

Health and/or well-being quantity	$\hat{\rho}_s$ for $C_{diff}$	$q$ -val	$\hat{\rho}_s$ for $C_{in}$	$q$ -val	$\hat{\rho}_s$ for $C_{out}$	$q$ -val
1. % no physical activity in past 30 days [24]	-0.78	$3.42 \times 10^{-09}$	0.58	$4.91 \times 10^{-05}$	-0.66	$1.59 \times 10^{-06}$
2. % have been physically active in past 30 days [24]	0.78	$3.42 \times 10^{-09}$	-0.58	$5.50 \times 10^{-05}$	0.67	$1.39 \times 10^{-06}$
3. % high blood pressure [24]	-0.77	$3.60 \times 10^{-09}$	0.39	$1.16 \times 10^{-02}$	-0.78	$3.42 \times 10^{-09}$
4. Heart disease death rate [27]	-0.75	$1.09 \times 10^{-08}$	0.38	$1.24 \times 10^{-02}$	-0.73	$2.07 \times 10^{-08}$
5. Adult diabetes rate [25]	-0.74	$1.25 \times 10^{-08}$	0.34	$2.77 \times 10^{-02}$	-0.77	$3.42 \times 10^{-09}$
6. CNBC quality of life ranking [26]	-0.74	$2.07 \times 10^{-08}$	0.33	$3.22 \times 10^{-02}$	-0.77	$3.60 \times 10^{-09}$
7. % adult overweight/obesity [27]	-0.7	$1.48 \times 10^{-07}$	0.53	$3.14 \times 10^{-04}$	-0.59	$3.56 \times 10^{-05}$
8. Gallup Wellbeing score [4]	0.7	$3.08 \times 10^{-07}$	-0.33	$3.38 \times 10^{-02}$	0.73	$4.35 \times 10^{-08}$
9. % adult obesity [25]	-0.69	$3.40 \times 10^{-07}$	0.52	$4.11 \times 10^{-04}$	-0.59	$3.56 \times 10^{-05}$
10. America's Health Rankings, overall [24]	-0.69	$1.39 \times 10^{-06}$	0.4	$9.14 \times 10^{-03}$	-0.67	$2.77 \times 10^{-06}$
11. Life expectancy at birth [27]	0.67	$9.05 \times 10^{-07}$	-0.36	$1.59 \times 10^{-02}$	0.65	$2.67 \times 10^{-06}$
12. % who eat fruit less than once a day [28]	-0.65	$2.67 \times 10^{-06}$	0.57	$7.45 \times 10^{-05}$	-0.51	$5.89 \times 10^{-04}$
13. % child overweight/obesity [27]	-0.64	$3.06 \times 10^{-06}$	0.34	$2.78 \times 10^{-02}$	-0.64	$3.06 \times 10^{-06}$
14. % who eat vegetables less than once a day [28]	-0.61	$1.54 \times 10^{-05}$	0.53	$3.14 \times 10^{-04}$	-0.46	$1.69 \times 10^{-03}$
15. Median daily intake of fruits [28]	0.59	$3.56 \times 10^{-05}$	-0.59	$3.56 \times 10^{-05}$	0.41	$5.73 \times 10^{-03}$
16. Smoking rate [27]	-0.59	$3.77 \times 10^{-05}$	0.47	$1.60 \times 10^{-03}$	-0.48	$1.24 \times 10^{-03}$
17. Median daily intake of vegetables [28]	0.5	$7.64 \times 10^{-04}$	-0.56	$1.03 \times 10^{-04}$	0.31	$4.09 \times 10^{-02}$
18. Median household income [27]	0.48	$1.38 \times 10^{-03}$	-0.5	$8.58 \times 10^{-04}$	0.4	$9.07 \times 10^{-03}$
19. % high cholesterol [24]	-0.48	$1.28 \times 10^{-03}$	0.24	$1.15 \times 10^{-01}$	-0.48	$1.05 \times 10^{-03}$
20. Colorectal cancer rate [25]	-0.47	$1.68 \times 10^{-03}$	0.56	$1.37 \times 10^{-04}$	-0.27	$8.35 \times 10^{-02}$
21. Brain health ranking [29] (lower is better)	-0.46	$1.91 \times 10^{-03}$	0.55	$1.74 \times 10^{-04}$	-0.29	$5.43 \times 10^{-02}$
22. US Census Gini index score [30] (lower is better)	-0.44	$3.41 \times 10^{-03}$	0.11	$5.12 \times 10^{-01}$	-0.5	$6.22 \times 10^{-04}$
23. % with bachelor's degree or higher [6]	0.42	$4.99 \times 10^{-03}$	-0.43	$4.21 \times 10^{-03}$	0.33	$2.78 \times 10^{-02}$
24. Avg # poor mental health days, past 30 days [24]	-0.39	$1.05 \times 10^{-02}$	0.1	$5.31 \times 10^{-01}$	-0.48	$1.23 \times 10^{-03}$
25. Neuroticism Big Five personality trait [31]	-0.37	$1.30 \times 10^{-02}$	0.23	$1.35 \times 10^{-01}$	-0.37	$1.42 \times 10^{-02}$
26. Extraversion Big Five personality trait [31]	-0.34	$2.78 \times 10^{-02}$	0.13	$4.13 \times 10^{-01}$	-0.29	$5.36 \times 10^{-02}$
27. Farmers markets per 100,000 in pop. [28]	0.33	$2.88 \times 10^{-02}$	-0.01	$9.59 \times 10^{-01}$	0.42	$5.41 \times 10^{-03}$
28. Binge drinking rate [24]	0.33	$2.88 \times 10^{-02}$	-0.12	$4.88 \times 10^{-01}$	0.41	$6.23 \times 10^{-03}$
29. Avg # poor physical health days, past 30 days [24]	-0.32	$3.83 \times 10^{-02}$	0.16	$3.32 \times 10^{-01}$	-0.38	$1.16 \times 10^{-02}$
30. Strolling of the Heifers locavore score (lower is better) [32]	-0.31	$4.52 \times 10^{-02}$	-0.16	$3.32 \times 10^{-01}$	-0.45	$3.16 \times 10^{-03}$
31. % schools offering fruit/veg at celebrations [28]	0.25	$1.13 \times 10^{-01}$	-0.38	$1.36 \times 10^{-02}$	0.05	$7.75 \times 10^{-01}$
32. Openness Big Five personality trait [31]	0.23	$1.30 \times 10^{-01}$	-0.42	$5.43 \times 10^{-03}$	0.04	$7.95 \times 10^{-01}$
33. % cropland harvested for fruits/veg [28]	0.18	$2.58 \times 10^{-01}$	-0.53	$2.90 \times 10^{-04}$	-0.04	$7.95 \times 10^{-01}$
34. Conscientiousness Big Five personality trait [31]	-0.1	$5.31 \times 10^{-01}$	0.14	$3.97 \times 10^{-01}$	-0.05	$7.78 \times 10^{-01}$
35. % census tracts, healthy food retailer within 1/2 mile [28]	-0.06	$7.41 \times 10^{-01}$	-0.39	$1.09 \times 10^{-02}$	-0.24	$1.28 \times 10^{-01}$
36. George Mason overall freedom ranking [33] (lower is freer)	-0.02	$8.82 \times 10^{-01}$	-0.05	$7.73 \times 10^{-01}$	-0.1	$5.58 \times 10^{-01}$
37. Agreeableness Big Five personality trait [31]	0	$9.85 \times 10^{-01}$	0.24	$1.26 \times 10^{-01}$	0.08	$6.41 \times 10^{-01}$

**S3 Table. Identical to Tab. 1 but including liquids and using a caloric difference rather than caloric ratio.** Spearman correlation coefficients,  $\hat{\rho}_s$ , and Benjamini-Hochberg  $q$ -values for caloric input  $C_{in}$ , caloric output  $C_{out}$ , and caloric difference  $C_{diff}(\alpha) = \alpha C_{out} + (1 - \alpha)C_{in}$  and demographic data related to food and physical activity, Big Five personality traits [31], health and well-being rankings by state, and socioeconomic status, correlated, ordered from strongest to weakest Spearman correlations with caloric ratio. We chose  $\alpha$  so that the average of  $C_{out}$  matched the average of  $\alpha C_{in}$ .