



Data Article

The Louisiana Community Oil Spill Survey (COSS) dataset



Michael R. Cope^{a,*}, Tim Slack^b, Troy C. Blanchard^b,
Matthew R. Lee^b, Jordan E. Jackson^a

^a Brigham Young University, United States

^b Louisiana State University, United States

ARTICLE INFO

Article history:

Received 10 February 2020

Revised 28 February 2020

Accepted 2 March 2020

Available online 7 March 2020

Keywords:

Oil spill

Deepwater Horizon, BP

Disaster

Gulf of Mexico, Louisiana

ABSTRACT

This article presents an overview of the Louisiana Community Oil Spill Survey (COSS), the dataset used in “Community Sentiment following the Deepwater Horizon Oil Spill Disaster: A Test of Time, Systemic Community, and Corrosive Community Models” [1] as well as elsewhere [2–6]. The COSS, administered by the Louisiana State University’s Public Policy Research Laboratory, consists of five waves of cross-sectional trend data attuned to the characteristics and effects of the 2010 BP Deepwater Horizon (BP-DH) oil spill on those coastal Louisiana residents most affected by the disaster. Respondents were randomly drawn from a list of nearly 6,000 households in the coastal Louisiana zip codes located in Lafourche Parish, Plaquemines Parish, Terrebonne Parish, and the community of Grand Isle. COSS data were initially collected in June 2010 when oil was still flowing from the wellhead, with additional data waves, collected in October 2010, April 2011, April 2012, and April 2013. The respective response rates were: June 2010, 20%; October 2010, 24%; April 2011, 25%; April 2012, 20%; and April 2013, 19%.

© 2020 The Author(s). Published by Elsevier Inc.

This is an open access article under the CC BY license.

(<http://creativecommons.org/licenses/by/4.0/>)

* Corresponding author.

E-mail address: michaelrcope@byu.edu (M.R. Cope).

Specifications table

Subject	Pollution
Specific subject area	The 2010 BP Deepwater Horizon oil spill, which occurred about 41 miles (66 km) off the coast of southeast Louisiana, USA.
Type of data	Tables
How data were acquired	RDD telephone survey
Data format	Raw
Parameters for data collection	Data were collected from a cross-section of Louisiana households in the coastal zipcodes of Plaquemines, Lafourche, and Terrebonne Parishes, and the community of Grand Isle. These areas were sampled due to their close proximity to the BP-DH spill.
Description of data collection	The COSS is a RDD telephone survey, sampling approximately 1000 of the 6000 Louisiana households living in coastal areas of southeast Louisiana, as noted above. The five waves of data were collected in June 2010, October 2010, April 2011, April 2012, and April 2013. The response rates for each wave were 20%, 24%, 25%, 20% and 19%, respectively. Items in the dataset measured community sentiment, social ties, mental and physical health, blame and distrust regarding the oil spill, financial situation, employment in industries affected by the oil spill, and demographic variables.
Data source location	Coastal portions of Plaquemines, Lafourche, and Terrebonne Parishes and the community of Grand Isle, Louisiana, USA. See Figure 1 below.
Data accessibility	Raw data and the list of corresponding survey questions for October 2010, April 2011, April 2012, and April 2013 are publicly available through the Gulf of Mexico Research Initiative Information & Data Cooperative (GRIIDC) at: https://data.gulfresearchinitiative.org/pelagos-symfony/data/Y1.x150.000%3A0002 https://data.gulfresearchinitiative.org/pelagos-symfony/data/Y1.x150.000%3A0003 https://data.gulfresearchinitiative.org/pelagos-symfony/data/Y1.x093.000%3A0001 , https://data.gulfresearchinitiative.org/pelagos-symfony/data/Y1.x093.000%3A0002
Related research article	Cope et al. [1]. These data have also been utilized elsewhere [2–6].

Value of the data

- These data help us understand the social, economic and health factors over time of coastal residents in the aftermath of the BP-DH oil spill.
- These data are helpful in furthering the work of scholars who study disaster processes, policy-makers in the Gulf Region, emergency workers, and humanitarian aid distributors.
- This repeated cross-sectional data can be used to further investigate trends in oil spill outcomes, disaster processes, health and safety factors, and economic impacts.
- These data can inform future oil spill assessment surveys in the Gulf of Mexico and the social correlates of oil spills in general.

1. Data description

These data are a repeated cross-section of Louisiana households living in the coastal portions of Plaquemines Parish, Lafourche Parish, Terrebonne Parish, and the community of Grand Isle (see Fig. 1). These locations were chosen as a result of their close proximity to the BP-DH spill. The data include measures of community sentiment, social ties, mental and physical health, blame and distrust regarding the oil spill, financial situation, employment in industries affected by the oil spill, and demographic variables. Raw data and the list of corresponding survey questions included in the COSS are available for download online (see links above).



Fig. 1. Geographic depiction of areas included in the COSS.

2. Experimental design, materials, and methods

The Louisiana State University's Public Policy Research Laboratory collected data via a telephone survey of randomly selected households from a list of approximately 6000 households in the coastal zip codes of the aforementioned areas. The zip codes were sampled from the COSS because of their geographic proximity to the BP-DH spill. The five waves of data were collected in June 2010, October 2010, April 2011, April 2012, and April 2013. The respective response rates are as follows: June 2010, 20%; October 2010, 24%; April 2011, 25%; April 2012, 20%; and April 2013, 19%. Such response rates are considered acceptable and are comparable in range to those regularly reported by leading survey organizations (e.g., Pew Research Center), despite the COSS being conducted in a disaster context and not under normal conditions [7].

The five waves of cross-sectional data allow researchers to study trends over time in the target population. The data is not longitudinal cohort data (i.e., it does not measure the same group of respondents at each time point).

Acknowledgments

This research was made possible with funding from the [Gulf of Mexico Research Initiative](#) (GoMRI). Data funded by GoMRI are publicly available through the [Gulf of Mexico Research Initiative Information & Data Cooperative](#) (GRIIDC) at <https://data.gulfresearchinitiative.org> (DOI: 10.7266/N7T72FDS. DOI: 10.7266/N7PG1PP2. DOI: 10.7266/N7JQ0XZB. DOI: 10.7266/N7DZ068V).

Conflict of interest

The authors have no known competing financial interests or personal relationships that have, or could be perceived to have, influenced the work reported in this article.

References

- [1] M.R. Cope, T. Slack, J.E. Jackson, V. Parks, Community sentiment following the Deepwater Horizon oil spill disaster: a test of time, systemic community, and corrosive community models, *J. Rural Stud.* 74 (2020) 124–132.
- [2] M.R. Cope, T. Slack, Emplaced social vulnerability to technological disasters: southeast Louisiana and the BP Deepwater Horizon oil spill, *Popul. Environ.* 38 (2017) 217–241, doi:10.1007/s11111-016-0257-8.
- [3] M.R. Cope, T. Slack, T.C. Blanchard, M.R. Lee, Does time heal all wounds? Community attachment, natural resource employment, and health impacts in the wake of the BP Deepwater Horizon disaster, *Soc. Sci. Res.* 42 (2013) 872–881, doi:10.1016/j.ssresearch.2012.12.011.
- [4] M.R. Cope, T. Slack, T.C. Blanchard, M.R. Lee, It's not whether you win or lose, it's how you place the blame: assessing perceptions of blame for the Deepwater Horizon oil spill, *Rural Sociol.* 81 (2016) 295–315, doi:10.1111/ruso.12096.

- [5] M.R. Lee, T.C. Blanchard, Community attachment and negative affective states in the context of the BP Deepwater Horizon disaster, *Am. Behav. Sci.* 56 (2012) 24–47, doi:[10.1177/0002764211409384](https://doi.org/10.1177/0002764211409384).
- [6] V. Parks, L. Drakeford, M.R. Cope, T. Slack, Disruption of routine behaviors following the Deepwater Horizon oil spill, *Soc. Nat. Resour.* 31 (2018) 277–290, doi:[10.1080/08941920.2017.1377794](https://doi.org/10.1080/08941920.2017.1377794).
- [7] S. Keeter, C. Kennedy, M. Dimock, J. Best, P. Craighill, Gauging the impact of growing nonresponse on estimates from a national RDD telephone survey, *Public Opin. Q.* 70 (2006) 759–779, doi:[10.1093/poq/nfl035](https://doi.org/10.1093/poq/nfl035).