Geographical differences in Tightwad-Spendthrift tendencies among 21-40 year-olds: A 2024 snapshot

Methodological Details

Scott Rick
Ross School of Business
University of Michigan

September 23, 2024

Geographical variability in personality traits can provide clues about the origins of those traits (Rentfrow 2010). In what follows, I investigate how Tightwad-Spendthrift tendencies (Rick et al. 2008) differ across the U.S. Tightwads experience a lot of distress when considering spending money, and often spend less than they think they should. Spendthrifts do not experience enough distress when considering spending money, and often spend more than they think they should. Despite much research on the psychology of tightwads and spendthrifts, there is still much we do not know about how these tendencies develop. By investigating geographical variability, and some potentially important correlates, this report aims to develop new clues about the development of tightwad-spendthrift tendencies.

Sample overview

I invited respondents to complete the Tightwad-Spendthrift scale and a few demographic questions via the Lucid Marketplace platform (owned by Cint). For short surveys that benefit from representative samples, Stagnaro et al. (2024) found that Lucid is an appropriate recruitment platform. (Median completion time for this survey was 155 seconds.)

I initially aimed to collect 100 responses per state (and Washington D.C.), with at least 40 men and 40 women from each state. An initial look at the data suggested there were some low-quality responses (described below), and that more than the 5,100 planned responses would be needed. Ultimately, 5,766 responses were collected. The survey was open from September 5-12, 2024.

Ultimately, 549 respondents (9.5% of the original sample) were removed from analysis, for the following reasons:

- The survey asked respondents to report their age. Respondents are also asked by Lucid to report
 their age every 30 days. If those ages differed by two years or more, I excluded the respondent.
 (A one-year gap could happen if the respondent's birthday fell in between the Lucid age
 measurement and our survey.) This resulted in 378 exclusions.
- The survey asked respondents to report their gender. Lucid also collects gender data. If they
 reported a different gender than what they reported to Lucid, they were excluded. This resulted
 in 119 exclusions.
- Participants were asked two open-ended questions: "In a word or phrase, how would you
 describe your current occupation or employment status?" and "What race/ethnicity best
 describes you?" Respondents who provided non-sensical or protest responses (e.g., "dragon",
 "9006", "FUCKING STUUUPIID") were excluded. This resulted in 28 exclusions.
- Twelve respondents who took the survey twice from the same IP address were excluded. Both their responses were excluded. This resulted in 24 exclusions.

After these exclusions, I was left with a final data set of 5,217 responses.

Respondent characteristics and representativeness

Table 1 presents descriptive statistics by state. The survey was limited to 21-40 year-olds (mean age: 32.0, SD: 5.6). The sample was slightly more female than male (50.9% women, 47.5% men).

As discussed below, white, rural, and lower-income people were a bit over-represented in this sample, relative to the broader U.S. population of 21-40 year-olds. The political preferences within the sample were generally representative, though the percent identifying with neither political party was higher than expected.

Urbanicity

I began by assessing whether respondents' urbanicity is representative of the U.S. population. In this sample, 34% of respondents reported living in an urban environment, 40% reported living in a suburban environment, and 26% reported living in a rural environment.

Across all states, the Census estimates that about 20% of Americans live in a rural environment. Thus, rural respondents were somewhat over-represented in this sample.

I compared urbanicity by state to 2020 Census urban vs. rural percentages by state. The Census "urban" category included both urban and suburban residents. The correlation between suburban plus urban percentages by state in this survey and 2020 Census urban percentages by state is r(49) = .93, p < .0001. Thus, the degree of urbanicity by state in this survey appears fairly representative.

<u>Household income</u>

The median annual household income range in this sample is \$25,000-\$50,000. This is lower than most estimates of median income in the US. For example, the Census (2022) estimates that "real median household income was \$74,580 in 2022."

Race and ethnicity

White respondents were somewhat over-represented in this sample, and Hispanic/Latino respondents were under-represented.

In this sample, 66.2% of respondents were White, 15.1% were Black/African American, and 7.3% were Hispanic/Latino. The breakdown of the remaining 11.4% of participants can be found in Table 1.

Based on 2023 data, the Census estimates that 58.4% of the U.S. population is White, 13.7% is Black/African American, and 19.5% is Hispanic/Latino.

Political preferences

I also examined the extent to which the sample was politically representative of the broader U.S. population. 29.5% of participants reported that they were a Republican, 34.4% reported that they were a Democrat, and 36.1% reported that they identified with neither or that they were unsure of their political party.

The larger number of self-identified Democrats than self-identified Republicans is not surprising given the age range of this sample (21-40; see Pew Research 2024).

For each state, I computed the percentage of Democratic respondents minus the percentage of Republican respondents. This difference ranged from a high of +52% (Washington, D.C.) to a low of -32% (Wyoming).

I computed the correlation between these Democratic-Republican differences by state with the 2020 presidential popular vote percentage differences by state (percentages were positive when Biden won the state). That correlation is r(49) = .81, p < .0001.

I also computed the correlation between these Democratic-Republican differences by state with a binary variable indicating whether or not Joe Biden won the state in 2020 (1=Biden won, 0=Trump won). That correlation is r(49) = .60, p < .0001.

A look at Table 1 reveals that there are certainly some unexpected Democratic-Republican differences by state (e.g., Louisiana is 20% more Democratic than Republican). However, overall, it appears that the sample is largely representative politically.

Measuring tightwad-spendthrift tendencies

I administered the modified tightwad-spendthrift scale described in Rick 2024.

The mean inter-item correlation was a little lower than usual (.31 here vs .42 in Rick et al 2008), but still at an acceptable level (Clark and Watson 1995).

An analysis of the individual items suggests why the inter-item correlation is lower than usual.

Item 1 (Q1) asks participants "do you have trouble limiting your spending?" Higher responses are more indicative of a spendthrift orientation. Q2 asks participants "do you have trouble spending money?" Higher responses are more indicative of a tightwad orientation.

It appears that the reverse-coded nature of Q2 was not noticed by some respondents. This is perhaps not surprising given the less attentive nature of Lucid samples (Stagnaro et al. 2024). If Q2 were omitted, the average inter-item correlation of the three-item version of the TW-ST scale returns to its typical level (.42).

Fortunately, the results look quite similar if you use the full four-item version of the TW-ST scale or a three-item version that omits Q2. Four-item TW-ST scores correlate at .97 with three-item TW-ST scores. State-by-state rankings (1=least spendthrift, ..., 51=most spendthrift) based on four-item scores correlate at .96 with state-by-state rankings based on three-item scores. The least spendthrift state (Indiana) and most spendthrift state (Maine) remain the same whether basing rankings on four-item or three-item scores.

To facilitate comparisons with past findings, four-item TW-ST scores will be used throughout the analyses reported here.

Tightwad-Spendthrift tendencies in this sample

Tightwad-Spendthrift scores range from 4 to 26. Rick et al. (2008) suggest that participants with scores from 4 to 11 can be considered "tightwads," participants with scores from 12 to 18 can be considered "unconflicted consumers," and participants with scores from 19 to 26 can be considered "spendthrifts."

In this sample, across all states, the average Tightwad-Spendthrift score was 15.68 (SD = 4.37). 16.9% would be considered tightwads, 57.5% would be considered unconflicted consumers, and 25.6% would be considered spendthrifts. See Figure 1 for the full distribution of Tightwad-Spendthrift scores.

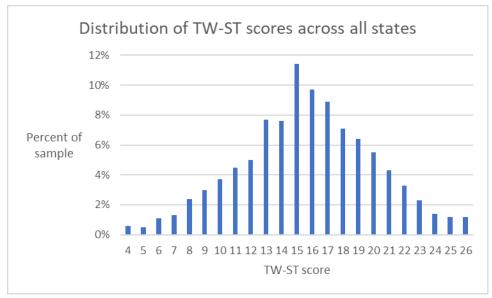


Figure 1. Distribution of Tightwad-Spendthrift scores across all states (N=5,217)

This is a more spendthrift-leaning sample than the Rick et al. (2008) sample, which had an average TW-ST score of 14.54 (SD = 3.95) among 21-40 year-olds. The 2008 sample differs from the current sample in a number of ways. For instance, the 2008 sample mostly consisted of highly educated New York Times readers who completed the survey (for no compensation) to learn about their own spending habits.

Table 2 reports the mean TW-ST scores by state, as well as the percentage of respondents who fall into tightwad, unconflicted consumer, and spendthrift categories by state. Note that I am reporting raw data, rather than reweighting responses or employing post-stratification to account for possible differences between this sample and the population at large.

Figure 2 displays whether each state's mean TW-ST score is above or below the sample's mean TW-ST score (15.68). All TW-ST means in the most tightwad states (Indiana, Missouri, Florida) differ significantly (ps < .05) from all TW-ST means in the most spendthrift states (Maine, Delaware, Rhode Island, Oregon, Colorado, North Dakota).

Certainly, the map suggests at least one regional difference: the Southeast or "Deep South" contains a clear cluster of tightwad-leaning states.

State	Mean TW-ST	Tightwad	Unconflicted	Spendthrift
Alabama	15.20	18%	60%	22%
Alaska	15.78	10%	70%	20%
Arizona	15.78	17%	61%	22%
Arkansas	15.87	11%	63%	26%
California	15.61	19%	55%	26%
Colorado	16.19	20%	47%	33%
Connecticut	15.50	15%	62%	23%
Delaware	16.40	12%	58%	30%
Florida	14.91	15%	70%	15%
Georgia	15.40	20%	52%	28%
Hawaii	16.03	17%	50%	33%
Idaho	15.68	16%	59%	25%
Illinois	15.85	19%	55%	26%
Indiana	14.56	30%	45%	25%
Iowa	15.47	19%	59%	22%
Kansas	15.94	15%	59%	26%
Kentucky	15.79	16%	57%	27%
Louisiana	15.36	16%	58%	26%
Maine	16.69	11%	57%	32%
Maryland	15.83	16%	60%	24%
Massachusetts	15.35	20%	54%	26%
Michigan	15.42	21%	52%	27%
Minnesota	15.96	15%	57%	28%
Mississippi	15.34	16%	60%	24%
Missouri	14.87	20%	60%	20%
Montana	15.63	15%	60%	25%
Nebraska	15.31	19%	60%	21%
Nevada	15.90	18%	52%	30%
New Hampshire	15.65	16%	60%	24%
New Jersey	15.37	21%	59%	20%
New Mexico	15.93	16%	61%	24%
New York	15.93	15%	59%	26%
North Carolina	15.65	17%	54%	28%
North Dakota	16.09	15%	55%	30%
Ohio	15.83	13%	61%	26%
Oklahoma	16.07	17%	58%	25%
Oregon	16.20	16%	49%	35%
Pennsylvania	15.68	14%	58%	28%
Rhode Island	16.22	13%	58%	29%
South Carolina	15.12	19%	57%	25%
South Dakota	15.35	15%	67%	18%
Tennessee	15.56	22%	53%	24%
Texas	15.64	14%	64%	22%
Utah	15.55	23%	50%	27%
Vermont	15.84	19%	47%	34%
Virginia	15.31	16%	64%	20%
Washington DC	16.01	10%	67%	23%
Washington	16.07	22%	47%	31%
West Virginia	15.77	15%	58%	27%
Wisconsin	15.40	17%	62%	20%
Wyoming	15.75	23%	44%	33%

Table 2. Mean TW-ST scores by state, as well as the percentage of respondents who would be classified as tightwads, unconflicted consumers, and spendthrifts, based on Rick et al. (2008).

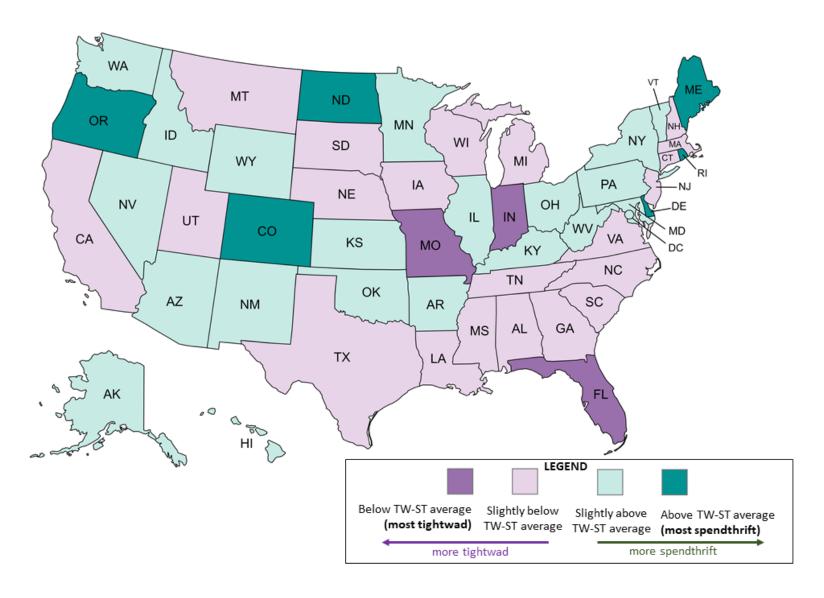


Figure 2. Displaying whether a state's mean TW-ST score is above or below the sample's average TW-ST score. Note that all TW-ST means in dark purple states differ significantly from all TW-ST means in dark green states (ps <.05).

Table 1. Descriptive Statistics by State

	1	GENDER]	ι	URBANICITY			POL	ITICAL F	RACE/ETHNICITY									
STATE	N	Men	Women	N-B	NR	MEAN AGE (SD)	U	s	R	MEDIAN INCOME RANGE	REP	DEM	N/U	w	В	н	М	Α	NA	НРІ	ME	NR
Alabama	105	52	52		1	31.5 (5.9)	27	43	35	\$25-50K	33	32	40	63	36	1	2		2			1
Alaska	99	40	55	4		32.0 (5.3)	33	39	27	\$25-50K	30	22	47	51	4	5	8		21	5		5
Arizona	105	51	52	2		31.9 (5.3)	51	38	16	\$25-50K	34	40	31	61	13	20	2	1	6		1	1
Arkansas	101	50	50		1	31.7 (5.9)	23	39	39	\$25-50K	26	31	44	71	23	4	3					
California	121	59	60	2		31.6 (4.9)	48	60	13	\$50-75K	40	47	34	63	10	27	6	8	2	1	2	2
Colorado	103	52	49	1	1	31.8 (5.6)	43	51	9	\$50-75K	22	44	37	75	5	12	1	5	3			2
Connecticut	101	50	51			32.0 (6.0)	42	46	13	\$50-75K	19	48	34	60	22	12	1	5		1		
Delaware	98	44	49	4	1	32.1 (5.8)	24	60	14	\$50-75K	24	37	37	59	26	6	2	3				2
Florida	105	52	53			31.4 (5.7)	35	60	10	\$50-75K	31	37	37	53	29	16	4	1		1		1
Georgia	102	49	52		1	32.0 (5.6)	23	52	27	\$25-50K	38	34	30	54	34	5	2	4	1			2
Hawaii	98	35	61	2		31.9 (5.7)	40	36	22	\$50-75K	15	37	46	22	4	4	12	24		31		1
Idaho	100	49	49	2		31.6 (5.7)	26	42	32	\$25-50K	44	18	38	83	1	5	8	1				2
Illinois	101	48	52	1		31.9 (5.0)	36	43	22	\$25-50K	24	44	33	63	23	8	3	4				
Indiana	102	51	50		1	32.4 (5.7)	31	38	33	\$25-50K	28	33	41	75	12	5	6	1	3			
Iowa	101	48	52	1		33.2 (5.3)	24	28	49	\$25-50K	29	29	43	85	4	2		5	2			3
Kansas	99	49	48	1	1	32.3 (5.4)	38	39	22	\$25-50K	31	32	36	69	10	5	4	5	5			1
Kentucky	102	47	52	3		32.0 (5.8)	28	30	44	\$25-50K	43	26	33	84	14		3		1			
Louisiana	103	49	52	2		31.6 (5.7)	36	36	31	\$25-50K	24	44	35	57	36	2	2	3	1			2
Maine	102	51	50	1		31.9 (5.7)	20	29	53	\$25-50K	33	17	52	92	3		4	3				
Maryland	110	53	57			32.4 (5.2)	44	54	12	\$50-75K	25	51	34	60	35	7	3	4				1
Massachusetts	102	50	51	1		31.8 (6.2)	52	44	6	\$50-75K	24	45	33	72	7	12	4	4	1	1		1
Michigan	112	57	55			32.9 (5.0)	32	45	35	\$25-50K	33	45	34	84	17	3	4	2	1		1	
Minnesota	102	49	51	1	1	32.8 (5.3)	39	40	23	\$25-75K	32	30	40	73	11	2	3	6	5		1	1
Mississippi	103	52	50	1		32.1 (5.6)	24	29	50	\$25-50K	32	34	37	55	43	1	2	1				1
Missouri	101	48	51	2		32.7 (5.5)	24	45	32	\$25-50K	33	31	37	86	11	1	1	1	1			

		GENDER				UI	RBANIC	ITY]	POL	TICAL I	PARTY	RACE/ETHNICITY									
STATE	N	Men	Women	N-B NR	MEAN AGE (SD)	U	s	R	MEDIAN INCOME RANGE	REP	DEM	N/U	w	В	н	М	Α	NA	НРІ	ME	NR	
Montana	100	46	50	4	31.9 (5.7)	25	28	47	\$25-50K	40	23	37	77	1	3	1	1	16			1	
Nebraska	101	48	52	1	32.4 (5.4)	47	29	25	\$25-50K	33	25	43	74	9	8	3		4			3	
Nevada	102	49	51	2	31.2 (6.2)	44	45	13	\$50-75K	34	41	27	45	25	15	7	7	2	1			
New Hampshire	101	49	50	2	33.4 (5.3)	25	43	33	\$50-75K	25	32	44	85	1	4	4	4	2			1	
New Jersey	106	49	55	2	31.4 (5.7)	43	53	10	\$50-75K	22	48	36	62	23	13	6					2	
New Mexico	102	49	49	4	32.8 (5.1)	32	33	37	\$25-50K	19	39	44	44	5	34	8	1	9			1	
New York	112	59	53		31.3 (5.5)	64	32	16	\$50-75K	31	47	34	65	19	14	5	5	1		1	2	
North Carolina	103	48	55		32.0 (5.5)	24	49	30	\$25-50K	31	37	35	68	26	4	1	2	2				
North Dakota	100	46	54		30.9 (5.5)	38	26	36	\$25-50K	40	27	33	83	3	6	2		3			3	
Ohio	108	52	53	3	32.1 (5.5)	33	56	19	\$50-75K	38	42	28	77	19	8	3					1	
Oklahoma	102	51	50	1	31.6 (6.0)	39	30	33	\$25-50K	32	30	40	66	10	6	6		13		1		
Oregon	100	48	47	5	32.6 (5.6)	36	48	16	\$50-75K	17	50	33	72	6	10	6	2	3			1	
Pennsylvania	104	54	50		32.3 (5.7)	39	43	22	\$50-75K	39	43	22	67	20	9	3	3				2	
Rhode Island	100	47	52	1	32.4 (5.8)	42	47	11	\$50-75K	22	33	45	69	8	10	6	5	1			1	
South Carolina	102	50	51	1	33.0 (5.4)	33	36	33	\$25-75K	29	36	37	60	32	3	2	3				2	
South Dakota	100	47	52	1	31.5 (6.0)	27	34	39	\$25-50K	46	21	33	76	2	1	5	1	13			2	
Tennessee	103	48	53	2	31.0 (5.9)	30	41	32	\$25-50K	38	28	37	71	26	2	1	1	2				
Texas	107	49	56	2	31.5 (5.6)	38	55	14	\$25-50K	27	42	38	56	19	25	3	3	1				
Utah	101	48	51	2	31.2 (5.2)	26	64	11	\$50-75K	35	21	45	76	3	8	5	3	2	2		2	
Vermont	77	27	49	1	31.6 (5.8)	14	17	46	\$25-50K	11	24	42	71	3	1		1	1				
Virginia	107	54	53		31.7 (5.5)	32	52	23	\$50-75K	35	40	32	63	22	7	7	4	1		1	2	
Washington DC	100	44	54	2	30.6 (5.8)	79	16	5	\$50-75K	12	64	24	39	41	6	6	6				2	
Washington	100	47	50	3	32.6 (5.5)	39	42	19	\$50-75K	20	36	44	64	9	5	8	9	4	1			
West Virginia	101	49	52		32.6 (5.2)	20	29	52	\$25-50K	39	24	38	92	5	1	1		2				
Wisconsin	104	54	50		32.8 (5.9)	32	46	26	\$50-75K	31	43	30	76	15	7	2	1	2			1	
Wyoming	96	33	62	1	31.7 (5.4)	19	24	53	\$25-50K	44	13	39	85	1	7	1		2				
Total	5217	2480	2658	71 8	32.0 (5.6)	1763	2084	1370	\$25-50K	1537	1797	1883	3453	786	382	190	152	144	44	8	58	

Notes: N-B: Non-Binary; NR: No Response or Non-Codeable Response; U: Urban; S: Suburban; R: Rural; N/U: Neither or Unsure; W: White; B: Black, African American, or African; H: Hispanic/Latino; M: Mixed; A: Asian; NA: Native American, American Indian, or Alaska Native; HPI: Hawaiian/Pacific Islander; ME: Middle Eastern. When median income falls between two income ranges (e.g., \$25-50K and \$50-75K), I report the income range that covers both of the tied ranges (e.g., \$25-75K).

References

Clark, Lee Anna and David Watson (1995), "Constructing Validity: Basic Issues in Objective Scale Development." Psychological Assessment, 7(3), 309-319.

Pew Research (2024), "Age, Generational Cohorts, and Party Identification," https://www.pewresearch.org/politics/2024/04/09/age-generational-cohorts-and-party-identification/

Rentfrow, Peter J. (2010), "Statewide differences in personality: Toward a psychological geography of the United States." American Psychologist, 65(6), 548-558.

Rick, Scott (2024), Tightwads and Spendthrifts: Navigating the Money Minefield in Real Relationships, St. Martin's Press

Rick, Scott, Cynthia Cryder, and George Loewenstein (2008), "Tightwads and Spendthrifts," Journal of Consumer Research, 34 (6), 767-782.

Stagnaro, M.N., Druckman, J.N., Berinsky, A.J., Arechar, A.A., Willer, R., and Rand, D.G. (April 2024), "Representativeness versus Response Quality: Assessing Nine Opt-In Online Survey Samples." Working Paper.

U.S. Census (2022), "Income in the United States: 2022," https://www.census.gov/content/dam/Census/library/publications/2023/demo/p60-279.pdf

U.S. Census (2023), "2020 Census Urban Areas Facts," https://www.census.gov/programs-surveys/geography/guidance/geo-areas/urban-rural/2020-ua-facts.html

U.S. Census (2023), "Quick Facts," https://www.census.gov/quickfacts/fact/table/US/PST045221