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Who Feels Bored, and What Do They Believe It Costs? A Survey Analysis Across Age and Gender

Rahini Bansal
rahini349@gmail.com

ABSTRACT

Boredom is often considered as a nuisance and a trivial emotion, but psychological and economic studies are increasingly linking it to a separate and functional emotional state with measurable behavioural/economic consequences. This paper presents an original survey of 287 people from six age groups, across a broad income category and both genders, on the frequency with which they feel bored, what they do about this boredom, and whether they think it is stimulating or debilitating to the economy. In addition to asking how often people are bored, the central question asks why the same emotional state is behaviourally generative for most respondents, but is aggregated as a state of economic deprivation. This paper takes a couple of semi-structured interviews together with the survey to explore why there might be a gap between the two. Overall, 26.5% of respondents say they are “often” or “always” bored, but this varies significantly with age, from 56.3% of the youngest respondents to 3.6% of those ages 26 to 30. Boredom costs but rarely idles: more than half of those who estimated a cost report losing at least an hour of productive time each day to boredom, while 77.7% say they've come up with a new idea when bored and 64.8% claim to have taken up a new hobby while bored. A series of chi-square tests, one-way ANOVA, Spearman correlation and independent-samples t-tests were used to test eight hypotheses. Six were supported at $p < .05$, and particularly included strong relationships between age and boredom frequency, gender and boredom frequency, and self-reported productivity and creativity beliefs. No conventional significance level was found for two hypotheses related to economic belief (age and job preference). Results indicate that boredom has a unique meaning throughout the lifespan and is perceived as a unified perspective (generative or corrosive), not as distinct evaluations.

INTRODUCTION

Boredom refers to a feeling of idleness or emptiness that is accompanied by restlessness or lethargy (Ndetei et al., 2023). Boredom was redefined by Eastwood et al. (2012) as an attentional failure, one which can reliably elicit some behavioural reaction – positive or negative – but not necessarily an absence of behaviour as suggested by the term 'having nothing to do'. Neuroscientific research places this failure in competition between the brain's default mode network, which is active at rest and during a person's self-referential thoughts (Mason et al., 2007), and its central executive network, where boredom arises when the central executive network is unable to quickly switch between the two networks (Danckert & Merrifield, 2018; Menon, 2019). There is also no one boredom state: Goetz et al. (2014) distinguished

four types that varied in arousal, for any survey that inquires about a single "most common" response. Many factors converge around everyday accounts: repetitive tasks, lack of challenge, lack of purpose (Mlynski et al., 2025).

The correlation between boredom and productivity/creativity is not a simple one. Associated with mind-wandering and disengagement that decrease task performance (Brodsky & Amabile, 2018) and can influence the following day through the decrease in intrinsic motivation (van Hooff & van Hooft, 2017). But boredom seems to also free up mental capacity for creative thinking: Mann and Cadman (2014), for example, found that doing a boring task before a creative task led to more creative output than a control task, and many anecdotes exist of creative insights that have come out of understimulated situations (Belinda et al., 2024). Elpidorou (2014) suggests that there should be a truly dual conception of functional and adaptive in some respects, corrosive in others, and one question that will be central here is whether people's beliefs regarding their own productivity and creativity will be intertwined with their beliefs regarding boredom, or are they distinct. This type of idle ideation leads to creative industries which can plausibly be said to generate near $2.3 trillion per year globally (UNCTAD, 2024).

Boredom also prompts and encourages action – it doesn't just happen when there's a lack of action. Even though participants said they would pay to not receive a mild electric shock, they chose to self-administer a shock over sitting passively when they were left to their own thoughts, as found by Wilson et al. (2014). Van Tilburg and Igou (2011) account for this by a meaning-regulation account: boredom is a signal of perceived meaninglessness and motivates the bored person to seek out whatever is felt as meaningful, but not necessarily what. In addition, Westgate and Wilson (2018) state that the MAC model incorporates this concept of boredom being caused by a mismatch between attentional resources and the demands of an activity, and the demands of an activity and a person's overall goals. This restlessness has been associated with impulsive spending (O'Donoghue & Rabin, 2000) and, in turn, with greater financial risk-taking (Kilic et al., 2020; Pirla & Navarro-Martinez, 2022), which this survey can help explore.

The economic impact of boredom at the workplace is now more clearly understood. According to Gallup (2025), only 21% of workers are engaged globally, and the cost of disengagement is estimated at hundreds of billions of dollars per year. Workplace boredom has been associated with burnout and turnover intentions as well (Harju et al., 2014), while idle time decreases subsequent performance (Brodsky & Amabile, 2018), and cyberloafing can be seen as a coping mechanism instead of merely being a form of misconduct (Andel et al., 2019) and it is believed that presenteeism costs are comparable to absenteeism (Johns, 2010).

A smaller body of literature also seeks to determine whether there are demographic differences in boredom. Mani et al. (2013) demonstrated that poverty is a cognitive drain that may explain the lack of cognitive space that leaves people unable to respond positively to boredom, and Pirla et al. (2025) found a negative association between frequency of boredom and income in a large cross-national sample of more than 60,000 individuals in 30 countries. The costs and distribution of boredom are also considered unfair by Elpidorou (2021, 2025), who argues that some groups are less likely to have the resources to turn boredom into something positive; leisure researchers also argue that freely chosen and meaningful leisure

buffers the negative correlates of boredom (Iso-Ahola & Weissinger, 1987, 1990), and that boredom is a "seeking state" and motivates the pursuit of novelty in relation to experience, irrespective of its valence (Bench & Lench, 2019).

Even though there may be reasonable reasons to anticipate that gender differences would occur in workplace role, leisure time, and coping, the literature surveyed above either yields no results for gender disaggregation or employs small samples of students to provide results that are of limited value for comparison with the present, more balanced sample (58.5% male, 41.5% female).

This paper aims to address the research question: not only how often people get bored, but also why the same emotional experience leads to very different behavioral and economic responses, depending on whose hands it is in, and when. The patterns this study tests could potentially arise from three candidate causal mechanisms that were directly extracted from the literature above. The first is a life-course exposure mechanism: repeated experiences of the costs of boredom in the labor market (Gallup, 2025; Johns, 2010) might gradually change an initially neutral, if not even positive, relationship with boredom into a more negative one, thus predicting an age gradient in the experience of boredom and, in turn, an age gradient in the judgement of whether boredom is beneficial or harmful to the economy. The second is a regulatory-emotion mechanism: Boredom is a signal which pushes a person towards some action that is currently meaningful for them, but does not predict in advance what that action is—the person's productivity and creativity beliefs about boredom should change together as a unified orientation (generative or corrosive), and job preference should follow the sensitivity to what a person is driven away from by boredom. The third is a resource-constraint mechanism (Mani et al., 2013; Elpidorou, 2021, 2025): If transforming boredom into something useful involves cognitive or material resources that are less available to some than to others, then income and gender should not only predict the frequency with which boredom is experienced but also the costs of the experience to the individual, and a person's personal experience of boredom does not necessarily align with what they think it is like for others.

This literature leaves unanswered how boredom patterns are related to each other in one demographically diverse sample, as well as whether people's economic beliefs about boredom follow the behavioural and demographic patterns predicted by the literature. Current empirical studies are based on limited laboratory samples (Wilson et al., 2014), a small number of informants (Jackson & Carter, 2011), or on samples from a single organization (Harju et al., 2014). The present study attempts to fill this gap and tests the following hypotheses, each involving a relationship proposed above in the literature, and each mapped to one of the three mechanisms just described:

H1: Boredom frequency differs by age group.

H2: The belief that boredom drains versus drives the economy differs by age group.

H3: Beliefs about boredom's effect on productivity and its effect on creativity are associated.

H4: Job-type preference is associated with the belief that boredom drains or drives the economy.

H5: Mean productive time lost to boredom differs across income brackets.

H6: Boredom frequency is positively correlated with productive time lost.

H7: Boredom frequency differs by gender.

H8: Mean productive time lost to boredom differs by gender.

Such tests are better conducted on a single dataset, rather than one at a time in different studies, because that way the age, gender and income effects that the literature suggests can be checked against one dataset, and a direct test of whether people feel their own personal experience of boredom is consistent with the aggregate economic effect, can be conducted on the same dataset.Alongside the survey (which is described in Section 2.4), three semi-structured interviews were also conducted to yield independent free-text reasoning to check the quantitative patterns against a socially convenient response from a built-in answer book would not necessarily reveal a genuine belief.

METHODS

Instrument and Distribution

A self-administered online questionnaire (Google Forms) was used to gather data from a convenience sample of diverse ages and backgrounds. The questionnaire contained closed single-select questions, a multi-select question with limitation of 3 answers, an open-ended comment field, and included questions about demographics (age, gender, income, education); how often they got bored; how much productive time they lost due to boredom; their typical response to boredom; boredom-related purchasing of online products; willingness to spend time to avoid boredom; boredom as a source of a new idea or hobby; a forced choice on productivity and creativity self-descriptions; perceived causes of boredom in the present era; a hypothetical scenario asking them to choose between a creative, less well-paid and a repetitive, more well-paid, new job; a fifteen-minute deprivation scenario; a direct question about the impact of boredom on the economy, whether it was a stimulus to productivity or a drain; and the number of people they knew who began a business because of boredom. Single-select and forced-choice were used in order to make the instrument brief and to make it easy to complete across a wide age span, including school-age respondents.

Data and Sample Cleaning

The raw data comprised 290 entries, three of which were completely blank, resulting in N = 287. Two “single-cell entries” (income and education fields) were simply marked as missing in those two fields. Some respondents did not answer all the questions: 223 of the 287 (77.7%) answered the question on time lost, with 153 of 287 (53.3%) answering the question on venture network, the two questions with the highest non-response, while the other questions had less than 2% non-response. Percentages are based on

those respondents who indicated on the item, and sample sizes are provided if the percentage of non-responses was large.

Of 287 respondents, 168 (58.5%) identified as male and 119 (41.5%) as female. The sample skewed toward the youngest and middle-aged bands: 87 (30.3%) were 17 or under, 80 (27.9%) were 31–45, 49 (17.1%) were 46–60, 30 (10.5%) were 18–25, 28 (9.8%) were 26–30, and 13 (4.5%) were 61 or over. Income was concentrated at the lower end: 89 (31.0%) were students or unemployed, 76 (26.5%) earned under ₹25,000, 47 (16.4%) earned ₹25,000–99,999, 45 (15.7%) earned ₹1–4.99 lakh, 13 (4.5%) earned ₹5–9.99 lakh, and 17 (5.9%) earned above ₹10 lakh. Education broadly tracked age: 136 people indicated they completed high school education, 77 people indicated they completed a post-high school education, 52 people indicated they completed a graduate degree, and 22 people indicated they did not complete middle school, elementary, or any formal education.

Analytical Approach

Descriptive results are summarized as frequencies and cross-tabulations of the analytic sample after cleaning. The statistical method appropriate to the type of data was used to test each hypothesis: chi-square test of independence for two categorical variables; one-way ANOVA for a continuous outcome with more than 2 groups; independent-samples t-test (Welch's correction for unequal variance) for two groups; and a Spearman rank correlation for two ordinal variables. The effect size, Cramér's V for tables larger than 2×2, and the phi coefficient for 2×2 tables were calculated along with every significance test and interpreted in terms of the conventional benchmarks of small, moderate, and large effects suggested by Cohen (1988); statistical significance in a sample of this size does not imply the size or any practical importance of the association. The five ordered time-lost brackets were recoded to interval midpoints (e.g., “1 hour – 2 hours” recoded as 1.5 hours) to allow for ANOVA and correlation analyses. The significance level for all tests was set at $\alpha = .05$, and because of the cross-sectional and self-selected nature of the sample, no causal statements can be made about any reported association.

Semi-Structured Interviews

Three semi-structured interviews were held, one for each of the three perspectives on boredom (an entrepreneur, a corporate employee, and a clinical psychologist) in addition to the survey, in order to provide explanatory context for the quantitative patterns and to help overcome the potential of social-desirability bias within the closed-ended survey items. All interviews were conducted using a common interview guide that includes questions about the personal experience of boredom, personal responses to boredom, and personal views on the overall impact of boredom on the economy, as well as follow-up questions to elicit further discussion of answers. Interviews were carried out with participants in person or over the phone, and were recorded with their consent before being analysed thematically alongside the results of the survey presented in Section 3.6. These interviews are not representative of the population, but were selected for a particular purpose: to provide explanatory reasons that complement the descriptive and inferential statistics given in the survey, and not as a test of any hypothesis.

RESULTS

Frequency and Cost of Boredom

In the entire sample, 10.8% of people reported that they are "always" bored at work or study, with 15.7% saying "often" and 38.0% saying "sometimes", and 35.5% saying "rarely" or "never". Of those 223 respondents that volunteered an estimate for the amount of time they lost per day, 53.4% said they lost an hour or more per day, of whom 25.6% said less than an hour, 21.1% said an hour to one hour and a half, 25.6% said 1–2 hours, 15.2% said 2–3 hours, and 12.6% said more than 3 hours per day.

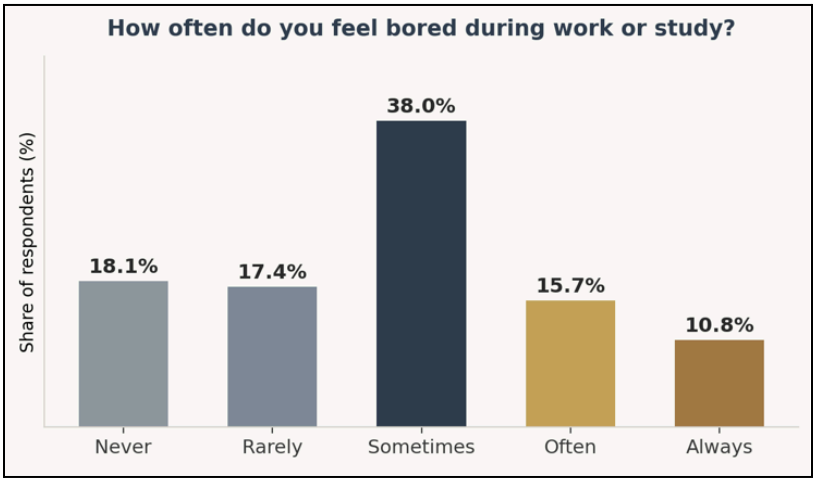

Figure 1. Self-reported frequency of boredom during work or study (N = 287)

H1 (age and frequency) was supported: $\chi 2(20, N = 287) = 82.80$, $p < .001$, Cramér's $V = 0.269$, a small-to-moderate effect. Frequent boredom ("often" or "always") fell from 56.3% among respondents 17 or under to 26.7% (18–25) and 3.6% (26–30), then rose again to 12.5% (31–45), 14.3% (46–60), and 7.7% (61 or over). This age gradient was the most pronounced categorical association of any in this study.

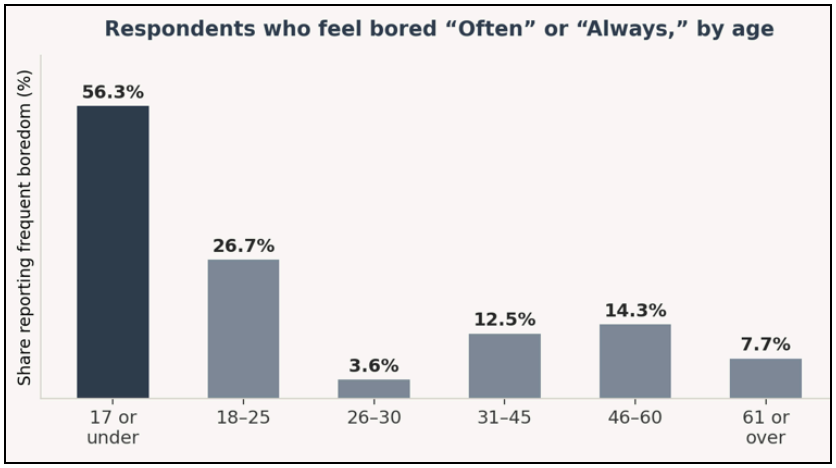

Figure 2. Share of each age group reporting frequent ("Often" or "Always") boredom.

H7 (gender and frequency) was also supported, $\chi 2(4, N = 287) = 31.53$, $p < .001$, Cramér's V = 0.331. The male respondents were more likely than the female respondents to answer "never" (26.8% versus 5.9%) and "always" (14.3% versus 5.9%), while the female respondents tended to fall in the three middle categories (88.2% versus 58.9%) suggesting a more polarized pattern for the male respondents and a more moderate, intermittent pattern for the female respondents.

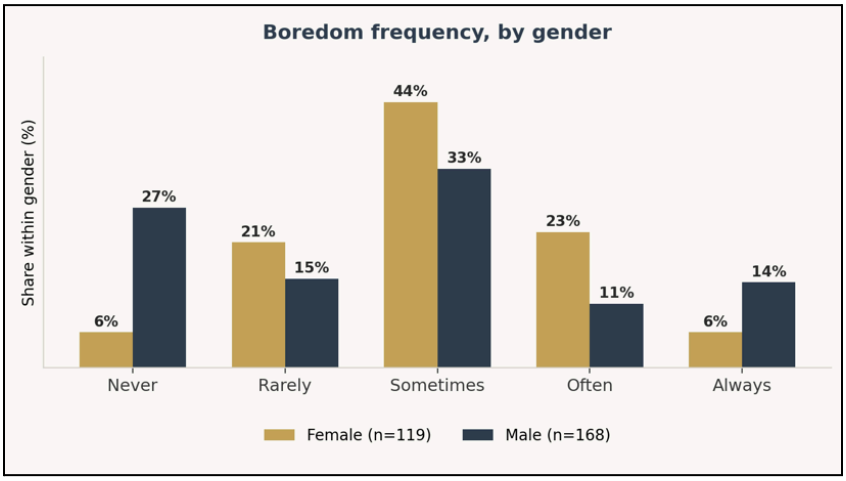

Figure 3. Boredom frequency, by gender.

Averaging time-lost midpoints within income group revealed a U-shaped relationship: highest among students/unemployed (1.89 hours/day, n = 84), falling to 1.28 (under ₹25,000, n = 41) and 0.91 (₹25,000–99,999, n = 37), then rising through 1.06 (₹1–4.99 lakh), 1.35 (₹5–9.99 lakh), and 1.46 (₹10 lakh+, n = 12). H5 was supported: $F(5, 217) = 6.375$, $p < .001$.

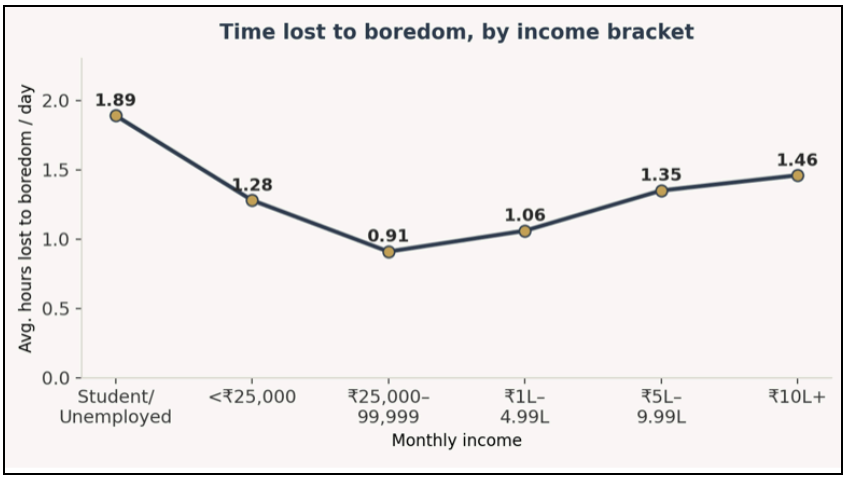

Figure 4. Average estimated daily hours lost to boredom, by monthly income bracket.

H6 was also supported: A Spearman correlation between the 223 respondents who answered both items was positive: $\rho(221) = 0.478$, $p < .001$. The average time lost increased from 0.57 hours ("rarely") to 1.26 hours ("sometimes"), reaching a maximum of 2.17 hours ("often") before declining to 2.03 hours ("always") in the small "never" group (n = 7) size may have inflated this average. The variance in time lost was approximately 0.23 ($\rho^2 \approx 0.23$), indicating that there is a relationship between the two but that it is a different dimension.

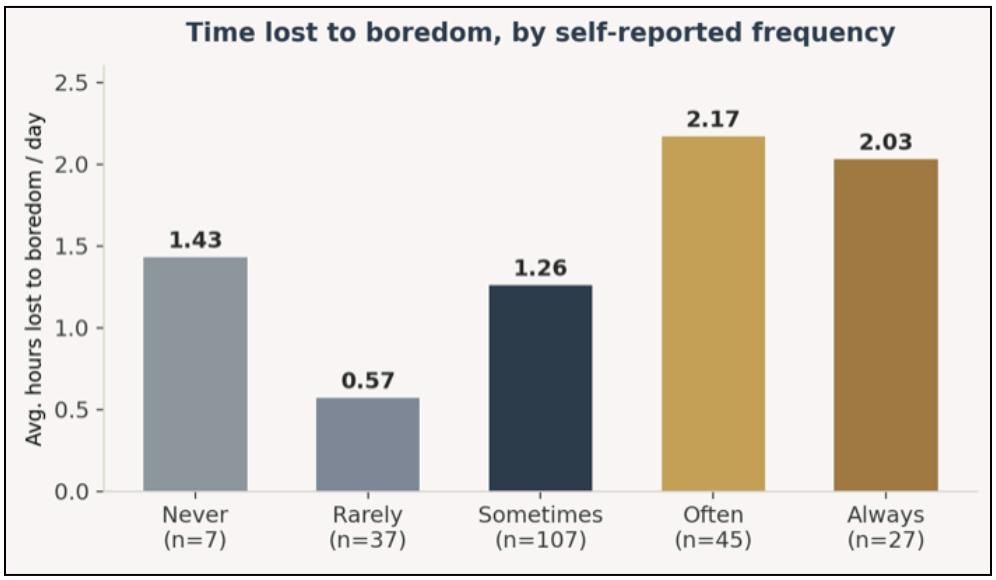

Figure 5. Average estimated daily hours lost to boredom, by self-reported boredom frequency.

H8 was also supported: female respondents reported losing more time (M = 1.62, SD = 1.12, n = 108) than male respondents (M = 1.25, SD = 1.02, n = 115), $t(213.7) = -2.56$, $p = .011$, consistent with male

respondents being more polarized in frequency while female respondents report somewhat higher costs per episode.

Behavioural Responses

When it comes to what they do most when they get bored, 41.5% check social media, 18.8% work anyway, 8.4% watch videos, 7.0% talk to friends, 5.9% think of new ideas, 4.5% play video games and 3.5% do online shopping. Boredom-driven impulse purchases were common but not universal: 55.7% of shoppers never make a purchase online due to boredom, while 26.5% do very rarely, 11.8% do occasionally and 5.9% do frequently. Willingness to spend money to escape boredom was more evenly split: 46.0% No, 29.3% Maybe, 24.7% Yes; this is probably an underestimate of actual spending since many already spend money on streaming services or gaming, but they're spending it to avoid boredom.

In spite of these costs, boredom's productive side was very much present: 77.7% reported that a new idea or problem had arisen for them when they were bored, and 64.8% said they had developed a new hobby because of their boredom.

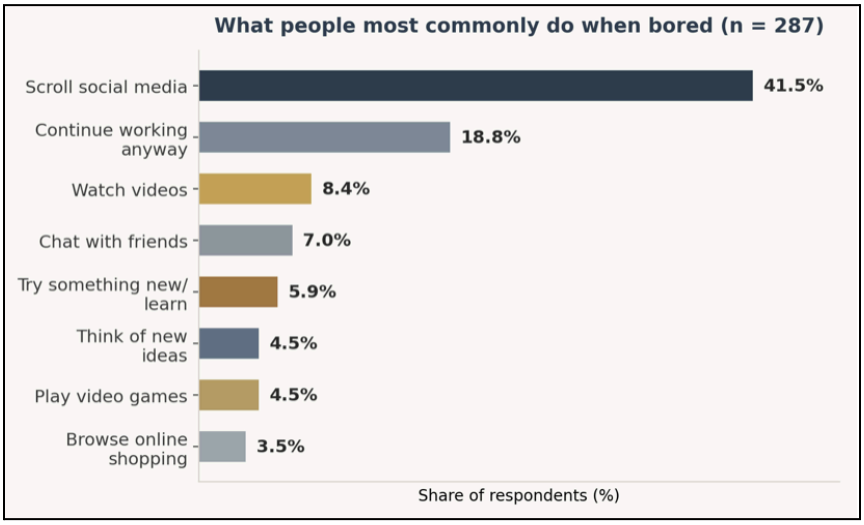

Figure 6. Most common response to boredom during work or study (N = 287).

Boredom, Productivity, and Creativity

If forced, 54.7% report boredom makes them less productive and 45.3% report boredom makes them more productive; separately, 65.5% report it makes them more creative and 34.5% report being less creative. H3 was strongly supported: among those who said boredom makes them more productive (n = 130), 91.5% also said it makes them more creative, versus only 43.9% among those who said it makes them less productive (n = 157), $\chi 2(1, N = 287) = 69.19$, $p < .001$, $\varphi = 0.491$, the largest effect size in this study, indicating these are not independent judgments but a shared orientation toward the emotion.

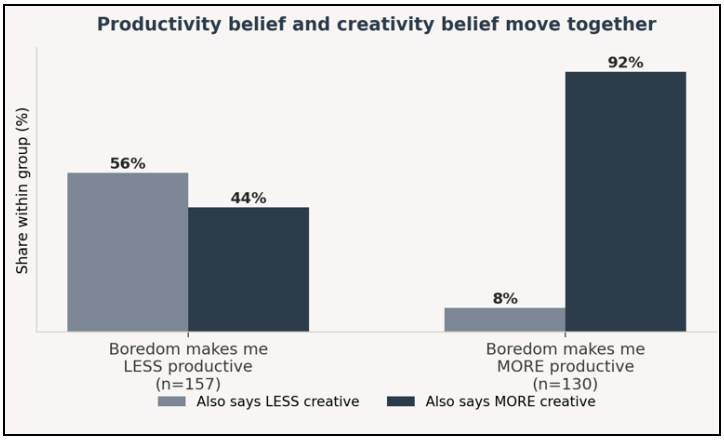

Figure 7. Share of each productivity-belief group who also report boredom makes them more or less creative.

Economic Beliefs: Drive or Drain?

When asked directly, 62.0% felt that boredom hurts the economy, while 38.0% felt that it helps the economy. H2 (age) was not supported at conventional significance: $\chi 2(5, N = 287) = 11.06$, $p = .050$, Cramér's $V = 0.196$, right at the boundary, best treated as marginal. The distribution was descriptive, with no group having a strong majority; respondents 17 or under were almost equally divided – 50.6% drain, 49.4% drive, with the older groups tending to gravitate toward "drain" with a peak of 78.6% for the 26–30 age group.

H4 (job preference) was also not supported: $\chi 2(1, N = 287) = 2.93$, $p = .087$, $\varphi = 0.101$. Descriptively, respondents who preferred a creative job were slightly more likely to report boredom as a drain on the economy (65.8%) than those who preferred a repetitive, higher-paying job (54.6%), but this difference is not considered to be a real effect and should be interpreted in the light of sampling variation.

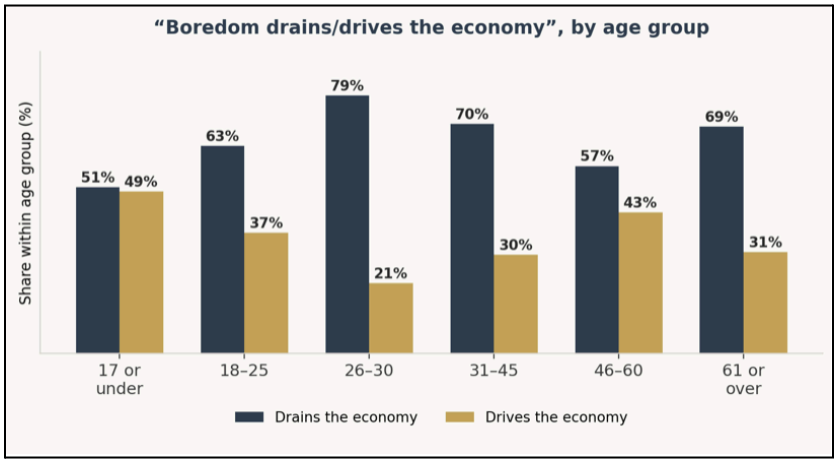

Figure 8. Belief that boredom drains versus drives the economy, by age group.

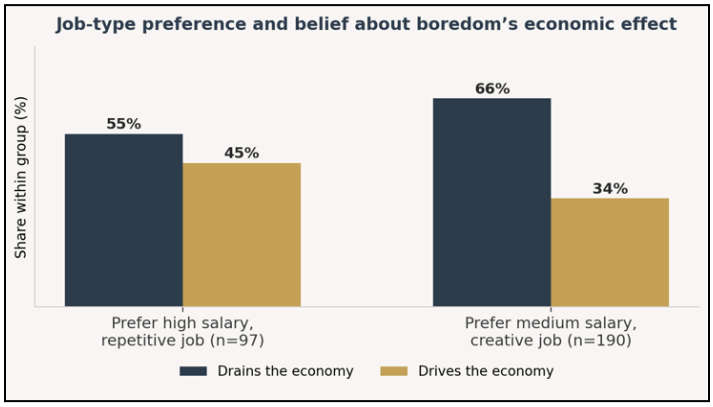

Figure 9. Belief that boredom drains or drives the economy, by stated job preference.

Job Preference, Thought Experiment, and Perceived Causes

If asked to choose between a higher-paying repetitive position and a medium-paying creative position, 66.2% would select the creative position. When asked what they would do first if they were trapped a room for 15 minutes with no phone, no books, no music, and no people, 38.7% would plan for the day/future, 18.1% would reflect, 16.4% would imagine, 13.9% would try to get out, 7.7% would try to invent something and 5.2% would become anxious; about 81% of all responses were positive or neutral (planning, reflecting, imagining, inventing).

When asked to identify up to three reasons for why boredom is more prevalent today, the most common answers were: social media, shorter attention span (41.8%), too much screen time (38.0%), lack of purpose (35.5%), lack of hobbies (33.8%), burnout (32.1%), too much entertainment (31.4%), repetitive work (30.0%), too little face-to-face interaction (23.7%) and too much reliance on technology (20.9%).

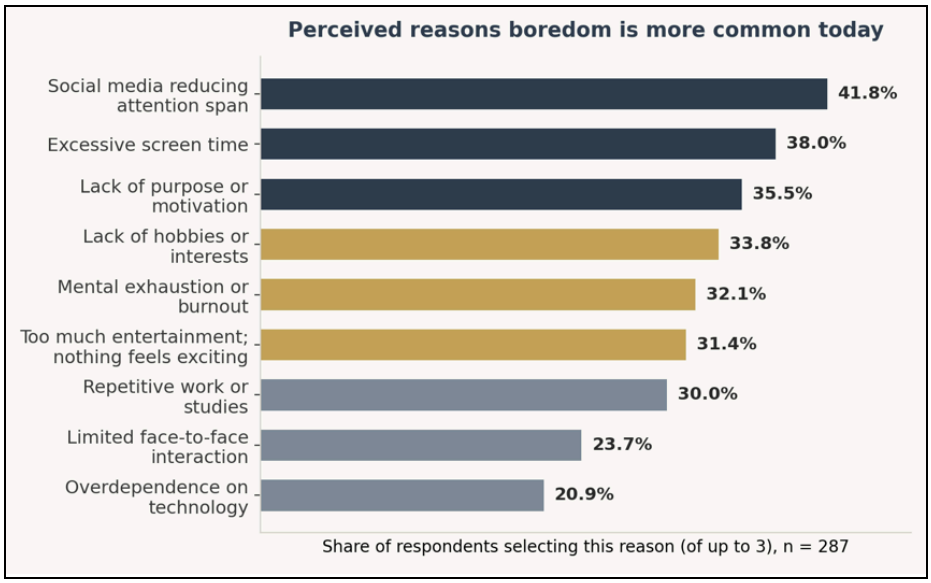

Figure 10. Perceived reasons boredom is more common today than in previous generations (respondents could select up to three; N = 287).

The total sample of 287 responded with 153 (53.3%) as a valid answer to the question "How many people do you personally know who began a business, side hustle, or economic venture because of boredom?": 54.2% said 1-2 people, 34.6% said many, and 11.1% said 3-5 people. However, the fact that only 153 respondents answered the question (with 46.7% leaving it blank) suggests that the answers may overstate entrepreneurial exposure across the entire sample, as respondents who said that they did not know any such people might be the ones most likely to have not answered to begin with.

Across the eight hypotheses tested, six were supported at $p < .05$ (age and frequency, productivity and creativity beliefs, income and time lost, frequency and time lost, gender and frequency, gender and time lost) with two (age and economic belief, job preference and economic belief) not supported at the conventional $p < .05$, but showing a descriptive pattern in the predicted direction that may reach significance in a larger sample.

Qualitative Context: Interview Findings

Despite their differing perspectives, the three participants all characterized boredom as a lack of engagement, rather than of activity, much like the attentional-failure conception of boredom that was employed across this paper (Eastwood et al., 2012). They tell of what happens when there is a mismatch between generative personal behaviour and a corrosive aggregate belief as recorded in Sections 3.2–3.4.

The corporate employee talked about a time of disengagement in the afternoon, when he said he lost about 20-30% of his productivity, but spent the time recuperating, not inventing; and instead engaged in quizzes, videos, or conversation. Nevertheless, he suggested that boredom is a catalyst to the economy because less boredom equals less phone usage equals the reduced views that would make the content

creators who rely on that number less profitable. The most straightforward first-person view of boredom as a motivator was provided by the entrepreneur who, by her own account, started a small business because she and her family had grown bored when her children were older than 15. However, on balance, she felt that boredom actually costs the economy as a whole, since by her estimation about one-third to one-fourth of the population (old adults in particular) has no way or means to overcome boredom and turn it into something productive. This line of reasoning is remarkably similar to the reasoning outlined in the Introduction of the resource constraint mechanism. As she noted in clinical experience, "Boredom" correlates heavily with "maladaptive behaviour" such as gambling, smoking, drinking, and other behaviors that are supposed to seek stimulation; the psychologist believes that this perception of the dangers of boredom will bias her toward perceiving these dangers, because she sees more people who are experiencing boredom to the point of causing harm. When asked pointblank whether boredom is a driver or a drain on the economy, she said "drain," but noted that some people are able to turn boredom into motivation.

Two lessons emerge from the three accounts. First, no one interviewed in the study reported that boredom in their own lives was non-productive; everyone could cite an actual example of it (recuperation, a new business, an understanding of the client's condition). Second, each also saw boredom's overall economic impact as negative, not necessarily because they felt bored, but because they thought that they had assessed how many others they did not feel they had the resources to replicate. This is in line with the overall survey results (Section 3.4): the majority have experienced personally productive or creative responses to boredom, and the majority think that boredom is a problem for the economy as a whole. This argument was an open-ended, follow-up question and not a forced-choice one as was the item on the survey, so it is less likely to be subject to social-desirability bias than the survey item would be, and it emphasizes the resource-constraint mechanism as a factor—along with the life-course and regulatory-emotion mechanisms—in explaining their own sense of the gap between their personal experience and the overall belief.

DISCUSSION

Three patterns emerge, each consistent with one of the causal mechanisms proposed in the Introduction. First, boredom is not as common at all ages – it is much more common with the youngest respondents – who are overwhelmingly still in school – and is less common in the late 20's, but resumes to be common again throughout midlife. This is in line with the life-course exposure mechanism, the notion of a true age effect as formulated by Elpidorou (2014): boredom is simply a reflection of the change in life circumstances, or with a cohort effect because of the school days, early career jobs, and later responsibilities resulting in different levels of unstructured time. The strength of the association ($p < .001$, the strongest in this study) implies this pattern is not noise even though the design may not be able to determine why it appears.

Second, the belief that boredom drains the economy dominates overall (62.0%), but is not the belief of the youngest respondents, who split almost evenly, the only age group without a clear majority. One

interpretation of the frequency pattern is that, as people age into and through the workforce, they shift from a relatively neutral perspective on the costs of boredom, disengagement, procrastination, missed deadlines, and the like – as documented in the cost-of-boredom studies by Kawada et al. (2023) and Johns (2010) – toward a more costly perspective. This is an example of, but not proof of, the notion that the economic costs of boredom are legitimate only because of the actual work experience, not just because of the name. This specific correlation came out at the "border of convention," meaning it's being proposed as a hypothesis for future studies with more participants.

Third, the productivity-creativity coupling, the highest effect size found in this study ($\varphi = 0.491$), implies that these are not two separate judgments people make about boredom, but rather two aspects of a single orientation, consistent with the regulatory-emotion mechanism: with some respondents experiencing boredom as being broadly generative, more productive and more creative, and others experiencing boredom as being broadly corrosive – less productive and less creative. This is very similar to Elpidorou's (2018) definition of boredom as a signal that propels the bored person towards anything that might feel meaningful, but without any prior specification as to whether that will be generative or corrosive. The descriptively slightly greater association between job preference and economic belief in this coupling is an interesting and not a puzzling finding: creatively-oriented individuals are also sensitive to what might be lost through the absence of boredom. The underlying association was not conventional, so this reading is speculative.

In almost all respects, the actual actions of the respondents are more positive than their theoretical sense of economic judgment. While boredom in general is a drain on the economy, there is also a majority that says that boredom can spark ideas (77.7%), cause them to pick up hobbies (64.8%), or, when forced into idleness, generate something positive rather than an anxious response, closer to Bench and Lench's (2019) generative "seeking state" than to disengagement. Furthermore, this gap is parallel to Elpidorou's (2021, 2025) argument that the costs of boredom are not shared evenly, the resource-constraint mechanism named above: a respondent may find boredom to be personally rewarding, and think that others do not have the same resources, and that is correct. The interviews reported in Section 3.6 make this reasoning explicit, not just inferred: all three interviewees were able to refer to a personally generative use of boredom, and each of them independently judged the overall effect to be a "drain" because their judgments were made about the other people's more constrained situations, and not about boredom itself, and because the reasoning about boredom was not elicited from a list of options.

There are some limitations to this study that should be considered when extrapolating its results. It uses a convenience sample of participants identified online, and those who were sampled were skewed in terms of their demographics, school-age respondents and income ranges among Indians, limiting the generalisability of the results. Two items showed significant non-response rates (23% for productive time lost and 47% for the venture-network question), and this non-response is not likely to be random; therefore, the entrepreneurial-exposure rates reported here probably overestimate this exposure for the sample as a whole. All measures are single-item self-reports that are subject to recall and social-desirability bias, and several income and education categories had few cases, making estimates in these categories imprecise.

The social-desirability concern is lessened, but not removed, by the three interviews reported in Section 3.6 since they were purposively selected, and because they are small in number, they cannot conclude about the frequency of the reasoning they describe in the entire sample of interviews, only that the same pattern (personal generativity plus an aggregate "drain" judgment) arises when people are asked to explain themselves in their own words instead of selecting from a set of prepared options. In general, the effect sizes presented throughout were small to moderate and were interpreted based on the conventional benchmarks set by Cohen (1988), a reminder that small to moderate effect sizes do not necessarily mean that the findings are large in practice. Finally, because of the cross-sectional design, each age-related pattern reported here is compatible with more than one underlying explanation, and it is not possible to resolve between these explanations by this survey alone; a longitudinal design using validated, multi-item measures and objective behavioural data would have helped to resolve between these explanations.

CONCLUSION

In conclusion, this study of 287 respondents reveals that boredom is common, not evenly distributed across the age and gender spectrum, and is behaviorally generative for the bulk of the population, even if the majority feels the overall economic impact of boredom is a drain.These figures are reported and interpreted in full in Sections 3 and 4 above and are not repeated here. Six of the eight hypotheses were supported at conventional significance levels, with the most robust being the age gradient in boredom frequency and the coupling of productivity and creativity beliefs, which suggest that boredom is felt differently across the life course and that it is experienced as a unified, rather than disjoined, orientation – either generative or corrosive – which align with the regulatory theory of boredom (Elpidorou, 2018) and meaning-regulation theory (van Tilburg and Igou, 2011).

For organisations and policymakers, boredom should be viewed as a signal to be managed as opposed to an outright problem to be solved; given the strong link between productivity and creativity beliefs, workplaces that do create legitimate downtime can reap a creative reward (apart from a loss of productivity) rather than an outright cost of boredom (Mann & Cadman, 2014).Returning to the research question suggested earlier, the survey and interview evidence together suggests that this is not a contradiction to be explained away, but the puzzle itself: Most people can find a time when boredom helped them, and most people believe, correctly by their reasoning, that this is harder for others than it was for them.Among those who experience it, the question is genuinely open as to whether boredom as a whole is stimulatory or inhibitory to the economy: 62% believe it drains the economy, 38% believe it drives the economy, and the youngest members of this group are undecided.

REFERENCES

Andel, S. A., Kessler, S. R., Pindek, S., Kleinman, G., & Spector, P. E. (2019). Is cyberloafing more complex than we originally thought? Cyberloafing as a coping response to workplace aggression exposure. Computers in Human Behavior, 101, 124–130. https://doi.org/10.1016/j.chb.2019.07.013

Belinda, C., Melwani, S., & Kapadia, C. (2024). Breaking boredom: Interrupting the residual effect of state boredom on future productivity. Journal of Applied Psychology, 109(6), 829–849. https://doi.org/10.1037/apl0001161

Bench, S. W., & Lench, H. C. (2019). Boredom as a seeking state: Boredom prompts the pursuit of novel (even negative) experiences. Emotion, 19(2), 242–254. https://doi.org/10.1037/emo0000433

Brodsky, A., & Amabile, T. M. (2018). The downside of downtime: The prevalence and work pacing consequences of idle time at work. Journal of Applied Psychology, 103(5), 496–512. https://doi.org/10.1037/apl0000294

Cohen, J. (1988). Statistical power analysis for the behavioral sciences (2nd ed.). Lawrence Erlbaum Associates.

Danckert, J., & Merrifield, C. (2018). Boredom, sustained attention and the default mode network. Experimental Brain Research, 236(9), 2507–2518. https://doi.org/10.1007/s00221-016-4617-5

Eastwood, J. D., Frischen, A., Fenske, M. J., & Smilek, D. (2012). The unengaged mind: Defining boredom in terms of attention. Perspectives on Psychological Science, 7(5), 482–495. https://doi.org/10.1177/1745691612456044

Elpidorou, A. (2014). The bright side of boredom. Frontiers in Psychology, 5, Article 1245. https://doi.org/10.3389/fpsyg.2014.01245

Elpidorou, A. (2018). The bored mind is a guiding mind: Toward a regulatory theory of boredom. Phenomenology and the Cognitive Sciences, 17(3), 455–484. https://doi.org/10.1007/s11097-017-9515-1

Elpidorou, A. (2021). Boredom and poverty: A theoretical model. In A. Elpidorou (Ed.), The moral psychology of boredom (pp. 171–208). Rowman & Littlefield.

Elpidorou, A. (2025). The injustice of boredom. In The anatomy of boredom (pp. 218–239). Oxford University Press.

Gallup. (2025). State of the global workplace 2025. Gallup.

Goetz, T., Frenzel, A. C., Hall, N. C., Nett, U. E., Pekrun, R., & Lüdtke, O. (2014). Types of boredom: An experience sampling approach. Motivation and Emotion, 38(3), 401–419. https://doi.org/10.1007/s11031-013-9385-y

Harju, L. K., Hakanen, J. J., & Schaufeli, W. B. (2014). Job boredom and its correlates in 87 Finnish organizations. Journal of Occupational and Environmental Medicine, 56(9), 911–918. https://doi.org/10.1097/JOM.0000000000000248

Iso-Ahola, S. E., & Weissinger, E. (1987). Leisure and boredom. Journal of Social and Clinical Psychology, 5(3), 356–364. https://doi.org/10.1521/jscp.1987.5.3.356

Iso-Ahola, S. E., & Weissinger, E. (1990). Perceptions of boredom in leisure: Conceptualization, reliability, and validity of the Leisure Boredom Scale. Journal of Leisure Research, 22(1), 1–17. https://doi.org/10.1080/00222216.1990.11969811

Jackson, N., & Carter, P. (2011). In praise of boredom. ephemera: Theory & Politics in Organization, 11(4), 387–405.

Johns, G. (2010). Presenteeism in the workplace: A review and research agenda. Journal of Organizational Behavior, 31(4), 519–542. https://doi.org/10.1002/job.630

Kawada, M., Shimazu, A., Miyanaka, D., Tokita, M., Sakakibara, K., Mori, N., … Schaufeli, W. B. (2023). Boredom and engagement at work: Do they have different antecedents and consequences? Industrial Health. https://doi.org/10.2486/indhealth.2023-0028

Kilic, A., van Tilburg, W. A. P., & Igou, E. R. (2020). Risk-taking increases under boredom. Journal of Behavioral Decision Making, 33(3), 257–269. https://doi.org/10.1002/bdm.2160

Mani, A., Mullainathan, S., Shafir, E., & Zhao, J. (2013). Poverty impedes cognitive function. Science, 341(6149), 976–980. https://doi.org/10.1126/science.1238041

Mann, S., & Cadman, R. (2014). Does being bored make us more creative? Creativity Research Journal, 26(2), 165–173. https://doi.org/10.1080/10400419.2014.901073

Mason, M. F., Norton, M. I., Van Horn, J. D., Wegner, D. M., Grafton, S. T., & Macrae, C. N. (2007). Wandering minds: The default network and stimulus-independent thought. Science, 315(5810), 393–395. https://doi.org/10.1126/science.1131295

Menon, B. (2019). Towards a new model of understanding: The triple network, psychopathology and the structure of the mind. Medical Hypotheses, 133, Article 109385. https://doi.org/10.1016/j.mehy.2019.109385

Mlynski, C., Goschke, T., Korb, F. M., & Job, V. (2025). The motivational consequences of boredom. Cognition & Emotion, 1–10. https://doi.org/10.1080/02699931.2025.2568554

Ndetei, D. M., Nyamai, P., & Mutiso, V. (2023). Boredom—Understanding the emotion and its impact on our lives: An African perspective. Frontiers in Sociology, 8, Article 1213190. https://doi.org/10.3389/fsoc.2023.1213190

O'Donoghue, T., & Rabin, M. (2000). The economics of immediate gratification. Journal of Behavioral Decision Making, 13(2), 233–250. https://doi.org/10.1002/(SICI)1099-0771(200004/06)13:2%3C233::AID-BDM325%3E3.0.CO;2-U

Pirla, S., & Navarro-Martinez, D. (2022). Does boredom affect economic risk preferences? Judgment and Decision Making, 17(5), 1094–1122. https://doi.org/10.1017/S1930297500009284

Pirla, S., Navarro-Martinez, D., Pfattheicher, S., & Quoidbach, J. (2025). Income and boredom: Evidence from 30 countries. Journal of Economic Psychology, 111, Article 102847. https://doi.org/10.1016/j.joep.2025.102847

UNCTAD (United Nations Conference on Trade and Development). (2024). Creative economy outlook 2024. United Nations.

van Hooff, M. L. M., & van Hooft, E. A. J. (2017). Boredom at work: Towards a dynamic spillover model of need satisfaction, work motivation, and work-related boredom. European Journal of Work and Organizational Psychology, 26(1), 133–148. https://doi.org/10.1080/1359432X.2016.1241769

van Tilburg, W. A. P., & Igou, E. R. (2011). On boredom and social identity: A pragmatic meaning-regulation approach. Personality and Social Psychology Bulletin, 37(12), 1679–1691. https://doi.org/10.1177/0146167211418530

Westgate, E. C., & Wilson, T. D. (2018). Boring thoughts and bored minds: The MAC model of boredom and cognitive engagement. Psychological Review, 125(5), 689–713. https://doi.org/10.1037/rev0000097

Wilson, T. D., Reinhard, D. A., Westgate, E. C., Gilbert, D. T., Ellerbeck, N., Hahn, C., Brown, C. L., & Shaked, A. (2014). Just think: The challenges of the disengaged mind. Science, 345(6192), 75–77. https://doi.org/10.1126/science.1250830