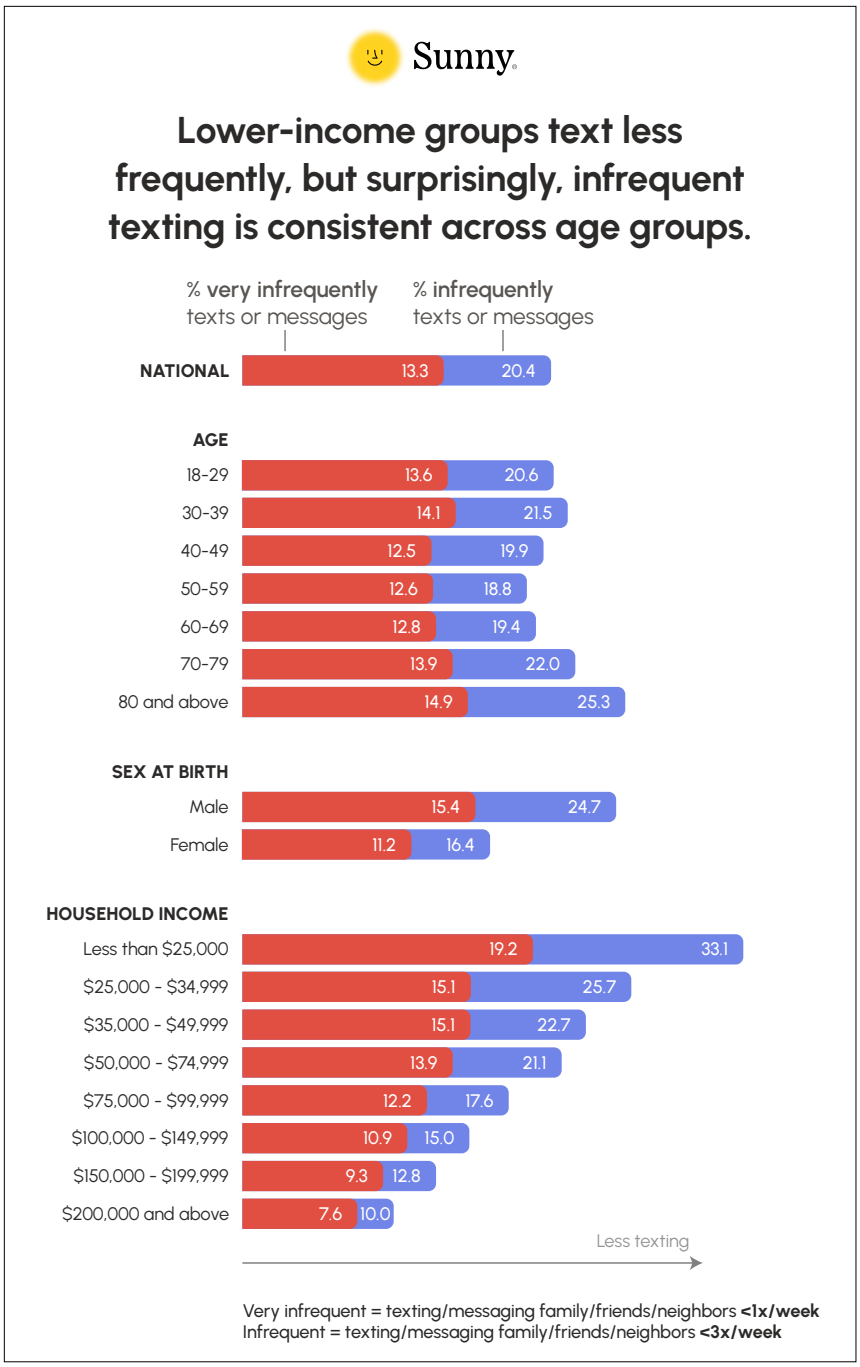


Figure 6. Infrequent (<3x/week) and very infrequent (<1x/week) texting or messaging family/friends/neighbors by age, sex, income.

Lower-income groups text less frequently, regardless of age.

Lower income is associated with less frequent text messaging, but surprisingly, **infrequent texting does not vary considerably by age**—the percentage of people texting less than 3 times/week is consistent from people in their 20s to those in their 80s.

In fact, just going from fewer than 1 call, text, or get-together per week to at least 1-2 per week is associated with reductions in extreme loneliness by over 50%.

The nuances of phone calls vs. texting across income and age groups.

Nearly **20%** of people don't have a single phone call with family/friends/neighbors in a typical week. Unlike texting, there is little variation by income group.

Notably, there's no strong relationship between income and making phone calls, yet there's a strong pattern where **texting behavior increases with increasing income** (infrequent texting is about 3-fold higher in the lowest versus highest income groups—see Figure 6).

In contrast, increasing **older age is predictive of making more phone calls**, but not for texting.

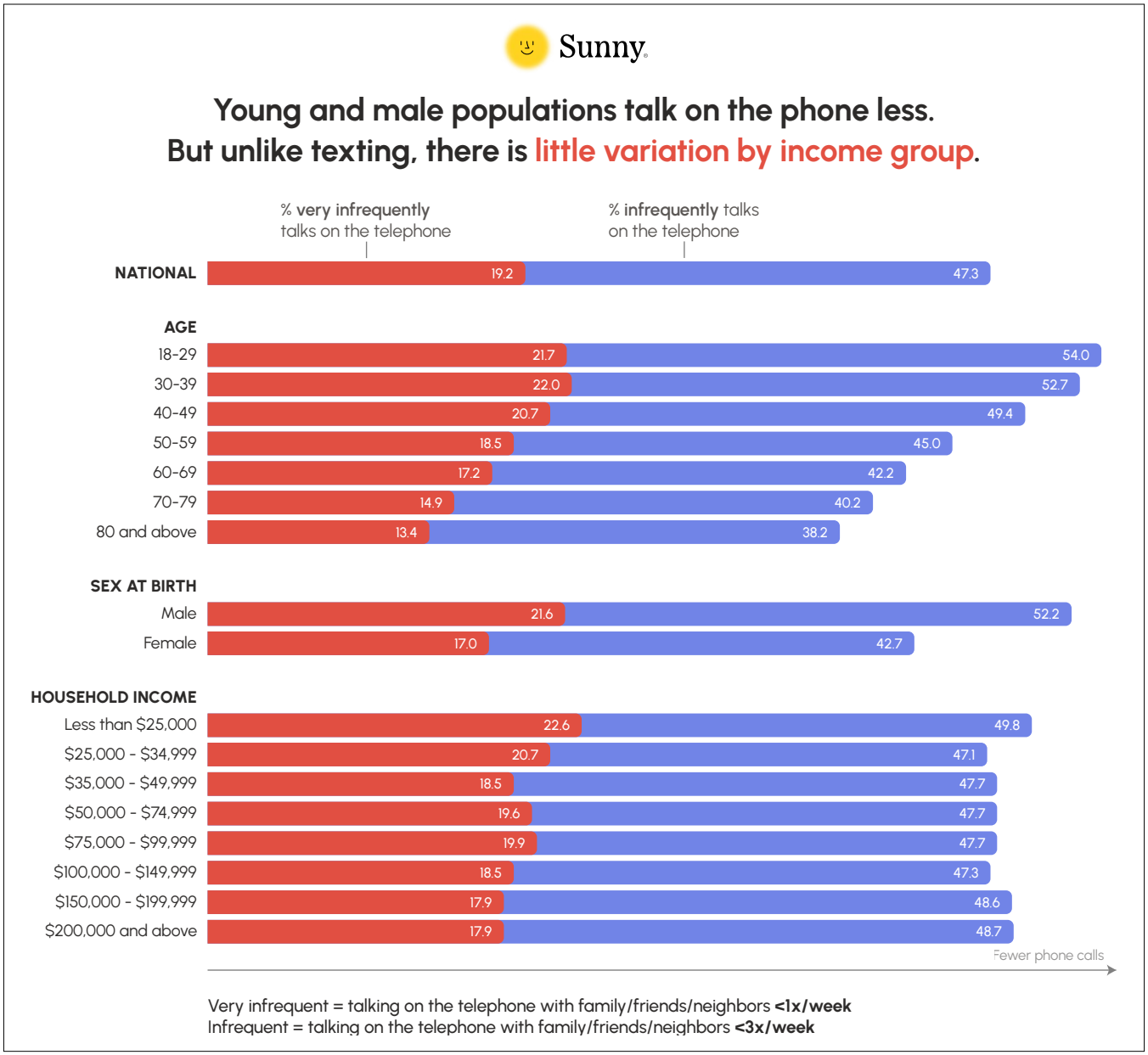


Figure 7. Infrequent (<3x/week) and very infrequent (<1x/week) talking on the phone with family/friends/neighbors by age and sex.

Frequency of gathering based on age: a mid-life slump?

Nearly **40%** of Americans don't get together with friends/relatives in a typical week. Those aged **30-59** are least likely to get together and those **80+** gather the most often.

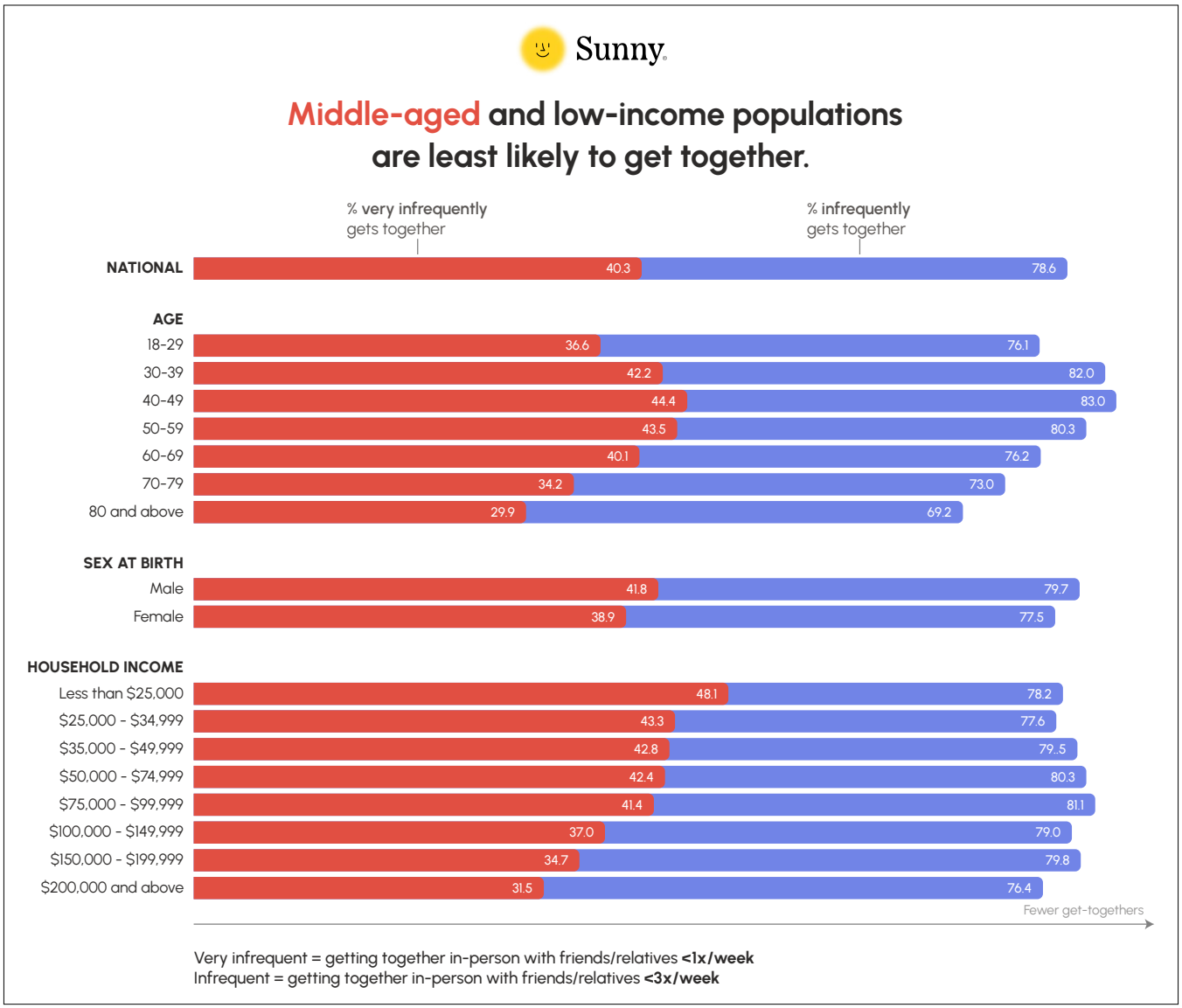


Figure 8. Infrequent (<3x/week) and very infrequent (<1x/week) getting together with friends/relatives by age, sex, and income.

How important is frequent social interaction with friends and family for fostering social connection?

More phone calls with friends, family, and neighbors are associated with better social-emotional support and less loneliness.

Across the board, we see a predictable pattern where those who engage the least with their friends, family, and community experience the most loneliness.

In fact, just going from fewer than 1 call, text, or get-together per week to at least 1-2 per week is associated with reductions in extreme loneliness by over 50%. It's these small shifts in social behavior that can represent a profound difference in loneliness outcomes.

Lower frequency of all social behaviors are each associated with greater feelings of loneliness

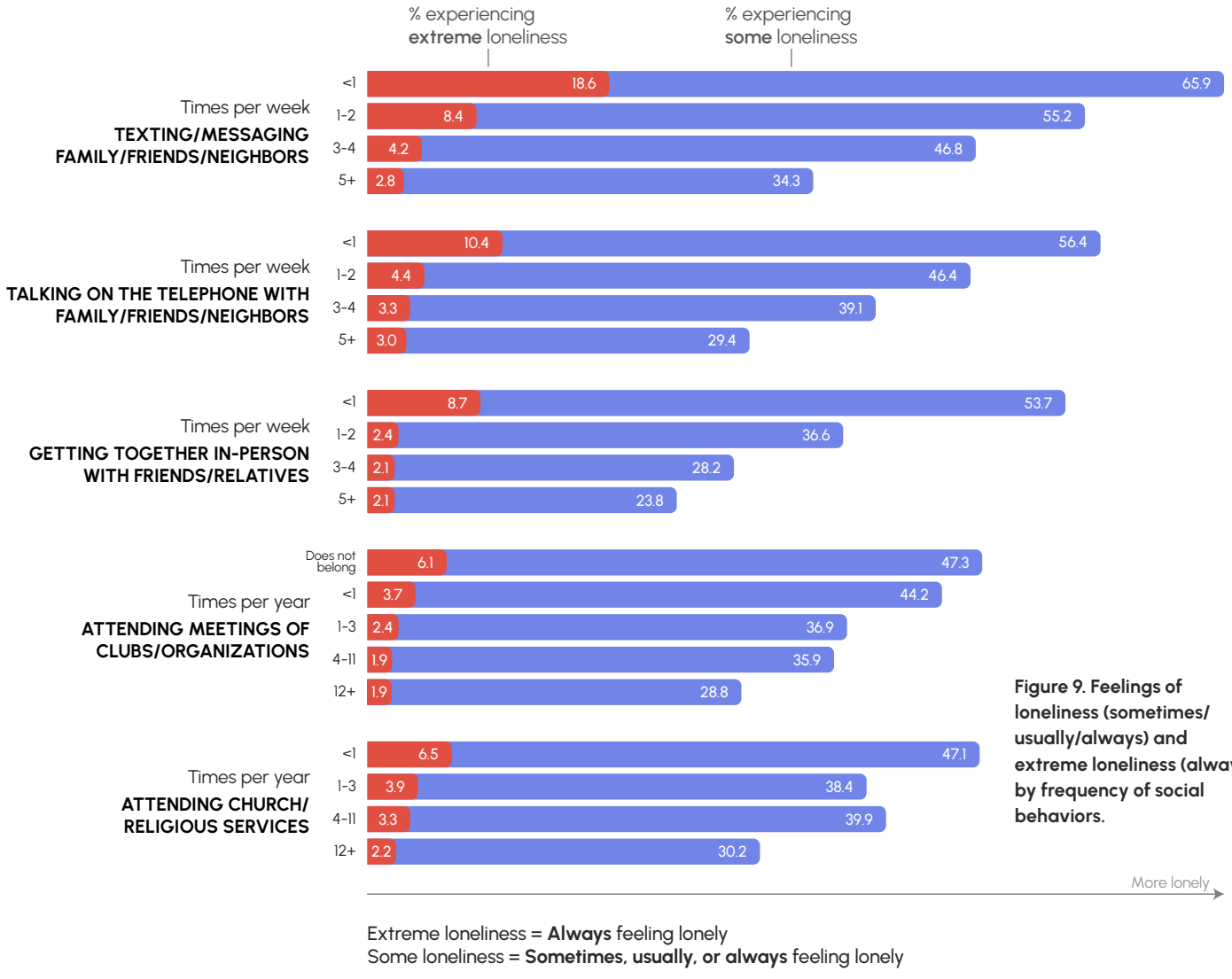


Figure 9. Feelings of loneliness (sometimes/ usually/always) and extreme loneliness (always) by frequency of social behaviors.

Too many gatherings can present diminishing returns. The sweet spot for maximum well-being appears to be 3-4 get-togethers per week.

Lower frequency of texting, talking on the phone, and club meetings are associated with lack of social support.

But, interestingly, those getting together >5x/week, compared to 3-4x/week, experience lower levels of support. This pattern is even stronger for those never receiving support.

We know that relationships can also represent some of the biggest stressors and sources of burden. It appears that some who get together more than 5 times in a week might be experiencing strained and depleting—rather than supportive and energizing—relationships. These people may be feeling stretched thin by relationships that ask too much from them.

Generally, less social contact is associated with less support. However, the highest frequencies of calling, getting together, and gathering in groups show an increase in extreme lack of support.

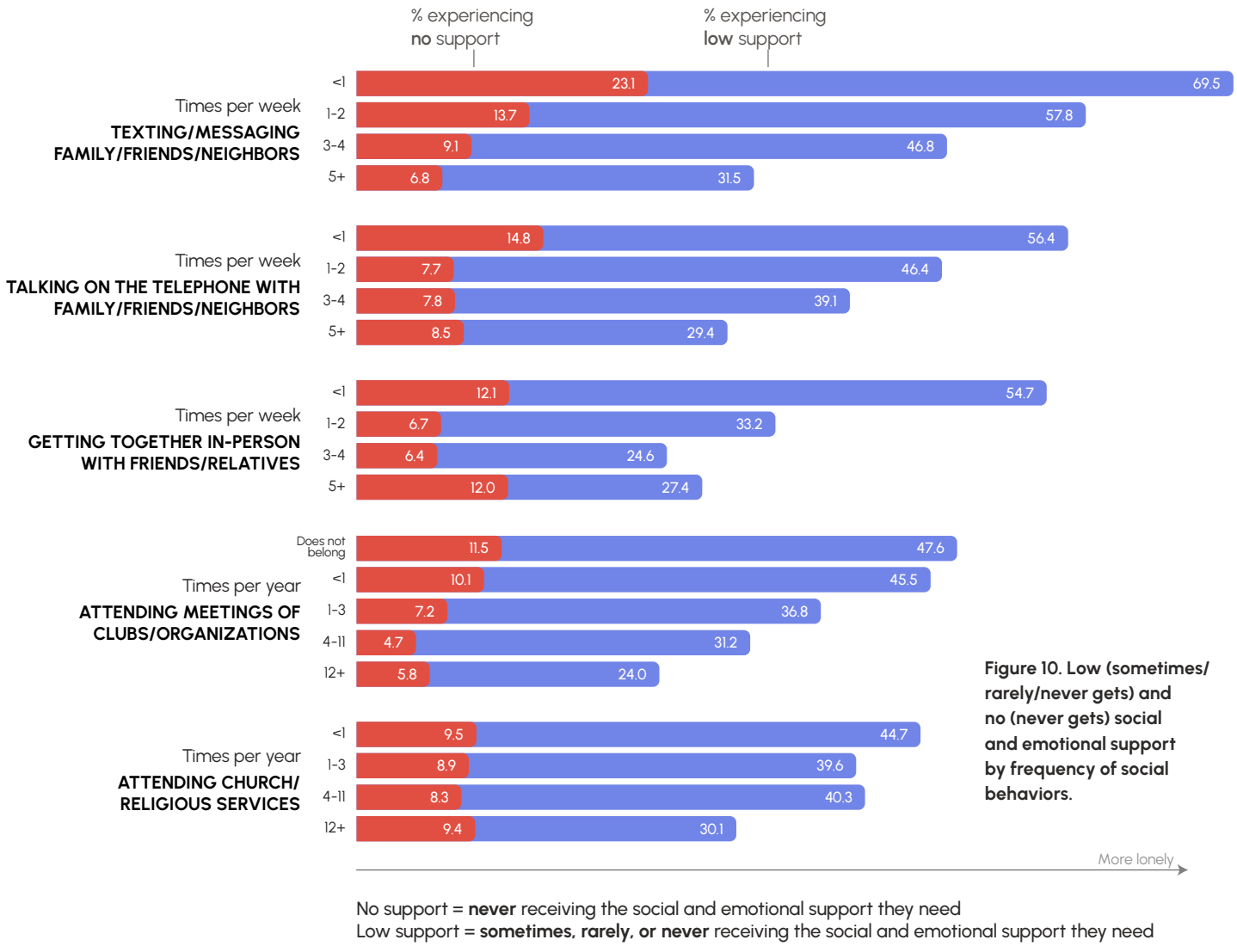


Figure 10. Low (sometimes/ rarely/never gets) and no (never gets) social and emotional support by frequency of social behaviors.

No support = **never** receiving the social and emotional support they need
Low support = **sometimes, rarely, or never** receiving the social and emotional support they need

5. WORKING ENVIRONMENT

What is the ideal remote working frequency for reduced loneliness, increased social support, and decreased isolation?

It's remarkable how little remote working frequency is correlated with social connection outcomes.

We explored whether frequency of remote working predicted social and emotional support. In some waves of survey data, it followed a U-shaped curve (best outcomes slightly favored 1-4 days/week working remotely). In others that pattern was not present.

Overall, despite the passionate debates about post-COVID work arrangements and return-to-office mandates, it's remarkable how little remote working frequency is correlated with social connection outcomes.

Note that data in this section is from 2024 and represents only those aged 25-65 who report working in the past week (the population that would be most likely to hold a typical job). See more on data limitations on page 21.

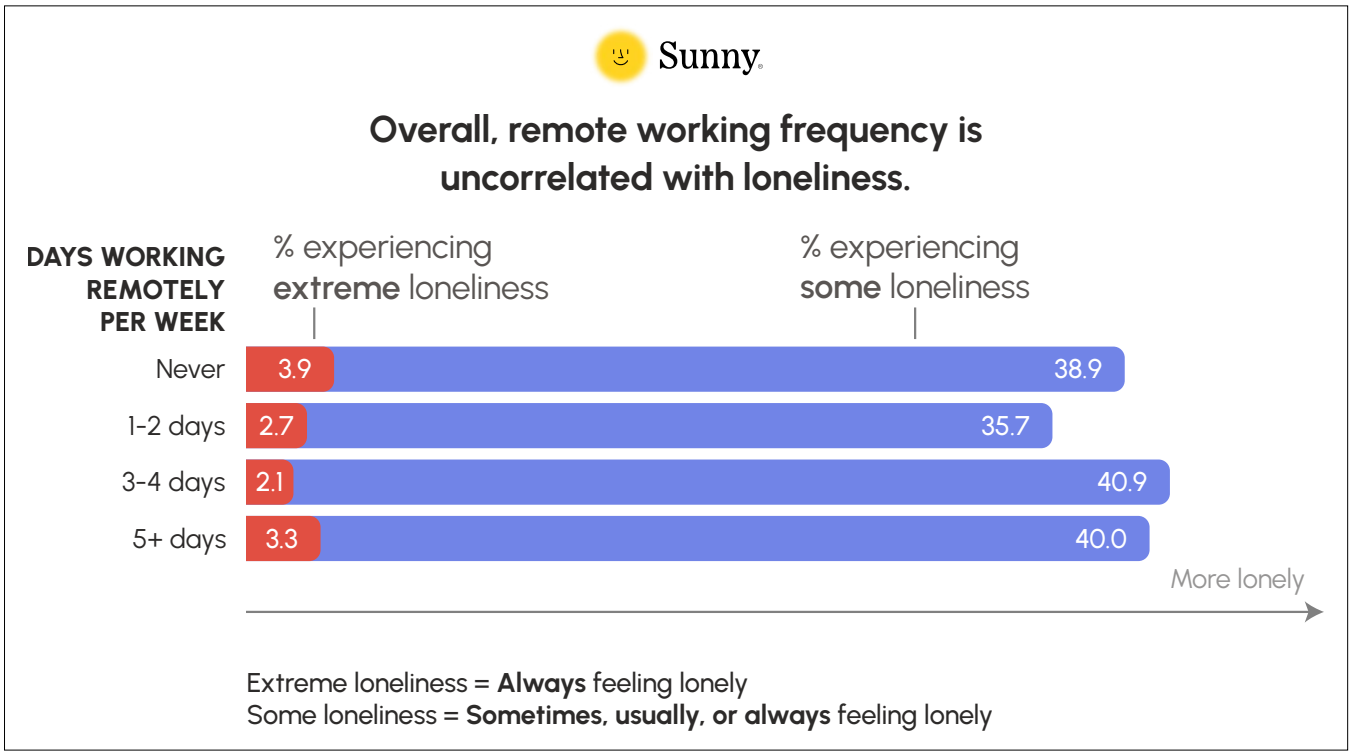


Figure 11. Extreme Isolation (calls <1x/week and gets together <1x/week) by teleworking frequency, in those aged 25-65 who were employed in the past week.

A hybrid work environment may be most effective at combating isolation.

Though there's little overall effect of remote working frequency on loneliness, we do see slightly **better social connection outcomes in those who work remotely 1-4 days/week over those who never work remotely or those who work remotely 5+ days/week.**

Fully remote and fully on-site workers experience slightly more **extreme isolation** than hybrid workers.

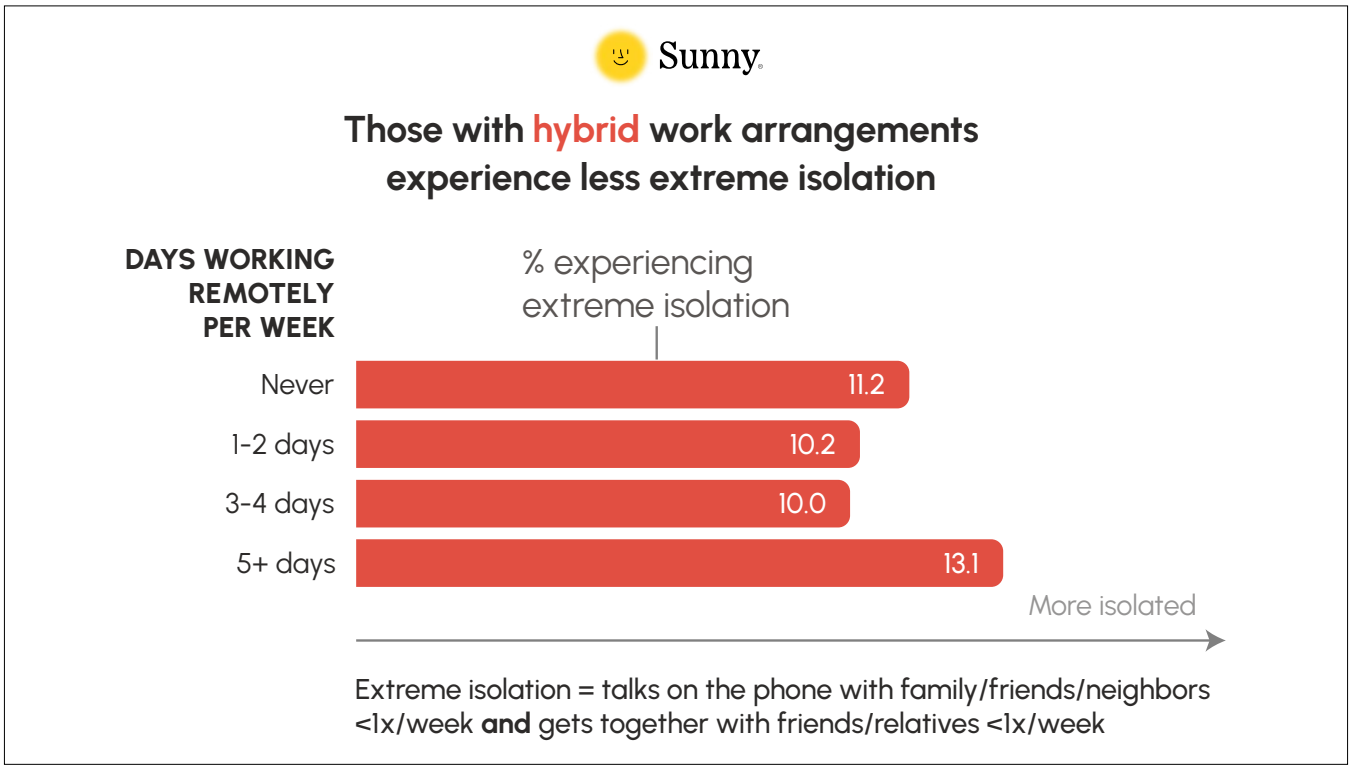


Figure 12. Extreme Isolation (calls <1x/week and gets together <1x/week) by remote working frequency, in those aged 25-65 who were employed in the past week.

Taken together, these findings slightly favor a moderate approach involving some (1-4 days) remote working each week rather than 0 or 5+ days, but the effect on the individual's personal social connection outcomes is so small that other outcomes important to individuals and their employers would better infuence the decision. **Ultimately, the social architecture that drives connection at work is much more complex than just where someone works.**

6. GEOGRAPHIC LOCATION

Does loneliness vary by geographic region?

Initial explorations of variation by geography revealed small and inconsistent effects.

Despite some earlier news articles and stereotypes that certain cities or regions are more connected than others, our analysis revealed no consistent signals. That is, the frequency of receiving social/emotional support (sometimes/usually/always) by large metropolitan areas was not consistent over 7 monthly survey cycles.

The variability in feelings of loneliness (sometimes/usually/always) by state was not consistent over 7 survey cycles.

The variability of extreme isolation by state also was not consistent between the first and last survey cycles.

There may be subtle patterns by state, region, or metropolitan area that we did not detect, but for now, none of the patterns we explored demonstrated enough consistency to warrant a visual.

7. EMERGING PATTERNS

What patterns arise when examining social behaviors from data-driven approaches?

Principal Component Analysis (PCA)

Principal Component Analysis (PCA) is a method that allows us to explore how much the variation in loneliness was predicted by participating in different **combinations** of the 5 social behaviors together, rather than independently - (1) Texting and messaging, (2) Talking on the phone, (3) Getting together with others, (4) Attending church/religious services, and (5) Attending club/organizations (see Fig. 5 for frequencies of each behavior independently). It tells us what specific combinations of those behaviors were most predictive of loneliness.

Results[1]:

- 43% of loneliness can be explained by how much or little participants partake in **all 5 social behaviors**.
- 23% of loneliness can be explained by how much or little participants attend **clubs/church** in combination with *not* engaging in the other behaviors.
- 14% of loneliness can be explained by how much or little participants **get together with friends in combination with *not* texting**.

This analysis suggests that **participating in a mix of social activities predicts reduced feelings of loneliness**, with group activities and in-person interactions being particularly impactful.

Factor Analysis (FA)

Factor Analysis (FA) is a method that allows us to look at latent ("hidden") variables that explain the correlation between the 5 social behaviors—(1) Texting and messaging, (2) Talking on the phone, (3) Getting together with others, (4) Attending church/religious services, and (5) Attending club/organizations—and their relationship to loneliness (see Fig. 5 for frequencies of each behavior independently). In other words, can these social behaviors be grouped into higher-level categories based on their effect on loneliness?

Our analysis suggests 2 latent behavior variables (for reasoning, see Appendix - Data Analysis) that more-or-less summarize the 5 social behaviors into 2 categories.

Results[2]:

If we assumed 2 general categories of social behaviors that contribute to loneliness:

- One of the categories could be summarized **mostly by club/organization attendance** and some by church attendance.
- The other category could be summarized **mostly by calling** and some by texting family/friends/neighbors and getting together with friends/relatives.

This analysis suggests that participating in 1) structured activities, such as attending clubs or religious services, and 2) informal interactions, like phone calls and get-togethers, are associated with reduced loneliness within their own contexts.

These factors may represent relatively independent contributors to variation in loneliness, suggesting that **to stave off loneliness, individuals might do well to prioritize something from the first factor (e.g. showing up for a club or organization) and something from the second factor (e.g. having regular phone calls with friends and family).**

Conclusion

With over 40% of the U.S. population lonely and lacking support at least sometimes, these findings paint a compelling picture of the modern social connection crisis—but also offer hope. Small, consistent changes in behavior—like reaching out more frequently, staying in touch via phone, and making the effort to gather in-person—go hand-in-hand with meaningful improvements in social health.

Sunny takes a deep interest in sharing an accurate understanding of the crisis of social disconnection in the modern world: its prevalence, breadth, and disproportionate impacts on certain populations (especially younger, middle-aged, and lower-income groups).

We're not just documenting the problem; we're leading the way toward solutions. Sunny's work is rooted in a commitment to making meaningful connection accessible to everyone, whether through our research and thought leadership, our free mobile app designed to help individuals change behavior and build relationships, or through our enterprise offerings that foster supportive workplace environments.

Sunny envisions a world where disconnection is no longer a defining characteristic of modern life, but rather a challenge we have overcome through careful study, intentional individual action, and collective effort. We invite individuals, communities, and workplaces to be part of this movement. It starts with each of us—and Sunny is here to help light the way.

For questions, additional resources, or ways to partner with us, please reach out directly to hello@gosunny.org.

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Methods Appendix

Data set selection

We analyzed data from Phase 4.1, Cycle 07 of the U.S. Census Household Pulse Survey (collected Jun 25-Jul 22, 2024) for this analysis because it was the latest data released at the time of analysis. The patterns reported here were checked against and are consistent with data from the independent prior cycles using the CDC data visualization tool.

Results and trends from Cycle 07 (last phase of Phase 4.1) were cross-referenced with those from Cycle 04 (first phase of Phase 4.1) to ensure longitudinal consistency.

In doing this, we gain a greater degree of confidence that the patterns presented in this report don't reflect one-off statistical flukes or outlier samples.

Data Extraction

Pre-tabulated data

The Census provides select data in a pre-tabulated format. These data are already weighted to represent the national population. The weighting procedure aims to produce accurate population estimates by adjusting initial sample weights for nonresponse, correcting for undercoverage in occupied housing units, converting housing unit weights to person weights based on household composition, and applying an iterative raking method to align weights with independent demographic population controls.

The pre-tabulated data include all five social behaviors (frequency of texting, calling, getting together, attending church and attending clubs) and two social outcomes (frequency of feelings of loneliness, and frequency of receiving social/emotional support), as response variables to demographic characteristics (age, sex, income). These tables were downloaded directly from the Census website.

Raw survey response data

The Census also provides public-use-files (PUFs) containing all individual survey responses and the weighting of each response. Weights are determined by the factors described in the previous section.

We weighted individual survey responses (n = 70,429) in Phase 4.1, Cycle 07 PUF data in MATLAB (R2024b) to produce anew flat dataset (n = 256,311,560). We confirmed accurate application of weights by reproducing a pre-tabulated data set.

Data Analysis

Data from pre-tabulated sets were represented directly as graphs after converting national counts to percentages corresponding to relevant frequency buckets (Figs. 1-3, 5-8).

The codified processing of the flat dataset (produced by applying weights to the PUF) allows us to visualize relationships between different survey responses not provided in the pre-tabulated data (e.g., plotting a social behavior and social outcome against one another), and to filter and combine variables, such as defining extreme isolation and subsetting remote working data by age and employment status. This processing produced Figs. 4 and 9-12.

Principal Component Analysis (PCA) and Factor Analysis (FA) were performed directly on the flat dataset. For FA, we assumed 2 latent factors based on a scree plot from the eigenvalues of the correlation matrix.

Limitations

Nonresponse bias

All percentages in this analysis are represented as the proportion of total population (after weighting was applied to all survey responses). There was variability in the number of responses for each survey question. Notably, the remote working frequency question contained only 59 million weighted responses compared to >200 million for the social support questions. Given this high rate of non-response and uncertainty on the systemic differences between responders and non-responders, the conclusions around remote work and social outcomes should be considered more tentative than the other findings.

Because "extreme isolation" was defined as the intersection of the lowest response category for calling and getting together, only responses for which both questions were answered could be included. Thus, this measure could entail greater nonresponse bias than the other social connection outcomes.

Variability

We did not account for the error, or propagation of errors, resulting from weighting individual survey responses due to time limitations. The Census provides weighting errors as separate data sets. However, we confirmed that overall data trends and values were longitudinally consistent between independent samples from Cycle 04 and Cycle 07, which reduces the probability of a spurious finding.

Non-linearity

PCA and FA assume linear and homoscedastic data, both of which are not satisfied in this complex dataset. Our purpose of applying PCA and FA was to present preliminary data-driven findings and provide overall context to the other findings.

Cross-sectional data

These data are not the result of an experiment, nor are they longitudinal, i.e. they are not a result of following the same individuals over time. Thus, we can only present *correlations* between behaviors (like working from home frequency), demographics, and social support or loneliness outcomes. While we can determine the outcomes *associated with* different groups and behaviors, we can't conclude that those behaviors or group characteristics *cause* the social outcomes, per se.

Data and Tools Used in this Report

CDC data visualization tool
Census interactive data tool
All public use files (PUFs)

Data Tables
Source and accuracy statement
Census technical documentation

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[1] Principal component (PC) 1 explains 43% of the variation in loneliness and is moderately positively loaded on all 5 behaviors (40-50% per behavior). PC2 explains 23% of the variation in loneliness and is moderately positively loaded on church (60%) and club/organization attendance (54%) but negatively loaded on all other behaviors. PC3 explains 14% of the variation in loneliness and is heavily positively loaded on getting together with friends/relatives (80%), but negatively loaded on all other behaviors, especially texting (-58%).

[2] Both Factors 1 and 2 each explain ~25% of loneliness. Factor 1 has an extremely high loading for club/organization attendance (99%) and moderately high loading for church (44%), possibly suggesting the importance of structured social interactions. Factor 2 has a high loading for calling family/friends/neighbors (77%) and moderately high loadings for getting together with friends/relatives (52%) and texting family/friends/neighbors (53%), possibly reflecting the nature of casual social interactions.