TO TRAVEL OR NOT TO TRAVEL: A STUDY OF ISLANDERS' TRIPS TO THE MAINLAND

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1. INTRODUCTION

Choice models are increasingly used in the transport field, for travel demand forecasting, value of time estimation, or for increasing the general understanding of travel-related choices and travel patterns. In the majority of cases, these methodologies are applied to modeling quotidian travel choices in urban settings. On the other hand, peripheral regions, such as the islands or the rural hinterlands, have been largely overlooked when it comes to the application of travel choice models. The result is that there has been a laudable accumulation of knowledge over particular types of travel behavior and a fast development of more sophisticated methods for choice analysis. However, there is a risk that authors interested in studying peripheral places might be tempted to mechanically import the assumptions presumed for the more well-known field of urban travelling to their own research problems. While it is easy to recognize that the nature of urban trips is inherently different from the nature of islanders' trips to the mainland, so far this has not been reflected in the research design of studies concerning island travelling.

The research reported in this paper focuses on islanders travel behavior, in what concerns their trips to the mainland. Small islands that are dependent from a mainland State are peripheral by nature. Whether for political reasons or because of the lack of a hinterland with sufficient population, small islands tend to have limited infrastructure and service availability. Faced with these limitations, islanders undertake occasional trips to the mainland in order to satisfy their needs for goods, services and socialization. In this context, the transport system serving the islands assumes a crucial character. Illustrating this point, ferry services connecting to the mainland are often termed the "lifeline" of the islands. The ferries bring in essential goods and provide access to services that people elsewhere take for granted. In some of the smallest islands, ferries transport children to mainland schools, act as occasional emergency services, providing special sailings to take sick islanders to mainland hospitals. In medium-sized islands, where a basic level of services exists, ferries and airplanes still play a crucial role in providing access to a bigger pool of work and business

opportunities, administrative and commercial services, specialist doctors, university courses and leisure and social opportunities.

Table I systematizes the main differences between the nature of urban trips and islander's trips to the mainland, and how these differences impact our research design. First, the primary motivation behind most travel choice studies made in urban settings relates to the pressing need to alleviate congestion and environmental degradation caused by car use. Given this problem, the relevant research question is how to induce mode shift in favor of collective modes. In peripheral areas, typical motivations for research include the need to provide better accessibility to transport deprived places, based on equity or social inclusion considerations. This gives rise to different research questions, not so much connected to mode choice but more so to the decision to travel.

Table I – Main differences between the nature of urban travelling and islanders' trips to the mainland

	Urban	**Island**
Typical motivation for study	Congestion and environment	Social inclusion and access
Relevant question	How to induce mode shift	How to improve accessibility
Dependent variable	Mode choice	Travel choice
Landscape	Transport system virtually ubiquitous	Limited transport opportunities
Operative conditions	Excess demand	Insufficient demand
Population of interest	Residents and workers	Islanders
Purpose of trips	Home-work-shopping commute	Work, health, education and leisure
Time frame	Daily frequency	Occasional
Role of car ownership	Car is one of the alternative modes	Car is not an alternative, although it might influence mode choice

Second, in the urban setting, the transport system is virtually ubiquitous, and for every individual considering a displacement, there is high number of options available, regarding mode choice, destination choice, choice of departure time and the return trip. To complement these options, car ownership emerges almost every time as an attractive alternative for reaching a destination. In the case of the islands, the boat, and in a few cases, the airplane, are the only modes available for trips to the mainland. Although in some cases there might be different types of boats (ferry, hydrofoil) and more than one company serving one port, transport opportunities are always limited to a few departures per day. Additionally, small and remote islands often fail to provide the necessary demand to be of commercial interest to private transport operators. This often translates in the fact that no more than one or two destinations are reachable from the island. On the other hand, in the case of island travelling, the car does not present itself as an alternative mode offering greater flexibility, but as a constraint: if the islander wants to take the car to his destination, he/she is constrained to travelling by ferry-boat, with the side-effect of increasing the cost of the trip.

Third, the bulk of the displacements made in the urban environment are work and/or shopping motivated. These trips are made on a daily basis, and occupy a short part of the day. On the contrary, islanders' trips to the mainland are made on a more occasional basis, and for a number of different purposes related to work or business, health, education, leisure

and social visits. In this sense, islander's trips are more similar to long-distance trips, but their purposes are not associated exclusively with tourism or business. However, studies of long-distance trips tend to focus on mode choice, treating the decision about whether to embark on a trip as exogenous, which is inappropriate for the objectives of this paper. The decision to take part in an activity, thereby having to travel to a particular location, is in some studies conceptualized as activity participation. However, activity participation refers to how much time an individual is willing to allocate to a particular activity, in the frame of a daily schedule, thus linking to issues of schedule implementation and trip chaining. This framework is not appropriate to the study of island travelling since islander's trips to the mainland are occasional events, and do not fit in a daily schedule. Existing frameworks for studying urban commuting or long distance trips do not prove to be immediately useful in the context of the islands.

The goal of this research is to study islanders' travel behavior, in what concerns their trips to the mainland for a number of specific purposes, while acknowledging that the context of the islands is fundamentally different form the urban context. We are interested in studying how the islander's decision to travel is affected by the price, travel time and frequency of the transport opportunities available. Additionally, this paper focuses on the difference between the mode choice decision and the decision to travel, and whether the latest can be reversed (cancel or postponed) due to the unavailability of satisfactory trip alternatives from the point of view of the islander.

This paper will begin by discussing literature relevant to the issue of island traveling. Secondly, we outline the methodology used to collect and model data on a sample of inhabitants of the island of Chios, in Greece. Thirdly, we present the estimates for two models: one concerning mode choice and the other concerning travel choice, both derived using a Multinomial Logit (MNL) structure. Finally, we discuss these results and conclude by outlining their meaning in light of the policy implications they hold.

2.   ISLAND ACCESSIBILTY AND TRANSPORT

Transport to the islands

Islands that are dependent from a mainland State face a set of specific challenges to their economic growth and quality of life of its inhabitants. Adding to their insularity, most islands are small and peripheral in terms of access to the main economic centers. Small and remote islands often fail to provide the necessary demand to be of commercial interest to private transport operators. The situation is especially acute in the winter, when due to both lack of demand and unfavorable weather conditions, transport supply exhibits a strong decrease. In the Aegean Islands (Greece), for instance, at least 21% of daily connections from the islands are reduced to a less than daily frequency, and at least 13% of the winter connections are made no more than once a week (

Table II).

Table II - Frequency of ferry services in the Aegean islands (August vs January)
(Source: Chlomoudis et al., 2007 adapted)

Service frequency	Summer	Winter	%Δ = (W - S)/S

At least once a day	50,5%	40,0%	- 21%
2 to 6 times per week	40,0%	47,0%	+ 18%
once a week	9,5%	13,0%	+ 37%

Insularity and Accessibility

Most commonly, authors concerned with peripheral regions focus on developing accessibility indices to measure the extent to which certain places are more or less peripheral. Studies of insular accessibility design measures of accessibility essentially focused on the transport supply side. Hernández Luis (2002), in a study of inter-island accessibility in the Canary Islands, chooses total travel time and time available at the destination as the main measures of temporal accessibility. Rutz and Coull (1996), in a study of the inter-island shipping network of Indonesia, quantify the "efficiency of contacts in space" by calculating the overall journey time and weighted average speed from the primary central node of the network to the most important ports in the outer islands.

Cross and Nutley (1999) survey the inhabitants of nine islands off the west coast of Ireland in order to test the hypothesis that depopulation in the islands is associated with poor accessibility and service deprivation. Additionally, the authors test if trip rate correlates with in-island service availability, on the one hand, and characteristics of the supply system on the other hand. The first hypothesis is that trips to the mainland would be encouraged by poor facilities on the island, or conversely, that a good range of on-island services would make trips to the mainland less necessary. Lack of service availability would be a driving force for travelling to the mainland. However, the authors find no evidence to support this, suggesting "it appears more likely that trips away from the island are influenced mainly by transport opportunities" (Cross and Nutley, 1999). Hernández Luis (2004) makes a similar point, in a paper on inter-island air transport in the Canary Islands. He observes that demand for air and sea travel per capita is much higher for the most remote islands, a fact that he attributes to the lack of other services, which are available for the inhabitants of the more central islands.

Studies of travel behavior in the islands

Mode choice has dominated the island transport research agenda. Polydoropoulou and Litinas (2007) use discrete choice modeling to evaluate the determinants of choice between the available transport modes (ferry, hydrofoil and two airlines) for the route between the Greek island of Chios and Athens. Results indicate that travel cost and travel time are the most significant explanatory variables. Education level, income, age and being a soldier are also significant to the mode choice decision. In addition, the authors estimate values of time for the alternative modes - approximately 5€/h for the ship and 19€/h for the aeroplane.

Ortúzar and Gonzalez (2002) study travelers' mode choice behavior on the route between Gran Canaria and Tenerife, in Spain. The authors specify total travel time (including waiting times), the fare level and the supply capacity of each mode as main explanatory variables for the choice between airplane, hydrofoil and ferryboat. The estimated demand elasticities in

relation to travel time and fare levels show that, for the route studied, the airplane and the hydrofoil are close substitutes and that competition is mainly based on travel time.

Sambracos and Rigas (2007) and Rigas (2009) also discuss on the determinants of mode choice in the Aegean islands. Sambracos and Rigas (2007) note that distance from Athens affects the modal split: "passengers seem to prefer to travel by boat to closer destinations like Paros" (4 to 6h by ferryboat); "while the air mode has more than 50% of the split on trips to Rhodes" (12h by ferryboat). Rigas (2009) estimates that a small reduction in air fares would have little impact on boat demand, but a reduction of more than 30% would more than double air travel demand. Likewise, it would take a reduction in trip duration of more than 30% for air passengers to consider taking the boat.

3. METHODOLOGY

Methodological framework

We develop a framework for understanding the islander's choices concerning their trips to the mainland. Two decision processes are relevant. The first is the choice of whether to travel or not, for a specific purpose and a given set of trip alternatives. The second is the mode choice, since it yields important information on the trade-offs between different trip attributes. According to this framework, the islander is a utility-maximizer, who will embark on a trip to another island or to the mainland only if the utility of going, using one of the trip alternatives available, is higher than the utility of not going (Figure 1). This evaluation will depend on:

1. The maximum utility derived from the available trip alternatives: The utility of travelling depends on the evaluation the islander makes of the trip alternatives available. The islander will choose to travel if he finds that he is willing to support the costs associated with at least one of the trip alternatives available.

2. The purpose of the trip: We expect that leisure trips will be more easily cancelled or postponed than health trips and work trips. The purpose of the trip will influence both the choice to travel and the mode choice.

3. Individual characteristics: Socio-economic characteristics of the decision makers influence both the travel decision and the mode choice. Besides the expected effect of income on the travel decision, other effects might be considered. For instance, older people may be more inclined not to travel since the inconvenience of travelling (independently of the mode chosen) may be more decisive in the case of the elderly.
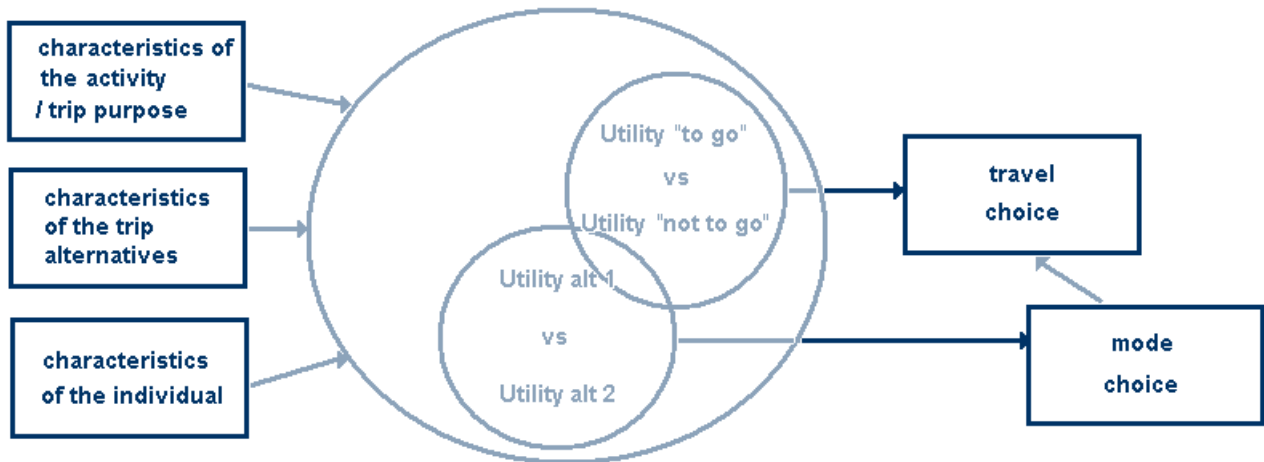
Figure 1 - Framework for the islander's travel decisions.

Local context

We apply the framework described above to model the travel related choices of the inhabitants of the island of Chios, in Greece (Figure 2). Chios is the sixth largest of the Greek islands. It is located in the North-East Aegean Sea, seven km off the Asia Minor coast. The island has a population of approximately 52000 people.

Chios is served by three shipping companies, which offer a total of two connections per day to Athens, five days a week, and a single connection on the remaining two days. In the winter, this frequency is reduced. Travel time from Chios to Piraeus varies from 7 to 9 hours using conventional ship. Prices for economy class usually round 60 Euros for the round trip. Previous work carried out in the Aegean islands (Polydoropoulou and Litinas, 2007; Sambracos and Rigas, 2007) has showed that the main trip purposes are work or business, leisure. Other trip purposes (including health and education) are also significant. In our operationalization, we exclude education since it is not applicable to all islanders.
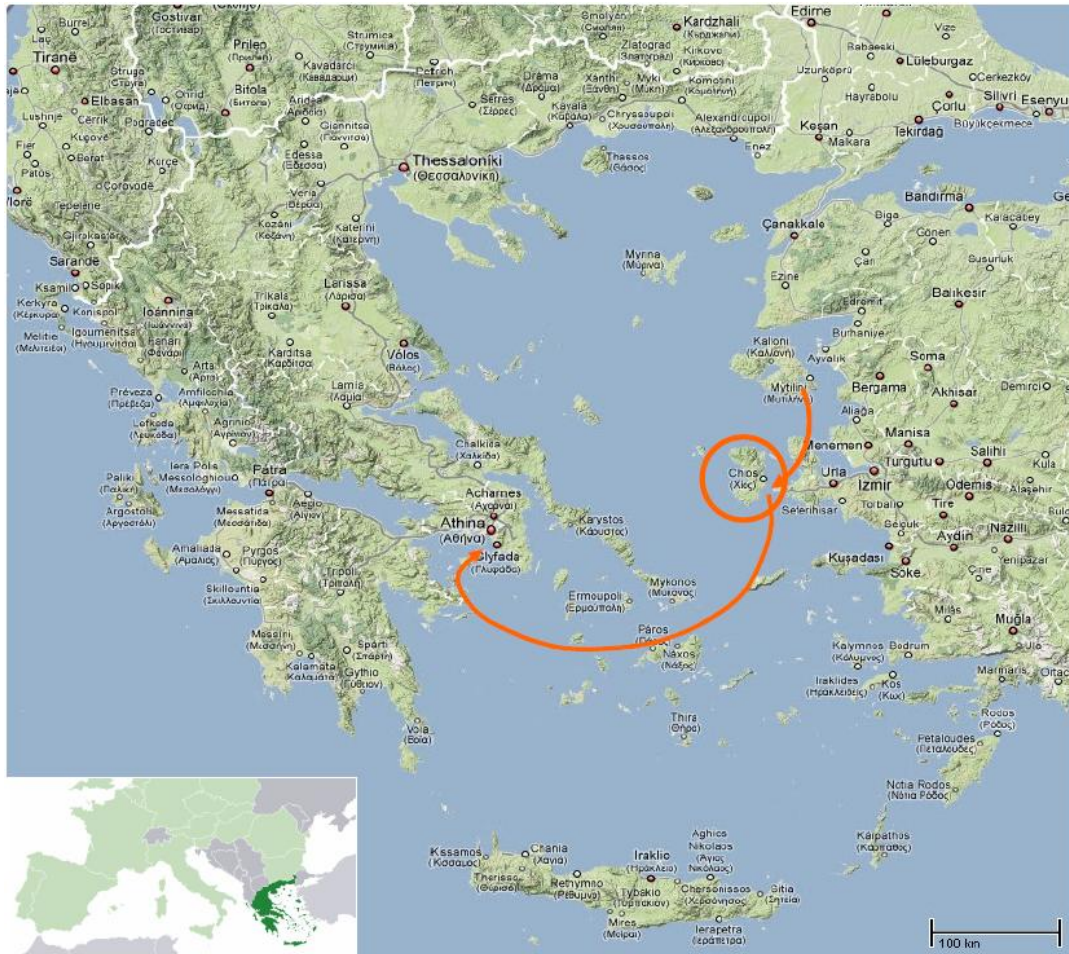
Figure 2 – Location of Chios island in the Aegean Sea and location of Greece (dark green) in Europe.
Source: Google maps and Wikipedia.

Survey design

Islanders were inquired about their preferences about hypothetical scenarios concerning trips from Chios to Athens for three different purposes: health, culture and/or leisure and work. Additionally, the survey collected socio-demographic data and data concerning the respondent's travel habits (such as average travel frequency) and characteristics (travel discount beneficiary).

Two different SP experiments were made (see Figure 3):

- In **Choice A**, respondents were asked to choose between two hypothetical trip alternatives, for which the following attributes were given: cost of round trip (in Euros), travel time for round trip (in hours), availability of return trip (day of the week of the next available return trip). The attributes of the hypothetical alternatives varied within a range built to contain the attribute values of the ("real") available modes. **Choice A** is similar to a mode choice experiment, except for the fact the alternatives are unlabelled.

▪ In **Choice B**, respondents were asked what they would do in case the alternative chosen in **Choice A** was no longer available: still travel using the other alternative, or cancel / postpone the trip.

The objective of making the alternative chosen in **Choice A** not available has to do with the fact that, in **Choice A**, respondents were already admitting to travel if the alternative chosen was available. To ask next if they would or not in fact travel might be understood as a boycott to the survey. Additionally, the conditional choice (only one trip alternative available) is a better indicator of the judgment of the islander about the available trip opportunities than the unconditional choice.

Figure 3 – Part of the Survey: Choice experiments A and B

The sequence **Choice A** - **Choice B** was repeated twice per each of three trip purposes. For each trip purpose, the interviewer would describe a situation (Table III) involving a trip. In every case, the destination of the trip was Athens, which allowed for price comparability. The description of the situation had to: i) convey the necessary information; ii) leave no room for different interpretations; iii) provide time and inspiration for the interviewee to imagine him/herself before the actual choice. Additionally, the situations described had to be applicable and appealing to every respondent. This is the reason why the trip purpose education was excluded from the survey.

Table III - Survey: scenarios for different trip purposes

Trip purpose	Scenario description
health	Imagine that you have a **doctor appointment** in Athens on Monday morning. You travel to Athens on Sunday night.
leisure	Now imagine that you are thinking of going to a **cultural event** (choose your favourite: concert, theatre, football match) in Athens on Saturday night. You travel on Saturday morning.
work	Now imagine that you are going for a **business meeting** in Athens on Wednesday afternoon.

Six versions of the survey were designed, in order to vary on the levels of the attributes of each alternative. Within each version of the survey, the order of the alternatives has been randomized to control for order bias.

The sample

The data collection methodology involved a survey addressed to the residents of Chios Island. The interviews were carried out between the 11th and 26th of May 2009. During this 16-day period, 412 questionnaires were collected. These questionnaires provided 2403 stated preferences.

In a first stage, a pilot survey was conducted in order to test survey design and the amount of working hours needed to have a sufficiently large sample size. The pilot survey was conducted by phone interviews. The survey was based on face-to-face interviews in which each respondent was asked the questions and the interviewer would complete the survey accordingly.

The interviewees were randomly chosen amongst the population. Simple random sampling without replacement was used, such that each individual had the same probability of being interviewed and no individual was interviewed twice. The sample descriptive statistics were analyzed throughout the sampling process, to determine if there was need for stratified sampling techniques. In the survey sample, 51% of the respondents were male. 67% of the respondents lived in Chios town, the islands' capital city, while the remainder lived elsewhere on the island. There is a prevalence of respondents between 25 and 30. This can be due to the presence of the University on the Island, which may attract an unusually high share of young post-graduates.

4. ESTIMATION

Model estimation was carried out using BIOGEME 1.8 (Bierlaire, 2003).
Table IV resents the specifications of the mode choice and the travel choice models. The estimation results for Choice experiment A are shown in Table V. Alternative 1 refers to the less expensive alternative, independently of the values of the other attributes. Alternative 1 is taken as the reference alternative. As a by-product, estimation of the mode choice model allows us to estimate the Value of time and the Value of a day wait for the islanders of Chios (Table VI).

Table VII presents the results of the estimation of a Multinomial Logit Model for Choice experiment B. Alternative 3 represents the choice not to travel, and alternatives 1 and 2 represent the choice of travelling with either one of the alternatives in Choice experiment A.

Table IV - Specifications of utility for Mode Choice and Travel models

Mode Choice model	$U_1 = BETAP * price_1 + BETAT * tt_1 + BETAR * \ln(ret_1) + BETAPLEIS * price_1 * pleis + BETAPHEAL * price_1 * pheal$	Eq. 1
	$U_2 = BETAP * price_2 + BETAT * tt_2 + BETAR * \ln(ret_2) + BETAPLEIS * price_2 * pleis + BETAPHEAL * price_2 * pheal + GAMINC_{<2000} * incl_{<2000} + GAMAGE * agegr + GAMEDU * edu + GAMFREQ * freq + STUDUM * student + FLEXDUM * flex$	Eq. 2
Travel Choice model	$U_1 = BETAGAMA1 * price_1 / \ln(inc) + BETAT1 * tt_1 + BETAR1 * dret_1$	Eq. 3
	$U_2 = BETAGAMA2 * price_2 / \ln(inc) + BETAT2 * tt_2 + BETAR2 * dret_2$	Eq. 4
	$U_3 = ASC_3 + LEISDUM * pleis + HEALDUM * pheal + GAMAGE * \ln(age) + GAMEDU * edu + GAMFREQ * freq + STUDUM * student + FLEXDUM * flex$	Eq. 5

Table V - Parameter values and statistics for the mode choice model

Mode choice model		
Variables	**Value**	**Robust t-stat**
Price	-0,00400	-2,36*
Travel time	-0,115	-7,69**
Number of days wait for return trip	-0,249	-2,49*
Monthly household income < 2000 €	-0,492	-3,03**
Price x Purpose Leisure	-0,00760	-6,90**
Price x Purpose Health	-	1,30 (ns)
Age group	-0,283	-3,31**
Education level (>12 years of school)	0,382	2,02*
Frequent traveler	-	0,94 (ns)
Student	-1,33	-5,19**
House worker, rural worker, fisherman, military, unemployed	-0,673	-3,35**
Goodness-of-fit		
N. obs.		2384
N. Ind.		400
LL ratio		531,745
Adjusted ρ^2		0,154

Table VI - Values of Time and of a day wait

	Value of Time	**Value of a day wait**
Work and health related trips	29 €/h	62 €/day
Leisure trips	10 €/h	21 €/day

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Table VII - Parameter values and statistics for the travel choice model

Travel choice model		
Variables	**Value**	**Robust t-stat**
ASC for alternative "cancel the trip"	-3,60	-3,30**
Price (alt 1) over ln (income)	-	-0,69 (ns)
Price (alt 2) over ln (income)	-0,0427	-4,55**
Travel time (alt 1)	-0,000714	-0,03 (ns)
Travel time (alt 2)	0,0303	1,07 (ns)
Return possible the same day (alt 1)	-0,646	-1,98*
Return possible the same day (alt 2)	-	-1,71 (ns)
Leisure trip	1,40	12,20**
Health trip	-	-0,63 (ns)
Age	0,753	2,94**
Education level (>12 years school)	-	-1,09 (ns)
Frequent traveler	-0,310	-1,99*
Student	-	-0,38 (ns)
House worker, rural worker, fisherman, military, unemployed	-	1,65 (ns)
Goodness-of-fit		
N. obs.		2378
N. Ind.		399
LL ratio		390,001
Adjusted ρ^2		0,110

5. DISCUSSION

Mode choice depends on price, travel time and frequency of the trip alternatives. All other things being equal, less expensive alternatives will be chosen more likely than more expensive alternatives. Moreover, individuals are less willing to pay for leisure trips than for work or health related trips. This result is in accordance to most results of mode choice models. We estimate that the parameter associated with price almost triples for a leisure trip, in comparison to the average for work related trips.

Similarly, alternatives with shorter travel times are preferred over alternatives with longer travel times. The elasticity of demand to travel time varies according to the purpose of the trip. For work or health-related trips, the islanders in this sample are willing to pay about 30 € more for each hour less in the duration of their trip. This value goes down to 10 € for leisure trips. The Values of Time implied by our model are comparable to those calculated by Polydoropoulou and Litinas (2007) for the same island. The authors estimate Values of Time for the alternative modes - approximately 5 €/h for the ship and 19 €/h for the airplane.

However, these authors' estimates are based on data collected between 2001 and 2005. A 1% per year increase in these values during six years leads to values of the same magnitude as the ones estimated here.

Low frequencies have a negative impact on the utility of the trip alternatives. For an islander travelling to engage in a given activity, the possibility to return home as soon as the activity is over increases the utility of the trip mode. We estimate that, for work and health-related trips, the islanders are willing to pay 62 € to avoid a day wait for the return trip. On leisure trips, the value goes down to 21 €. We have no basis for comparison of these values. It is known however, that users penalize in-vehicle time more than other types of travel time (Koppelman and Bhat, 2006). A day wait in the destination cannot be considered travel time or waiting time in the strict sense. The disutility of a day wait at the destination is bound to be much less than the equivalent in travel or waiting time. Many islanders will, for instance, adapt the purpose of the trip to accommodate for the extra day.

Unsurprisingly, individuals from high-income households are less sensitive to price than individuals from low-income households. Lower household income has a clear negative effect on the utility of the more expensive alternative. The effect of lower income on the utility of more expensive modes is a known result, confirmed for the islands in particular by Polydoropoulou and Litinas (2007) and Ortúzar and Gonzalez (2002). The particular shape of this effect is difficult to determine. Household income also affects the choice of whether to travel. For low-income households, the disutility in travelling caused by the unavailability of the less expensive mode is higher than for high-income households.

According to our results, choices made concerning leisure trips are based on different price elasticities than work or health related trips. Health related trips are statistically no different from work trips. To our knowledge, no previous study investigated the influence of a health-related purpose on the utility of trip alternatives. Yet, the fact that health-related trips are comparable to work trips is not surprising. Health, as work, is typically considered a nobler motive than leisure.

An important finding of this study concerns the decision of whether to travel or to cancel the trip in case the preferred alternative is not available. The variables influencing this decision differ depending on the choice of mode previously made. Individuals who prefer the less expensive mode will be asked if they would switch to a more expensive, although faster, mode. According to our results, these individuals will judge the disutility in switching modes mainly on the basis of price, barely considering the advantage of a shorter travel time. Conversely, individuals who prefer the most expensive mode will judge the disutility of switching to the other mode mainly based on the possibility to return home as soon as the activity is finished.

Our most striking result relates to the fact that travel time does not play a significant role in the decision of whether to travel. This result has serious implications for the set up of transport services to the islands. First, it implies that the mode choice decision and the decision of whether to travel, although interrelated, are not the same. Second, mode choice

models are based on the assumption that trade-offs between different attributes of the alternatives are possible. For instance, the mode choice model here presented may suggest that most islanders are willing to pay a fare 30 € higher for a one hour decrease in travel time. Notwithstanding, replacing less expensive alternatives such as ferryboats with faster but more expensive alternatives on the basis of this trade-off might not be appropriate. For the actual decision to travel, the users will not feel the increased utility of a shorter travel time in the same way. For islands that have long been served by ferryboats, the replacement of these services by hydrofoils or air travel, with increases in price, may result in an impoverishment of the transport opportunities of the islanders. This is especially true for the low-income classes and the elderly, since these groups are more prone to cancel their trip if a less expensive alternative is not available.

The effect of socio-economic characteristics of individuals differs from the mode choice model to the travel choice model. Age and education level of the individuals play a part in the mode choice decision, confirming previous work by Polydoropoulou and Litinas (2007). Age lowers the utility of expensive alternatives while education has the opposite effect. Age also lowers the utility of travelling. This may be due to the fact that the inconvenience or physical effort of travelling increases with age. However, education does not influence the choice to travel. Frequent travelers do not have distinct tastes in terms of mode choice, but this variable affects the choice to travel. Frequent travelers are less prone to cancel their trips.

Our results also reveal that students are a particularly sensitive group when it comes to price of the trip. The categories "house worker, rural worker or fisherman" and "military" also show less tolerance to the expensive alternative than the remaining activities. We speculate that activity might be correlated with individual income, in the following way: students have the lowest individual income, while the military, house workers, rural workers and fishermen have lower incomes than the remaining categories. These are mainly liberal workers, public servants and employees of private companies. In any case, they are individuals that receive a fixed salary or pension, which translates into having higher individual income or liquidity.

6. CONCLUSIONS

The aim of this research was to study islanders' travel behavior concerning their trips to the mainland, and how this is influenced by the price, travel time and frequency of the transport opportunities available. The most important finding relates to the fact that the mode choice decision and the travel decision are ruled by different parameters. In the case of the islanders of Chios, the mode choice decision is founded on an evaluation of relevant trip attributes such as price of the trip, travel time and frequency. Additionally, the evaluation of this attributes varies according to the socio-economic characteristics of the decision maker. Income, age, education level and activity of the individual affect the preferences in terms of mode choice. The travel choice decision depends on the preferences of individuals in terms of the mode choice. Individuals who prefer less expensive alternatives will judge the disutility in travelling using other alternatives mainly based on price. If price is considered too high, the islanders will prefer to cancel the trip, independently of any compensation in terms of travel time. Individuals who prefer the most expensive alternatives will judge the disutility of

travelling mainly based on the possibility to return home as soon as the activity is finished. If this is not possible, individuals may cancel the trip, independently of the price savings.

These results have important implications for the provision of transport to the islands. They imply that replacing less expensive alternatives with more expensive ones on the basis of the trade-offs implied by mode choice models might not be appropriate. Mode choice models are based on the assumption that choices between modes are based on trade-offs between the different attributes of a mode. Under this assumption, a higher price can be compensated by a shorter travel time. Our results indicate that this is not entirely true. Some islanders will simply decide not to travel if the preferred alternative is not available. Given this apparent lack of flexibility, policies aimed at increasing island accessibility should aim at a double goal: on the one hand, maintain a sufficient supply of cheap alternatives; while at the other end of the price spectrum, offer the possibility of same-day return. Most importantly, further research into islanders' needs and preferences is needed, so that policies aiming at increasing accessibility can be tailored to different groups and trip purposes that give rise to very different travel preferences.

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