

Supplemental Online Material

Table S1. Comparing study variables for the analytic samples versus participants without complete data for each mental health outcome

Study Variable	Depression, generalized anxiety, and panic symptoms ⁱ (n = 3,293)			Problems related to alcohol use (n = 2,530)			Problems related to other substance use (n = 2,545)			Any survey data available MIDUS-II or MIDUS-III (n = 4,964)	
	No.(%) or M(SD)	Missing (n)	Effect Size ^a	No.(%) or M(SD)	Missing (n)	Effect Size ^a	No.(%) or M(SD)	Missing (n)	Effect Size ^a	No.(%) or M(SD)	Total N
Sociodemographic characteristics prior to The Great Recession (range or reference category)											
Age in years (30–84) ^b	54.5 (11.35)	0	0.21	55.6 (11.23)	0	0.01	55.5 (11.21)	0	0.02	55.4 (12.45)	4962
Sex (Female) ^c	1810 (55.0%)	0	0.05	1421 (55.8%)	0	0.05	1414 (55.9%)	0	0.05	2647 (55.3%)	4963
Race-ethnicity (White) ^d	3026 (91.9%)	9	0.08	2361 (93.1%)	8	0.09	2346 (93.0%)	8	0.09	4473 (90.1%)	4939
Education (No college) ^e	952 (29.0%)	4	0.12	751 (29.5%)	3	0.08	740 (29.3%)	3	0.08	1636 (33.0%)	4956
Employment status (Not in paid work) ^f	646 (19.6%)	530	-	523 (24.9%)	436	0.07	523 (25.0%)	445	0.06	647 (13.0%)	2764
Marital status (Not married or cohabiting)	760 (23.1%)	1	0.08	604 (23.7%)	1	0.04	601 (23.8%)	1	0.04	1265 (25.5%)	4961
Income per person (0–300,000), \$/year ^g	41250 (34,185.8)	495	0.22	40806 (33,490.1)	77	0.13	40840 (33,481.1)	79	0.13	39185 (34,481.0)	3854
Financial advantage ^h	-	440	0.17	-	35	0.18	-	37	0.20	-	3294
Current financial situation (0–10) ^h	6.6 (2.09)	434	0.16	6.6 (2.08)	31	0.17	6.6 (2.08)	33	0.18	6.5 (2.15)	3961
Enough money to meet needs (Not enough) ^h	515 (15.6%)	413	0.06	450 (17.8%)	14	0.11	452 (18.0%)	14	0.12	754 (15.2%)	3984
Difficult to pay bills (Somewhat or Very) ^h	735 (22.3%)	409	0.03	625 (24.7%)	10	0.13	624 (24.8%)	10	0.14	1066 (21.47%)	3992
Prevalence of mental health outcomes											
Symptoms of major depression at MIDUS-II	393 (11.9%)	0	0.02	293 (11.5%)	0	0.03	291 (11.5%)	0	0.03	617 (12.4%)	4963
Symptoms of major depression at MIDUS-III	397 (12.1%)	0	-	286 (11.2%)	0	0.05	284 (11.2%)	0	0.05	398 (8.0%)	3294
Symptoms of generalized anxiety at MIDUS-II	89 (2.7%)	0	0.01	61 (2.4%)	0	0.01	61 (2.4%)	0	0.01	129 (2.6%)	4963
Symptoms of generalized anxiety at MIDUS-III	84 (2.6%)	0	-	57 (2.2%)	0	0.04	56 (2.2%)	0	0.04	84 (1.7%)	3294
Symptoms of panic disorder at MIDUS-II	356 (10.8%)	0	0.01	256 (10.1%)	0	0.03	258 (10.2%)	0	0.03	549 (11.1%)	4963
Symptoms of panic disorder at MIDUS-III	340 (10.3%)	0	-	244 (9.6%)	0	0.03	247 (9.8%)	0	0.04	340 (6.8%)	3294

Study Variable (continued)	Depression, generalized anxiety, and panic symptoms ⁱ (<i>n</i> = 3,293) (continued)			Problems related to alcohol use (<i>n</i> = 2,530) (continued)			Problems related to other substance use (<i>n</i> = 2,545) (continued)			Any survey data available at MIDUS-II (<i>n</i> = 4,964) (continued)	
	No.(%) or M(SD)	Missing (N)	Effect Size	No.(%) or M(SD)	Missing (N)	Effect Size	No.(%) or M(SD)	Missing (N)	Effect Size	No.(%) or M(SD)	Total N
Prevalence of Mental Health Outcomes (continued)											
Problems related to alcohol use at MIDUS-II	614 (18.6%)	416	0.06	511 (20.3%)	0	0.02	514 (20.3%)	21	0.01	792 (16.0%)	3999
Problems related to alcohol use at MIDUS-III	515 (15.6%)	582	-	473 (18.7%)	0	<0.01	481 (19.0%)	14	0.03	515 (10.4%)	2712
Problems related to substance use at MIDUS-II	158 (4.8%)	399	0.01	132 (5.2%)	5	<0.01	136 (5.4%)	0	0.01	215 (4.3%)	4032
Problems related to substance use at MIDUS-III	114 (3.5%)	581	-	101 (3.4%)	14	0.05	99 (3.9%)	0	0.05	114 (2.3%)	2713
Recession Impact by Domain											
Job-related impacts	0.4 (0.83)	0	-	0.4 (0.76)	0	0.28	0.4 (0.75)	0	0.30	0.4 (0.83)	3294
At least one impact	863 (26.2%)	0	-	596 (23.6%)	0	0.11	594 (23.3%)	0	0.12	863 (17.4%)	3294
Housing impacts	0.4 (0.85)	0	-	0.3 (0.79)	0	0.22	0.3 (0.79)	0	0.24	0.4 (0.85)	3294
At least one impact	762 (23.1%)	0	-	526 (20.8%)	0	0.10	523 (20.6%)	0	0.11	762 (15.4%)	3294
Financial impacts	1.2 (1.29)	0	-	1.1 (1.24)	0	0.27	1.1 (1.23)	0	0.31	1.2 (1.29)	3294
At least one impact	2189 (66.5%)	0	-	1620 (64.0%)	0	0.09	1626 (63.9%)	0	0.10	2190 (44.1%)	3294

^a Standardized effect sizes comparing data for each analytic sample to all other participants with data for the study variable; Cohen's *d* for continuous variables, *phi* coefficient for binary variables, and Cramer's *V* for the two ordinal financial advantage items.

^b Age in years was divided by ten and centered at the mean for analysis so regression coefficients in subsequent analyses can be interpreted as the effect corresponding to a ten-year age difference.

^c Sex was self-reported as male or female.

^d Race-ethnicity was based on self-reported main racial origins (parents, grandparents, and other ancestors), and was classified as white or minority.

^e Education was based on self-reported highest grade of school or year of college completed, and classified as up to and including graduation from high school (no college) or one or more years of college.

^f Employment status was based on self-reported employment situation in January 2008, and classified as working or self-employed (in paid work) or not in paid work.

^g Income per person was calculated as total household income divided by the number of people in the household and was standardized for analysis so regression coefficients in subsequent analyses can be interpreted as the effect corresponding to a one standard deviation difference in income.

^h Financial advantage was calculated as the sum of three standardized items: (a) "Using a scale from 0 to 10 where 0 means "the worst possible financial situation" and 10 means "the best possible financial situation," how would you rate your financial situation these days?"; (b) "In general, would you say you (and your family living with you) have more money than you need [2], just enough for your needs [1], or not enough to meet your needs [0]?"; and (c) "How difficult is it for you (and your family) to pay your monthly bills?" rated from "very difficult" (1) to "not at all difficult" (4). This sum score was standardized for analyses so regression coefficients in subsequent analyses can be interpreted as the effect corresponding to a one standard deviation difference in financial advantage.

Note. MIDUS-II is the second wave of data from the Midlife in the United States study, collected in 2003–2004; MIDUS-III is the third wave, collected in 2012–2013.

ⁱ These comparisons also represent the full sample retained from MIDUS-II to MIDUS-III ($n = 3,293$) compared to the attrited sample ($n = 1,671$).

Table S2. *Multivariable linear regressions of associations among number of recession impacts in each domain and sociodemographic characteristics (n = 3,293)*

Sociodemographic characteristics prior to recession (range or reference category)	Domain of Recession Impact		
	Financial	Job-related	Housing
Age in years (30–84) ^a	-0.2 (-0.25– -0.18)	-0.2 (-0.19– -0.14)	-0.1 (-0.11– -0.07)
Sex (Female) ^b	-0.1 (-0.16– -0.02)	0.0 (0.0–0.09)	-0.1 (-0.11– -0.01)
Race-ethnicity (White) ^c	0.1 (-0.03–0.24)	0.0 (-0.08–0.10)	0.1 (0.03–0.24)
Education (No college) ^d	-0.1 (-0.16– -0.01)	0.1 (0.03–0.13)	0.0 (-0.10–0.01)
Employment status (Not in paid work) ^e	0.0 (-0.05–0.12)	0.0 (-0.01–0.10)	0.0 (-0.08–0.04)
Marital status (Not married or cohabiting)	-0.1 (-0.17–0.01)	0.0 (-0.06–0.05)	-0.1 (-0.14– -0.01)
Income per person (0–300,000), \$/year ^f	0.0 (-0.07–0.00)	-0.0 (-0.07– -0.01)	0.0 (-0.03–0.02)
Financial advantage ^g	-0.5 (-0.52– -0.44)	-0.2 (-0.18– -0.12)	-0.2 (-0.23– -0.16)

^a Age in years was divided by ten and centered at the mean for analysis so regression coefficients in subsequent analyses can be interpreted as the effect corresponding to a ten-year age difference.

^b Sex was self-reported as male or female.

^c Race-ethnicity was based on self-reported main racial origins (parents, grandparents, and other ancestors), and was classified as white or minority.

^d Education was based on self-reported highest grade of school or year of college completed, and classified as up to and including graduation from high school (no college) or one or more years of college.

^e Employment status was based on self-reported employment situation in January 2008, and classified as working or self-employed (in paid work) or not in paid work.

^f Income per person was calculated as total household income divided by the number of people in the household and was standardized for analysis so regression coefficients in subsequent analyses can be interpreted as the effect corresponding to a one standard deviation difference in income.

^g Financial advantage was calculated as the sum of three standardized items: (a) “Using a scale from 0 to 10 where 0 means “the worst possible financial situation” and 10 means “the best possible financial situation,” how would you rate your financial situation these days?”; (b) “In general, would you say you (and your family living with you) have more money than you need [2], just enough for your needs [1], or not enough to meet your needs [0]?”; and (c) “How difficult is it for you (and your family) to pay your monthly bills?” rated from “very difficult” (1) to “not at all difficult” (4). This sum score was standardized for analyses so regression coefficients in subsequent analyses can be interpreted as the effect corresponding to a one standard deviation difference in financial advantage.

Note. These are unstandardized coefficients; statistically significant associations (adjusting for a paper-wide false discovery rate of 5%) are presented in bold.

Table S3. Full multivariable logistic regression analyses for Step 3, controlling for baseline symptoms, sociodemographic characteristics, and examining moderation effects

Mental Health Outcome	Domain of Recession Impact		
	Financial OR (95%CI)	Job-Related OR (95%CI)	Housing OR (95%CI)
Symptoms of major depression (n = 3,293)			
Recession impact	1.5 (1.18–1.97)	1.5 (1.00–2.21)	1.3 (0.93–1.87)
Baseline symptoms of depression	4.9 (3.77–6.29)	5.0 (3.87–6.38)	5.0 (3.89–6.46)
Age in years (30–84) ^a	0.9 (0.76–1.08)	0.9 (0.74–0.98)	0.8 (0.71–0.94)
Sex (Female) ^b	0.8 (0.53–1.07)	0.8 (0.57–1.02)	0.8 (0.60–1.05)
Race-ethnicity (White) ^c	1.1 (0.61–2.02)	0.7 (0.43–1.28)	0.8 (0.46–1.35)
Education (No college) ^d	1.3 (0.87–1.90)	1.0 (0.75–1.36)	1.0 (0.73–1.31)
Employment status (Not in paid work) ^e	0.9 (0.57–1.46)	0.6 (0.44–0.91)	0.7 (0.49–0.98)
Marital status (Not married or cohabiting)	0.9 (0.58–1.26)	0.9 (0.66–1.23)	0.8 (0.61–1.13)
Income per person (0–300,000), \$/year ^f	1.0 (0.79–1.16)	1.0 (0.83–1.17)	1.0 (0.84–1.14)
Financial advantage ^g	0.9 (0.75–1.13)	0.8 (0.66–0.90)	0.8 (0.70–0.94)
Impact*age	1.0 (0.90–1.06)	1.0 (0.92–1.19)	1.1 (0.95–1.20)
Impact*sex	1.0 (0.69–1.21)	1.0 (0.79–1.27)	1.0 (0.80–1.25)
Impact*race-ethnicity	0.9 (0.69–1.11)	1.3 (0.89–1.81)	1.1 (0.79–1.48)
Impact*education	0.9 (0.75–1.05)	1.0 (0.75–1.24)	1.1 (0.86–1.34)
Impact*employment status	0.8 (0.65–0.99)	1.0 (0.72–1.32)	0.9 (0.68–1.16)
Impact*marital status	1.0 (0.86–1.22)	1.0 (0.74–1.24)	1.1 (0.90–1.43)
Impact*income	1.0 (0.90–1.12)	1.0 (0.83–1.15)	1.0 (0.83–1.13)
Impact*financial advantage	1.0 (0.88–1.05)	1.1 (0.96–1.27)	1.1 (0.95–1.20)
Symptoms of generalized anxiety (n = 3,293)			
Recession impact	2.3 (1.54–3.42)	1.8 (0.93–3.64)	2.4 (1.46–4.03)
Baseline symptoms of generalized anxiety	13.8 (7.72–24.68)	13.6 (7.46–24.71)	13.4 (7.27–24.55)
Age in years (30–84) ^a	0.5 (0.31–0.81)	0.6 (0.39–0.80)	0.6 (0.40–0.77)
Sex (Female) ^b	0.6 (0.23–1.42)	0.7 (0.36–1.33)	0.6 (0.31–1.13)
Race-ethnicity (White) ^c	2.9 (0.76–11.39)	0.8 (0.28–2.35)	1.4 (0.48–4.09)
Education (No college) ^d	1.9 (0.69–5.13)	1.1 (0.60–2.03)	1.1 (0.55–2.02)
Employment status (Not in paid work) ^e	0.7 (0.25–2.01)	0.3 (0.16–0.75)	0.5 (0.23–0.96)
Marital status (Not married or cohabiting)	0.7 (0.26–1.62)	0.7 (0.35–1.26)	0.8 (0.41–1.62)
Income per person (0–300,000), \$/year ^f	0.7 (0.36–1.24)	0.8 (0.52–1.14)	0.8 (0.51–1.16)
Financial advantage ^g	0.6 (0.34–0.93)	0.6 (0.43–0.79)	0.6 (0.42–0.80)
Impact*age	1.2 (0.99–1.37)	1.3 (1.02–1.70)	1.3 (1.0–1.58)
Impact*sex	1.1 (0.76–1.51)	0.9 (0.54–1.40)	1.2 (0.76–1.76)
Impact*race-ethnicity	0.7 (0.36–1.30)	1.7 (0.90–3.35)	1.0 (0.54–1.88)
Impact*education	0.7 (0.48–0.95)	0.5 (0.36–0.82)	0.7 (0.45–0.97)
Impact*employment status	0.7 (0.53–1.06)	1.1 (0.65–2.02)	0.8 (0.56–1.22)
Impact*marital status	1.1 (0.78–1.50)	1.3 (0.78–2.05)	1.0 (0.61–1.57)
Impact*income	1.1 (0.88–1.38)	1.1 (0.86–1.47)	1.1 (0.85–1.38)
Impact*financial advantage	1.2 (0.97–1.40)	1.3 (1.04–1.74)	1.3 (1.06–1.54)

Mental Health Outcome (continued)	Domain of Recession Impact (continued)		
	Financial OR (95%CI)	Job-Related OR (95%CI)	Housing OR (95%CI)
Symptoms of panic disorder (n = 3,293)			
Recession impact	1.2 (0.96–1.61)	1.0 (0.63–1.57)	1.1 (0.77–1.71)
Baseline symptoms of panic disorder	5.6 (4.28–7.41)	5.6 (4.25–7.37)	5.6 (4.26–7.37)
Age in years (30–84) ^a	0.8 (0.65–0.96)	0.7 (0.62–0.85)	0.8 (0.66–0.88)
Sex (Female) ^b	0.5 (0.34–0.71)	0.6 (0.42–0.78)	0.5 (0.38–0.70)
Race-ethnicity (White) ^c	1.8 (0.96–3.35)	1.1 (0.65–1.87)	1.0 (0.60–1.75)
Education (No college) ^d	0.9 (0.61–1.35)	0.8 (0.58–1.06)	1.0 (0.72–1.31)
Employment status (Not in paid work) ^e	0.9 (0.52–1.42)	0.8 (0.50–1.14)	0.8 (0.56–1.22)
Marital status (Not married or cohabiting)	0.7 (0.49–1.12)	0.7 (0.50–0.95)	0.7 (0.49–0.93)
Income per person (0–300,000), \$/year ^f	0.9 (0.69–1.08)	0.9 (0.78–1.09)	0.9 (0.77–1.07)
Financial advantage ^g	1.0 (0.84–1.30)	1.0 (0.87–1.19)	1.0 (0.85–1.16)
Impact*age	1.0 (0.90–1.08)	1.1 (0.97–1.31)	1.0 (0.88–1.16)
Impact*sex	1.1 (0.95–1.32)	1.0 (0.77–1.28)	1.2 (0.96–1.60)
Impact*race-ethnicity	0.7 (0.57–0.98)	1.0 (0.66–1.54)	1.1 (0.74–1.56)
Impact*education	1.0 (0.84–1.19)	1.2 (0.87–1.58)	0.9 (0.68–1.11)
Impact*employment status	0.9 (0.76–1.16)	1.0 (0.71–1.43)	0.9 (0.70–1.24)
Impact*marital status	1.0 (0.84–1.20)	1.1 (0.85–1.49)	1.2 (0.89–1.52)
Impact*income	1.0 (0.94–1.16)	1.0 (0.83–1.16)	1.0 (0.86–1.15)
Impact*financial advantage	1.0 (0.90–1.10)	0.9 (0.81–1.09)	1.0 (0.87–1.13)
Problems related to alcohol use (n = 2,530)			
Recession impact	0.9 (0.70–1.28)	0.9 (0.52–1.48)	1.2 (0.76–2.05)
Baseline symptoms of alcohol use	14.1 (11.08–18.07)	14.0 (10.96–17.85)	13.8 (10.85–17.62)
Age in years (30–84) ^a	0.7 (0.58–0.81)	0.7 (0.61–0.81)	0.7 (0.64–0.84)
Sex (Female) ^b	1.0 (0.73–1.45)	1.1 (0.85–1.49)	1.1 (0.84–1.45)
Race-ethnicity (White) ^c	0.5 (0.23–1.26)	0.7 (0.35–1.26)	0.6 (0.28–1.06)
Education (No college) ^d	1.3 (0.84–1.90)	1.1 (0.78–1.51)	1.2 (0.84–1.65)
Employment status (Not in paid work) ^e	1.3 (0.79–2.03)	1.2 (0.79–1.76)	1.3 (0.88–1.90)
Marital status (Not married or cohabiting)	0.9 (0.59–1.45)	1.1 (0.77–1.58)	1.1 (0.79–1.61)
Income per person (0–300,000), \$/year ^f	1.2 (0.99–1.38)	1.2 (1.07–1.40)	1.2 (1.07–1.40)
Financial advantage ^g	1.0 (0.83–1.23)	1.0 (0.88–1.19)	1.0 (0.85–1.14)
Impact*age	1.0 (0.95–1.14)	1.1 (0.92–1.30)	1.0 (0.82–1.13)
Impact*sex	1.0 (0.87–1.25)	0.9 (0.69–1.19)	0.9 (0.70–1.28)
Impact*race-ethnicity	1.2 (0.83–1.73)	1.2 (0.65–2.06)	1.5 (0.95–2.27)
Impact*education	1.0 (0.78–1.16)	1.3 (0.86–1.85)	1.0 (0.73–1.42)
Impact*employment status	1.0 (0.78–1.23)	1.2 (0.78–1.70)	0.9 (0.62–1.29)
Impact*marital status	1.1 (0.87–1.35)	0.9 (0.66–1.25)	0.8 (0.60–1.20)
Impact*income	1.0 (0.91–1.11)	0.9 (0.76–1.06)	0.9 (0.71–1.10)
Impact*financial advantage	1.0 (0.90–1.10)	1.0 (0.86–1.17)	1.1 (0.93–1.32)

Mental Health Outcome (continued)	Domain of Recession Impact (continued)		
	Financial OR (95%CI)	Job-Related OR (95%CI)	Housing OR (95%CI)
Problems related to other substance use (<i>n</i> = 2,545)			
Recession impact	1.6 (1.05–2.34)	1.0 (0.45–2.40)	1.6 (0.93–2.88)
Baseline symptoms of substance use	11.1 (6.74–18.33)	10.7 (6.60–17.36)	11.0 (6.72–18.14)
Age in years (30–84) ^a	0.6 (0.44–0.89)	0.7 (0.50–0.87)	0.7 (0.54–0.93)
Sex (Female) ^b	0.6 (0.31–1.25)	0.7 (0.39–1.17)	0.7 (0.40–1.17)
Race-ethnicity (White) ^c	0.4 (0.08–2.17)	0.8 (0.28–2.05)	0.7 (0.27–2.05)
Education (No college) ^d	1.0 (0.44–2.10)	0.7 (0.41–1.25)	0.9 (0.51–1.54)
Employment status (Not in paid work) ^e	0.7 (0.29–1.70)	0.8 (0.40–1.75)	0.8 (0.41–1.57)
Marital status (Not married or cohabiting)	2.1 (0.83–5.06)	1.0 (0.54–1.76)	1.5 (0.81–2.83)
Income per person (0–300,000), \$/year ^f	0.9 (0.58–1.51)	0.8 (0.54–1.21)	0.8 (0.52–1.18)
Financial advantage ^g	0.5 (0.33–0.71)	0.7 (0.56–0.99)	0.7 (0.53–0.93)
Impact*age	1.1 (0.91–1.27)	1.2 (0.84–1.58)	1.0 (0.86–1.20)
Impact*sex	1.2 (0.84–1.64)	1.3 (0.81–2.21)	1.4 (0.86–2.32)
Impact*race-ethnicity	1.3 (0.72–2.44)	1.0 (0.48–1.91)	1.0 (0.57–1.63)
Impact*education	0.9 (0.61–1.20)	0.9 (0.52–1.59)	0.8 (0.53–1.12)
Impact*employment status	1.2 (0.82–1.72)	1.3 (0.61–2.92)	1.4 (0.91–2.23)
Impact*marital status	0.7 (0.48–0.97)	0.9 (0.55–1.61)	0.6 (0.40–0.88)
Impact*income	0.9 (0.68–1.14)	0.9 (0.69–1.24)	0.9 (0.72–1.21)
Impact*financial advantage	1.3 (1.11–1.62)	1.1 (0.85–1.34)	1.2 (0.96–1.40)

^a Age in years was divided by ten and centered at the mean for analysis so regression coefficients in subsequent analyses can be interpreted as the effect corresponding to a ten-year age difference.

^b Sex was self-reported as male or female.

^c Race-ethnicity was based on self-reported main racial origins (parents, grandparents, and other ancestors), and was classified as white or minority.

^d Education was based on self-reported highest grade of school or year of college completed, and classified as up to and including graduation from high school (no college) or one or more years of college.

^e Employment status was based on self-reported employment situation in January 2008, and classified as working or self-employed (in paid work) or not in paid work.

^f Income per person was calculated as total household income divided by the number of people in the household and was standardized for analysis so regression coefficients in subsequent analyses can be interpreted as the effect corresponding to a one standard deviation difference in income.

^g Financial advantage was calculated as the sum of three standardized items: (a) “Using a scale from 0 to 10 where 0 means “the worst possible financial situation” and 10 means “the best possible financial situation,” how would you rate your financial situation these days?”; (b) “In general, would you say you (and your family living with you) have more money than you need [2], just enough for your needs [1], or not enough to meet your needs [0]?”; and (c) “How difficult is it for you (and your family) to pay your monthly bills?” rated from “very difficult” (1) to “not at all difficult” (4). This sum score was standardized for analyses so regression coefficients in subsequent analyses can be interpreted as the effect corresponding to a one standard deviation difference in financial advantage.

Note. Statistically significant associations (adjusting for a paper-wide false discovery rate of 5%) are presented in bold.