

# Accepted Manuscript

Data for the analysis of willingness to pay for Italian beaches

Ilaria Rodella, Fabio Madau, Massimiliano Mazzanti, Corinne Corbau, Donatella Carboni, Kizzi Utizi, Umberto Simeoni



PII: S2352-3409(19)30166-0

DOI: <https://doi.org/10.1016/j.dib.2019.103815>

Article Number: 103815

Reference: DIB 103815

To appear in: *Data in Brief*

Received Date: 27 January 2019

Revised Date: 26 February 2019

Accepted Date: 27 February 2019

Please cite this article as: I. Rodella, F. Madau, M. Mazzanti, C. Corbau, D. Carboni, K. Utizi, U. Simeoni, Data for the analysis of willingness to pay for Italian beaches, *Data in Brief*, <https://doi.org/10.1016/j.dib.2019.103815>.

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

## Data article

**Title:**

*Data for the analysis of willingness to pay for Italian beaches*

**Authors:**

Ilaria Rodella<sup>1</sup>, Fabio Madau<sup>2</sup>, Massimiliano Mazzanti<sup>3</sup>, Corinne Corbau<sup>4</sup>, Donatella Carboni<sup>5</sup>, Kizzi Utizi<sup>4</sup>, Umberto Simeoni<sup>4</sup>

**Affiliations:**

<sup>1</sup>Department of Engineering, Ferrara University, via Saragat 1, 44122 Ferrara, Italy.

<sup>2</sup>Department of Science for Nature and Environmental Resources, Sassari University, via Enrico de Nicola 1, 07100 Sassari, Italy.

<sup>3</sup>Department of Economics and Management, Ferrara University, via Voltapaletto 11, 44121 Ferrara, Italy.

<sup>4</sup>Department of Physics and Earth Sciences, Ferrara University, via Saragat 1, 44122 Ferrara, Italy.

<sup>5</sup>Department of Human and Social Sciences, Sassari University, via Roma151, 07100 Sassari, Italy.

**Contact email:**

**Ilaria Rodella**, Department of Engineering, Ferrara University, via Saragat 1, 44122 Ferrara, Italy, *E-mail address* [rdllri@unife.it](mailto:rdllri@unife.it)

**Abstract**

*The data presented herein relates to the article entitled "Willingness to pay for management and preservation of natural, semi-urban and urban beaches in Italy" [1].*

*Data of several Italian beaches are collected considering shape, anthropogenic characteristics, use, activity and urbanization levels. Descriptive statistics of beach characteristics and beach users are presented, on the basis of about 5,000 interviews.*

**Specifications Table**

Subject area	<i>Earth Science - Economics</i>
More specific subject area	<i>Coastal management</i>
Type of data	<i>Table and graph</i>
How data was acquired	<i>Survey</i>
Data format	<i>Analyzed</i>
Experimental factors	<i>The data were analyzed by various beach features and demographic strata</i>

	<i>(residency, age, sex, education, income).</i>
Experimental features	<i>The relationship between beach features, demographic characteristics and the Willingness to Pay (WTP) of beach-goers were determined.</i>
Data source location	<i>Data are available for forty-one localities of eleven regions in Italy (see also Supplementary material 1 and interactive kmz map):</i> <ol style="list-style-type: none"> <li><i>1. Lido di Venezia, Rosolina Mare (Veneto region)</i></li> <li><i>2. Lido di Nazioni, Lido di Pomposa, Lido degli Scacchi, Porto Garibaldi (Emilia-Romagna region)</i></li> <li><i>3. Porto Recanati, Civitanova Marche, Porto Sant'Elpidio, San Benedetto Del Tronto (Marche region)</i></li> <li><i>4. Manfredonia, Mattinata, Margherita Di Savoia, Trani, Bisceglie, Mola Di Bari, Bari, Monopoli, Ostuni-Costa Merlata, Fasano, Castellaneta Marina, Gallipoli, Salve, Ugento (Apulia region)</i></li> <li><i>5. Metaponto Lido (Basilicata region)</i></li> <li><i>6. Capopiccicolo-Isola Capo Rizzuto, Isola Capo Rizzuto, Le Castella Isola Capo Rizzuto, Bagnara Calabria (Calabria region)</i></li> <li><i>7. Pozzallo (Sicily region)</i></li> <li><i>8. Scoglio Lungo, Fiume Santo, Lido San Giovanni, Le Bombarde (Sardinia region)</i></li> <li><i>9. Battipaglia, Eboli, Capaccio (Campania region)</i></li> <li><i>10. Follonica, Cecina, Pietrasanta (Tuscany region)</i></li> <li><i>11. Lavagna (Liguria region)</i></li> </ol>
Data accessibility	<i>With this article</i>
Related research article	<i>Rodella I., Madau, F., Mazzanti, M., Corbau, C., Carboni, D., Utizi, K., Simeoni, U., 2019. Willingness to pay for management and preservation of natural, semi-urban and urban beaches in Italy. Ocean Coast Manag 172,93:104. doi: 10.1016/j.ocecoaman.2019.01.022 [1]</i>

#### Value of the data

- WTP literature review may be useful as reference data for future studies on economic value of beaches;
- These data could be useful in comparing beach classifications of Mediterranean beaches;
- Data were collected in such a way as to obtain beach users' willingness to pay (WTP). These data may thus be useful to researchers comparing users' WTP in different beach typologies.

#### Data

This dataset presents information on: WTP studies in coastal management, Italian beach characteristics and classifications, WTP and some demographic beach users' statistics. Beach characteristics are used as variables in a multivariate model of WTP [1].

Supplementary material 3 presents a literature review about WTP applications in coastal management.

Supplementary material 1, from Fig. 1 to Fig. 5 graphs report data about beach characteristics and typologies of the case studies. Fig. 6 shows the questionnaires distribution for each beach type. The results from this dataset are presented in [1].

From Table 1 to Table 3 and from Fig. 7 to Fig. 11 data present correlations between WTP and some demographic characteristics of beach users.

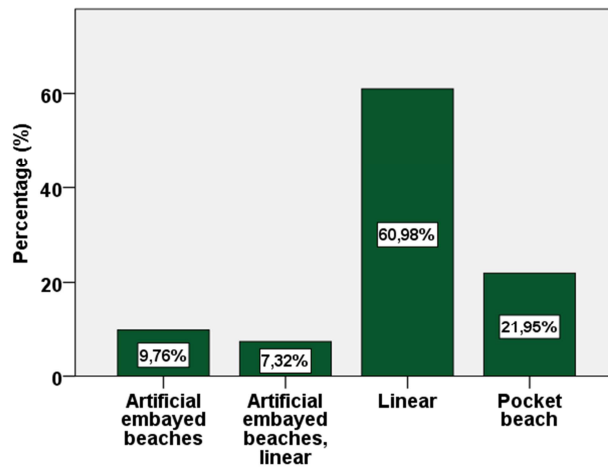


Fig. 1: Selected beaches classified by shape

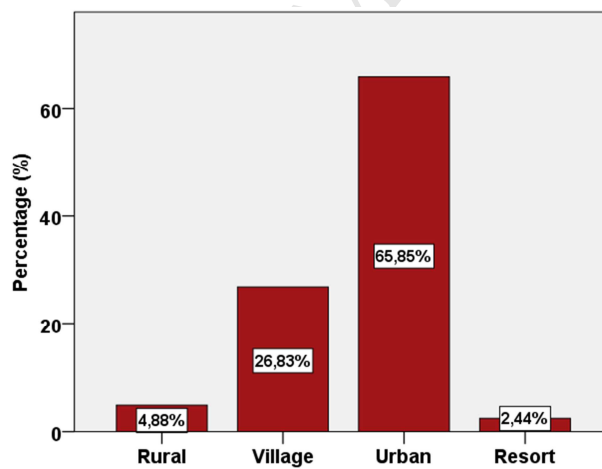


Fig. 2: Selected beaches classified by Anthropogenic classification [2]

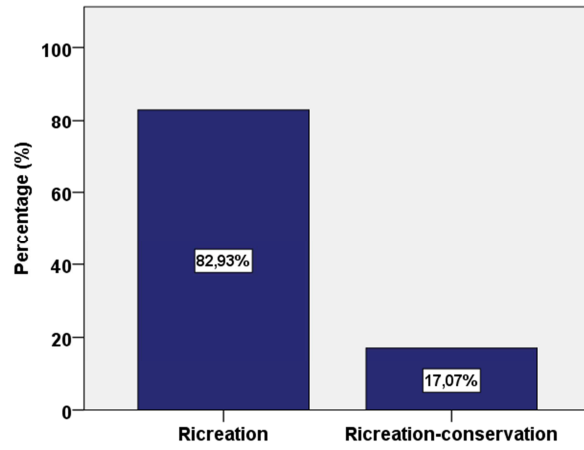


Fig. 3: Selected beaches classified by Activity classification [2]

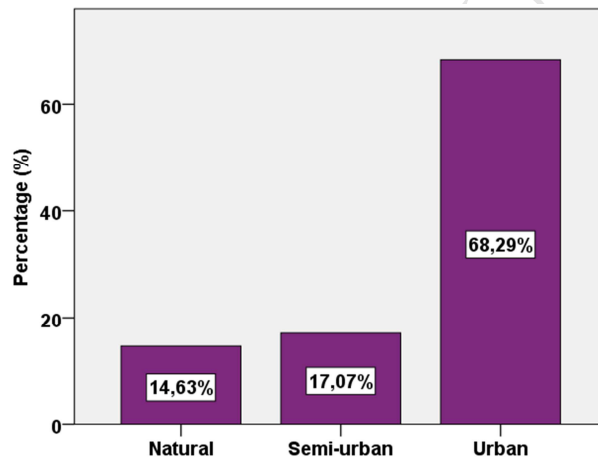


Fig. 4: Selected beaches classified by [1]

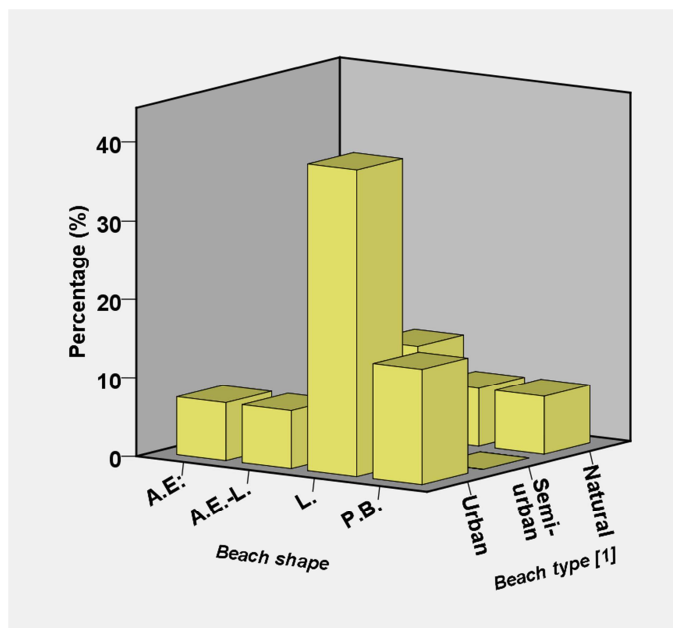


Fig. 5: Correspondence between beach shape and beach use characteristics (A.E.: artificial embayed beach; A.E.-L.: artificial embayed beach-linear; L.: linear beach; P.B.: pocket beach)

### Experimental Design, Materials and Methods

Researchers collected these data by in-person collection of questionnaires from visitors and residents to Italian beaches (Interactive map data). A questionnaire was used to elicit visitor preferences and willingness to pay for coastal preservation. The questionnaire was based on those used by [3] and [4] and was structured in sections (Supplementary material 2). Data were collected from June to September 2015. Only people over 16 years old were randomly selected and interviewed. In the case of a group visit, one person was interviewed in order to avoid the risk of doubling answers. They were also informed that there was no right or wrong answer and their sincere responses would be appreciated [1]. [5] presents single case studies of Italian beaches, while in this manuscript the overall national point of view is elaborated.

Statistical and descriptive analyses of WTP surveys were performed using the Statistical Package for Social Sciences (SPSS) version 20 (Statistics Solutions) and Microsoft Excel version 2017 (Microsoft Office, Redmond, Washington, USA).

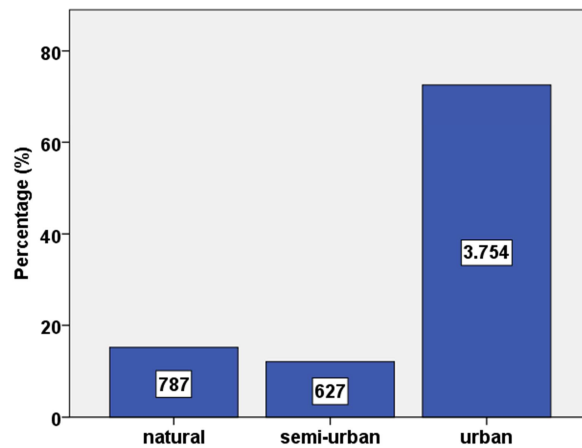


Fig. 6: Questionnaire distribution in different beach typology defined by [1]

Table 1: Distribution of WTP response in the DB CVM: BID 0 (Pearson chi-square value= 176,857; degree of freedom=4; p-value=0.000)

BID 0 (€)	Yes (%)	No (%)	Total (%)
0	0.3	0.2	0.5
2	17.5	8.1	25.5
5	15.8	8.7	24.4
10	13.0	10.7	23.8
20	11.4	14.3	25.8
<b>Total</b>	<b>58.0</b>	<b>42.0</b>	<b>100</b>

Table 2: Distribution of WTP response in the DB CVM: BID 1 (Pearson chi-square value= 682,754; degree of freedom=28; p-value=0.000)

BID 1 (€)	Yes (%)	No (%)	Total (%)
1	1.5	6.6	8.1
2.5	1.9	6.7	8.6
4	12.7	5.2	17.9
5	3.2	7.7	10.9
10	13	16.8	29.8
20	5.2	7.6	12.7
40	3.3	8.2	11.5
<b>Total</b>	<b>40.8</b>	<b>58.7</b>	<b>99.5</b>

Table 3: Results of resident and tourist WTP (Pearson chi-square value= 6.377; degree of freedom=2; p-value=0.041)

Answer	% per category	RESIDENTS WTP (%)				TOURISTS WTP (%)			
		natural	semi-urban	urban	Total	natural	semi-urban	urban	Total
Yes	% in Beach use classification	18,0	13.4	18.2	17.5	45.7	40.0	36.5	38.1
	% of the total answer	2.1	1.9	13.5	17.5	5.3	5.6	27.1	38.1
No	% in Beach use	8.9	7.4	13.7	12.3	25.0	35.4	27.1	28.0

	classification								
	% of the total answer	1.0	1.0	10.2	12.3	2.9	5.0	20.1	28.0
No answer	% in Beach use classification	73.0	79.2	67.0	69.4	29.3	24.6	36.1	33.7
	% of the total answer	8.5	11.1	49.8	69.4	3.4	3.4	26.8	33.7

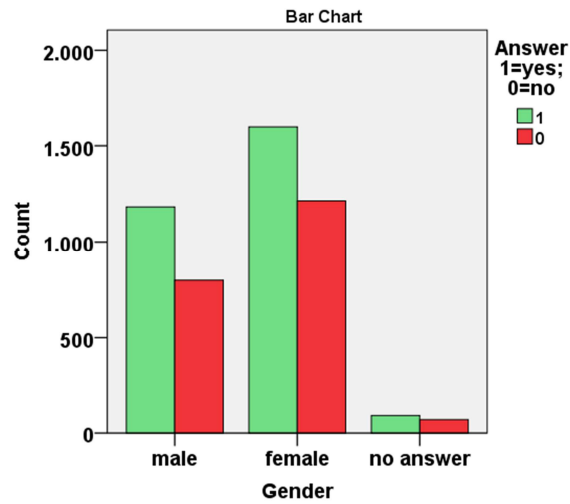


Fig. 7: Answer to initial BID 0 related to gender

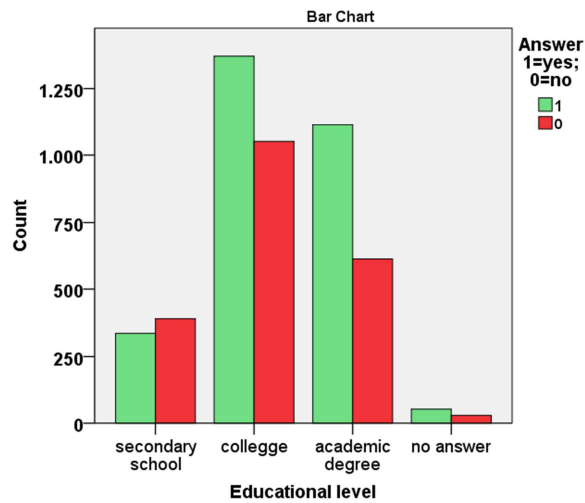


Fig. 8: Answer to initial BID 0 related to educational level



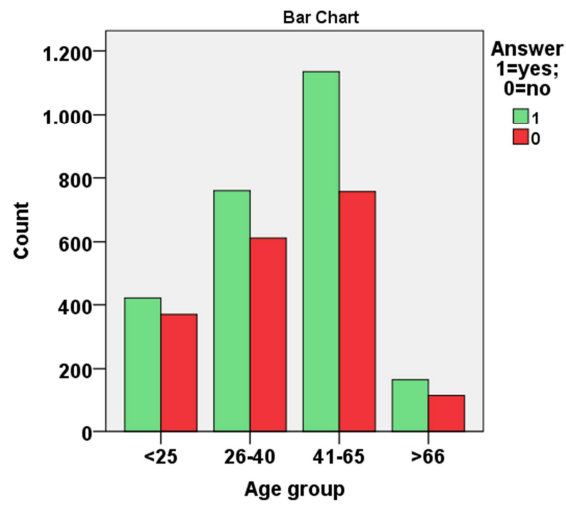


Fig. 9: The percentage of answer to initial BID 0 related to beach users age

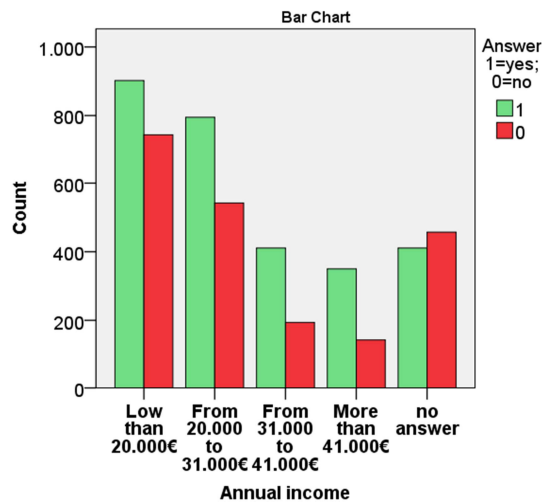


Fig. 10: The percentage of answer to initial BID 0 related to annual income of beach users

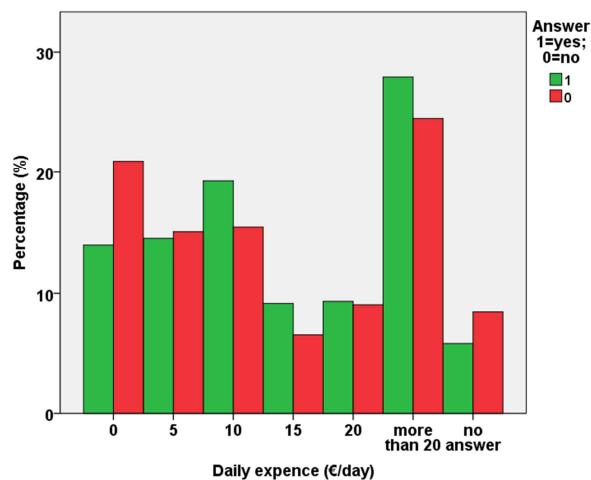


Fig. 11: Answer to initial BID 0 related to daily expense of beach users

### Acknowledgements

Data collection are supported by the National Research Group for Coastal Environment issues (GNRAC), in particular the president Pr. Enzo Pranzini, the Department of Physics and Earth Science of the University of Ferrara and Legambiente, in particular Dr. Giorgio Zampetti, Dr. Giancarlo Chiavazzo, Dr. Natalia Carpanzano and Dr. Antonino Duchi. Authors also thank Dr. Alessio Acciarri, Pr. Pierluigi Brandolini, Dr. Maria Caldarola, Pr. Nicola Corradi, Pr. Leonardo Damiani, Dr. Cristina Ghiagheddu, Dr. Irene Mammì, Dr. Enrica Mori, Dr. Gabriele Lami, Dr. Mattia Menegatti, Dr. Luigi Parente, Dr. Stefano Paganin, Dr. Gianfranco Spina Iaconis, Dr. Antonio Trivisani.

### Transparency document. Supplementary material

Supplementary material 1: Main beach characteristics and typologies

Supplementary material 2: The questionnaire

Supplementary material 3: Literature review about WTP in coastal management

### Interactive map data

The selected beaches (kmz file)

### References

- [1] Rodella I., Madau, F., Mazzanti, M., Corbau, C., Carboni, D., Utizi, K., Simeoni, U., 2019. Willingness to pay for management and preservation of natural, semi-urban and urban beaches in Italy. *Ocean Coast Manag* 172,93:104. doi: 10.1016/j.ocecoaman.2019.01.022

- [2] Williams, A.T., Micallef, A., 2009. Beach Management principles and practice. London.
- [3] Rodella, I., Corbau, C., Simeoni, U., Utizi, K., 2017. Assessment of the relationship between geomorphological evolution, carrying capacity and users perception: Case studies in Emilia-Romagna (Italy). *Tour. Manag.* 59, 7–22. doi:10.1016/j.tourman.2016.07.009
- [4] Simeoni, U., Corbau, C., Rodella, I., 2017. La percezione dell'offerta turistico-balneare in Italia: aspettative, soddisfazione e conoscenze degli aspetti fisico-gestionali delle spiagge. *Studi Costieri* 25, 5–24. <http://www.gnrac.unifi.it/rivista/Numero25/Articolo1.pdf>
- [5] GNRAC, 2017. Il turista e il suo giudizio sulle spiagge italiane. Ilaria Rodella, Corinne Corbau, Kizzi Utizi Eds. *Studi Costieri*, 25, pp. 146 <http://www.gnrac.unifi.it/rivista/Numero25.htm>