nature portfolio

Corresponding author(s): Andrew Jalil

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Reporting Summary

Nature Portfolio wishes to improve the reproducibility of the work that we publish. This form provides structure for consistency and transparency in reporting. For further information on Nature Portfolio policies, see our Editorial Policies and the Editorial Policy Checklist.

Statistics

For all statistical analyses, confirm that the following items are present in the figure legend, table legend, main text, or Methods section.

n/a	Confirmed	
☐	☒	The exact sample size (*n*) for each experimental group/condition, given as a discrete number and unit of measurement
☐	☒	A statement on whether measurements were taken from distinct samples or whether the same sample was measured repeatedly
☐	☒	The statistical test(s) used AND whether they are one- or two-sided *Only common tests should be described solely by name; describe more complex techniques in the Methods section.*
☐	☒	A description of all covariates tested
☐	☒	A description of any assumptions or corrections, such as tests of normality and adjustment for multiple comparisons
☐	☒	A full description of the statistical parameters including central tendency (e.g. means) or other basic estimates (e.g. regression coefficient) AND variation (e.g. standard deviation) or associated estimates of uncertainty (e.g. confidence intervals)
☐	☒	For null hypothesis testing, the test statistic (e.g. *F*, *t*, *r*) with confidence intervals, effect sizes, degrees of freedom and *P* value noted *Give P values as exact values whenever suitable.*
☒	☐	For Bayesian analysis, information on the choice of priors and Markov chain Monte Carlo settings
☒	☐	For hierarchical and complex designs, identification of the appropriate level for tests and full reporting of outcomes
☒	☐	Estimates of effect sizes (e.g. Cohen's *d*, Pearson's *r*), indicating how they were calculated

Our web collection on statistics for biologists contains articles on many of the points above.

Software and code

Policy information about availability of computer code

Data collection	STATA 16
Data analysis	STATA 16

For manuscripts utilizing custom algorithms or software that are central to the research but not yet described in published literature, software must be made available to editors and reviewers. We strongly encourage code deposition in a community repository (e.g. GitHub). See the Nature Portfolio guidelines for submitting code & software for further information.

Data

Policy information about availability of data

All manuscripts must include a data availability statement. This statement should provide the following information, where applicable:

- Accession codes, unique identifiers, or web links for publicly available datasets
- A description of any restrictions on data availability
- For clinical datasets or third party data, please ensure that the statement adheres to our policy

Individual participant data that underlie the results reported in this article, after de-identification, will be made available to researchers who provide a methodologically sound proposal. Proposals should be directed to corresponding author at jalil@oxy.edu; to gain access, data requestors will need to sign a data access agreement. Additional data/materials, i.e. GHG data, ROI calculations, informed consent form, intervention materials (handouts, surveys, PPT), may be found at https://doi.org/10.17605/OSF.IO/5H8U7.

Human research participants

Policy information about studies involving human research participants and Sex and Gender in Research.

Reporting on sex and gender	Results disaggregated by gender. Data on gender from surveys.
Population characteristics	Undergraduate college students. Average age: 19.
Recruitment	We recruited students to participate in our study from ten economics classes at the host college during the fall 2017 semester. We randomized these ten classes into control and treatment groups. We chose ten core economics classes that must be taken sequentially, guaranteeing no overlap between treatment and control groups since students cannot take more than one of these classes in a semester. We used class time for the intervention and administration of surveys, as a means of boosting participation and survey response rates. Nearly all students (i.e. >99%) consented to participate in the study, so any potential self-selection bias is negligible.
Ethics oversight	Occidental College, Human Subjects Research Review Committee

Note that full information on the approval of the study protocol must also be provided in the manuscript.

Field-specific reporting

Please select the one below that is the best fit for your research. If you are not sure, read the appropriate sections before making your selection.

☐ Life sciences ☒ Behavioural & social sciences ☐ Ecological, evolutionary & environmental sciences

For a reference copy of the document with all sections, see nature.com/documents/nr-reporting-summary-flat.pdf

Behavioural & social sciences study design

All studies must disclose on these points even when the disclosure is negative.

Study description	Randomized controlled trial to examine the effects of an informational intervention on the meal selections of study participants, i.e. students. Data: Quantitative, i.e. food purchases. Qualitative surveys as well.
Research sample	Undergraduate students at a residential U.S. college. College students differ from the broader population, in terms of being younger (the average age of participants in our study is 19) and more educated. Our sample represents a diverse student population, in terms of gender (38% female, 62% male) and race/ethnicity (40% nonwhite, 60% white).
Sampling strategy	We recruited students at the host college who were taking non-overlapping economics classes, as a means of ensuring no overlap between control and treatment groups. Our sample size of 213 students led to a dataset of 103,375 meal purchases over three years, a sufficiently large dataset for statistical analyses.
Data collection	We collected data on food purchases from student ID card swipes. The cashiers at the cash registers record the food purchases at the point of transaction. The professors of the classes were present for the intervention, along with the researcher. The researcher was not blind to experimental condition because the treatment group listened to a 50-minute talk on the consequences of meat consumption for health and climate, and the control group listened to a placebo talk on an unrelated topic.
Timing	Sep 2017 to May 2020
Data exclusions	No exclusion
Non-participation	More than 99% of students consented to participate in the study.
Randomization	Block randomization.

Reporting for specific materials, systems and methods

We require information from authors about some types of materials, experimental systems and methods used in many studies. Here, indicate whether each material, system or method listed is relevant to your study. If you are not sure if a list item applies to your research, read the appropriate section before selecting a response.

Materials & experimental systems

n/a	Involved in the study
☒	☐ Antibodies
☒	☐ Eukaryotic cell lines
☒	☐ Palaeontology and archaeology
☒	☐ Animals and other organisms
☒	☐ Clinical data
☒	☐ Dual use research of concern

Methods

n/a	Involved in the study
☒	☐ ChIP-seq
☒	☐ Flow cytometry
☒	☐ MRI-based neuroimaging