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STUDIES IN PREFERENCES FOR PUBLIC GOODS IN IRELAND

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Thesis submitted in fulfilment of the requirements for the degree of Doctor of Philosophy (Ph.D.)

May 2005

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DECLARATION

I declare that this thesis, submitted to the University of Dublin, Trinity College, for the degree of Doctor in Philosophy (Ph.D.), has not been submitted as an exercise for a degree at this or any other university. It represents my own and published work carried out jointly duly acknowledged in the text wherever included.

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This dissertation is dedicated to the memory of Jonathan Rickard BA (First Hons) TCD, 2001.

SUMMARY

This dissertation is based on two studies conducted in 2002 and 2004 analysing preferences for non-marketed activity in Ireland. The first study applies the contingent valuation method (CVM) to Irish public service broadcasting. The second study examines public support for income maintenance schemes in Ireland and support for general policies of income redistribution. The studies have a number of things in common. Both public broadcasting and income maintenance are nationwide non-marketed goods for which there is no adequate marketed measure of preferences. Both are familiar and politicised markets requiring subtlety in survey design and administration to attain meaningful answers. Both studies offer interesting case studies in the survey approach to political economy as well as offering more general insights in to the techniques of preference elicitation.

Chapter 1 of this dissertation provides a comprehensive discussion of the issues involved in the movement toward the use of verbal reports as measures of economic preferences in applied economic analysis, focusing particularly on CVM. This review is intended to provide an intellectual background for the applied analysis. Chapter 2,3 and 4 desribe a number of issues explored in a study of Irish public broadcasting. Chapter 2 examines the use of CVM in assessing the public's valuation of public broadcasting in Ireland. Two surveys conducted in June 2002 and December 2002 eliciting willingness to pay for public broadcasting among the Irish public are analysed, the latter designed by the author and conducted on a nationwide sample by Lansdowne Market Research. Chapter 3 discusses the use of CVM as a methodology for assessing the distributional effects of government activity, focusing on the public broadcasting study as an example. The conditional distribution of willingness to pay on standard demographic variables is compared with the distribution of several other measures such as usage and satisfaction data. Chapter 4 examines an issue that has not been addressed empirically in the CVM literature before, whether respondents to CVM questions respond as individuals or households. Using the public broadcasting data set as an example, we demonstrate that consideration of this issue has significance for the aggregation of valuations derived

from CVM studies, and potential significance for the analysis of distributional effects of public spending.

Chapter 5 provides a review of the literature on preferences for redistribution and analysis of a nationwide survey designed by the author and conducted on a nationwide representative sample by Lansdowne Market Research assessing preferences for income maintenance schemes in Ireland. The results of preferences for specific schemes are compared to general preferences for redistribution as assessed in the 2002 European Social Survey. Chapter 6 examines preferences for redistribution and income maintenance using the concepts of procedural and descriptive invariance derived from the literature on economic psychology. We find little evidence that responses to questions on preferences for redistribution and income transfers are sensitive to ordering effects, information effects, time-unit effects or contextual attitudinal effects. Chapter 7 extends the analysis outlined in Chapter 4 of household factors in explaining preferences for non-marketed goods. We firstly examine evidence from a split-sampling procedure that experimented with the effect of the words "you" and "your household" on whether the respondent modelled the WTP question as a household or individual decision. Secondly, the chapter examines intra-household factors in determining preferences for different policies of transfers in an Irish context. We find that respondents to the standard open-ended CV question give a mixture of personal and household WTP, even when explicitly asked to give household WTP, particularly if the respondent holds a joint account with their partner. The general implications for interpreting and designing CV studies are discussed.

In total, the dissertation contributes to the growing literature expanding the use of CVM beyond environmental studies. It also explores the use of the survey approach to political economy issues in resource allocation in the public sector. Both studies raise issues that have not been discussed before in the international literatures and offer approaches that have not been used in the Irish context. As reviewed in the first chapter, the work described in this dissertation will become increasingly valuable as economists and policy-makers continue to grapple with the use of verbal reports as economic data.

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CHAPTER I

INTRODUCTION: NEW DIRECTIONS IN WILLINGNESS TO PAY

Summary

This chapter introduces the dissertation with a targeted literature review of willingness to pay (WTP) studies with a view to providing a framework for the possible further development of the literature. Using frameworks derived from the philosophy of science literature, the chapter discusses the development of a social psychological paradigm within the valuation literature that has resulted from the use of introspective valuations in policy analysis. Based on the evolutionary socio-biology literature (e.g. Cosmides and Tooby 1995), the chapter argues offers a novel argument for the potential development of an evolutionary meta-narrative within the valuation literature that encompasses the psychological and economic approaches. Possible critiques of this new framework are discussed. Following this, the structure of the dissertation is outlined.[1]

[1] The core material in this chapter is intended to provide a framework for approaching the literature on valuation. A developed draft of the philosophy of science framework will be submitted to an interdisciplinary journal such as the *Journal of Environmental Values*.

1.1 Introduction and Motivation

1.1.1. Introduction

The most prominent convention on contingent valuation methodology (CVM) to date chaired by Kenneth Arrow and Robert Solow recommended that, for the study of CVM to expand, each application should include testing of some aspect of the theory behind the method (Arrow et al 1993). The panel envisioned that after many years of testing different hypotheses, reliable, replicable and usable inferences could begin to be formulated about the design, analysis and application of the method. This dissertation is a result of the wave of research in to the method that preceded the Arrow and Solow report and that accelerated in its wake and particularly is set in the context of the expansion of the willingness to pay literature outside of environmental economics and in to other areas such as cultural economics (e.g. Noonan 2002, Noonan 2003, Throsby 2003).

Following the Arrow and Solow report, this dissertation serves a dual function. Firstly, CVM is a method that is still novel in most areas outside the environmental sphere and it is still under-utilised as a tool in empirical demand studies. The first function of this dissertation is to integrate this technique in to two areas that has not seen its use before; Irish Public Broadcasting and the Irish Income Maintenance System. Both cases involve familiar public goods and provide *a priori* a suitable context for meaningful valuations from respondents. Neither "market" has received attention from an economic demand perspective on a national level, and this dissertation fills that gap as well as contributing to the development of valuation surveys on a national level by providing extra case studies at the Irish level to compare with the small number of existing case studies (e.g. Stewart et al 2002, Scarpa et al 2000, Alberini et al 2002). This is important, given that different cultures have different social and conversational norms, meaning that to apply a

blanket formula for economic survey design to any given country may lead to biased valuations without an awareness of these cultural factors.

While the first function of this dissertation is to provide applied case studies, the second is to address some specific issues surrounding the validity of CVM and to consider the validity of extensions of the use of micro willingness to pay studies. We consider, in particular, issues in the use of surveys of preferences in cultural markets (Chapter 2) and their use in analyzing the distributional effects of state-financed activity (Chapter 3). We also analyse the issue of eliciting household and personal willingness to pay from individual respondents (Chapter 4 and Chapter 7) as well as examining the structure of preferences from an intra-household perspective in the context of redistribution. We analyse the difference in the structure of specific economic preferences as compared to general preferences and attitudes and consider the role of personal values (Chapter 5). We also examine further evidence from an original data set of a wide-range of survey effects that operate in hypothetical choice settings (Chapter 6).

1.1.2. Motivation

Under the standard restrictive conditions of welfare economics, the market will yield a Pareto-efficient outcome. Among the market failures that prevent a Pareto-efficient allocation are public goods and externalities. The existence of public goods leads to co-ordination problems, as illustrated by the standard Prisoners' Dilemma. Provision and financing of public goods can then be taken up by government to solve this co-ordination problem. However, government failure may also characterize societies in the presence of public goods, with politicians and bureaucrats making decisions on the basis of personal and organizational incentives that may be at variance with the achievement of a societal optimum, as well as imperfect information as to public demand for the provision of public goods. The provision of goods and services by local and central governments and

the methods by which allocations are prioritised and financed raises questions as to how the final allocations are related to the preferences of agents in the economy. If one receives street lighting and pays for this from one's taxes, this is not an indication that one values the stream of benefits provided by street lighting more than one values the benefits one could have derived with the income foregone from taxation. The situation in a society with public goods implies that, in the absence of economic valuation methodologies, one can only make very weak statements about the relationship between an existing economic allocation and peoples' preferences for this allocation.

The conditions under which an allocation is optimal in the presence of public goods depend on knowledge of preferences of agents in the economy, preferences that the private and political market may not reveal. This is the rationale for the development of methodologies to assess peoples' preferences for public goods, the subject matter of this dissertation. Non-Market valuation potentially offers a mechanism whereby public preferences for non-marketed activity can be established, and also made common knowledge, thereby creating conditions for more efficient allocations of public expenditure. Stated preference methodologies have become more prominent over time for a number of reasons and CVM, in particular, has received sustained attention. The challenges and opportunities that CVM brings to social science raise a number of theoretical issues. The review of the literature in this chapter focuses on the unifying power of CVM in that it offers the potential to integrate, in particular, public finance, psychology, evolutionary theory, statistics and survey design in a project to understand whether the distribution of resources in mixed-market economies is that which is most-preferred by agents in the economy and how the actual and the ideal deviate.

First suggested by Ciriacy-Winthrop in 1947, the first application of CVM was in 1963 and it has been a part of mainstream environmental economic analyses since the 1970s. Nevertheless the rate of absorption of ideas from the CVM debate is still very high. How does the use of introspective reports, questionnaires, attitude surveys, interviews etc change the analysis of the value of public goods? This is a question that has relevance for economics in general. The first chief motivation of this dissertation is to understand the philosophy of science that underpins the integration of CVM into the analysis of the valuation of non-marketed goods. We integrate a wide range of literatures in economics, psychology, survey research, cultural studies and the philosophy of science to provide a coherent framework for the study of CVM.

The second goal is to apply the ideas from CVM to distributional issues, and particularly the distributional consequences of government involvement in the economy. Thus, the dissertation provides a framework for the use of CVM in supplementing market data in assessing inter-group distributional issues. Much of what is important in terms of distribution in a society will be imperfectly reflected in market data. Moreover, much of the benefits deriving from government policy will not be reflected in actual market transactions. A good example of this is state broadcasting, the distributional effects of which we examine with CVM. To what extent can CVM be used as a tool for assessing inter-group differences in valuations of public goods, and following from this inter-group differences in the benefits received from government spending? What does CVM add to the use of market data in assessing inter-group distributional issues?

As well as describing inter-group distribution, CVM can also be used to estimate preferences for different distributions and policies of redistribution. The third aim of this thesis is to examine from a theoretical and empirical perspective the use of

CVM in determining preferences for transfers from one societal group to another. The dissertation employs CVM to determine preferences for a wide array of redistributional policies. In Chapter 3, we examine preferences for a policy of redistribution involving the television license fee as a payment vehicle, changing financing of broadcasting from the current system of an effective ad rem tax to one where license-holders would pay on the basis of their income. In Chapter 5, we extend the analysis to child benefit, state pensions, unemployment assistance, and a wide range of other transfers. One of the aims of this work is to establish the viability of CVM as a tool for identifying what Hochman and Rodgers have dubbed Pareto-optimal transfers whereby those who lose financially from a proposal may still, out of altruism, support the proposal (Hochman and Rodgers 1969).

A fourth motivation for this dissertation is to address the issues raised by the movement away from an individualized model of choice to models looking at household choice (see e.g. Alderman et al 1995). CVM research, in particular, needs to integrate new insights about household behaviour and decision-making in to survey design, analysis and interpretation. The literature on CVM has not developed theoretical or practical foundations to deal with household choice, and retains its basis in textbook models of individual choice (see, for example, Smith and Van-Houtven 1998). The opening up of this area has the potential to yield significant theoretical insights in to the valuation of public goods.

Therefore, a further aim of this dissertation is to extend CVM outside individualistic economic and psychological models of choice to models that incorporate intra-household factors. We specifically focus on the issue of eliciting household or individual Willingness To Pay (WTP) in contingent valuation settings. Quiggin (1998a) is the first paper to address this important issue directly and the implications of his paper, and the issue in general have not

been absorbed in to the CVM literature. This dissertation utilizes empirical and experimental evidence into the nature of household as opposed to individual choice in hypothetical market formats. In Chapter 4, we analyse the issue with respect to the valuation of RTÉ Services and demonstrate that traditional question-formats that do not take intra-household factors in to account may give misleading valuations of public goods as well as being misleading as to the demographic determinants of willingness to pay for non-marketed goods. This analysis is extended in Chapter 7, which looks in more detail at how to elicit valuations from an individual respondent bearing in mind that they are part of a household and also examines intra-household factors in determining preferences for non-market activity.

The aim of this first chapter is firstly to set the background of the empirical work in the dissertation by providing a literature review of contingent valuation. The second aim is to bring new insight in to the literature by looking at the methodology through the novel lenses of the philosophy of science literature. Section 1.2 of this chapter gives the background to this thesis and also acts as a brief literature review and history of CVM. Section 1.3 analyses issues in eliciting economic preferences from verbal reports. Section 1.4 encompasses the development of CVM within the philosophy and history of science literatures and makes predictions as to the future development of CVM. Section 1.5 offers concluding comments while Section 1.6 describes the chapter structure and outline of the dissertation.

1.2 Background

1.2.1. Historical

Kleiman (1999), writing on ancient and medieval Rabbinic thought on economic matters, provides an interesting discussion of the treatment of personal injury

compensation in Hebrew texts.[2] By the time of the Mishna[3], the *lex taliones*[4] had been replaced by a system of pecuniary compensation for physical injury. For this purpose the effects of injury were divided in to a number of separate components, the compensation for each of which had to be assessed independently. The five were injury (i.e. permanent damage), pain, healing (costs of medication), loss of time (when recuperating), and what, Kleiman points out, would be known today as emotional damage – "indignity". The assessment of the monetary value of the "indignity" of pain is of particular interest given the lack of any obvious market based or behavioural measure of how much people value pain avoidance. The first attempt found in the scriptures comes in the Mishna where the Rabbis propose the question:

" *How much would a man like him be willing to take to suffer as much*?" (Mishna BK. 8: 1)

As later thinkers pointed out, this raised the question of separating the valuation of pain from that of other injury components. Therefore the Jerusalem Talmud proposes the question.

"*It is estimated how much would a man demand to be paid, to have his arm, which is due to the state, severed (choosing in favour of the latter), between potion and sword.*"

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[2] This discussion of Rabbinic treatment of injury compensation draws heavily on Kleiman (1999).
[3] "In Judaism, the codified collection of Oral Law—legal interpretations of portions of the biblical books of Exodus, Leviticus, Numbers, and Deuteronomy and other legal material. Together with the Gemara, or Amoraic commentary on the Mishna, it comprises the Talmud. Next to the Scriptures the Mishna is the basic textbook of Jewish life and thought, and is traditionally considered to be an integral part of the Torah revealed to Moses on Mount Sinai." (Source: The Columbia Encyclopedia).
[4] The old testament code of justice that specified retribution for injury on the basis of return of the injury.

Using this question elicits the willingness to accept payment to take the pain of injury. This question was thought to have flaws by some scholars who felt that people might demand infinite amounts of money before they would consent to go through the ordeal of having their arm removed painfully by a sword instead of painlessly by a potion.[5] Therefore the following willingness to pay measure was proposed:

"*Instead it is estimated how much would a man be willing to pay, to have his arm, which is due to the state, severed, (choosing in favor of the latter) between sword and potion*" (Babylonian Talmud BK 85a)

The Jerusalem Talmud phrases it as:

"*They get hold of a man and ask him "How much are you willing to give not to have such pain inflicted on you?" And as much as he says they award him* (i.e. the injured party). (Jerusalem Talmud BK 8:1)

CVM is a direct method of estimating the value that an individual places on a good. The approach asks survey respondents to directly report their willingness to pay (WTP) to obtain a specified good, or willingness to accept (WTA) payment to give up a good, rather than inferring them from observed behaviours in regular market places (see Mitchell and Carson 1989). While Kleiman focuses on the level of economic sophistication displayed in the Mishna in the historical example given above in distinguishing between compensating and equivalent variations, what interests us is that already we see the use of introspective and verbal report measures to yield economic valuations that would subsequently be used in setting compensation amounts, if not actually in practice then certainly at least

[5] The parallels between this debate and the modern debate about the difference between Willingness to Pay and Willingness to Accept are marked.

conceptually. Furthermore, even in scripture, we encounter the subtlety of designing hypothetical scenarios to elicit monetary valuations of subjective preferences.

While the concepts of compensating and equivalent variations became institutionalised in to economic theory following Hicks' work on Welfare Economics in the 1940s, CVM appeared as a technique in the early 1960s under the guidance of R.K. Davis (e.g. Davis 1963a, 1963b, 1964) and subsequently has become a standard tool in environmental valuation.[6] First proposed in Ciriacy-Winthrop's works on soil and resource conservation (Ciriacy-Winthrop, 1947) the first application was carried out by Davis, assessing preferences for woodland areas in the State of Maine (Davis, 1963a, 1963b). Originally conceived as an alternative to standard methods of valuing public goods such as Travel Costing and Hedonic Pricing, CVM studies rapidly proliferated, assessing aspects of value hitherto not thought amenable to quantitative analysis. Krutilla's paper on conservation, in which the notions of option, existence and bequest values were cemented in the economics literature (Krutilla, 1967) provided a major impetus for CVM research, and the methodology has become synonymous with attempts to place monetary values on such phenomena (Portney 1994).

1.2.2. Contemporary Background

CVM is a survey methodology that attempts to determine how much people value public goods by asking them how much they would pay for specified improvements or increases in provision of these public goods, or alternatively how much money they would be willing to accept to allow deterioration in these

[6] Davis is a key figure in the development of the methodology and several authors (e.g. Mitchell and Carson 1989, Loomis 1999) credit him with the pioneership of CVM. His Ph.D. dissertation at Harvard is the first recorded CVM application and, according to Loomis (1999) his later career in the US Department of the Interior contributed to the use of CVM in US water-policy debates.

goods.[7] It is one of a number of approaches to estimating demand for non-marketed activity (outlined in Table 1.1). As with any questionnaire-based survey, respondents may be interviewed face-to-face, over the phone, through the mail or, as has become more common, through the Internet. The aim of CVM surveys is to create a hypothetical survey market for public goods in order to allow respondents to reveal their preferences for those goods, with the ensuing aim to factor these preferences in to allocation and funding decisions.

A typical CVM consists of three parts (e.g. Mitchell and Carson 1989). Respondents are given a detailed description of the goods being valued and the hypothetical circumstance under which the good will be made available to the respondent. This may be modelled after a political or a private goods market. In the political case, the survey will describe a proposed policy and its effect on the level of provision of the public goods being valued, along with information on how the project will be financed and who will bear the cost. In the case of a private goods market, respondents are presented with a hypothetical scenario in which the benefits of the public good have somehow been made excludable and given details of the payment mechanism involved. The design of the scenario and the payment vehicle is crucial to the CVM design both from the point of view of respondents accepting the scenario as well as the economic validity of the amounts elicited.

The second part of a CVM survey is the elicitation of the respondents maximum Willingness-to-Pay (WTP) for the specified benefits. This involves asking the respondents a question or series of questions that either attempt to elicit their WTP directly by asking them their maximum WTP or indirectly by asking respondents to make a dichotomous choice at a given price level. While the former approach has potential advantages from a statistical point of view, the latter has become

[7] Portney (1994) provides an accessible introduction for economists. Mitchell and Carson (1989) offer an excellent technical introduction and review.

more popular in recent years, as many researchers believe that it mimics better the normal market or voting environment. Table 1.2 lists the main methods by which valuations are elicited. The double-bounded dichotomous-choice approach has recently attracted a great deal of attention. However recent work has examined again the use of the open-ended elicitation format. Ready, Navrud and Dubourg (2001) demonstrate that open-ended and closed ended questions yield different certainty threshold which, when accounted for, yields similar answers. The Dissonance-Minimising format (Blamey, Bennett and Morrison 1998), which allows the respondent to choose different ways of accepting or declining the bids, has also been examined as a method to reduce "*yea-saying*" in CV formats.

CVM surveys also collect information on the socio-demographic characteristics of respondents with a view to constructing demand functions for the goods in question to be used in policy decisions, and to determine aggregate values for the population as a whole. Demand functions for non-marketed goods will typically include demographic factors such as gender, age, income, education, place of residence, nationality, marital status, presence of children as well as related behaviour and attitudes. Information may also be collected about the interviewer such as gender and ethnicity and also about the survey process, for example, the length of time the interview took to complete, respondents requests for visual aids or more information, degree of engagement of the respondent, date and time on which the interview took place, presence of others during the interview process and so on. The form of the statistical models employed to estimate conditional demand functions will depend on the type of elicitation format employed and the theoretical questions to be addressed.

The cost of 'litigation-standard' CVM surveys can run to several million dollars/euro and they have been used at the highest levels of European and American policy decisions regarding the environment (Harrison and Lesley

1996).[8] From Davis' pioneering papers (Davis 1963a, 1963b) which introduced the use of surveys to measure the value of public goods, the methodology has proliferated and is now a standard tool in lobbying, litigation, project evaluation, policy assessment, experimental economics, social psychology and value theory. The report in to lost passive-use values arising from the Exxon-Valdez oil spill off the coast of Alaska in 1989 (Carson, et al 1992), in particular generated a wave of controversy and research. This, along with other high-profile policy decisions led to the establishment of the Blue-Ribbon panel, consisting of two Noble laureates, which was convened in 1992 to describe the current state of the art (Arrow et al 1993). The Panel's qualified endorsement of the methodology has become perhaps the most cited result in the CVM literature and provided a massive impetus for research into the methodology and a partial green light to its further development as a major policy tool.[9]

The case of the *Exxon Valdez* is one that enjoys particular celebrity in the literature, being the most high-profile example and perhaps one of the most wide-ranging studies to date (Carson et al 1992). An Economic Impact Measure of the losses generated by the Valdez yielded a figure of $330 million calculated on the basis of lost tourism and fisheries whereas a contingent valuation survey commissioned by the State of Alaska and carried out by the leading practitioners in the field yielded a total lost value of 2.3 billion dollars when allowing for the effect of lost "passive-use" values in the population as a whole. The study itself cost over 3 million 1989 US dollars (Harrison and Lesley 1996), and has become a landmark in the use of hypothetical survey markets to determine the value of non-

[8] Harrison and Lesley discuss the cost of CV studies and outline alternative low-cost sampling procedures. Chapters 2 and 6 of this dissertation discuss this issue in more detail.

[9] The Panel's conclusion is oft cited in the literature *"...CV studies can produce estimates reliable enough to be the starting point for a judicial or administrative determination of natural resource damages- including lost passive-use value.... The more closely the guidelines are followed the more reliable the result"*

marketed goods. The theoretical issues arising from Valdez and related cases created a great deal of controversy about the use of CVM in policy and theoretical contexts. The NOAA report in to CVM chaired by Kenneth Arrow and Robert Solow in 1992 brought the methodology to center-stage in the valuation literature and created a lively theoretical debate that forms the background for this dissertation.

While originally developed in the environmental economics literature, and still to a large degree encompassed within that sub-discipline, CVM research has also begun to provoke debates in other sub-disciplines of economics. The Cultural Economics literature has witnessed an infusion of CVM studies in recent years, designed to quantitatively assess important hypotheses regarding the relation between society, culture and public finance (e.g. Hansen, 1997, Papendrea 1999, Santagata, and Signorello 2000). CVM has also been used to evaluate policy and test theoretical predictions in the Health Economics literature, its growth in this area demonstrated by Diener and colleagues' construction of a classification of CVM studies in health economics (Diener et al 1998). The extent to which CVM has extended in to other areas outside of the environmental literature can be partly gleaned from Table 1.3 (end of chapter) which chronicles the 160 papers listed under the JEL classification Q51 "Contingent Valuation" from 1993 to 2004 in EconLit. This is an informative though necessarily incomplete list, and a full search of the CVM literature through all disciplines would reveal more fully the extent to which it has spread.[10]

[10] The Social Science Citation Index lists 1369 studies as of July 2004 that include the phrase "contingent valuation" somewhere in the contents. Carson's (2004) bibliography is not as yet released at the time of writing. His 1995 bibliography lists over 2000 papers and the number published since then is likely to be close to double that.

Table 1.1: Techniques Designed to Assess Preferences for Public Goods

Preference Revelation Techniques	Description
Hedonic Pricing	Demand for Public Goods is estimated by regressing market prices on independent variables including provision of public goods. Very common in the literature on house prices.
Travel Cost	Willingness to Pay for Public Goods is estimated by statistically analysing the cost and frequency of travel to gain access to the public good
Lost-Letter Method	Assesses underlying values by analysing frequency with which a supposedly lost letter is returned to the addressee based on characteristics of the addressee. Rarely directly applied in economic valuation.
Market Behaviour	Willingness to Pay is assessed directly from market transactions e.g. entrance fee to a museum
Charitable Contributions	Demand Functions for Public Goods are derived from statistical analysis of contributions to charitable organisations.
Affiliation Data	Demand for Public Goods is assessed by statistically analysing determinants of affiliation with different groups.
Experimental Data	Demand for Public Goods is assessed under controlled experimental conditions
Contingent Ranking	Questionnaire/Interview methodology that estimates demand for public goods by asking people to rank different combinations of provision and price
Delphi Methodology	A group of experts are asked to estimate population willingness to pay for public goods. Advantage of being inexpensive and facilitating world-wide surveys.
Analysis of Manifestos	Quantitative or Qualitative language based techniques that estimates demand for public goods by analysing election manifestos.
Contingent Valuation	A survey methodology where people are offered hypothetical scenarios involving an increase or decrease in the provision of the public good at specified prices and asked how they would behave if given a choice to accept or reject the proposals offered.

Table 1.2: Types of Elicitation Methods

Elicitation Method	Description
Open-Ended	Respondents are asked to state their maximum willingness to pay
Single Bounded Dichotomous Choice	Respondents are given "take-it-or-leave-it" choice. An upper or lower bound is put on their willingness to pay by them answering yes or no.
Double-Bounded Dichotomous Choice	Follows up the single bounded question with a second offer, lower than the first if the respondent has answered no and higher than the first if the respondent has answered yes.
Triple-Bounded Dichotomous Choice	Follows up the double bounded question with a second offer, lower than the second if the respondent has answered no and higher than the second if the respondent has answered yes.
Payment Card	Respondents are shown a payment card listing various amounts and asked to circle the one that comes closest to their WTP
Bidding Games	Respondents are given an initial price, and bid up and down until reaching their reservation price
Dissonance Minimising Format	Involves giving respondents a choice of how to respond. May be combined with the other elicitation methods.
Contingent Ranking	Respondents are asked to rank different combinations of provision and price
Range of Certainty	Similar to Payment Card. Respondents are shown a range of amounts and asked to circle both those they are sure they would be willing to pay and those they are sure they wouldn't be willing to pay

1.3 Issues in Valuation

1.3.1. Value Concepts

When societies organise collective activities the effects are multi-channelled. Non-marketed goods have direct use values, for example the sum of individual utilities derived from hill-walking. As well as direct use values, non-marketed goods also provide indirect use-value.[11] The existence of clean air contributes to our utility directly through health benefits and indirectly through extra income derived from tourism. Furthermore public goods provide non-use values from the point of view of the individual such as benefits to others, existence values, option values, bequest values and so on.

The standard economic account of how people place value on public and private goods is the foundation stone of Contingent Valuation Methodology. Consider a person in two states A and B. In state A the person is consuming a vector of public and private goods (qA, xA) and in state B the person is consuming the vector (qB, xB). The standard assumptions of neo-classical economics are that the person is able to rank different states of the world such that his/her ordering over different states is:

- Complete: Any two states A and B can be compared
- Reflexive: Each state is valued as being as least as good as itself.
- Transitive: Given that A is preferred to B, and B is preferred to C, then A will be preferred to C for any A, B and C.
- Convexity: The better set of any bundle of A and B is convex.

[11] It is important to distinguish between non-marketed goods and public goods. Non-marketed goods may yield benefits that are potentially excludable and rivalrous. This dissertation concerns the valuation of non-marketed goods and thus is equally concerned with valuation of non-marketed private benefits in hypothetical formats.

The economic theory of how consumers' value non-marketed goods is based on these axioms. Once again, we assume an individual has preferences for various private commodities, denoted by the vector x, as well as for non-market amenities denoted by q. This treatment follows Haneman (1993) and Maler (1974) in algebraic exposition. If we are only discussing one public good then q is a scalar, otherwise q is a vector. The individual takes q as given and cannot alter the quantity supplied. Of course, the person can freely vary his/her consumption of the private goods x. From this, preferences are represented by the utility function **u(x,q)** which is continuous and non-decreasing in its arguments. The individual seeks to maximise this utility function subject to the budget constraint

$\Sigma p_i x_i \leq y$,

taking q as given. This yields a set of ordinary demand curves

$x_i = h_i (p,q,y)$, i = 1, … n

and an indirect utility function

$v(p,q,y) \equiv u[h(p,q,y), q]$.

Alternatively, the consumer's problem may be seen as minimising expenditure at a given level of utility in which case we have

Min Σ $p_i x_i$ subject to u (x,q) $\geq$ u

This in turn yields a set of compensated demand functions $x_i = g_i (p,q,u)$, i = 1, … , N, and an expenditure function m (p,q,u) $\equiv$ Σ pigi (p,q,u). Maler (1971,1974) extended Hicks' (1939) work on the welfare effects of price changes to give definitions of the welfare effects of changes in q. Suppose that q changes from q0 to q1. Utility at q0 is given by u0 = V(p,q0,y). Utility at q1 is given by u1 = V(p, q1, y). Maler proposed that the compensating and equivalent variations of a change in q could be measured thusly:

V(p,q1,y-C) = V(p,q0, y) And

V(p, q1, y) = V(p, q0, y + E)

E and C are the focus of Contingent Valuation Studies. We are proposing a hypothetical project to bring the level of q from q0 to q1. Assuming that the change in q brings about utility enhancement, C measures the maximum amount an individual will pay for the change to be carried out, whereas E represents the minimum amount the individual would need to be paid for him/her to be willing to forgo the change. On the other hand, if the change in q makes things worse for the individual, then –E measures the individuals WTP to avoid the change, and –C measures the WTA to tolerate it.

1.3.2. Importance/Institutional Context

In terms of the welfare effects of public policy the summation or aggregation of individual valuations can be used in public policy to determine between different projects. CVM has been particular muted as a mechanism for incorporating "non-use" values into economic cost-benefit analyses of environmental projects. It may also be used in legal settings to set fines and damages at socially optimal levels (e.g. Carson et al 2002). The public policy debate extends beyond environmental issues. CVM has been widely muted as a mechanism for integrating public preferences in to the economics of health care. O'Shea et al (2001), for example, focus on the use of CVM to set priorities in health care. Propper (1999) also looks at CVM as a mechanism for determining the subjective disutility of waiting times. The World Bank has conducted extensive research on the use of CVM as a tool for facilitating a more comprehensive approach to the value of their activities in developing countries (e.g. Cropper et al 2002). In the domain of media, public service broadcasters, throughout the world, have come under increased pressure to demonstrate quantitatively that they provide non-market values that justify public funding and it is clear that CVM and related techniques will play a role in the debate in this area also (e.g. Finn, McFadyen and Hoskins 2003).

The importance of the issues analysed in this dissertation for policy lies in this continued development of CVM and related techniques in to policy areas. The vast majority of experts agree that the values derived from CVM should not be used prescriptively for setting policy. However, their use as an "anchor" around which to frame damage assessments, license fee renewals, project cost estimates and so on is not an inconsiderable role. The public policy debate can be usefully summed up by two polarities, represented by R1 and R2.

R 1: CVM represents a means by which society can be moved towards a social optimum. Because the political and private markets are not giving out sufficient signals, priority setting in the market is not optimal in relation to the preferences of agents in the economy.

R 2: The development of CVM represents a dis-equilibrium in the literature on public valuation. The continued use of CV in legal and policy formats will lead to increasing amounts of policy decisions being based on inaccurate information.

Deciding between R1 and R2 is something that will occur in courtrooms and in public policy settings as the use of Contingent Valuation continues to evolve. In a recent paper, Boudreaux, Meiners and Zywicki (2004) restate the case that CVM will lead to continued confusion in legal and resource allocation decisions. "*In fact, so-called contingent "value" is so riddled with conceptual problems that it simply cannot be recognized as an expression of individuals' true valuations, nor can it be used as a reliable guide to political decision-making. The law had best ignore such values, relying instead on the marketplace to protect them as far as they can be protected*". The academic economics input in to CVM can be discussed by analysing the main issues with preference revelation that have been raissed in the literature.

1.3.3. Issues with Preference Revelation

A case for R1 can be made, as above, on signal failures in the use of behavioural data to reveal preferences. The criticisms of CVM and a case for R2 revolve around four main problems with the methodology, which some critics claim negate its use as a methodology for generating economic preferences data – A. Strategic Responding B. Informational Failure C. Survey Artefacts and D. Response/Non-Response Bias. We also include cost and researcher incentives, which are particularly important concerns given the expense of professional surveying services.

A – Strategic Responding

Strategic bias arises when the respondent provides a biased answer in order to influence a particular outcome. The original papers of Samuelson (e.g. Samuelson 1954) placed the strategic incentives to misrepresent preferences at the heart of the public goods problem, and there is considerable scepticism as to whether this can be overcome by the use of survey methodology. Another aspect of strategic responding is the potential for the respondent to utilise the response format to send a signal to the policy makers or regulators in the domain in which the analysis is taking place. By declaring that they attach no monetary value to an increment to the provision of a public good, the respondent may instead be protesting at the current manner in which the good is being provided, or making a defensive statement against increments to their tax bill. In a typical application, Posavac (1998) demonstrated that WTP for public goods varied according to expectations of the funding source. He found that students' WTP for a proposed college amenity was lower when they were lead to believe that the potential funding source would be student contributions rather than funding from the general college fund. Others have pointed out that such effects occur in all types of questionnaire/interview based survey and have attempted to develop mechanisms

to counter them. Green et al (1998) employ the principles of decisiveness and decoupling as mechanisms to override strategic biases. Decisiveness involves communicating to the respondent that the information that the survey is collecting will be used in allocation decisions surrounding the resource in question. Decoupling is the principle that the respondents are made aware that their bid will not be traced back to them in any subsequent allocation of the burden of finance decision-rule.

B – Hypothetical Biases

An early critique of the use of CVM was proposed by Scott (1965) who provided the maxim; "Ask a hypothetical question and you will get a hypothetical answer". In this vein, two further potential biases in CVM that have received particular attention are "embedding" and "insensitivity to scope". The NOAA panel cited several studies demonstrating insensitivity to scope in CVM studies. One study by Kahneman showed that WTP for a clean-up of all the lakes in Ontario was only slightly higher than WTP for cleaning up the lakes in just one region (Kahneman 1986). A further study by Desvouges and colleagues found that WTP for preventing 2,000 migratory birds from dying was as great as that for preventing 20,000 birds or even 200,000 birds from dying (Desvouges et al, 1992). Embedding is a related phenomenon that results from respondents including wider values in to the valuation problem, for example giving their WTP for all museums when asked for their WTP to preserve one specific museum.

The taxonomy of studies outlined in Table 1.3 demonstrates the preponderance of testing for cognitive and hypothetical biases in CVM studies, particularly respondent uncertainty and scope insensitivity effects. The table codes the type of cognitive response biases tested for in 150 representative studies from the literature over the period from 1993-2004. A further area that has received a great deal of attention is the comparison of valuations elicited through the use of

contingent valuation with estimates derived from observing people actually make the real choice rather than a hypothetical one. Several studies, going as far back as the early seventies (e.g. Bohm 1972) have found that valuations elicited in hypothetical settings tend to be higher than those observed when the respondents are given a real choice, one of the factors that prompted the NOAA panel to suggest that the amounts elicited from CVM studies should be interpreted "*conservatively*".

C – Survey Artefacts

Related to hypothetical and strategic bias is the various ways in which surface features of the survey process unrelated to the preferences being measured can affect the amounts which the respondents claim they are willing to pay. As will be discussed in more detail in Chapter 6, a wide variety of surface survey manipulations have been shown to yield systematic variations in the amounts elicited in CVM studies. Stewart et al (2002) among several other papers have demonstrated that the order in which alternatives are presented affects choices between the alternatives. Kemp (2003) and several others have demonstrated that the effects of including and manipulating information about the goods are significant. Pouta (2003) demonstrates evidence for "contextual attitudinal effects" whereby the inclusion of attitude and belief question alongside monetary valuations can change the valuations elicited. In Chapter 2, we examine "anchoring" toward the initial bid in dichotomous choice elicitations. The existence of survey artefacts can be employed to suggest that the stated preferences elicited from CVM studies are too sensitive to superficial factors to be treated as valid economic preference data, something we examine in eliciting preferences for social transfers in Chapter 6.

D – Sampling/Response/Non-Response Bias

The issue of response is a general concern in survey research. We view the issue of response and sampling to be similar problems. Essentially, they both concern the probability that a given person will respond to the questions put. In the case of sampling, the issue is the probability that the person will be asked the question. In the case of response the issue is the probability that the person will answer the question if asked. As, among others, DeVaus (1996) points out non-response can be divided in to a number of different components:

- Definition of Population: For many public goods, this would be defined geographically or socio-economically. In this dissertation, the relevant populations are those resident in Ireland. However, there are conceptual issues with defining the population that can lead to different interpretations. For example, should the population include non-resident citizens of Ireland and/or resident non-citizens? Should we restrict the definition of the population to those of voting age, or do we include people younger? Is the relevant population those who pay taxes? By defining our population, we place restrictions on who is included.
- Definition of Sampling Frame: Once the conceptual definition of population has been decided upon, one needs to decide on an operational definition, the sampling frame. In the case, where we are examining the Irish resident citizen population, one sampling frame that could be employed is the electoral register. This necessarily restricts the frame to those registered to vote, just as using telephone directories restricts the frame to those who have registered a landline telephone.
- Sampling Methods: The method by which the population is sampled will also influence the results. Ideally, probability-sampling methods with numerous call-backs to ensure representativeness should be employed. However, due to

expense, quota-sampling techniques are commonly used, whereby the sample is designed to match population proportions on a number of key demographics such as gender, age and region.

- Total Non-Response: In this case, it is crucial to distinguish between sample non-response and sample selection. Sample non-response need not necessarily be a problem if the factors determining non-response are orthogonal to the factors determining responses to the variables we are trying to measure. However, if the sample is selecting itself based on characteristics related to their valuation, this may lead to inaccurate inferences.
- Partial Non-Response: Endogenous responding to given questions is another issue for economic valuation surveys. This is less challenging than total non-response bias, in that we can use information gleaned about the respondent from the completed parts of the questionnaire to infer at least the direction of the bias, if one exists.

E – Other Issues

The expense involved in conducting CV studies is another key issue in the potential development of the methodology as a possible method for integrating public preferences in to public policy. The recommendations of the NOAA panel (Arrow, Solow and colleagues 1992) that proper survey design demands face-to-face interviewing and probability sampling essentially means that to conform to these dictates will lead to surveys costing millions of dollars in an American context and hundreds of thousands of euro in an Irish context. Harrison and Lesley (1996) argue that a gulf has arisen in the literature between "litigation-standard" surveys costing millions of dollars and academic studies run on smaller budgets. They argue that the nature of US environmental damage litigation proceedings leads to a loss-averse attitude to survey design from litigants and plaintiffs with vast amounts of money being expended essentially to cover them from cross-

examination on, sometimes trivial, points. Furthermore, they argue that much of the expense involved in CV studies can be avoided. For example, they show that a convenience sample with appropriate weighting yielded very similar figures to those outlined by Carson and colleagues (1992) in the *Valdez* report which utilized expensive probability sampling techniques. Very few papers in the literature, perhaps out of a prejudice against the discussion of such topics in an "academic" context, have factored the cost of the study into the cost-benefit analysis. In many studies in the literature, one is left wondering whether the money spent on the survey would not have been better employed in increasing the provision of the good the preferences for which it was designed to elicit.

The issue of cost is related to another key issue in CV, namely the degree of interest in the results of different actors affected by the valuation process. Aside from the obvious principal agent problem involving the respondents' strategic incentives, there is also the fact that the field-workers may have no incentive to collect accurate data, outside of personal work ethics, honesty and fear of being caught. They may simply fabricate some of the data, or fail to adhere to the procedures outlined in the survey protocol. Referring back to R1 and R2 from Section 1.3.2. a further question is raised of the degree to which the CV research process is self-correcting. CV is a research literature that is heavily driven by expensive reports and it may not be in the interests of the researchers expert in conducting these analyses to report that they are not useful methods of inquiry. To what extent are the results of survey research conducted by paid consultants tailored to suit the needs of the client and not the demands of scientific integrity? Even if not consciously determining results, the nature of the funding will place constraints on the types of questions asked and the analyses conducted. Mitchell and Carson (1989), among others, advise that readers should take in to account the source of funding when evaluating CV studies. This is a useful recommendation but may also contribute to a belief that studies in the literature that are not funded

by special interest groups are somehow exempt from conscious or subconscious bias on behalf of the researcher. A more useful suggestion would be to question whether the authors of the study derive a large part of their salary from conducting CV studies, and if so is this leading to any degree of soft-thinking on their behalf with respect to possible critiques of the analyses they are conducting.

Furthermore, even a survey conducted to the most rigorous standards in the most appropriate conditions for valuation may still be dismissed simply because the reader does not believe that a stated economic preference has any validity or that the results were compromised by vested interests in the survey process. Essentially the degree to which the survey was conducted honestly, the questions tailored to objectivity rather than profit and the suitability of the method are all private information. In the absence of methods to render the survey process public, the results will not be fully accepted by the public or by policy makers. The value of survey research can be viewed as a lemons problem (e.g. Akerlof 1970) with a danger that quality uncertainty could characterise the market for this type of information. The consequence of this is that preferences for the types of non-marketed goods that cannot be valued without using stated preference data will not be adequately reflected in social outcomes without public methods of ensuring validity.[12]

As well as this, the use of verbal reports as economic data requires a rethink of the philosophy of science underlying valuation. The above literature demonstrates that CV cannot be used to conclusively decide between the core hypotheses of the "reality" of elicited preferences. There are always issues in the survey process that will lead one to reject the findings if one wishes to do so. The integration of verbal reports of introspective values in to economic cost-benefit analysis is not a case-

[12] To the author's knowledge, a paper has not yet been written examining CVM from the perspective of the economics of information that endogenises researcher incentives.

study in the accumulation of increasingly refined hypotheses leading to incremental increases in the corpus of the literature and a concomitant facilitation in its use in policy. Rather it is the formation of research paradigms with heuristics that govern hypothesis formations within the paradigms in a context that has real-world policy implications. The discussion of the problems inherent in eliciting preferences leads to the question of how knowledge can be built on the foundation of surveys of preferences elicited in hypothetical market situations.

1.4 Paradigms in the Contingent Valuation Literature

1.4.1. Background

This section examines CVM from a philosophy of science perspective and, to our knowledge, represents the first attempt to explicitly apply the insights from the philosophy of science frameworks to this literature.[13] Our argument can be summarised as follows. The Duhem-Quine thesis states that no single hypothesis can be falsified. Instead, only a collection of joint hypotheses can be falsified. In this respect a survey can never be a crucial test between different hypotheses of the value of a public good. The creation of scientific knowledge in the public valuation literature has emerged in the context of research groups with common-shared beliefs that are not subjected to scrutiny. These common-shared beliefs form the basis of a paradigm in the Kuhnian or Lakatosian sense (e.g. Kuhn 1970, Lakatos 1978).

Numerous such paradigms have emerged within the CVM literature. We divide the CVM literature in to different paradigmatic schemes, which overlap in terms of

[13] Methodological speculation is not a cherished past-time in the economics profession. Hausman (1984) comments "Most methodological writing on economics is by economists. Although the bulk is produced by lesser members of the profession, almost all leading economists have at one time or another tried their hand at methodological reflection. The results are usually poor." Samuelson (1964) goes further "Soft Sciences spend time talking about method because Satan finds tasks for idle hands to do." (both cited in Redman 1991)

chronological order and in terms of research but nevertheless are distinct enough to be deemed different paradigms. The division can be outlined as follow: (i) the early beginnings of CVM represent the formation of a paradigm within the public valuation literature, (ii) the next phase is the integration of basic psychological and survey insights in to the CVM literature (iii) following from this is the use of psychological models to analyse WTP. In this branch of CVM research, there is heavy emphasis on psychological models of WTP.

We argue that the development of these literatures can only usefully be described in terms of the sociology of science and that there are strong points of incommensurability between the different strands of CVM research and that, furthermore, there are strong points of incommensurability between all strands of CVM research and critics of the methodology who do not believe that the responses elicited from CV surveys are meaningful in an economic sense. We develop this meta-narrative to include the progression of bio-psycho-social models of cognition and decision–making to the evolutionary paradigm and raise the question of whether this proposition could form an "end-of-history-of-science" narrative within the public valuation literature. Once again, to our knowledge, no one has previously put forth an evolutionary social-psychology approach.

1.4.2. Existing Paradigms in Valuation

The impossibility of falsifying the metaphysical nucleus supporting the interpretation of CVM responses is illustrated by the standard Duhem-Quine hypothesis. The basic statement of the hypothesis is:

An Experiment in Physics Can Never Condemn an Isolated Hypothesis but Only a Whole Theoretical Group (Duhem 1904 quoted in Gillies 1993).[14]

The isolated hypothesis in economic valuation paradigms is the "reality" of economic preferences. This is conceptualised by some authors as the rationality of respondents, with the premise being that respondents to CV studies are either rational or irrational. Various degrees of belief about the "reality" of economic preferences determine the structure of the non-market valuation. Lakatos (1978) coined the term "hard-core heuristics" to denote the, as Blaug (1980) puts it *"purely metaphysical beliefs that unite the protagonists of a Scientific Research Programme"*. The paradigms we outline are in their essence incommensurable particularly in relation to the key issue of how researchers "see" the respondents stated valuations, one seeing it as meaningless, the second remaining agnostic or viewing it as rational and the third seeing them as the product of psychological processes.

A – The Strict Behavioural Approach to Valuation

A strict behavioural approach to valuation of non-marketed goods is one that does not permit the use of introspective reports as an input in to policy or a valid method of understanding the economy. Diamond and Hausman's (1994) critique of CVM is particularly forceful. Reviewing the literature on decision-making in CV formats and drawing from their own work using Protocol Analysis, they conclude

We believe that contingent valuation is a deeply flawed methodology for measuring non-use values, one that does not estimate what its proponents claim it

[14] He extends this to "In sum, the physicist can never subject an isolated hypothesis to experimental test, but only a whole group of hypotheses; when the experiment is in disagreement with is predictions, what he learns is that at least one of the hypotheses constituting this group is unacceptable and ought to be modified; but the experiment does not designate which one should be changed"

to be estimating...This scepticism comes from the belief that the internal consistency problems comes from an absence in preferences, not a flaw in survey methodology. That is, we do not think that people generally hold views about individual environmental sites (many of which they have never heard of), or that within the confines of the time available for survey instruments, people will focus successfully on the identification of preferences, to the exclusion of other bases for answering survey questions. This absence of preferences shows up as inconsistency in responses across surveys and implies that survey responses are not satisfactory bases for policy.

Writing in this vain, several authors have argued that the responses elicited in CVM studies should not be taken seriously as economic data. This can be identified as a paradigm itself within the literature, as one large function of CVM research is the debunking function, with several papers being written to demonstrate the instability of stated preferences with respect to surface survey features. Boudreaux, Meiners and Zywicki (2004) is the most recent statement of the position that verbal reports should not be admissible as economic values.[15] The hard-core heuristic of this paradigm is that behavioural data is of a higher order of validity than report data and that behaviour must be the criteria by which we measure value.[16] Related to this issue is the Friedmanite concept that the degree of realism of the assumptions of a theory does not affect the validity of the theory (Friedman 1952). In this vain, the use of behavioural data as the sole measure of revealed preference can be seen as the best assumption regardless of whether it is descriptively accurate or not.

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[15] The authors include a particularly apt quote from *The Theory of Moral Sentiments* that is worth quoting. Smith hypothesises how an educated European who has just learned of a catastrophic earthquake in China that killed several people would react; *"He would, first of all, express very strongly his sorrow for the misfortune of that unhappy people. And when all this fine philosophy was over, when all these humane sentiments had been once fairly expressed, he would pursue his business or his pleasure, take his repose or his diversion, with the same ease and tranquillity, as if no such accident had happened".*

[16] The history of twentieth century psychology can be viewed as the battle over whether behaviours are sufficient data to develop a science of human psychology (e.g. Fancher 1996). Parallels between the debate over psychological behaviourism and the current debate on self-reports in economic are marked.

B – The Econometric Approach to CVM

The econometric approach to valuation surveys is heavily dependent on appropriate welfare concepts and econometric specification but does not make use of formal psychological theory in formulating survey design or interpreting the results. The econometric approach permits the use of WTP responses as economic data, subject to survey design standards, and is grounded in estimating the data-generating process underlying the data from an economic perspective without focusing on the underlying psychological processes involved in valuation. The taxonomy outlined in Table 1.3 is, particularly in the earlier parts of the sample, dominated by the economic approach (classifying the papers listed under the JEL category "Contingent Valuation"). Several papers are devoted to (i) estimating the demographic and regional determinants of willingness to pay for public goods (ii) to improving estimation techniques and developing econometric practice and (iii) to testing aspects of the survey process including testing respondents understanding of the scenarios and their incentives in responding to the scenarios. It is in the third aspect that the economic approach borders the bio-psychosocial approach to valuation that incorporates formal psychological theories to model WTP for public goods. However, there is a clear distinction between the two strands that make them in sense "incommensurable" paradigms within the literature. Within the econometric paradigm, the psychological processes underlying valuation are important only to the extent that they potentially interact with the valuation procedure to generate data-problems. They are not viewed as inherently interesting phenomena.

C -The Bio-Psycho-Social Approach to Valuation

The economic approach to valuation does not specify the processes by which people come to make valuations, nor does it specify the form or content of utility functions. A psychological approach to valuation, on the other hand, is particularly process orientated. We focus here on the current dominant stream in modern psychology, the bio-psycho-social approach. The bio-psycho-social model encompasses a very broad array of the literature within contemporary psychology. We can distinguish the bio-psycho-social framework from other contemporary and historical frameworks within psychology such as behaviourism, psychoanalysis, humanism, and social constructionism.[17] The bio-psycho-social model sees the human as a biological information processor interacting with other biological information processors in physical and social environments.

The bio-psycho-social approach is bound in the view that the question of how people value goods is crucial to the question of how to measure peoples' valuation. Specifically we are interested in the process by which people translate valuations into monetary amounts in hypothetical formats. A number of streams have contributed toward a bio-psycho-social paradigm emerging in the literature. Experimental economics has emerged in recent years to examine more closely the processes by which decisions are made at the individual level.[18] Furthermore, the psychology of decision-making has emerged as a field within economics from the mathematical foundations of Von-Neuman and Morgenstern (Von-Neuman and Morgenstern 1944, Luce and Raiffa 1957) to more generalised models as exemplified in the work of Kahneman (e.g. Kahneman and Tversky 1982). Several

[17] I do not discuss economic valuation from the perspective of psychoanalysis. However, a reading of non-market valuation from Freudian, Jungian and Lacanian perspectives could be interesting. A humanistic approach drawing from Abraham Maslow and Carl Rogers would also be extremely interesting.

[18] See Hagel and Roth (1995) for a review of the field of experimental economics

models such as prospect theory incorporate psychological theories of decision-making into the corpus of economic theory. Similarly, several critiques have emerged of the rigid nature of neo-classical decision theory (e.g. Sen 1982) leading several economists to incorporate methods and theories from the experimental, particularly experimental social psychology literatures (e.g. Akerlof and Dickens 1982) to explain economic phenomenon. The awarding of the 2003 Nobel prize to Daniel Kahneman, a psychologist, is surface evidence for an emerging paradigm change within economic thinking and one that has in part been brought about by research into economic valuation.

While Table 1.3 demonstrates that a number of papers that utilise formal psychological theory have been published in journals with JEL classification status, a guide to the development of the psychological paradigms can be seen by reviewing the "PsychLit" referenced articles on contingent valuation. The keyword "contingent valuation" returns 46 papers from between 2004 and 1988, whereas the keyword "willingness to pay" returns 170 papers. One form of the bio-psycho-social model applied to public goods valuation that is commonly utilised in these studies derives from a family of models arising from the work of Ajzen and Fishbein (e.g. Ajzen 1988, Ajzen and Fishbein 1980). Ajzen and Fishbein developed the Theory of Reasoned Action and the Theory of Planned behaviour to explain how attitudes, beliefs, evaluations and social norms lead to behaviours.[19] A basic scheme for the Theory of Planned Behaviour is outlined below. In this scheme we view a valuation as a behavioural intention. Behavioural Intentions are in turn mediated by attitudes e.g. my intention to go jogging will be mediated by my attitudes towards jogging, the more specifically related the attitude the more its effect on the behavioural intention. Attitudes are formed from cognitive beliefs

[19] The literature on the link between attitudes and behaviour is vast one. Much of it has been motivated by hundreds of studies that had failed to find a link between attitudes and behaviour leading some psychologists to question the validity of the construct of attitude.

regarding the potential consequences of behaviour and evaluations of these consequences. These are also mediated by social norms and affective or emotional appraisals of the outcomes.

The Theory of Planned Behaviour is a contextualised approach to valuation in that it requires a great deal of detail in specifying the domain specific attitudes and social norms that underlie valuations rather than applying a general ordinal framework. We could potentially apply this theory to any form of valuation methodology. For example, the processes by which people decide to purchase a house could be decomposed in terms of how people place value on the non-marketed components such as environmental amenities. As Green and Tunstall (1999) point out, the Theory of Planned Behaviour also draws attention to interaction effects between researchers, fieldworkers, respondents and other participants in valuation research, which further enhances its power in deriving hypotheses in the valuation literature. TPB has been applied to the literature by a number of authors (e.g. Pouta 2003). Working within this framework has implications for how surveys are designed, the manner in which the interviews are conducted and the analysis of the resulting responses.

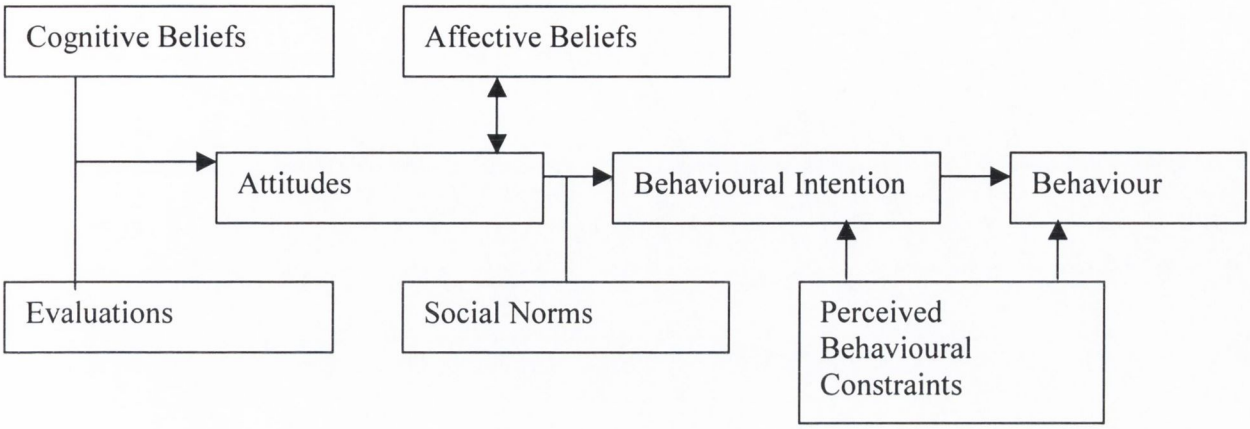

Figure 1 The Basic Fishbein-Ajzen Model (from Green and Tunstall 1996)

The Theory of Planned Behaviour is very much a psycho-social approach to valuation of non-market goods. It does not specify internal psychological processes that mediate response, nor is it necessarily bounded on a neurological substrate. A more biological approach to valuation can be constructed from some basic axioms.

1. Humans come to form their values through sensory perception interacting with innate evolved mental structures.
2. Because of language, the ability to read and broadcasting, the remote perception of human beings extends beyond their immediate visual, auditory, olfactory and tactile environment, enabling them to value that with which they have not come in to physical contact.
3. Humans are endowed with a short-term memory that processes algorithms in real time to meet tasks encountered in everyday situations. The short-term or working memory (STM) interacts with a long-term memory

(LTM), which is the "central processing unit" of human function and stores items in conceptual networks. The STM and LTM are interactive systems.

4. The LTM networks link everyday perception with memories and contain affective components allowing the human to assign values to different forms of sensory stimulation or to process information in line with existing conceptual structures or to modify these structures in line with the new information. Long Term Memory stores information in networks with nodes coding information in olfactory, auditory, visual, tactile and gustatory forms.
5. This system is bounded by a neurological substrate that is a biological product of evolutionary pressures.

Neurological models of memory and judgement have not yet been applied to the valuation literature. There are a number of potential benefits to integrating these models. Firstly, the existing literature is vast and accessing it would facilitate immediate gains in terms of understanding of the valuation literature by simple and direct analogy to how psychologists have conceptualised how humans encode and perform other executive functions. Secondly, the establishment of a neurological basis for valuation (perhaps as a memory retrieval problem) would allow the benchmarking of the experience of valuation to a directly observable event, specifically a coded pattern of neuronal activation. [20]

[20] As this dissertation has progressed, more published papers have become available verifying the importance of this approach as it applies to economics. Glimcher and Rustichini (2004) summarise the later literature as follows: "Economics, psychology and neuroscience are converging today in to a single unified discipline with the ultimate aim of providing a single, general theory of human behavior. This is the emerging field of neuroeconomics in which consilience, the accordance of two or more inductions drawn from different groups of phenomena, seems to be operating. Economists and psychologists are providing rich conceptual tools for understanding and modeling behavior, while neurobiologists provide tools for the study of mechanism. The goal of this discipline is thus to understand the processes that connect sensation and action by revealing the neurobiological mechanisms by which decisions are made."

1.4.3. An Evolutionary Model of Public Goods Valuation

The evolutionary model represents the logical extension of the bio-psycho-social models as outlined above.[21] The logic of this statement is as follows

1. The economic (neo-classical) approach to valuation is not process orientated. It simply requires that decisions be restricted by adherence to the standard axioms of choice.
2. Bio-psycho-social model approaches to valuation specify decision-making processes by which people convert stimulus and memories into money amounts and decisions.
3. Logically, mental processes have a biological foundation in neurological functioning.
4. Given that the brain is a biological organ, it evolved subject to the same constraints as other biological features. Therefore the processes by which humans place value on non-market goods must be genetically *adaptive* processes. Specifically, the processes must be those that we evolved in our long Pleistocence pre-history as hunter-gatherers to enable us to solve social problems that we would have encountered in this environment.
5. The processes of the brain can be revealed using refutable experimental methodology.

A number of separate but related fields could overlap to establish an evolutionary paradigm within the valuation literature. The socio-biological approach to social exchange as exemplified in the works of Cosmides and Tooby (e.g. Cosmides and Tooby 1995) sets clear and testable hypothesis as to the processes by which people construct valuations. The study of biological and genetic factors in determining

[21] This is based on evolutionary models of decision-making as outlined by Leda Cosmides and John Tooby (e.g. Cosmides and Tooby 1992). An extended discussion of evolutionary and modular theories of cognitive and neurological functioning is given in Gazzinaga, Ivry and Mangun. (2001).

attitudes and social evaluations (e.g. Olson et al 2001) allows a mechanism to determine the heritability of valuations, further grounding them in a biological reality. A third area that could be integrated into the valuation literature is the study of the neurological basis of social evaluation (e.g. Cunningham et al 2001) and the neurological basis of economic behaviour. The advantage of the evolutionary approach to cognition has been discussed extensively in a number of works and this approach can be applied with little alteration to the question of valuation. Theories of neurological design in cognition that rely on underlying evolutionary design structure are directly analogous to potential theories describing what a respondent is doing when responding to a valuation survey.

1.4.4. Feyerabend, Social Constructionism, and Post-modern accounts of Valuation

We have outlined a deterministic model of the structure of public goods valuation. We have argued that non-market valuation techniques such as Travel-Cost, Market Data, Hedonic Pricing etc do not lead to the development of rigorous *process* models of valuation to the extent that CVM does. We developed this argument by describing one account of the logical extension of the bio-psycho-social approach to valuation, namely the evolutionary approach to valuation. In some respects this model is indisputable. If we accept the biological basis of valuation in the evolved structures and processes of the mind it follows that the processes that determine valuation are genetically adaptive and will retain traces of our evolutionary history. However, this is not the full story. A fundamental issue that arises from the various scientific perspectives we have outlined on the measurement of demand for non-marketed goods is the ability of science to adequately encompass human preferences. While we have argued that bio-psycho-social and evolutionary models represent potential paradigm shifts in the non-market valuation literature with survey methodologies such as CVM acting as a catalyst for this transformation, in many ways we have left out a large part of our story. Namely,

we have not questioned the scientific basis of the empirical elicitation of preferences.

The writings of the logical positivists on verificationism and Popper on falsification provide theoretical underpinnings for empirical and theoretical approaches to the elicitation of preferences for non-marketed goods from human subjects. Feyerabend (1978) almost parodies Kuhn's relativism in espousing the link between freedom and science as being one of anarchy.[22] For Feyerabend, only when we abandon hopes of a demarcation criterion to divide science from non-science can the full creativity of human culture be brought to bear on issues that affect us. A post-modern and hermeneutic strand in the CV literature is evident in mainstream economic journals in some recent papers examining respondents' own rationale for their valuations (Chilton and Hutchinson 2003, Clark et al 2000).

Journals at the interface of philosophy and economics clearly demonstrate some trends that will emerge in social constructionist paradigms of valuation. The *Journal of Environmental Values* in particular has a history over the past decade of publishing articles on valuation that examine the status of individual values from the perspectives of hermeneutics, moral and philosophical theory and religion. A full review of the content of this and related journals is beyond the scope of this dissertation, but it is clear that the contributors, many of whom are CVM practitioners, do not have a hypostasised view of the individual and the process of valuation and that the debate surrounding the problematic concept of individual stated values will continue to be a lively one.[23] The post-modern critiques could

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[22] The philosophy of science underpinning this dissertation ends with the sociology of knowledge. We do not consider the psychology of knowledge and science, an extremely interesting and fast-growing area, and how this could be applied to the CVM literature.

[23] A further class in the study of valuations is intrinsic valuations. One particularly eloquent example of this is Bertrand Russell's account of the value of philosophy: *"Thus, to sum up our discussion of the value of philosophy; Philosophy is to be studied, not for the sake of any definite answers to its questions since no definite answers can, as a rule, be known to be true, but rather for*

potentially raise deep questions about the demarcation criteria between science and non-science in the conceptualisation of valuation, questions that current economic frameworks seem ill-equipped to deal with.

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the sake of the questions themselves; because these questions enlarge our conception of what is possible, enrich our intellectual imagination and diminish the dogmatic assurance which closes the mind against speculation; but above all because, through the greatness of the universe which philosophy contemplates, the mind also is rendered great, and becomes capable of that union with the universe which constitutes its highest good. (Russell, 1912, Chapter XV).

Table 1.4: Paradigms in the Valuation Literature

Behavioural Paradigm	**Hard-Core Heuristics:** Introspective Accounts not valid as economic data **Philosophical Context:** Friedman Unrealism Watsonian/Skinnerian Behaviourism Revealed Preference Theory
Econometric/Survey Design Paradigm	**Hard-Core Heuristics:** Introspection admissible Psychological Factors operant but peripheral **Philosophical Context:** Von-Neuman Morgenstern Decision Theory
Bio-Psycho Social Paradigm	**Hard-Core Heuristics:** Introspection admissible Psychological Factors operant and crucial **Philosophical Context:** Information-Processing Revolution in Psychology Kahneman and Tversky Decision Theory
Evolutionary Paradigm	**Hard-Core Heuristics:** Value and Valuation Processes emerge from evolutionary pressures **Philosophical Context:** Neo-Darwinism Evolutionary Theory
Social Construction/Discourse Paradigm	**Hard-Core Heuristics:** Meaning is Fluid No fixed conception of value **Philosophical Context:** Duhem-Quine Hypothesis Wittgenstein and Language Games Post-modern and Deconstruction Theory

1.5 Conclusion

The integration of verbal reports into the valuation literature is one of a range of ways in which subjective accounts of internal states have been integrated in to economics in recent years. Econometric accounts of the individual and cross-national determinants of stated levels of happiness has become a major research area in economics, as has analysing the determinants of subjective financial well-being, subjective appraisal of the economy and subjective evaluation of the effects of wide national changes such as globalisation of labour and goods markets (e.g. O'Rourke and Sinnott 2004, Scheve and Slaughter 2002). Furthermore, linkages between the literatures will become more apparent. Following from the initial ideas of Frey and Stutzer (2000) one method of combining the burgeoning literature on happiness with the literature on public goods valuation is to estimate happiness regressions of the form:

$$H_i = H(Q_1, \ldots\ldots Q_n)$$

From this, initial estimates of the value of public goods could be derived from estimates of the derivative of the happiness function with respect to increases or decreases in the provision of a particular public good, dH_i/dQ_j. This is one of the many channels through which the economics of verbal reports will develop in the future.

This review of the literature on valuation on public goods is intended to provide a broader overview of the issues in valuing public goods across a wide range of disciplines. Valuation research does not take place in an intellectual vacuum, and the issues outlined in the review are those that a very detailed reading of a wide range of literatures have lead the author to believe will become prominent in the course of the debate. The speed at which these issues will develop is not predictable. The cost of carrying out large-scale surveys will limit the speed of transmission of ideas from the various fields outlined.

Conceptualising the demarcation criteria between science and non-science as Feyerabend does is an interesting exercise for the valuation literature. We witnessed the Rabbi's at the beginning of the chapter struggling for methods to conceptualise valuation to deal with the increased complexity of a changing society. Survey research economists all over the world struggle with this same problem in a modern context. Does the nature of value become what people tell us they value in surveys in a context where the values of researchers themselves and the readers must be taken in to account? In the absence of direct behavioural evidence, can we state with confidence that object x is valuable? It is clear that to rely on the formulation "De Gustibus Non Est Disputandem" is not sufficient to capture the functioning of markets in the presence of public goods and the debate surrounding CVM indicates a very active questioning.

The studies conducted for this dissertation are in the economic and bio-psychosocial traditions of stated preference studies with a direct attempt in places to incorporate formal psychological theory to account for the processes by which respondents construct their valuations and what this implies for aggregation of social benefits derived from non-marketed activity. The review outlined in this chapter also provides a wider intellectual framework for how this and related methodologies could interact with the wider intellectual and policy debates in the domains analysed in this dissertation, broadcasting and social welfare. In some ways, this chapter acts as an observer of the studies to follow, weighing up how they are placed in wider debates. It is highly unlikely (and perhaps undesirable) that a methodology based purely on economic theory and econometric estimation would have an impact on either of the fields studied here without awareness on behalf of researchers of how the methodology could potentially interact with other aspects of thought.

1.6 Structure of Dissertation

The empirical work in this paper is chiefly based on the results of two nationwide surveys, designed by the author and administered by professional market research agencies in December 2002 and May 2004.[24] While this dissertation contains several different strands that sometimes do not intersect, all the chapters concern stated preference methodology and its relation to mixed-market economies. As said in the motivation, this dissertation was borne from a desire to explore the use of a methodology and to utilize this methodology in relevant policy contexts. The dissertation represents only a fraction of the various different routes that could have been taken, and is structured to outline the areas in my research where the relevance to extending the literature is highest.

The dissertation is structured in to seven chapters including this introductory chapter. Chapters 2, 3 and 4 examine issues in the Contingent Valuation of Irish Public Service Broadcasting. The empirical work in each of these chapters is based on the same data, which comprises of two surveys conducted in June 2002 and December 2002. There is slight overlap between the description of the survey material between Chapter 2,3 and 4 which primarily allows us to describe the use of the methodology in the three different contexts under discussion. Chapters 5, 6 and 7 examine issues in preferences for redistribution and particularly preferences for tax and social welfare. The data utilised in Chapter 5 and 7 come from a large representative nationwide survey conducted in June 2004 by

[24] The question of study funding is one that must be addressed in studies involving policy implications. It is recommended that authors spell out their relationship with the source of funding. In our case, RTÉ provided funding for our first survey. Neither the author nor his supervisor received any payment in the form of expenses or salary from the organisation. No explicit pressure was placed by RTÉ to tailor question wording to suit their objectives. Furthermore neither the author nor his supervisor hold a confirmed position on the merits or otherwise of funding public broadcasting. Our interest in the survey came from an intellectual interest in preference revelation. Whether or not the questions were framed to suit an RTÉ agenda can be judged by looking at the question wording (Appendix 1).

Lansdowne Market Research. Chapter 5 also utilises data from a survey of 32 experts conducted in June 2004 as well as the European Social Survey in order to draw international comparisons. Chapter 6 partly utilises this nationwide survey data set, but primarily utilises a nationwide convenience sample conducted on Irish rail routes in July 2004. Chapter 7 utilises the nationwide survey to examine intra-household issues in preferences for transfers. A detailed description of each chapter follows.

Chapter 2 applies the Contingent Valuation Method to Irish Public Broadcasting. The structure of Irish Public Broadcasting is outlined and a rationale is given for two surveys of preferences for RTÉ Services carried out in May and December 2002. Preferences for Public Broadcasting Services are important at a time when increasing indigenous and international competition are leading many to question publicly the necessity to provide a broadcasting corporation with public funding. The Contingent Valuation method has become an increasingly studied tool in cultural policy (e.g. Hansen 1997, Santagato and Signorello 2000) and previous authors have investigated its use in assessing preferences for public broadcasting services (Bohm 1972, Ehrenberg and Mills 1990, Schwer and Danashvary 1995, Papendrea 1999, Curtis and Jennings 2002). This chapter represents the first national survey in the CVM literature in an Irish cultural context. We discuss the empirical results and also the standing of surveys of economic preferences in broadcasting policy and cultural policy generally. The policy contribution of this chapter is that it represents the first attempt to place a monetary value on public broadcasting services in Ireland on a nationwide basis. The results of the chapter will act as a benchmark for future studies as well as providing a reference point for survey design, estimation procedures and theoretical background. A major theme in Chapter 2 is the discussion of the estimation of benefits derived from

high-profile cultural projects.[25] We discuss several issues in estimating willingness to pay. The treatment of non-response, zero-bidders, outliers and status quo responses are important to CVM studies in general and particularly so in the politicized environment of public broadcasting. We estimate the determinants of non-response, zero-bidding, outliers and status-quo bidding using binomial probit functions incorporating demographic and preference factors.

Chapter 3 looks at distributional issues in Irish Public Broadcasting.[26] This is part of a wider project within the dissertation utilising survey methodology to shed light on distributional issues. The chapter contains an extensive discussion of inter-group valuation and distribution in a mixed-market economy where government agents make decisions based on their own demographic characteristics and the composition of the voting market. We discuss the use of CVM in measuring inter-group valuations of the benefits of government spending. This is then discussed in terms of Irish publicly funded cultural goods and then applied empirically to Public Broadcasting in Ireland. The contribution of this chapter is that it represents the first national empirical analysis of the distribution of benefits of public broadcasting services in Ireland from an economic rather than a market-research perspective. It also contributes to the literature on media economics and cultural economics by demonstrating the use of CVM to estimate the distributional effects of publicly financed cultural activity.

We present several usage and satisfaction models of public broadcasting services using binomial probit models with age, gender, household income, education,

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[25] A version of Chapter 2 has been published in the Economic and Social Review, "Irish Public Service Broadcasting: A Contingent Valuation Analysis" (co-authored with F. O'Toole).

[26] A draft of Chapter 3 is under review at the *Journal of Media Economics* under the title "*The use of CVM in Estimating the Distributional Effects of State-Financed Cultural Activity: the Case of Irish Public Broadcasting.*"

presence of children, marital status and region as independent variables. We also present a censored Tobit model of Household Willingness to Pay based on the same variables. The use of WTP figures to estimate distributional effects is discussed in the context of other methods of measuring distributional effects of public goods. This chapter also opens up another main area of this dissertation, the use of CVM to identify demand for redistributive policies. This topic will be explored more fully in later chapters of the dissertation. In this chapter we analyse demand for one particular policy of redistribution, namely changing the license fee from the current system to one that is progressive in income. We outline the descriptive statistics as well as a probit model of acceptance of the proposal.

Chapter 4 opens another major theme of this dissertation, that of eliciting household or individual willingness to pay for public goods.[27] This issue has not been widely discussed nor its significance appreciated in the literature on Contingent Valuation Methodology. In Chapter we build on Quiggin (1998) and illustrate the importance of the issue of unit of preference. We outline a taxonomy of CVM studies based on the issue of household versus individual elicitation and describe how each subsection of the taxonomy may be affected by measurement error derived from intra-household factors. One specific factor that we add to the literature is confusion over budget constraints that may arise in the static context of a CVM study. In this chapter we demonstrate the measurement error induced by the most common CVM question that asks "How much would you be willing to pay?" without specifying to the respondent whether the survey is trying to elicit household or individual WTP. We present descriptive statistics as well as models of Willingness to Pay for RTÉ Services under different assumptions about the preference structure.

[27]A draft of Chapter 4 is under review at the *Journal of Cultural Economics* under the title: "Eliciting household and individual willingness to pay and aggregation.

Using original data, Chapter 5 analyses attitudes to distribution in Ireland and particularly public preferences for social welfare spending. The Irish income maintenance system consists of a series of schemes that transfer approximately €11 billion per annum and is financed from the central exchequer and a social insurance fund. This chapter examines the results of a nationwide survey of preferences for specific welfare schemes in Ireland, as well as looking at general attitudes to distribution and redistribution. We firstly examine the demographic determinants of preferences for benefit schemes using various estimation techniques. In addition we analyse the correlations between preferences for specific benefit schemes, general attitudes to redistribution and personal values, as measured by the Schwartz Personal Values Inventory. We thirdly examine public preferences by analyzing the results of asking a group of experts to predict the distribution of public support for the array of existing income maintenance schemes. Finally the results of our Irish nationwide survey are compared with the first round of the European Social Survey through exploratory cross-country regressions on the determinants of support for government intervention to reduce inequality across Europe. This chapter serves as a review of the literature on preferences for distribution and redistribution as well as an empirical overview of existing surveys of preferences.

Chapter 6 examines further evidence for question-effects on respondents' stated preferences in the context of preferences for social welfare spending. The standard normative model of rational agents making decisions on the basis of perfect information is used as a baseline to compare our results which examine how a variety of informational and surface features can influence respondents stated preferences for social welfare policy. Using original data from surveys of Irish respondents, this chapter examines evidence for four categories of survey effect on willingness to pay for social welfare policies (i) information effects (ii)

time-unit effects (iii) ordering effects and (iv) contextual attitudinal effects. While the nature of the data, precludes us from making definitive statements about the universality of our findings, our study suggests that such factors do not have a major effect in determining stated preferences for social policy. We discuss policy implications of these types of effects in the context of Irish welfare spending.

Chapter 7 reports the results of questions that assessed household and individual willingness to pay for social welfare in Ireland elicited from individual respondents in a nationwide sample. A 2x2 split-sampling procedure was used. One group of respondents was asked to give their total household willingness to pay and then asked their own personal willingness to pay, while another group was asked their personal willingness to pay followed by their household willingness to pay. The paper reports the results of this experiment analysing covariates and determining the magnitude of standard biases in the literature on the aggregation of demand for social welfare in Ireland. We also examine intra-household factors in determining demand for transfer policies. We report the results of a test of the pooled income model of household behaviour, assessing the demand of husbands and wives for child benefit transfers.[28]

[28] A version of Chapter 7 is in preparation for submission to the *Journal of Economic Psychology*.

Table 1.3: An Overview of the Contingent Valuation Literature (Source: EconLit Citations 1993- 2004)

	Year	Topic	Test of Formal Psychological Theory?	Cognitive Distortion Explicitly tested for?
Cunha-se-Sa, M	2004	Theory	N	Consistency with Behavioral Data
Pouta, E	2004	Forestry	Y	Contextual Attitudinal
Brubaker, E.	2004	Public Finance	N	N
Atkinson, G et al	2004	Energy	N	N
Ryan, M	2004	Reproduction	N	N
Berrens, P. et al	2004	Climate Change	Y	Information
Herrath and Kennedy	2004	National Park	N	N
Whynes et al	2004	Cancer	N	Range Bias
Jorgenson, B et	2004	Water Pollution	Y	Construct Validity
Bateman et al	2004	Environment	Y	Scope Sensitivity
Hammit, J.K. and Liu, J.T	2004	Mortality Risk	N	N
Park, J.H.	2003	Environment	N	Elicitation and Uncertainty
Wassink , G and van Wenum, J	2003	Agriculture	N	N
Shiell, A and Gold, L	2003	Health Care	N	Vagueness and Respondent Uncertainty
Noonan, D	2003	Cultural Review	N	N
Whitehead, J. and Finney, S.	2003	Heritage	N	Scope
Sanz et al	2003	Sculpture	N	N
Epstein, R.	2003	Cultural	N	N
Throsby, D.	2003	Cultural	N	N
Polome, P.	2003	Experimental	N	Effect of Uncertainty
Burton, A. et al	2003	Environmental	N	Effect of Uncertainty
Bhatia, M. and Fox-Rushby, J.A.	2003	Mosquito Nets	N	Consistency with Behavioral Data
Maguire, K.B. et al	2003	Fertility	N	Validity of the use of student samples
Romeiro, A and Maia, A.G.	2003	University Planning	Y	N

Chambers, M. and Whitehead, J	2003	Wolves	N	N
Brown, J.C. et al	2003	Recreation	Y	Effect of Reminding Respondents about Cognitive Bias
Agren et al	2003	National Parks	N	N
Garcia, D and Riera, P.	2003	Urban Planning	N	N
Strazzera, E; et al	2003	Environmental	N	N
Smith, R.D.	2003	Health Care	N	N
Whynes, D. et al	2003	Cancer Treatment	N	Elicitation Effect
Powe, N.A. and Bateman, I.J.	2003	Recreation	N	Ordering Effect
Vossler, C.A. et al	2003	Open Space Funds	N	Consistency with Behavioral Data
Brox, J.A. et al	2003	Water Quality	N	N
Mathieu, L et al	2003	Marine Parks	N	N
Vossler, C.A and Kerkvliet, J.	2003	RiverFront Improvement	N	Consistency with Behavioral Data
Rekola, M.	2003	Theory	N	Lexicographic Preferences
Leon, R. and Leon, C.	2003	National Parks	N	N
Vossler, C.A. et al	2003	Green Electricity	N	Respondent Uncertainty
Hudson, D. and Hite, D.	2003	Precision Technology	N	N
Zhongmin, X. et al	2003	Ecosystem Services	N	N
Alpizar, F.	2003	Choice Experiments	N	N
Nunes, P., Schokkaert, E.	2003	Wildlife	N	Scope and Adding Up
Leon, C. et al	2003	Tourism and Fishery	N	N
Foster, V. and Mourato, S.	2003	Natural Resources	N	Scope
Chilton, S.M. and Hutchinson, W.G.	2003	Conservation	Y	Scope
Svedsater, H	2003	Environmental	N	Respondents Understanding
Cordes, S et al	2003	Rural Development	N	N
Strazzera, E. et al	2003	Traffic Calming	N	N

Wilson, C.	2003	Pollution Control	N	Consistency with Behavioral Data
Hanley, N. et al	2003	Health Care	N	N
Luchini, S. et al	2003	Health Care	N	N
Alberini, A. et al	2003	Recreation	N	Respondent Uncertainty
Hite, D. and Hudson, D.	2002	Technology	N	Debriefing
Kim, H.J. and Cho, Y.	2002	Pollution Control	N	N
Champ, P. et al	2002	Recreation	N	Elicitation Effects
Kennedy, C.	2002	Cancer Prevention	N	Consistency with Behavioral Data
Hall, D. et al	2002	Ecosystems	N	N
Berrens, R.P. et al	2002	Recreation	N	Information Effects, Respondent Uncertainty Effects
Aguirre, A; et al	2002	Sewage Systems	N	N
Duthy, S.	2002	Forestry	N	N
Grijalva, T et al	2002	Recreation	N	Scope
DeShazo, J.R.	2002	Recreation	Y	Anchoring, Costs-Expectations
Curtis, J.A. and McConnell, K.E.	2002	Recreation	Y	N
Clarke, P.M.	2002	Health Care	N	Consistency with Behavioral Data
Cooper, J.C.	2002	Recreation	N	N
Roach, B. et al	2002	Recreation	N	Range Bias
Wheeler, S. and Damania, R.	2001	Recreation	N	Embedding
Chavez-Comparan, J. and Fischer, D.W.	2001	Recreation	N	N
D'Ercole, E. et al	2001	Agriculture	N	N
Van Kooten, G. et al	2001	Forestry	Y	Respondent Uncertainty
Ready, R. et al	2001	Air Pollution	N	Respondent Uncertainty
Hanley, N. et al	2001	Recreation	N	Various
Clinch, J.P. and Murphy, A.	2001	Recreation	N	N
Andrews, T.P.	2001	Water Quality	N	N
Stumborg, B.E. et al	2001	Water Quality	N	Payment Time Horizon
Fredman, P. and Emmelin, L.	2001	Recreation	N	Respondent Uncertainty

Goldar, B. and Misra, S.	2001	Environmental	N	WTP vs WTA
Carlsson, F. and Martinsson, P.	2001	Forestry	N	N
Yoonae, J.	2001	Pollution	Y	N
Anaman, K.A. and Jair, R.M.	2000	Waste Disposal	N	Elicitation Effects
An, M.Y.	2000	Theory	N	N
Bateman, I.J.	2000	Theory	N	N
Vasquez, F; et al	2000	Theory	N	N
Burton, M.	2000	Theory	N	N
Kerr, G.N.	2000	Theory	N	N
Messonier, M. et al	2000	Theory	N	N
Smith, V.K.	2000	Review	N	N
Gregory, R.S.	2000	Environmental	Y	N
Morrison, G.C.	2000	Theory	N	N
Gumpper, M.R.	2000	Ecolabels	N	Consistency with Behavioral Data
Morrison , M. and Bennet, J.	2000	Review	N	N
Cook, A.	2000	Water Policy	N	Consistency with Behavioral Data
Campbell, H.F. and Reid, C.R.M.	2000	Fisheries	N	N
Alberini, A. and Krupnick, A.	2000	Health	N	Consistency with Behavioral Data
Ethier, R.G. et al	2000	Green Electricity	N	Format Effects
Loomis, J.B. et al	1999	Open Space	N	Elicitation Effects
Brunstad, R.J. et al	1999	Agriculture	N	N
Blamey, R. et al	1999	Water	N	N
Rolfe, J.	1999	Food Demand	N	N
Cunha-e-Sa, M.A. and Ducla-Soares, M.M.	1999	Theory	N	N
Whitehead, J.C. and Hoban, T.J.	1999	Environment	N	Temporal Stability
Kotchen, M.J. and Reiling, S.D.	1999	Recreation	N	Reminder of Budget Constraint and Substitutes
Whitehead, J.C. and Blomquist, G.C.	1999	Recreation	N	Reminder of Budget Constraint and Substitutes
Boman, M; et al	1999	Theory	N	N
Herath, G.	1999	Water/Lakes	N	Consistency with Behavioral Data

McLeod, D.M. and Bergland, O.	1999	Recreation	N	N
Blamey, R.K. et al	1999	Recreation	Y	Elicitation Effects
Anand, P.B. and Perman, R.	1999	Water Supply	N	N
Smith, V.K. and Mansfield, C.	1998	Time	N	Consistency with Behavioral Data
Rollins, K. and Lyke, A.	1998	Wilderness Parks	N	Scope Tests
Blamey, R.K.	1998	Theory	N	N
Quiggin, J.	1998	Recreation	N	N
Welsh, M.P. and Poe, G.L.	1998	Recreation	N	Elicitation Effects, Respondents Uncertainty
Huang, J.C. and Smith, V.K.	1998	Theory	N	N
Cummings, R.G. and Taylor, L.O.	1998	Recreation	N	Realism
Haab, T.C. and McConnell, K.E.	1998	Recreation	N	N
Halvorsen, B. and Saelensminde, K.	1998	Recreation	N	Elicitation Effects
Groothuis, P.A. et al	1998	Housing	N	N
Chambers, C.M. et al	1998	Historic Site	N	N
Adamowicz, W. et al	1998	Recreation	N	Elicitation Effects
Langford, I.H. et al	1997	Theory	N	N
Rosenberger, R.S. and Walsh, R.G.	1997	Land Preservation	N	N
Loomis, J.B. and Ekstrand, E.	1997	Wildlife Preservation	N	N
Rozan, A. et al	1997	Water Quality	N	N
Alberini, A. et al	1997	Various	N	Elicitation Effects
Lazo, J.K. et al	1997	Bequest	Y	N
Kling, C.	1997	Theory	N	Consistency with Behavioral Data
Carson, R.T. et al	1997	Preservation	N	Temporal Consistency
Kramer, R.A. and Mercer, D.E.	1997	Rain Forests	N	Elicitation Effects
Poe, G.L. et al	1997	Recreation	N	N
Stevens, T.H. et al	1997	Recreation	N	Payment Schedule
Sollner, F.	1997	Theory	N	N
Kartman, B. et al	1996	Health	N	Scope and Order
Shabman, L. and Stephenson, K.	1996	Flood Risk Reduction	N	Consistency with Behavioral Data

Loomis, J. et al	1996	Recreation	N	Consistency with Behavioral Data
Li, C.Z.	1996	Forestry	N	N
Boyle, K. et al	1996	Recreation	N	Elicitation Effects
Ready, R.C. et al	1996	Food Safety	N	Scope and Elicitation
Smith, V.K.	1996	Recreation	N	N
Brown, T.C. et al	1996	Environmental	N	Consistency with Behavioral Data, Elicitation Effects
Colson, F. and Stenger-Letheux, A.	1996	Agricultural Landscapes	N	N
Laughland, A.S. et al	1996	Environmental	N	Consistency with Behavioral Data
Bennett, J.	1996	Environmental	N	N
Ready, R.C. and Hu, D.	1995	Theory	N	N
Richer, J.	1995	Desert Protection	N	N
Griffin, C. et al	1995	Water Supply	N	Consistency with Behavioral Data
Whitehead, J.C.	1995	Natural Resources	N	Scope
Alberini, A.	1995	Theory	N	N
Loehman, E.T. et al	1994	Risk Reduction	N	WTP vs WTA
Loomis, J. et al	1994	Forests	N	Reminder of Subsitutes and Budget Constraint
Langford, I.H.	1994	Theory	N	N
Stevens, T.H. et al	1994	Wildlife	N	Temporal Stability
Teasley, R.J.	1994	Forestry	N	Consistency with Behavioral Data
Jordan, J.L. and Elnagheeb, A.H.	1994	Water Quality	N	Elicitation Effects
Jordan, J.L. and Elnagheeb, A.H.	1994	Theory	N	N
Cooper, J.C.	1994	Theory	N	N
Larson, D.M.	1993	Theory	N	N

CHAPTER II

IRISH PUBLIC SERVICE BROADCASTING: A CONTINGENT VALUATION ANALYSIS

Summary

Irish public service broadcasting faces enhanced domestic and international competition and, increasingly the Irish public service broadcaster (RTÉ) is being called upon to justify the scale of the television license fee, its major source of funding. This chapter describes the first nationwide valuation of RTÉ's services. In analysing the determinants of respondents' willingness to pay for RTÉ's services, the importance of domestic and international competing services and the relationships between willingness to pay for, usage of, and satisfaction with, RTÉ's services are analysed. A number of valuation functions are outlined that address the determinants of status-quo bids, zero-bids, non-responses and outliers as well as experimenting with different methods of estimating conditional valuation functions.[29]

[29] A version of this chapter, co-authored with Francis O'Toole, will appear in a forthcoming edition of the *Economic and Social Review* under the title of "*Irish Public Service Broadcasting: A Contingent Valuation Analysis*". There is a slight overlap between this chapter and the discussion of CVM in chapter 1 which facilitates a discussion of the method in the different contexts.

2.1 Introduction

As reviewed in Chapter 1, the economics of stated preference is a rapidly growing field, with economists addressing issues of survey design and the psychology of survey response. It has become increasingly common to attempt to measure economic preferences for public products directly using stated preference methodology. The application of stated preference techniques to the area of cultural and media economics is one illustrative area (e.g. Ehrenberg and Mills 1990, Schwer and Daneshvary 1995, Papendrea 1997, Finn, McFadyen and Hoskins 2003). This chapter focuses on the area of Irish public service broadcasting.[30]

The context of this chapter is both the debate concerning the future of public service broadcasting and the development of contingent valuation methodology ("CVM") as a tool in cultural analysis. This chapter represents the first attempt, on a nationwide basis, to put a monetary valuation on Irish public service broadcasting services with the CVM being employed to estimate household willingness to pay in hypothetical choice formats. This chapter describes the pre-tests that assessed the validity of CVM as a tool for valuing public service broadcasting and the construction, administration and analysis of the nationwide survey. As well as deriving estimates of willingness to pay for services produced by the Irish public broadcaster (RTÉ), estimates of the conditional distribution of willingness to pay with regard to preferences for domestic and international competing services (e.g. TV3) are also examined. The conditional distribution of willingness to pay for RTÉ's services with respect to usage of, and satisfaction with, various RTÉ's services, as well as reliance on the services for different types of programming are also analysed. The robustness/validity of the responses are

[30] This chapter builds on research by Michael Jennings and John O'Hagan (e.g. Jennings 2001, Jennings and Curtis 2002, O'Hagan and Jennings 2003).

investigated by modelling the probability of non-response, outlier bids, zero-bids and bids that specify directly an unwillingness to pay more than the current television licence fee ("licence fee"). In addition, the importance of distinguishing between household, and individual, willingness to pay is discussed, both in general and in the specific context of the nationwide survey.

Section 2.2 outlines Irish public service broadcasting and reviews the previous usage of CVM in cultural and broadcasting studies. Section 2.3 describes the specific research issues that this paper addresses, namely, willingness to pay for the Irish public service broadcaster, the importance of the availability of domestic and international competing services, the relationships between willingness to pay for, usage of, and satisfaction with, RTÉ's services and the importance of distinguishing between household, and individual, willingness to pay. Section 2.3 also describes the pre-testing that explored possible survey effects on willingness to pay. Section 2.4 describes the nationwide survey, focusing particular attention on the crucial willingness to pay scenario. Section 2.4 also describes the results of the survey. Section 2.5 offers concluding comments.

2.2 Valuing Irish Public Broadcasting

2.2.1. Irish Public Service Broadcasting

Radio Televis Éireann (RTÉ) is the Irish public service broadcasting organisation and it has provided a radio service since 1926 and a television service since 1961. As an organisation, RTÉ is subject to the nine-member RTÉ Authority, which is appointed by the government. The RTÉ executive board, which is responsible for the day-to-day running of RTÉ and is headed by RTÉ's director general, reports to the RTÉ Authority. RTÉ broadcasts three television services, RTÉ One, Network 2 and TG4 (an Irish language service), as well as four radio services, Radio 1, 2FM,

Lyric FM and Raidió na Gaeltachta.[31] RTÉ is also responsible for advertising, performing groups (e.g. National Symphony Orchestra), publishing (e.g. RTÉ Guide), transmission and a range of other services (e.g. Aertel).

RTÉ is dually funded with approximately 40% of its annual revenues in recent years coming from license fee revenue with the remainder from advertising (close to 50%), other broadcasting revenue and RTÉ Commercial Enterprises. However, the significant increase in the license fee to €150 in January 2003 (from its previous level of €107) means that license fee revenue is now RTÉ's primary source of funding.[32] O'Hagan and Jennings (2003) discuss public support for public broadcasting in Europe and summarise the rationale offered for state intervention under the headings of variety/diversity, democracy/equality, network externalities, innovation and investment and insurance.[33]

This study, however, is not predicated on any particular theory of market failure rationalising state involvement in broadcasting markets. Rather the focus of this chapter is on examining the possible existence, and scale, of signal failures that may arise when the government attempts to set the appropriate license fee. As reviewed by Savage (1996), the funding of public service broadcasting in Ireland has always been a controversial issue in Irish politics. However, public discontent

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[31] Viewing figures show that RTÉ's television channels remain popular, with *national individuals all-day television shares* of 25.4% for RTÉ One and 12.4% for Network 2; TV3's figure is 13.0% (Nielsen Media Research, RTÉ Annual Report 2003). The major *national market shares of radio listening* (7am – 7pm, January – December 2003, adults aged 15+) were as follows for 2003: 'Home' local stations (41%), Radio 1 (25%), 2FM (17%) and Today FM (9%) (JNLR/tns mrbi, RTÉ Annual Report 2003).

[32] "In 2003, Television Licence Fee income slightly exceeded 50% of RTÉ's total income for the first time in many years." (RTÉ Annual Report 2003, p.17).

[33] A public broadcaster, it is suggested, can increase societal welfare by catering for minority interests (e.g. specialist tastes), by educating and informing (e.g. political information), by enhancing the sense of community (e.g. broadcasting major sporting events), by developing new talent/programming (e.g. conveyor-belting talent into the commercial sector) and by providing insurance with respect to the existence of broadcasting itself and with respect to ensuring basic services (e.g. quality) through demonstration.

at the level and inherently regressive nature of the ad rem license fee is noticeable by its absence, particularly in contrast to the difficulties associated with the introduction of some ad rem service charges, e.g. bin and water charges. The extensive nature of the various license fee waiver schemes may provide part explanation. This paper attempts to elicit directly households' willingness to pay for RTÉ's services. As such, this paper focuses attention on the demand side of the 'market'; supply side issues (e.g. RTÉ's internal cost efficiency) are not examined. The entrance of domestic competition, in the form of TV3 (September 1998) and enhanced international competition in the form of an increased variety of cable and satellite services has likely influenced households' willingness to pay for RTÉ's services. Eliciting households' willingness to pay for RTÉ's services directly also offers the opportunity of at least complementing previous attempts at valuing these services, namely, usage and satisfaction figures/ratings, and the more recently introduced Audience Council.[34]

2.2.2. Valuation Issues

The behavioural data routinely used by economists in demand studies do not emit sufficient signals in the case of public broadcasting (e.g. Papendrea 1997). License fee uptake is not a powerful indicator of preferences for RTÉ's services, as all television households must pay the license fee, independently of watching, and/or deriving benefit from, RTÉ's television services. One could analyse those households who pay the license fee but only receive Irish channels but this is not a representative sub-sample of the population and would only give the choice decision at one price point. In addition, since September 1998, the vast majority of these households also receive TV3, which would also confound the required statistical analysis. A further problem with using license fee uptake is that it

[34] The Audience Council, consists of approximately 22 members with many being nominated by the various social partners (e.g. IBEC and ICTU), the Arts Council, the National Children's Office, the City and County Managers' Association, the Equality Authority, Foras na Gaeilge, the Irish Council of Churches and the Irish Sports Council.

provides no information on preferences for RTÉ's radio services, as a household does not require a license to receive radio broadcasts in Ireland.

In practice, usage figures are the main interface between consumer preferences and broadcasting decisions in Ireland and provide useful information as to which of RTÉ's services are most utilised (and by what groups). However, usage is not a complete indicator of derived utility. People may watch just one hour a week of RTÉ's services but, if the degree of substitutability between this hour and other broadcasting services is very low, this hour may be extremely valuable. Conversely, some of RTÉ's television programmes with high ratings may be those that are highly substitutable for the viewer (e.g. programmes available on other TV channels). In addition, usage figures do not encapsulate option values that accrue from the existence of broadcasting services, nor do they take account of parental utility (e.g. children's programming).

It could be argued that the political economy of broadcasting decisions would result in the license fee being set at approximately the correct level by a benevolent, and/or vote-maximising, government. However, such an outcome may not be attained for a number of reasons. First, public service broadcasting (and, indeed, cultural policy more generally) is generally not a major issue in election campaigns. Second, lobbying plays an important role. Public service broadcasters are generally vociferous lobbyists and RTÉ does not appear to be an exception. If the public service broadcaster's organisational objectives were at variance with the maximisation of public utility, then its greater cohesion as a lobbyist could lead the level of the license fee (and/or programming provision) away from the appropriate level. Conversely, commercial broadcasters have interests that are often opposed to the interests of the public service broadcaster; lobbying by commercial broadcasting could also result in inefficiency. More generally, it appears very difficult to argue that the multi-period 'game' being played between government,

public broadcaster, commercial broadcasters, viewers, voters and regulator(s) would inevitably result in the appropriate license fee.[35]

The issue of whether the public service broadcasting market approximates an efficient equilibrium can, however, be usefully addressed in an empirical sense by representative surveying of the population. Mitchell and Carson (1989), in their influential work on CVM, offer a history of its development. First mentioned by Ciriacy-Winthrop (1944), CVM developed as an alternative to hedonic pricing and travel-costing as a means of assessing the benefits of environmental products that are not directly traded in the market. The first application was by Davis (1963) for preferences with respect to woodland areas in Maine. The methodology rapidly proliferated in the 1970's and 1980's and entered the US legal and political framework as a federally recognised method of assessing lost 'passive' or 'non-use' values arising from environmental damage/destruction.

Many cultural products share certain properties with environmental products, in that pricing is often not organised on a market basis, making traditional welfare analysis unworkable. The use of CVM to assess the benefits of cultural projects has been explored in a number of papers in recent years. For example, Hansen (1997) looked at willingness to pay for the Royal Theatre in Copenhagen, while Aabo (1998) looked at public libraries in a contingent valuation set-up.[36] Noonan (2002, 2003) and Navrud and Ready (2002) give comprehensive reviews of the CVM literatures in the fields of culture and heritage, respectively.

Portney (1994) offers a very simple tripartite division of the contingent valuation survey. Initially, one must design a hypothetical scenario. One must then elicit

[35] Similarly, it is difficult to envisage the Audience Council being expected to correct for all possible imbalances in the future.
[36] See also Santagata and Signorello (2000) and Bravi, Scarpa and Sirchia (1998).

respondents' willingness to pay through an appropriate question. Finally, one must collect socio-demographic information on the respondents. The general research methodology is to regress willingness to pay on socio-demographic characteristics in order to analyse the determinants of willingness to pay, and to provide policy-makers with useful information as to demand for the services being (at least potentially) provided. Socio-demographic variables have been shown to be significant determinants of willingness to pay in previous contingent valuations of cultural products. For 'high-level' cultural products such as theatres and museums, perhaps unsurprisingly, levels of income and education predict willingness to pay to a significant degree (e.g. Hansen 1997).[37]

The responses to a contingent valuation question can be thought of as realisations of a randomly distributed variable that is generally observed in continuous, censored, dichotomous or polycotomous form. Estimation procedures generally involve probit, logit or weibull for the discrete case, and OLS, Censored Tobit, Double-Hurdle and Heckman procedures for the continuous, censored or sample selection case.[38] As regards scenario design, one may model the hypothetical market after a political or a private products market. Cultural studies often choose a modified political market, as the specification of the value of the product often involves externalities that would not be highlighted in a private products scenario. As regards elicitation method, there is a trade-off between the risk of artificially constraining responses as may occur with elicitation methods that offer a discrete array of alternatives (which also require a larger sample size), and the risk that respondents will find the question too difficult and meaningless to offer a sensible response, as may occur with an open-ended format (Mitchell and Carson 1989).

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[37] However, the methodology has not yet developed standardised formats for dealing with the attitudes and beliefs of the respondents, factors that clearly influence willingness to pay responses.
[38] Increasingly non-parametric inferential procedures have become popular in the literature owing to the difficulty of parametrically specifying the distribution of willingness to pay figures.

2.2.3. Contingent Valuation of Broadcasting

Bohm (1972) was the first paper to look at eliciting preferences for broadcasting services, although the contingent valuation method itself was not a prominent part of this seminal paper. However, Bohm notes that, when compared with other methods of eliciting demand, the contingent valuation method may lead to respondents giving over-estimates of their willingness-to-pay, in that willingness to pay in a hypothetical scenario was found to be higher than that elicited when actual money was involved. This is a feature of CVM reinforcing the recommendation of the NOAA panel (Arrow et al 1993) that the results of CVM studies should be applied and analysed 'conservatively'.

Ehrenberg and Mills (1990) analysed demand for BBC services in a hypothetical subscription set-up. They began with the research question "*Do the British population feel constrained by the licence fee to do something they would not otherwise do voluntarily*?" They offered the two main BBC television channels to households at different subscription rates. They found that demand for BBC services dropped by 20% at levels slightly above the then licence fee, but that beyond this point demand was "remarkably insensitive" to prices of up to £200, over two and a half times the licence fee at the time.

Schwer and Daneshvary (1995) analysed demand for public sector broadcasting in the state of Nevada in a hypothetical donation set-up. They asked respondents how much they would be willing to donate in order to retain public broadcasting in Nevada. The main result of interest, in terms of the present study, was the extent to which positive preferences for so-called 'look-a-like' cable channels correlated negatively with willingness to pay to retain public broadcasting. However, in terms

of scenario design, a donation format would be unsuitable in the Irish context, as there is no history of donating to public broadcasting.[39]

Papendrea (1999) applied the contingent valuation method to estimate community benefits in Australia from the mandatory transmission of Australian programmes by television stations. Papendrea employed a two-part referendum format for the valuation question. Respondents were provided with information as to how much it cost to provide the current amount of domestic programming and then asked whether this should be increased, decreased or stay the same. The second step was to ask respondents what would be the maximum that their household would be prepared to pay in increased prices and taxes each year in order to retain the current amount of Australian programmes on television. Willingness to pay for increased provision of Australian programming, using increased prices for advertised commodities as a payment vehicle, was also assessed.

Jennings followed Papendrea (1999) by analysing demand for RTÉ services in a modified policy set-up (Jennings 2001, Jennings and Curtis 2002). Respondents were asked, in a payment card set-up, how much they would be willing to pay to retain RTÉ as a public service broadcaster rather than allow it to become a private commercial concern. This scenario is part of a family of possible scenarios that involve respondents' assessing benefits in different (policy) states of the world.[40] The disadvantage of this approach is that respondents are being, in effect, asked to construct the relevant counterfactual and only then value the difference between the two states (i.e. the present scenario and the relevant counterfactual).

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[39] However, it would be interesting to test the use of a donation format as a payment vehicle against other payment vehicles involving perceived compulsion in order to examine the effects of protest on willingness to pay.

[40] For example, respondents could be asked about their preferences for different regulatory regimes, such as RTÉ becoming a smaller organisation with smaller funding.

Finn, McFadyen and Hoskins (2003) used contingent valuation and contingent choice techniques to estimate use and non-use values of the programming services provided by the Canadian Broadcasting Corporation (CBC). They received 577 responses from a mail-survey sample of 2,404 households from a survey conducted in September 1998. The contingent choice design involved a mixed factorial set-up with 16 packages of programming types (alternated by hours) and a vector of 4 price levels. From the contingent valuation set-up, the authors estimated a total household value for the CBC of $5.03 per household. Of this, $3.70 was the value of the average respondent's own household having access, and $1.33 was the value to the average household of other Canadian households having access to the services. This represents an aggregated yearly value of $664m for the total value of the CBC, with about $488m (or 74%) coming from private effects and $175m (or 26%) coming from external effects.

2.3 Pre-Test Questionnaire

2.3.1 Research Issues

In examining the Irish public service broadcasting market from an empirical perspective, there are a number of specific research questions with respect to public preferences.

(i) Willingness to pay for RTÉ's services: The major empirical issue concerns household demand for Irish public service broadcasting. In particular, what is the average household willingness to pay for RTÉ's services and how does it compare with the licence fee?[41] In addition, what factors determine responses to the

[41] This chapter only attempts to estimate private household willingness to pay for RTÉ's services. As such, this paper does not attempt to estimate the valuation of effects external to the household (e.g. inter-household altruism). Finn, McFadyen and Hoskins' (2003) results may be regarded as somewhat re-assuring in this regard, as their estimate of the internal valuation tends to dominate their estimate of the external valuation. More generally, the household willingness to pay estimates

willingness to pay question and how statistically robust are these responses? Key issues in this regard include the determinants of zero-bids, outlier bids, non-response and bids where the respondents state that they are willing to pay the current licence fee (without specifying the actual amount).

(ii) The presence of domestic and international competing services: An interesting research question concerns the extent to which domestic and international competing services act as complements, or substitutes, for RTÉ's services. For example, are those who view and/or are satisfied with TV3 more, or less, willing to pay for RTÉ's services?

(iii) The effects of usage and/or satisfaction on willingness to pay: As previously indicated, usage figures are a major interface between consumer preferences and decisions with respect to public service broadcasting in Ireland. An obvious research issue concerns the degree of correlation between willingness to pay, usage and satisfaction figures.

(iv) Household, and individual, willingness to pay: Many contingent valuation studies fail to specify to the respondent whether they are looking for household, or individual, willingness to pay.[42] This chapter allows for the possible effect of this ambiguity by following the standard open-ended willingness to pay question with

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in this chapter could be regarded as lower bounds for total household willingness to pay for RTÉ's services.

[42] A typical example in the CVM literature comes from a study of the benefits of reducing gun violence conducted by Ludwig and Cook (1999). Their final conclusion is that a 30% reduction in gun violence would be worth $23.8 billion dollars to the U.S. public. This is based on the responses to the following question: *"Suppose that you were asked to vote for or against a new program in your state to reduce gun thefts and illegal gun dealers. This program would make it more difficult for criminals and delinquents to obtain guns. It would reduce gun injuries by about 30%, but taxes would have to be increased to pay for it. If it cost you an extra {$50/$100/$200} in annual taxes would you vote for or against the program"*. The authors make the assumption that respondents were reporting on household rather than individual WTP and state that this is conservative given that many respondents would have given personal, rather than household, WTP. This example is discussed further in Delaney (2004); further examples abound.

further questions seeking clarification with respect to whether the stated willingness to pay represented household, or individual, willingness to pay. We discuss the issue in greater detail in Chapter 4.

In order to address these core research issues, a number of pre-tests were concluded, including one relatively major study. Examples of issues that were usefully explored in these pre-tests include testing for the presence of anchoring in the dichotomous choice with follow-up set up and examining respondents' verbal rationales of their willingness to pay.

2.3.2. Pre-Test Questionnaire: Design and Implementation

The main pre-test data set, involving information from 360 respondents, was based on a survey collected on major inter-city train routes in May 2002.[43] The main independent variables collected in the data can be grouped into standard qualitative variables (e.g. dummy variables) and variables based on the five-point Likert set-up (e.g. strongly agree, agree, neither agree nor disagree, disagree, strongly disagree). Examples of the former included income; cable/satellite; gender; children; and education, while examples of the latter included satisfaction with TV3; RTÉ's television channels compared to other television channels; RTÉ's radio stations compared to other radio stations; "RTÉ represents a waste of public money"; and "Ireland needs a public service broadcaster".

The following represents the basic scenario presented to all respondents in the pre-test,

[43] Given the expense of commissioning professional surveys, researchers on limited budgets need to think of innovative ways of collecting pre-test survey data, if not the actual survey material itself. The use of railway routes as a sampling devise has several advantages. First, one gets a fairly broad sample of the population. Second, potential respondents will generally be willing to comply, as their opportunity costs are often relatively low. Third, actual respondents will generally have some time to think about their responses. Fourth, a large sample can be gathered quickly and relatively inexpensively.

"RTÉ currently provides RTÉ 1, Network 2, and TG4 on television and Radio 1, 2FM, Lyric FM and Raidió na Gaeltachta on radio. It also provides Aertel and RTÉ online. Think about a situation where RTÉ was a subscription service. So, to get the above RTÉ services, you would have to pay a yearly subscription. Bearing the following points in mind:

- there would be no licence fee;

- any money you spend on the subscription would be money you could have spent on other products; and

- you would not receive the services unless you paid the subscription,

if a subscription to RTÉ cost you ***x*** *euro per year, would you subscribe?"*

The subscription was offered to each respondent at one of the following seven price levels (€30, €60, €90, €120, €150, €180 and €210). The dichotomous choice elicitation method is the most widely used in current contingent valuation studies, as it closely mimics an actual market transaction and is more meaningful to respondents than the more difficult open-ended question which yields lower response rates and more 'don't know' answers.

Respondents were also asked two follow-up questions; "What is the maximum amount of money, per year, you would pay for the above services before you would do without them?" and "What were the main reasons for your answer to the above question?" Using an open maximum willingness to pay follow-up question to the dichotomous choice question allows a test of the 'anchoring effect' (e.g. Kahneman, Slovic and Tversky 1982). Several studies in experimental cognitive psychology predict that the mean response to the open-ended willingness to pay question will be linearly increasing in the amount initially offered (Green et al 1998). Thus, for example, one might expect that a person offered the services at

€210 would subsequently show a higher maximum willingness to pay than someone initially offered the services at €30. The explanation for this effect is that, in the absence of perfect information, people use the initial bid as an 'anchor' in their response to the subsequent open-ended question.[44] One of the main reasons for the use of the dichotomous-choice question with the open-ended follow-up question in this pre-test study was to test for survey effects on willingness to pay. The stability of the maximum bid across different (initial) price levels would be used as an indicator of the stability of preferences. The rationale behind the second follow-up question is dual. First, the addition of an open-ended dialogue section allowed the collection of feedback on the valuation question. Second, the use of open-ended dialogue-type questions enables the researcher to give content to the responses and identify themes and express them in the language of the respondents, thus adding more context and meaning to the process (Clark et al 2000).

2.3.3 Results

Of the 360 collected questionnaires, 19 were discarded owing to either a failure to complete a significant amount of the survey or the non-residency of the respondent. Of the 341 completed surveys, 332 respondents (98%) answered the dichotomous choice question, and 289 (85%) answered the open-ended maximum willingness to pay question.

Table 2.1 shows the number (and relevant percentages) of people accepting or rejecting the subscription at the seven different price levels. Demand for RTÉ's services appears relatively insensitive to price between €90 and €150 euro, with the

[44] Anchoring is one of several cognitive heuristics that experimental psychologists claim characterize human thinking and judgment. For example, Kahneman, Slovic and Tversky (1982) report a study where one group of people asked whether the chance of nuclear war was greater or less than 1% estimated it to be about 10%, whereas another group asked if it was greater or less than 90% estimated it to be over 20%. Similar examples abound in the literature.

probability of acceptance at each price level being slightly above or below 50%; the then current licence fee was €107.

Table 2.1: Dichotomous Choice Question

	€30	€60	€90	€120	€150	€180	€210	Total
Yes	44 (86%)	31 (79%)	19 (53%)	16 (43%)	22 (49%)	21 (31%)	9 (16%)	162(48%)
No	7 (14%)	8 (21%)	17 (47%)	21 (57%)	23 (51%)	45 (69%)	49 (84%)	170 (52%)
Total	51	39	36	37	45	66	58	332

Table 2.2 shows the mean response to the open-ended follow-up question at each of the seven price levels. Respondents did not anchor their responses to the initial bid in a linear fashion. This is a positive result in terms of the validity of the methodology and indicates that respondents' preferences were generally stable across different survey features.[45]

Table 2.2: Maximum Willingness to Pay Question

	€30	€60	€90	€120	€150	€180	€210	Total
Mean	€112	€108	€97	€96	€117	€113	€118	€110
Total	45	37	31	32	38	55	51	289

The comments elicited from the open-ended question/probe asking respondents to explain the reasons for the answer they gave to the willingness to pay questions seemed to point to a rational appraisal of the costs and benefits of subscribing to RTÉ's services, with the vast majority of respondents detailing the quality of the services, their cost and the cost and quality of alternatives.[46]

Responses to a number of questions assessing perception of the importance of public service broadcasting in Ireland were also elicited. Respondents were posed the following statement, "*Ireland needs a public broadcaster*" and asked to rate

[45] In only one of three relevant models (see Table 2.3) did the initial bid emerge as a statistically significant factor in influencing the subsequently stated maximum willingness to pay.
[46] Further details are available from the authors upon request.

their level of agreement in a five-point Likert set-up: 35% of respondents strongly agreed; 47% agreed; 13% chose the "neither" option; 3% disagreed; and 2% strongly disagreed. Thus, there appears a very general level of agreement on the need for a public service broadcaster in Ireland. This is supported by the responses to the other Likert items employed in the survey. In response to, "*Public broadcasting should be financed by public money*": 16% strongly agreed; 42% agreed; 16% chose the neither option; 19% disagreed; and 7% strongly disagreed. In response to, "*Public Broadcasting should be financed by the licence fee*": 8% strongly agreed; 46% agreed, 18% chose the "neither" option; 20% disagreed; and 9% strongly disagreed. In addition, 84% either strongly agreed or agreed that RTÉ is important to Irish society, while only 15% either strongly agreed or agreed that RTÉ is a waste of public money.

2.3.4. Valuation Functions

Valuation functions based on pre-test data guide hypothesis formulation, question design and test for the robustness of results. Table 2.3 outlines three valuation functions based on responses to the dichotomous choice question. The discrete-choice valuation functions are estimated using binomial probit analysis. The three valuation functions include the price at which the subscription was offered; as expected, this is significant (and negative) across all three functions. The first valuation function examines the effects of gender, location (urban/rural), presence of children, education, income, age, and whether the respondent was the main bills-payer in the household. Both age and income are positive and significant indicating a greater probability of accepting the subscription among those respondents in the older and higher income groups. The remaining variables were insignificant.

The second valuation function analysed the effect of attitudinal variables on the decision to subscribe. Respondents who felt that Ireland needed a public broadcaster were significantly more likely to subscribe, whereas respondents who

felt that public broadcasting was a waste of public money were significantly less likely to subscribe. However, attitudes about the suitability of public financing and the licence fee as a payment vehicle did not significantly determine the decision to subscribe. The third valuation function included usage of TV3 and satisfaction with TV3 as well as whether the household had cable or satellite services. It also included how the respondent felt radio and television services provided by RTÉ compared with others they received in terms of quality; the latter two variables were the only statistically significant variables.

Valuation functions using censored tobit models of the determinants of the open-ended follow-up questions were also estimated and are also outlined in Table 2.3. The initial price at which the subscription was offered was shown to have no effect in two of the three valuation functions, but emerged as significant at the .10 level, in the third; as such, overall there is only limited evidence for an anchoring effect. Reassuringly, there is no change in the sign of any of the variables in these valuation functions from those estimated on the responses to the dichotomous choice question. However, some variables do emerge as significant. For example, the level of agreement with the licence fee as a payment vehicle is a significant determinant of the open-ended bid. Also, and consistent with Schwer and Daneshvary (1995), satisfaction with TV3 negatively influences willingness to pay for RTÉ's services.

The pre-test results lead to a number of conclusions. First, the response rate to the willingness to pay question is very high. Second, the follow-up open-ended question did not lead to a collapse in the response rate and, third, the degree of anchoring was limited. However, the open-ended comments suggested that the use of an explicit subscription format, while facilitating a meaningful valuation, does have potential costs in terms of eliciting protests from respondents.

Table 2.3: Multiple Regression Estimates of Determinants of WTP (Pre-Test Sample)

	PROBIT ESTIMATES (DC DATA)			TOBIT ESTIMATES (OE DATA)		
	(1)	(2)	(3)	(1)	(2)	(3)
Constant	**0.90* (0.46)**	**1.22* (0.61)**	**0.11 (0.49)**	**43.76 (27.89)**	**62.15 (35.65)**	**16.022 (28.06)**
Price	**-0.31** (0.04)**	**-0.31** (0.03)**	**-0.32** (0.04)**	1.88 (2.31)	3.38 (2.21)	**3.75 (2.21)**
Gender	-0.13 (0.16)	-	-	-11.74 (9.93)	-	-
Town	0.004 (0.18)	-	-	8.38 (10.94)	-	-
Children	-0.02 (0.21)	-	-	-4.14 (12.68)	-	-
Education	0.07 (0.12)	-	-	10.66 (7.16)	-	-
Income	**0.2* (0.11)**	-	-	**13.81* (6.71)**	-	-
Age	**0.22* (0.10)**	-	-	**17.4* (6.25)**	-	-
Bills Payer	-0.15 (0.07)	-	-	**-7.6 (4.6)**	-	-
Public Broadcasting	-	**0.22* (0.11)**	-	-	7.49 (6.01)	-
Irish Made	-	-0.12 (0.10)	-	-	-2.55 (5.87)	-
Public Finance	-	0.004 (0.007)	-	-	6.97 (4.39)	-
Licence Fee	-	0.11 (0.007)	-	-	**11.6** (4.3)**	-
Waste	-	**-0.38** (0.08)**	-	-	**-22.74** (4.47)**	-
TV3 Usage	-	-	-0.14 (0.09)	-	-	0.68 (5.24)
TV3 Satisfaction	-	-	0.003 (0.09)	-	-	**-9.59 (5.41)**
Cable	-	-	-0.001 (0.16)	-	-	5.13 (9.44)
Satellite	-	-	0.006 (0.17)	-	-	3.56 (10.27)
Compare TV	-	-	**0.19 (0.09)**	-	-	15.49** (5.94)
Compare Radio	-	-	**0.33** (0.09)**	-	-	17.39** (5.43)
Log-Likelihood	-159.206	-152.71	-163.94	-1359.771	-1443.079	-1433.910
Restricted Log-Likelihood	-194.73	-207.23	-207.88	-1594.75	-1594.75	-1594.75
Chi-Squared	71.05	109.05	87.88	469.96	303.3	321.68
Degrees of Freedom	8	6	13	8	6	13
Significance	**0.0000** **	**0.0000** **	**0.0000** **	**0.0000** **	**0.0000** **	**0.0000** **

Bold indicates significant at the .10 level. * implies statistical significance at the .05 level. ** implies statistical significance at the .01 level. Standard errors are in the parentheses.

2.4 Survey and Results

2.4.1. Survey

The nationally representative survey, of the landline telephone owning population aged 15+, was based on one thousand telephone interviews carried out by Lansdowne Market Research at the end of November/beginning of December 2002.[47] There was quota controlling based on age, gender, telephone code (i.e. place of residence) and social class. All interviews were completed before the announcement of the increase in the licence fee to €150 (from €107) and also before budget day. A number of caveats, however, must be expressed. First, the sampling methodology as mentioned above was based on random digit dialling of landline telephones. Second, the characteristics of non-respondents are not available. Thus, the survey results must be interpreted as being based on a sample of 1,000 respondents that (a) possessed land-line telephone numbers; (b) were available to be sampled; and (c) agreed to participate in the survey.[48]

The questionnaire used in the nationwide survey consisted of 20 questions.[49] The questions were ordered such that respondents were initially asked to consider how much they used and how much they paid for, and their level of satisfaction with, general and specific broadcasting services (e.g. cable). They were then asked to compare RTÉ's services with the services offered by other broadcasters and other questions about RTÉ's services. Respondents were then asked the willingness to pay question(s). To facilitate maximum response, the potentially sensitive income

[47] The NOAA Panel on CVM encouraged the use of face-to-face interviewing where possible in order to facilitate the use of visual aids. Face-to-face interviewing was not financially possible in the present context. However, the telephone-based approach does have the relative advantage of minimising interviewer effects. See Mitchell and Carson (1989) for further discussion.

[48] A great deal of survey research in Ireland is carried out through the use of random digit dialling of landline telephones. There are a number of practical justifications, such as being able to determine location for the purposes of quota sampling. However, it does bias against those who do not have landline telephones, e.g. some users of mobile phones. It would be interesting to ascertain whether this group has any peculiar characteristics (outside of the quota demographics) that could potentially bias surveys.

[49] The questionnaire is given in Appendix 1.

and education questions were placed towards the end of the questionnaire. Finally, the respondents were offered an opportunity to comment on Irish broadcasting.

2.4.2. Willingness to Pay Scenario

The willingness to pay scenario was presented as follows,

> Q.13 "Thinking of a situation where there was no licence fee and you had a choice of either paying to receive RTÉ's services or not paying and not receiving RTÉ's services. Bearing in mind that any money that you spend is money that you could spend on other goods and services, what would be the maximum amount of money you would be prepared to pay each month in order to receive RTÉ's services? (*Do not prompt*)"

If appropriate, the respondent was then asked the follow-up question(s).

> Q.14 (Only ask this question if there is more than one person in the respondent's household) "Which of the following best describes your answer to Q.13? (*Tick one*)
>
> ف This is the most you personally would be willing to pay. (If yes, then ask Q.15)
> ف This is the most your entire household would be willing to pay. (If yes, then skip Q.15, go to Q.16)
>
> Q.15 In light of your answer to Q.14, what do you think is the maximum amount of money your household would be willing to pay each month to receive RTÉ's services?"

A number of issues need to be addressed in assessing the suitability of the above willingness to pay scenario. The open-ended format where respondents are directly asked their willingness to pay has the distinct advantage that maximum willingness to pay figures, as opposed to discrete indicators of willingness to pay that would be available from the dichotomous choice elicitation method, are obtained. However, as indicated previously, the open-ended format has been found to produce lower response rates and to be more prone to unrealistic answering. The open-ended format was deployed in the present case for three main reasons. First, given general familiarity with RTÉ's services in Ireland, respondents could be expected to be able to form reasonable judgements as to how much they value the services. Second, as discussed above, the open-ended format did not produce low response rates in pre-testing. Thirdly, and perhaps most importantly, the use of the most common formats such as the double-bounded dichotomous choice method would have required the use of a number of split-samples, a facility that would have added greatly to the expense of the survey. [50]

Having decided to adopt a private products framework for analysing willingness to pay for RTÉ services, the standard approach would have been to use a hypothetical subscription market (as was done in pre-testing). Indeed, the subscription format has several advantages. Most respondents would be familiar with the notion of paying a subscription in order to receive broadcasting services, rendering the willingness to pay scenario meaningful. Furthermore, there is little ambiguity as to what the respondents would receive for their money, as may arise

[50] New work on the use of Open-Ended versus closed ended formats is reassuring in terms of the use of the Open-Ended method. Ready, Navrud and Dubourg (2001) demonstrate that open-ended and closed ended questions yield different certainty threshold which, when accounted for, gives similar answers. They summarize their work by saying: *" In very stylized terms, the typical OE respondent is answering the question "what is the amount you are fairly sure you would pay?" while the DC respondent is answering the question "is it possible you would pay X?"....our results further show that by specifying the certainty threshold, the two methods produce similar results"*

in more general environmental policy-type settings.[51] However, during pre-testing several respondents expressed dislike at the notion of a subscription. The pre-testing open-ended comments demonstrated that some respondents felt that a subscription system would change the nature of RTÉ's services (e.g. it would be unfair as some viewers would likely be excluded). The scenario chosen, where the delivery and payment mechanisms are left unspecified, serves to focus attention on the value of the services themselves, rather than on issues surrounding the delivery mechanism. In particular, the underlying implicit concept is one of personal, as opposed to collective, exclusion.

Both from a theoretical perspective and from pre-testing experience, one of the most important issues was whether a respondent addressed the willingness to pay question from an individual or household perspective. The follow-up questions to the basic willingness to pay question are particularly important if a figure for average household's willingness to pay for RTÉ's services is to be constructed for the purposes of comparison with the licence fee. More generally, any comparison between the licence fee (say €x) and the average household's willingness to pay for RTÉ's services (say €y) should be attempted with great caution. Apart from inter-household distributional issues (e.g. the standard deviation of households' willing to pay), other issues such as the dual funded nature of RTÉ, the internal efficiency, or otherwise, of RTÉ, the external benefits produced by RTÉ's services and the effects of the licence fee on the wider Irish broadcasting market (and possibly the advertising market) should be considered, before a meaningful policy comparison between €x and €y could be attempted. Notwithstanding these caveats, the evolution of €y over time, and even a snapshot

[51] Notwithstanding the fact that as part of the survey respondents were reminded of the full range of RTÉ services (e.g. television, radio, orchestras), it is likely that many of the respondents focused exclusively on RTÉ's television (and perhaps radio) services. Approximately 58% of licence fee revenue is assigned to RTÉ One and Network 2.

of €y at a particular point in time, should be at least suggestive with regards to the setting of the appropriate licence fee.

2.4.3. Results: Willingness to Pay for RTÉ Services

Of the 1,000 respondents, 8 were not asked the basic willingness to pay question, as they did not have a television.[52] Of the remaining 992 potential respondents, 128 did not answer the question and 57 respondents answered that they would pay the licence fee and no more.[53] In addition, there were 88 zero-bids. The mean willingness to pay from the initial willingness to pay question was €18.02. When addressing the follow-up question, 428 respondents confirmed that the amount represented total household willingness to pay, while 241 respondents confirmed that the amount represented individual willingness to pay. These latter 241 respondents were then asked to estimate their total household willingness to pay. Of these, 24 did not answer the question, 2 responded by saying licence fee and no more and there were 14 zero-bids (all of whom had already responded zero to the initial question). The mean willingness to pay elicited from the follow up question, asked of the 241 respondents, was €28.63.

Total mean household willingness to pay was constructed as follows. Where a respondent confirmed that the initial bid represented total household willingness to pay, this bid was recorded as household willingness to pay. Where the respondent confirmed that the initial bid represented individual willingness to pay, their subsequent household willingness to pay bid was recorded. For those respondents who were unsure about whether their initial bids represent individual, or household, willingness to pay, the initial bid was taken as household willing to

[52] It is arguable that this subset of respondents should have been included, particularly given the case that broadcasting services yield non-use values. In practical terms, this is not a crucial issue given the small number of such respondents.

[53] The "no more than the current licence fee" responses (which would have at that time equated to €8.92) are omitted from the general analysis in the rest of this paper.

pay. The total mean household willingness to pay was €21.05, while the median household willingness to pay was €15. The monthly mean figure of €21.05 translates into an annual mean figure of €252.6.

A number of independent variables were constructed from the responses to the questionnaire. Respondents were asked to detail the broadcasting services available in their households and how regularly they used the main television channels and radio stations. This information gave rise to the following independent variables:

- Cable/Satellite: Dummy (Access to cable/satellite services = 1);
- RTÉ 1 Usage: Qualitative (Very often or often = 1);
- Network 2 Usage: Qualitative (Very often or often = 1); and
- TV3 Usage: Qualitative (Very often or often = 1).

Respondents were asked their overall satisfaction with RTÉ's services and their reliance on the main Irish television channels and radio stations for different programming genres. Respondents were also asked how RTÉ's radio and television services compared with other radio and television services they received. This information gave rise to the following independent variables:

- TV3 Satisfaction: Qualitative (Very satisfied or satisfied = 1);
- Comparison with other Radio Services: Qualitative (RTÉ's Radio stations much better or better = 1);
- Comparison with other Television Services: Qualitative (RTÉ's TV channels much better or better = 1);
- Overall Satisfaction: Qualitative (Very satisfied or satisfied with RTÉ's services = 1);
- Reliance on RTÉ for Current Affairs: Qualitative (Yes = 1); and

• Reliance on RTÉ for Sport: Qualitative (Yes = 1, No = 0).

Table 2.4 contains an OLS regression on household willingness to pay ("WTP"), censored tobit regressions on WTP both with, and without, outliers (defined as bids of over €50) and binary logistic regressions analysing the determinants of whether WTP was greater than or less than (or equal to) the median WTP of €15. As expected, household size has a positive and statistically significant effect on WTP in all the regressions. A number of the other variables have a statistically significant and substantial effect on WTP in the two initial regressions, which include outliers. Having access to non-terrestrial broadcasting services significantly and substantially reduces WTP. Households within the highest income category also display a statistically significant tendency towards an increased WTP, while respondents in the 25-34 years age group have a reduced WTP.

However, many of these results appear outlier-driven, as can be shown by estimating a censored tobit regression without the outliers. While the signs on the effects of the above variables remain the same, the magnitudes of those effects are substantially decreased and they are no longer statistically significant. A relatively small number of older, higher-income respondents with no access to non-terrestrial broadcasting services appear to be over-represented in these outliers; this is confirmed by the outlier analysis below (see Table 2.6). Within the more robust regressions, the 25-34 years old age group is again, in general, found to have a significantly lower WTP, while regional effects also emerge sometimes.[54]

[54] In regard to previous Irish contingent value studies, Stewart et al (2000) find that income and primary education, but not age, influence willingness to pay for health care programmes, Alberini et al (2002) find that income influences the willingness to pay for regeneration (of urban sites) projects while Scarpa et al (2000) also find that income bracket is significant with respect to the willingness to pay for forest recreation.

The Tobit model describes both the probability that $y_i = 0$ given the x values and the expected value of y_i given that it is positive. The first is given by

$$P\{y_i = 0\} = P\{y_i^* \leq 0\} = P\{\epsilon_i \leq -x_i'\beta\}$$

$$= P\left\{\frac{\epsilon_i}{\sigma} \leq -\frac{x_i'\beta}{\sigma}\right\} = \Phi\left(-\frac{x_i'\beta}{\sigma}\right) = 1 - \Phi\left(\frac{x_i'\beta}{\sigma}\right) \qquad (2.1)$$

The distribution of y_i given that it is positive is given by:

$$E\{y_i \mid y_i > 0\} = x_i'\beta + E\{\epsilon_i | \epsilon_i > -x_i'\beta\} = x_i'\beta + \sigma\frac{\phi(x_i'\beta/\sigma)}{\Phi(x_i'\beta/\sigma)} \qquad (2.2)$$

The tobit model is estimated using maximum likelihood. The likelihood function takes the following form:

$$\log L_1(\beta, \sigma^2) = \sum_{i \in I_o} \log\left[1 - \Phi\left(\frac{x_i\beta}{\sigma}\right)\right] + \sum_{i \in I_1} \log\left[\frac{1}{\sqrt{2\pi\sigma^2}} \exp\left\{-\frac{1}{2}\frac{(y_i - x_i'\beta)^2}{\sigma^2}\right\}\right] \qquad (2.3)$$

The literature on testing and correcting for non-normality in the Tobit model has produced largely inconclusive results. A number of suggestions have been made in the literature. One approach is to transform the variable through a suitable transformation such as an Inverse-Hyperbolic Sine Transformation, a Box-Cox transformation or a zero-skew log transformation. Another approach that has some merit in this case is to ignore the information encoded in the continuous variable and estimate the data based on a ranking structure. One very simple method for doing this is to estimate a regression on whether the respondents' WTP was above or below the median. The final regression is a (binary) logistic regression of WTP on indicators of preferences for RTÉ's services as well as on the standard vector of demographic variables. There are many possible choices for the former variables. Pre-testing suggested that TV3 was censoring demand for public services

broadcasting. Indeed, consistent with this, TV3/RTÉ 1 emerged as the most popular combination of channels, when respondents were asked to choose two Irish television channels from the four available. However, this TV3 effect did not translate into a statistically significant effect on WTP. Usage of Network 2 is found to increase WTP, as does overall satisfaction with RTÉ's services, comparisons of quality with other television channels and radio stations and reliance on RTÉ for sports services. A number of regressions with more robust distributional features were estimated which yielded similar results. A probit regression with robust standard errors is displayed in Table 2A.3. Marginal effects from this model are also displayed. Table 2A.4 displays the results of a median regression using the same independent variables and indicating similar results, supporting the conclusion that regional factors tend to emerge in less distributionally sensitive regressions but that other demographic factors tend not to be significant in more robust models.

Table 2.4 Determinants of Household Willingness to Pay for RTÉ's Services

	(1) OLS (including Outliers)	(2) TOBIT (including Outliers)	(3) TOBIT (excluding Outliers)	(4) LOGIT (on High/Low)	(5) LOGIT (on High/Low)
Constant	**23.51 (4.64)****	**21.25 (4.96)****	**11.83 (2.95)****	-0.27 (0.26)	**-2.18 (0.56)****
Household Size	**2.03 (0.72)****	**2.19 (0.77)****	**0.76 (0.45)**	0.06 (0.04)	**0.13 (0.07)**
Income (€)					
0-20,000	-	-	-	-	-
20,001-40,000	-2.12(2.33)	-2.48 (2.49)	-0.15 (1.44)	0.04 (0.13)	0.16 (0.23)
40,001-60,000	-1.45 (2.77)	-1.9 (2.96)	0.21 (1.71)	0.02 (0.16)	0.19 (0.28)
60,001-80,000	-0.44 (3.58)	-1.62 (3.84)	-2.02 (2.21)	-0.09 (0.20)	0.2 (0.36)
80,001+	**7.12 (3.95)**	**7.06 (4.22)**	2.07 (2.49)	-0.08 (0.23)	0.27 (0.41)
Cable/Satellite	**-7.65 (2.43)****	**-8.55 (2.58)****	-1.82 (1.55)	-0.11 (0.14)	-0.39 (0.25)
Gender (1 if Male)	-1.52 (1.76)	-1.41 (1.88)	**-1.93 (1.1)**	-0.07 (0.10)	-0.07 (0.17)
Kids (1 if Yes)	-3.42 (2.28)	-3.5(2.43)	-1.33 (1.42)	-0.16 (0.13)	-0.18 (0.22)
Age :					
15-24	0.63 (3.87)	1.71 (4.16)	**5.45 (2.49)***	0.27 (0.22)	0.06 (0.39)
25-34	**-10.32 (3.90)****	**-8.72 (4.21)***	-2.24 (2.48)	-0.33 (0.22)	**-0.95 (0.39)***
35-50	-4.19 (3.55)	-2.56 (3.84)	0.91 (2.29)	-0.07 (0.20)	0.21 (0.36)
50-65	-1.37 (3.46)	0.28 (3.73)	2.82 (2.23)	0.14 (0.20)	0.27 (0.41)
65+	-	-	-	-	-
Education:					
Primary	-	-	-	-	-
Secondary	2.33 (3.22)	1.75 (3.44)	2.88 (2.02)	0.21 (0.18)	0.28 (0.33)
Some College	0.24 (3.57)	-0.81 (3.82)	-0.03 (2.23)	0.08 (0.20)	0.15 (0.37)
Completed Degree	1.59 (3.57)	1.4 (3.81)	**3.65 (2.23)**	0.28 (0.20)	0.32 (0.37)
Postgraduate	2.73 (4.99)	2.47 (5.33)	2.76 (3.13)	**0.52 (0.29)**	0.49 (0.52)
Region:					
Rest of Leinster	0.92 (2.35)	1.46 (2.51)	0.76 (1.45)	0.03 (0.13)	-0.01 (0.24)
Munster	2.42 (2.48)	3.01 (2.65)	**2.77 (1.54)**	**0.29 (0.14)***	0.29 (0.25)
Connaught	2.28 (2.64)	2.93 (2.82)	**3.21 (1.63)***	**0.25 (0.15)**	0.20 (0.27)
Dublin	-	-	-	-	-
RTÉ 1 Usage	-	-	-	-	-0.12 (0.22)
Network 2 Usage	-	-	-	-	**0.43 (0.19)***
TV3 Usage	-	-	-	-	0.21 (0.19)
TV3 Satisfaction	-	-	-	-	0.02 (0.22)
Overall Satisfaction	-	-	-	-	**0.49 (0.22)***
Comparison with other Radio Services	-	-	-	-	**0.44 (0.26)**
Comparison with other Television Services	-	-	-	-	**0.94 (0.39)***
Reliance for Current Affairs	-	-	-	-	-0.06 (0.21)
Reliance for Sport	-	-	-	-	**0.52 (0.19)****
	R2 = 0.07 F = 2.67 Pr > F = 0.01 N = 689	Chi-Sq = 51.29 Df (19) P > Chi = 0.001 N = 689 Pseudo R2 = 0.008	Chi-Sq = 49.37 Df (19) P > Chi = 0.002 N = 597 Pseudo R2 = 0.009	Chi-Sq = 35.29 Df (19) P > Chi = 0.129 N = 689 Pseudo R2 = 0.04	Chi-Sq = 66.16 Df (28) P > Chi = 0.001 N = 645 Pseudo R2 = 0.07

Bold implies statistical significance at the .10 level. * implies statistical significance at the .05 level. ** implies statistical significance at the .01 level. Standard errors are in the parenthesis.

2.4.4 Determinants of zero, non-response, outlier and "licence-fee" bids

Binomial probit regressions are utilised in order to examine the conditional probabilities of non-responses (to the basic willingness to pay scenario), zero-bids, outlier bids and "no more than the current licence fee" bids. In each case, plausible demographic and attitudinal explaining factors are explored. It is important to assess the demographic determinants in order to assess whether or not certain demographic groups are being under-represented or over-represented in the analysis. It is also important to ascertain whether or not non-respondents systematically differ in terms of their attitudes towards, or preferences for, the services. For example, are non-respondents those who do not watch or are not satisfied with RTÉ's services, or are they those who value RTÉ's services so much that they do not wish to put a monetary price on the services?

Non-responses

Table 2.5 outlines the demographic determinants of non-response to the basic willingness to pay question. The only statistically significant determinant is age, with those over 65 significantly more likely not to respond. This is consistent with pre-test experience where some pensioners who receive a free television licence declared that this would exempt them from any future charges. Table 2.6 outlines the attitudinal determinants of non-response. The only statistically significant determinant is overall satisfaction with RTÉ's services, with those satisfied being more likely not to respond.

Zero bids

The issue of what is represented by a zero bid is one that occupies a central place in the CVM literature. In this case, a modified private products scenario was utilised in order to avoid the concept of collective exclusion. As such, it appears very unlikely that a respondent would derive negative utility from having access to the services. As such, a zero bid can, in general, be viewed as a corner solution, as

opposed to being a censoring point (Woolridge 2002). The demographic determinants of zero-bids are outlined in Table 2.5. Those with access to cable or satellite services were significantly more likely to give a zero-bid. Age is also a factor, with those over 65 significantly more likely to bid zero. The attitudinal determinants are given in Table 2.6. Those with low overall satisfaction with RTÉ's services were more likely to bid zero. However, the fact that neither the comparison of RTÉ's television channels nor radio stations (with the relevant alternatives) were significant suggests an attitude-oriented response as opposed to an answer based on considerations of value and quality.

Outlier bids

Among the concerns of the NOAA Panel were unrealistically high bids and the extent to which outliers are reflective of preferences. Table 2.5 outlines the demographic determinants of making a bid of over €50 per month and the attitudinal determinants are examined in Table 2.6. Doubt is cast on bids of over €50 as income is not a significant factor. However, the statistically significant co-efficient on comparison of RTÉ's radio services (with the relevant alternatives) does suggest that the high bids were at least somewhat motivated by considerations of quality.

"No more than the current licence fee" bids

From the pre-tests it did not appear that respondents would overly focus on the licence fee as a valuing anchor. However, given that it would be very unlikely that 58 respondents would have answered "€107" without the licence fee anchor, it is clear that the licence fee had an effect on these respondents. Table 2.5 shows the demographic determinants of this response. Age is again a factor, with those over 65 more likely to say "licence fee" than those under 24. Those with access to RTÉ's services only were also more likely to say "licence fee", perhaps because of a greater awareness of the level, and effect, of the licence fee. Table 2.6 shows the

preference-based determinants; the decision to say "licence fee" is not determined by preferences for the services, as indicated in the responses to the other questions.

Table 2.5: Probit Regressions of Non-Responses, Zero Bids, Outlier Bids and "Licence Fee" Bids on Demographic Factors

	Non-Response	Zero-Bidders	Outliers	"Licence Fee"
Constant	**-0.68* (0.29)**	**-1.35* (0.42)**	**-0.73* (0.35)**	**-0.94* (0.34)**
Gender (1 if Male)	-0.006 (0.13)	-0.16 (0.14)	**-0.24 (0.14)**	-0.11 (0.15)
Kids (1 if Yes)	-0.001 (0.15)	0.005 (0.17)	0.1 (0.16)	0.31 (0.19)
Other Services?	-0.21 (0.16)	**0.70* (0.31)**	**-0.46** (0.17)**	**-0.35* (0.18)**
Age :				
15-24	**-0.97** (0.28)**	**-1.24** (0.35)**	-0.13 (0.31)	**-1.17* (0.4)**
25-34	**-0.61* (0.25)**	**-0.69* (0.29)**	**-1.14** (0.38)**	-0.50 (0.32)
35-50	**-0.65** (0.22)**	**-0.60* (0.26)**	-0.38 (0.26)	-0.39 (0.27)
50-65	-0.27 (0.19)	**-0.51* (0.24)**	-0.25 (0.25)	-0.16 (0.25)
65+	-	-	-	-
Education:				
Primary	-	-	-	-
Secondary	0.18 (0.21)	-0.12 (0.26)	0.36 (0.27)	-0.32 (0.24)
Some College	-0.002 (0.24)	0.35 (0.28)	0.27 (0.31)	0.13 (0.26)
Completed Degree	-0.21 (0.24)	-0.003 (0.29)	0.37 (0.31)	-0.28 (0.28)
Postgraduate	-0.41 (0.41)	0.007 (0.41)	0.56 (0.41)	-0.57 (0.5)
Income:				
<20,000	-	-	-	-
20,001-40,000	0.001 (0.16)	0.15 (0.21)	-0.007 (0.18)	**0.34 (0.21)**
40,001-60,000	0.11 (0.21)	0.21 (0.25)	-0.16 (0.22)	0.18 (0.26)
60,001-80,000	0.28 (0.27)	**0.59* (0.29)**	-0.003 (0.3)	0.008 (0.38)
80,000+	0.009 (0.31)	0.10 (0.35)	0.34 (0.28)	0.29 (0.36)
Marital Status	-0.25 (0.16)	-0.15 (0.19)	-0.008 (0.19)	-0.26 (0.19)
Region:				
Dublin	-	-	-	-
Rest of Leinster	0.20 (0.18)	-0.19 (0.18)	-0.14 (0.19)	-0.007 (0.22)
Munster	0.27 (0.19)	-0.27 (0.21)	0.002 (0.19)	-0.004 (0.23)
Connaught	0.32 (0.19)	-0.19 (0.21)	.0004 (0.19)	0.24 (0.23)
Log-Likelihood	-258.10	-183.40	-212.698	-163.38
Restricted Log-Likelihood	-275.36	-201.40	-230.717	-177.25
Chi-Squared	34.51	35.99	36.03	27.74
Df	19	19	19	19
Significance	**0.0001****	**0.0001****	**0.0001****	**0.0008****

Bold implies statistical significance at the .10 level. ** implies means statistical significance at the .05 level. ** implies statistical significance at the .01 level. Standard errors are in the parenthesis.

Table 2.6: Probit Regressions of Non-Responses, Zero Bids, Outlier Bids and "Licence Fee" Bids on Attitude Factors

	Non-Response	Zero-Bidders	Outliers	"Licence Fee"
Constant	**-1.44** (0.21)**	**-1.113** (0.25)**	**-1.26** (0.21)**	**-1.62** (0.26)**
Compare TV	0.007 (0.13)	0.004 (0.17)	0.009 (0.15)	0.10 (0.17)
Compare Radio	-0.008 (0.12)	0.006 (0.15)	**0.25 (0.14)**	0.008 (0.16)
Improving	0.12 (0.17)	-0.26 (0.16)	-0.24 (0.18)	0.34 (0.23)
Overall Satisfaction	**0.39* (0.17)**	**-0.55** (0.16)**	0.20 (0.18)	-0.27 (0.19)
Other Services?	-0.19 (0.15)	**0.38 (0.23)**	**-0.36* (0.16)**	-0.23 (0.19)
Log-Likelihood	-286.02	-203.643	-220.98	-157.17
Restricted Log-Likelihood	-291.26	-216.17	-227.34	-160.37
Chi-Squared	10.46	25.06	12.72	6.39
Df	5	5	5	5
Significance	**0.0006****	**0.0013****	**0.002****	0.27

Bold implies statistical significance at the .10 level. ** implies means statistical significance at the .05 level. ** implies statistical significance at the .01 level. Standard errors are in the parenthesis.

2.5 Concluding Comments

This chapter has described the first nationally representative survey with respect to the valuation of RTÉ's services. The (annualised) mean household willingness to pay for RTÉ's services (at the end of 2002) was found to be €252.60; the (annualised) median household willingness to pay was €180. From a Kaldor-Hicks perspective, it is clear that the winners from the provision of RTÉ's services could hypothetically compensate the losers, as both of these numbers exceed the increased annual licence fee of €150 (since January 2003). More specifically, the mean household willingness to pay of the 52.8 per cent of the respondents who would continue to pay for RTÉ's services if confronted with a choice (i.e. annualised household willingness to pay ≥ €150) was €410.64, compared to an equivalent figure of €75.96 for the remaining 47.2 per cent of respondents.[55]

[55] Under certain conditions, the mean household willingness to pay could be used as a benchmark in setting the licence fee. First, assume that what RTÉ produces with licence fee income is as least as valuable as what it produces from other revenues. Second, some restrictions on the production function for RTÉ services would need to be imposed; constant marginal costs of extra programming would be sufficient. Third, the marginal utility to the mean customer of RTÉ services could not be kinked in a negative manner at the current level of provision. Under these conditions, mean household willingness to pay for RTÉ services being greater than the current licence fee

The household willingness to pay figure was derived from a series of questions that attempted to ensure that each response was based on the household, as opposed to the individual, willingness to pay. This potential survey ambiguity, which appears to be a relatively standard feature of the CVM literature, was found to be significant, with, for example, males being more likely than females to answer from the individual perspective.

The main determinants of household willingness to pay for RTÉ's services in models that included outlier bids were: age (with those in the 25-34 years age group being prepared to pay less); income (with those in the highest income category being willing to pay more); and, the presence of cable/satellite services (with those with access to the expanded services being willing to pay less). However, more robust models eliminated the statistical significance of the latter two effects and suggested a regional effect, with respondents from Dublin being willing to pay less in general. There was little if any statistical evidence from the survey that those who were satisfied with TV3 were willing to pay less for RTÉ's services. There was a substantial level of correlation between those who were satisfied with RTÉ's services, those who used RTÉ's services extensively and those with relatively high willingness to pay. Comparisons of quality with commercial broadcasters for both radio and television and reliance on the services for certain programme genres also significantly influenced willingness to pay.

In terms of the use of CVM as a mechanism for valuing broadcasting, there is not a specific restriction one could place on the observed data that would rule out its use. However, a number of general points can be made. The respondents throughout pilot-testing indicated a willingness and enthusiasm to engage with the

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could be used as an argument in favour of an increase in the licence fee as it would represent a potential Pareto improvement

valuation task, and their processing of the valuation task, partly observable from reading the verbal protocols as displayed in Table A1, indicate that most respondents were sensitive to price issues and processed economic factors such as the availability and cost of substitutes when arriving at their valuation. The extent to which the existing license fee acts as an "anchor" or "implied value cue" (Mitchell and Carson 1989) is again not directly observable from the data. However the distribution of bids would suggest that this is not the predominant factor shaping response.

A number of future research and policy possibilities are suggested as a result of this chapter. It has been demonstrated that CVM offers a mechanism for valuing RTÉ's services. Although it is appropriate to treat very cautiously the relationship between the mean household willingness to pay for RTÉ's services and the licence fee, a regularly-conducted nationwide survey of the demand for public service broadcasting, somewhat similar in nature to the above survey, could be informative in terms of influencing the programming content of public service broadcasting and ascertaining the distributional effects of public service broadcasting, something we examine in detail in Chapter 3. It could also be used to inform the general debate with respect to the role of public service broadcasting and even be suggestive with respect to the setting of the licence fee. At a more general policy level, such a study could be just part of a much more comprehensive regular public valuation of products produced outside the market, e.g. cultural goods and so-called merit goods, that could be used to inform public debate and even budgetary policy. The household/individual survey ambiguity also deserves further treatment, both from a theoretical and empirical perspective and is examined in detail in Chapter 4.

Table 2A.1: Applications of Contingent Valuation Methodology to Cultural Goods

Author(s)	Year	Subject	Location	Method
Bohm	1972	Public Television	Stockholm	DC + OE
Frey and Pommerehne	1989	Purchase of Picasso painting; subsidies to municipal theatre	Basle, Switzerland	Referendum
Ehrenberg and Mills	1990	Public Television (Licence fee)	Britain	DC
Schwer and Deneshvery	1995	Public Broadcasting	Nevada	OE
Bille-Hansen	1997	Royal Theatre Copenhagen	Copenhagen, Denmark	OE
Papandrea	1997	Public Television	Australia	DC + OE
Bravi et al	1998	Contemporary art galleries	Turin, Italy	DC
Barros	1998	Museums	Portugal	DC+OE
Santagata and Signorello	1998	Napoli Musei Aperti programme (museums/historic sites)	Naples, Italy	PP + DC + OE
Aabø	1998	Public Libraries	Finland	
Willis	2002	Art Expenditures	Kentucky	
Thompson et al	2002	Art Expenditures	Kentucky	DC
Fleische and Feldenstein	2002	Televised Event	Israel	DC

Table 2A.2. Comments Elicited from Pre-Test Survey[56]

Respondent	Bid	Comment
A1	Yes (100).	Already subscribe to sky digital, which now transmits Irish channels
A2	Yes (300)	1. The service is reasonably comprehensive for Irish affairs; 2. Anything above this would result in my migrating to other channels; 3. It is not essential to have the service; radio doesn't appeal to me and I can get my news from newspapers
A3	Yes (100)	Service not good enough. Quality of programs poor. Too much politics
A4	Yes (200)	RTE a valuable service – uniquely Irish, so important to preserve it
A5	No (0)	TV is not a big feature in my life. I prefer to gain news and current affairs from internet and newspapers
A6	Yes (70)	The present license fee is fine, so approx the same amount for a subscription would be ok with me
A7	No (10)	I wouldn't actually sub, as if it wasn't immediately available to me, I'd live without it
A8	Yes (200)	
A9	Yes (100)	
A10	Yes (364)	Standard of RTE Broadcasting is very good and its maintenance is absolutely required. Murdoch et al cannot provide what services we need and Tv3 has proven not up to the task
A11	Yes (100)	That's the most I would pay, because if I was to go any higher, I would be more inclined to go for a higher quality of subscription such as Sky digital services as I think it is superior to what RTE has to offer
A12	No (0)	Very poor quality

[56] Respondents in groups A B C D E F and G were offered the subscription at 30, 60, 90, 120, 150, 180 and 210 Irish punts per year respectively.

A13	Yes (35)	Because I feel I could certainly do without them if I was paying for cable channels as well
A14	Yes (50)	It is worthwhile from the point of view of promoting homegrown industry. The funding should be used for the development of Irish-made productions
A15	No (120)	
A16	Yes (?)	Would depend on the quality of the service. Television is immediate. It brings outside world in to home. Events far away have much greater impact than if we read about them. RTE would need to improve
A17	Yes (?)	
A18	Yes (200)	
A19	Yes (180)	15 Euro per month – equivalent to my cable subscription which currently includes RTE channels plus others.
A20	Yes (120)	(1) Rte should either be funded by TV license or advertising revenue (2) How cost effective is RTE, is it value for money? (3) Doesn't groom up any new talent
A21	Yes (150)	The current license fee is mandatory if other channels showing similar programs could also be subscribed too, the amount of money would need to be attractive
A22	Yes (30)	I find RTE parochial, sloppy and unprofessional. It is particularly fixated on its own tiny agenda, which revolves around minor gossipy type rubbish and pointless speculation with no analysis. Witness the Roy Keane saga
A23	Yes (?)	
A24	Yes (?)	
A25	No Reply	
A26	Yes (200)	
A27	No (0)	RTE and the Irish television network in general does not appeal to my family that much so it would not bother us to

		do without them as we subscribe to U.K. television and that I would be glad to subscribe to
A28	Yes (80)	Would not be willing to pay more for services I could get with Sky
A29	No (20)	
A30	Yes (100)	
A31	Yes (50)	If I got more comedy and better films, I would not mind paying extra money
A32	Yes (180)	TV is not good enough to pay any more
A33	Yes (80)	The license should be affordable to everyone
A34	Yes (?)	
A35	Yes (100)	RTE has some of the best programms
A36	Yes (120)	Supporting Irish jobs
A37	Yes (70)	Because everyone is entitled to watch RTE and some people may not be able to pay high subscription rates
A38	Yes (200)	If it were any more, I would prefer to avail of other options – cable or satellite
A39	Yes (50)	Other channels are better
A40	Yes (150)	
A41	Yes (140)	
A42	Yes (200)	This is the value I would place on the above services
A43	Yes (250)	The country needs a national broadcasting service
A44	Yes (30)	
A45	No (?)	
A46	Yes (100)	Not worth any more than that, I think!
A47	Yes (150)	Standard of living

A48	Yes (150)	Seems reasonable sum
A49	Yes (?)	
A50	No (00	
A51	Yes (40)	To keep it for the people of Ireland, and to stop Sky television come in and rob us for films, sports, etc
A52	No (0)	I refuse to pay the license fee because they should make money through advertising like ITV
A53	Yes (100)	TV is an important medium of information (so is radio). TV has to be as independent as possible
A54	No Reply	
B1	Yes (100)	Wouldn't consider it worth anymore
B2	No (50)	I feel it's a Public Broadcasting service to be provided by public money or a policy where everybody paid something and not factor carrying all e.g. the present licensing service
B3	Yes (150)	Similar to other subscription services
B4	Yes (500)	Good value per hour of TV/Radio
B5	Yes (100)	In general, I don't watch many programs from these stations. So although, there are 1 and 2 programs I'd miss, I could live without them. The other stations are just as good if not better
B6	Yes (260)	1. I would give more if it was put in to the production of quality programs. 2. Also if it keeps the orchestras which are not mentioned in this survey. 3. Costs of administration and expenses must be controlled. If above three things were met, I would pay up to 500 per annum
B7	Yes (100)	RTE is important to Irish society to cover Irish news but very many of its programs are below standard in presentation and content
B8	Yes (75)	1. The need for unbiased news and reporting which is not

		reliant on commercial pressures. 2. The need to prevent a lowest common denominator type broadcaster 3. To provide a service that is distinctively Irish
B9	No (20)	I feel it should remain a public service
B10	No (40)	Digital Television
B11	No Reply	
B12	Yes (250)	1. Information 2. Entertainment 3. Current Affairs 4. Relaxation
B13	Yes (200)	Necessity of ensuring a reputable service avoiding excessive charges
B14	Yes (80)	Not overly dependent on television or radio, mostly use it for current affairs, news, debates, political issues and all of these can be accessed by reading a newspaper or current affairs journal. With TV its just less hassle, its automatic and can be fit in at the end of a working day
B15	Yes (150)	I already pay enough tax and feel this is a public service
B16	Yes (100)	I think that there should not be a service charge for RTE as it is a state-owned indigenous Irish company and we as Irish citizens should be entitled to it free if there was one. The least I would pay would be 100. We have to pay for cable from other countries so why pay for Irish
B17	No (40)	Value for money
B18	Yes (60)	Because most of the finance can be generated by advertising or increased advertising costs, from companies that can afford it
B19	Yes (130)	(i) Cheaper than NTL (ii) Good Irish Programs
B20	Yes (70)	
B21	No Reply	
B22	Yes (100)	There is a limit to how much the service is actually worth;

		it usually involves thought about money before people realise this TV can be done without
B23	Yes (100)	If I were to pay a subscription I would expect more for my money and that it would be better employed in the production of comedies and drama
B24	No (50)	
B25	Yes (60)	If spent wisely, 60 per household represents a huge amount of money. Cut the bureaucracy. Concentrate on the quality of materials
B26	Yes (60)	
B27	No (0)	Cause it's a government run station
B28	Yes (60)	I object to a mandated license fee, I would choose to get RTE from Sky digital
B29	Yes (120)	1. Mostly watch British TV, but like to have RTE News and Prime Time to follow important issues 2. TG4 has very good films
B30	No (25)	For a few euros more, you could have a better selection
B31	Yes (200)	What would we do without TV?"
B32	No (?)	
B33	Yes (100)	Not worth any more
B34	No (30)	To better RTE stations. Tired of looking at repeats
B35	Yes (60)	
B36	Yes (60)	60 Euro is more than enough for the quality of service provided by RTE. Television is not the be all and end all. There are other pursuits to fill the void if the amount to be paid is more than 60
B37	Yes (?)	If I could sit down and watch decent programs on RTE all night, I would be willing to pay what was required
B38	Yes (80)	RTE is worth 80 Euro a year

B39	Yes (60)	60 Euro is as much as I could afford
B40	Yes (100)	Everyone should contribute to the services
B41	Yes (200)	
C1	Yes (150)	I would hate not to have any Irish channels, and so would be prepared to pay for it. However, I think RTE should try to produce more Irish programs and buy in fewer British/American shows, most of which are on other channels anyway
C2	No (60)	Economically strained, should only have to pay if of suitable means
C3	Yes (100)	Would subscribe to satellite first as it has a better range to choose from
C4	No Reply	
C5	No (?)	RTE would want to change a lot of their programs. It is all repeats.
C6	Yes (100)	Bills are plentiful enough, but earners spent enough on junk etc so I think RTE deserves about 100, but no more. If everybody or nearly everybody gave 100, surely that would be enough.
C7	Yes (500)	Interested in local TV and radio
C8	No (50)	
C9	No (50)	Why are there so many repeat programs on television? Why not have more programs for the elderly during the day….. open house and why is this program seasonal only? RTE should provide more musical entertainment for young people, music, art etc.. why are there so many crime related films shown on TV.. it's a real turn off. I could write volumes on these issues
C10	No (52)	There should be a lot more folk, pop, jazz, contemporary and traditional Irish music for at least seven hours a week. Then I would consider 90 euro
C11	Yes (200)	Seems fair, competitive price

C12	No (60)	Its enough to pay
C13	Yes (?)	
C14	Yes (120)	RTE should be able to earn money from other sources than the license fee. It should be possible to take some services rather than a package of all –and pay accordingly e.g. expats must be willing to pay more for radio 1 on the internet than people living in Ireland.
C15	No (90)	As senior citizen, I don't pay
C16	No (20)	Because RTE are rubbish
C17	Yes (90)	To support anything Irish. Plus they are good stations
C18	Yes (150)	
C19	Yes (100)	I am loathe to pay any more than this as the current license fee is considerably less. Also, I could use alternative news/entertainment sources had I no access to RTE services. I would miss Irish coverage of news/current affairs, but could do without. Mostly I would miss Radio one and Lyric. I wouldn't miss the RTE TV channels too much
C20	Yes (?)	
C21	Yes (200)	Because we need television
C22	No (40)	Other channels are providing exactly what the public want so why pay extra for a channel that has less
C23	Yes (100)	I don't think that the quality is that good to pay more than this
C24	Yes (100)	Some items so bad, it seems insulting to have to pay
C25	Yes (150)	The value of its services in terms of knowing whats going on in the country from an Irish perspective and limiting the encroachment of U.S. west coast cultural imperialism which is at odds with the development of civil society
C26	Yes (100)	
C27	No (40)	

C28	No (10)	I don't agree with subscription T.V. as .....
C29	No (10)	RTE is terrible when compared to the BBC at least. I think more people who have access to the other channels, actually watch the other channels more. For example, do you think more people in Ireland watch Fair City than Eastenders?
C30	Yes (120)	Mainly for the use of Network 2 and 2Fm, which I use a lot. Aertel's handy too (but slow). Good to have Irish channels for Irish perspective on world events etc
C31	No (?)	
C32	Yes (200)	As a subscriber to sky, I answered the above question imagining there was no Sky. On the other hand I already pay 49 euro per month to sky and receive all the Irish channels so in reality that would be my limit as far as subscriptions go.
C33	No (30)	I agree a small contribution should be made from each household but not to the extent of being ripped off; RTE isn't all that great in fairness; the sum should be put to improving the network
C34	Yes (?)	Couldn't see technically how you could filter people out
C35	No (30)	I'm not avid television watcher. Despite this I believe a national television broadcaster is important but should not be mandatory to all television owners or indeed tax payers. Subscription instead of license fee is a great idea and it will bring up the standard of broadcasting as RTE lose state subsidisation and must rely on its own ability tor bring in viewers.
C36	No (10)	I am a student and do not have a job. I wouldn't be able to afford paying more
C37	No (50)	It should be a people friendly service, not money oriented. People come first
D1	Yes (200)	Student. Can do without TV if too expensive
D2	Yes (150)	Don't watch much TV

D3	Yes (150)	Watch a lot of RTE programs. Think the main alternatives are not very good, particularly for news
D4	Yes (160)	I am a student and do not know how much I'll be earning, but 4 euro a week seems very reasonable for the service provided
D5	No (0)	Because most of the decent programs on RTE are on other channels. I'd only pay for TV3 for the champions league, but that's not part of RTE
D6	Yes (200)	
D7	No (100)	Don't know!
D8	Yes (120)	
D9	Yes (150)	RTE covers many issues only relevant to Ireland that would not be covered by other channels
D10	No (80)	A lot of the same programs/news are available elsewhere
D11	No (10)	I'm a poor student! – don't watch much tv anyway – would probably switch stations and loyalties if I had to pay. Would prefer to pay for theatre, cinema and newspapers than TV channels.
D12	No (5)	RTE isn't a big necessity in my life
D13	No (50)	have lots of other things to do. Never watch RTE 1 and rarely watch Network 2. only for sport, and I could go to the pub for sport
D14	No (0)	
D15	Yes (150)	
D16	Yes (?)	Not sure. Because it would go up every year
D17	No (50)	Student
D18	No (60)	
D19	No (100)	
D20	Yes (120)	No Comment!!

D21	No (40)	
D22	No (0)	
D23	No (50)	1. Irish T.V. channels are not as interesting as English T.V, 2. Irish T.V. mimics English programs
D24	No (100)	
D25	Yes (200)	
D26	Yes (120)	I am flagging in interest at this stage of completion
D27	No (20)	RTE has the worst selection of TV and Radio programs. Around 120 a decade would be enough to pay. RTE Broadcasters are totally out of touch with the situation
D28	No Reply	
D29	Yes (120)	Quality of cable suppliers leaves a lot to be desired. No point in paying excessively for a bad product. Lacking in quality and P.R.
D30	Yes (120)	The first question
D31	No (?)	
D32	No (60)	RTE does not offer an alternative to the channels already available. Why pay extra for programs that are generally available on the other channels. RTE should only make programs about matters relevant to Ireland
D33	No (70)	RTE is full of repeats
D34	Yes (?)	Because it is difficult to put a price on it. We are the luckiest country in the world to have a national broadcaster like RTE. They/it has been such a huge part of all our lives. Despite the fact that it's been jobs for the boys for centuries, no matter, I would hate not to have RTE. I gave up "the channels" several months ago as I no longer wanted to listen to British versions of events and felt there was too much English and so-called british influence invading my home and family
D35	No (5)	Cos I'm stingy

D36	No (?)	TV3 provides all the entertainment value I need, plus sports coverage and TV3 text. Today FM and newspapers keeps me up to date on current affairs. The license fee is too high as it is without increasing it
D37	No (75)	Being Scottish, we have a system that if you don't pay, you get no channels and fixed satellite boxes can be traced and heavy fines are involved
D38	Yes (?)	
E1	Yes (?)	
E2	Yes (100)	
E3	Yes (20)	
E4	No (?)	
E5	No (20)	
E6	No (80)	Some good programs on RTE 1 and Network 2, Excellent radio station 2FM, Aertel service is good, so is RTE Online
E7	No (?)	
E8	No (20)	
E9	Yes (300)	I like good television
E10	No (100)	There are better programs on other channels and many of the more popular programs on RTE can be found on cable – I could also live without the Late-Late
E11	Yes (?)	
E12	Yes (150)	I am happy enough with BBC 1, BBC 2, UTV and C4
E13	Yes (200)	Because I am on a pension and I could not afford more than that amount. Even that would be a hardship for me
E14	No (140)	Because it is a public service broadcaster, it should be heavily subsidised from the central exchequer
E15	Yes (200)	

E16	No (100)	
E17	No (0)	I listen to 2Fm occasionally, but could live without it. I don't avail of any other RTE services. I don't appreciate being forced to pay an annual license for a service I don't avail of
E18	No (80)	Don't watch much TV
E19	Yes (?)	It's hard to evaluate how much I would spend to retain something we as a family have gotten used to as part of our daily lives
E20	No (120)	Because RTE have a lot of the same programs as the other channels but at the same time, it is still quite different
E21	No (100)	If the cost of annual subscription is above that of the existing licensing fee, then it would be thought of as a price hike by RTE and people would not be pleased
E22	Yes (?)	I don't watch TV too often. I could do without them fine
E23	No (30)	Most tv progs are also available on other channels. Don't listen to RTE radio at all. Should manage to pay for itself, through advertising revenue
E24	No (0)	
E25	No (0)	I get it free, as I live in flat
E26	Yes (150)	RTE is money well spent
E27	Yes (200)	The license fee would not be a big issue for me
E28	Yes (?)	
E29	No (75)	TV3 is actually better quality programming, Irish channel etc
E30	Yes (150)	More than 150 would be excessive
E31	No (?)	It hasn't been paid before so the public are not going to want to start paying now
E32	No (70)	Economic

E33	No (70)	RTE One and Two are useless for the money I pay, and most of the programs are repeats
E34	No (70)	
E35	Yes (250)	At approximately 4 euro a week, it would be good value
E36	No (100)	
E37	Yes (100)	If required programmes, as ticked off on other pages are met
E38	No (50)	I would also have to pay for other channels as well
E39	Yes (150)	I would not be prepared to pay any more for the current level of service offered
E40	No (100)	
E41	Yes (200)	I think RTE has a good service and 200 is not a lot to pay for the subscription
E42	Yes (200)	Provision of long-term sustainable funding for public broadcasting
E43	Yes (250)	Because you can get just as great a variety of programs from satellite TV at a very cheap price
E44	Yes (150)	
E45	Yes (200)	Just not willing to pay anymore, as I also pay tax and buy other television channels
E46	Yes (150)	In theory, RTE is a good thing. We need a public service broadcaster, broadcasting a range of quality programs. It should come out of public funds. However, as it is, RTE does not fulfil its obligations. Its quality of programming is poor and not value for money
F1	No (120)	180 seems quite high. On a monthly basis 10 euro seems reasonable based on current service provision
F2	No (80)	Cable fee is 150 euro per year and rising. Add this to a fee for RTE and it would be way too expensive. A better

		option and cheaper too would be satellite option, without RTE
F3	Yes (180)	It is necessary to keep a public service broadcaster cause otherwise a media giant (sky, independent papers etc) may take over the role. Thus the service provided would be biased to suit the owners needs
F4	No (?)	
F5	No (?)	
F6	Yes (?)	
F7	Yes (?)	
F8	Yes (?)	
F9	No (90)	
F10	Yes (200)	Home a lot and avail of the services
F11	Yes (200)	
F12	No (120)	It is too much to pay for them anyway
F13	No (100)	I don't watch TV as often as some. There are very little programs on RTE that interest me
F14	Yes (200)	
F15	No (0)	It must come from the government
F16	Yes (?)	
F17	No (100)	
F18	No (90)	At the moment, I am paying for something I don't watch very often, and we have no choice but to pay the license fee
F19	No (100)	Don't watch or listen to RTE. Only very occasionally
F20	Yes (250)	20 euro a month is a fair price compared to similar subscriptions to other broadcasters

F21	No (100)	
F22	No (107)	I think this is the current license fee, which is ample for RTE. RTE is like the health service and should have a value for money audit carried out by an independent body as the health service did last year. They say they need an increase but why, where is the details not some general alarms and statements from the D.G. If people are to pay more they need to know exactly where and how its being spent. More transparency and accountability
F23	No (?)	
F24	No (100)	The quality of the programs would have to dramatically improve before I would consider a subscription to RTE
F25	No (80)	Roughly equivalent to current license fee
F26	No (100)	
F27	No (40)	As availability of other channels is good and I don't see real need to pay more than 40 euro for RTE channels
F28	No (100)	I am a student. I doubt I would have 180 to spend on subscription TV
F29	No (0)	Other stations such as Tv3 which are not subsidised but still provide a quality service
F30	No (120)	Value for money
F31	No (85)	Reasonable amount of money for services provided
F32	No (90)	My TV license costs 90 euro per year and I still get these channels. Why would I want to pay an extra 90 euro?
F33	Yes (180)	It was a hard question to answer but I said yes because I do believe it is an important part of Irish life. It always amazes me. Why can't public companies make money? Tv3 can. I believe that by rewarding the managing director as happens in the private sector they will run a better service and run a tighter shop. That said, I appreciate that RTE produce Irish programs at large expense
F34	No (120)	Not enough value for money as I do not watch a great deal of television

F35	No (?)	Services would have to improve, comedy is unfunny, Bull Island is bull. Dramas are ok. Some very good. There are lots of repeats. Millionaire is good. Would subscription improve on quality of programs?
F36	No (?)	
F37	No (50)	Very poor quality service. Majority of service, whether public, licence fee or advertising, spent on importing crap American shows. Also, a publicly funded broadcaster charging a license fee shouldn't be allowed to advertise
F38	No (100)	That is the price of the TV license and it doesn't deserve to be paid any more
F39	Yes (?)	
F40	No (0)	Frankly, I would not miss any of the above services. Tg4, run on a shoe-string, sets a notable standard which RTE would do well to strive to match. Instead, its funding is too often frittered away on tiresome and hackneyed imported programs, second-rate stuff, and generally poor domestic or internal productions. Journalism and reporting leave a lot to be desired, and I personally take particular exception to their ignorance of the aspect ratios of films shown on their TV channels. Airtime devoted to advertising is utterly excessive and disruptive. Especially since the advent of the internet in the mainstream, much of the hard information peddled by RTE may be obtained elsewhere at little or no cost
F41	Yes (200)	RTE is a clique with a Dublin 4 attitude. Has not spent its license fee well in the past and a further increase will be wasted. Make them earn their money. We have choice now
F42	No (100)	Plenty of alternatives available on BBC, ITV and Sky News
F43	No (?)	
F44	Yes (200)	Value for money, v-entertainment value
F45	No (90)	Yes. If RTE provided a varied and good quality service
F46	No (100)	I think RTE need to buy more Irish made programs and a

		better variety of shows, more dramas, serials and soap operas
F47	No (100)	That's as much as I would pay
F48	No (140)	
F49	No (100)	As license fee is 70 in Irish pounds, I would be willing to pay no more than 100 or even 90 for it
F50	No (150)	RTE does adds
F51	No (100)	RTE show enough adds to pay its own way
F52	No (30)	
F53	No (107)	Because this survey is obviously about charging more money for a service they currently have
F54	No (50)	At the moment, I feel like I could live without RTE and get all my information from cable channels
F55	No (0)	
F56	Yes (250)	What I felt I could afford to pay. However, I am totally opposed to RTE or BBC losing their license fees and the privatisation of their services
F57	Yes (180)	RTE provides a real service to a rural county but fills the gaps in its schedule with what can only be described as rubbish. If it can concentrate on affairs that concerned its viewers, both at home and abroad then we'd all benefit
F58	No (120)	Put it simply, ntl and sky digital offering more channels, offering more quality than what RTE offer for 180 euro with its six channels compared to the 10-50 channels offered by digital services
F59	No (100)	Standard of services is not good enough
F60	Yes (200)	
F61	Yes (200)	
F62	Yes (200)	They have the facilities to provide the Irish public with what they want and I work there

F63	Yes (200)	RTE has many things to pay for, like buying in programs from other companies. Also to provide the best quality you need the money. Also I work for RTE
F64	No (50)	Not worth it
F65	No (100)	Because we pay enough anyway
F66	No (5)	Cos I don't care about RTE
G1	No (100)	1. Not everyone could afford more 2. When you receive RTE 1 and 2 and the radio stations, only it would be more than enough
G2	No (150)	Limited time spent watching TV. Around 150 per year, i.e. 1 per hour does not seem bad but anything else would be excessive
G3	No (150)	
G4	No (?)	
G5	No (100)	Too many repeats
G6	No (100)	Don't watch/listen too often
G7	No (40)	At present, cable delivers 12 channels for 160 euro annually, RTE's services is poor and over-priced in comparison
G8	No (?)	
G9	No (125)	RTE also get revenue from advertising
G10	No (125)	RTE need to wake up. The 80's was a long time ago. If I felt RTE were capable of implementing a proper and up-to-date service, I'd pay 300 euro. But at times the whole organisation seems a dinosaur
G11	Yes (250)	250 Euros is quite substantial to spend on RTE and Network2 television and radio services because people don't have money to spend on a luxury like this
G12	Yes (250)	RTE provides an indigenous service. The alternative is to

		rely on FX channels, which lack interest or base in this country
G13	No (50)	I am a student and don't watch much RTE
G14	Yes (250)	Services must be improved. There must be more channels made available
G15	No (100)	I am an apprentice, earning very little money
G16	No (?)	
G17	Yes (250)	We need to support our Irish culture
G18	No (?)	
G19	No (100)	It sounds costly
G20	No (100)	Would not pay more than the cost of the license fee for these services. Just not good enough
G21	No (127)	Because I like watching comedies etc on Network 2 and I like parts of 2FM but I have no interest in the rest
G22	No (100)	I only watch Network 2 and TV3
G23	No (?)	Availability of alternative channels. No need for both
G24	No (60)	Pensioner
G25	No (150)	
G26	No (75)	Don't watch RTE that much, so would not be willing to pay a lot for it
G27	No (0)	Old age pensioner
G28	Yes (250)	To ensure a good quality and variety of programs provided
G29	No (65)	Not much value for money
G30	No (100)	
G31	No (200)	

G32	No (100)	I don't feel the service is worth anymore than 100 Euro to me
G33	No (200)	I don't watch much TV. I rarely watch sport. I only watch specific programs. I never have it on when I'm not watching it
G34	Yes (240)	
G35	No (0)	Cable TV
G36	No (100)	I only watch RTE for News. Assuming I have other channels, I could get Irish news on TV3 and other channels provide better films etc. RTE needs more watchdog type programs to let us know our rights etc
G37	No (150)	
G38	No (100)	210 is far too expensive. RTE viewing and content does not merit it
G39	No (100)	
G40	No (100)	Financial
G41	No (150)	Other channels offer a better service
G42	No (50)	Advertising should pay for the services
G43	No (100)	Sky does better channels
G44	No (50)	The price of subscribing to RTE should be cheaper than the license fee
G45	No (100)	How can TV3 do it all for nothing? Let the sponsers pay. The progs. On TV3 are better and more in tune with what young people want. Why is daytime TV on RTE and Net 2 so awful on sat and sun. All they show is ancient films – over and over. Reception isn't great either. They are expecting way too much if they force us to pay more for a TV license. If I have a TV I have to have a license which is for crap progs that I don't even watch. Should be able to pay separately if I want those channels
G46	No Reply	

G47	No (50c)	Not everyone can afford it and it is not fair to dump more unnecessary bills on them
G48	No (100)	I don't think RTE has enough quality programs to merit the above price
G49	No (?)	I don't think it provides good enough service for me to pay a subscription. Maybe if more of (a) I would consider it.
G50	Yes (250)	About 5 euro a week. Irish sports on RTE. Radio Stations good, except 2FM
G51	No (50)	It's enough
G52	Yes (250)	Could get by without them quite easily
G53	No (100)	
G54	No (?)	
G55	No (150)	Meanness
G56	Yes (250)	1. We need an Irish viewpoint represented 2. Lack of any services on balanced news except on BBC which obviously does not have an Irish slant 3. RTE attempts (even if it is not always successful) to provide a balanced view of current affairs
G57	No (100)	Improvements are needed at the minute
G58	No (72)	
G59	No (20)	RTE doesn't compare to channels like BBC 1 etc so I don't watch it enough to pay for it

Table 2A.3: Probit Models with Robust Standard Errors predicting the probability of being above or below median WTP (with Marginal Effects Displayed)

	Df/Dx	Robust SE	z	P>Z	X- Bar	95% Confidence Interval	
Household Size	0.02	0.02	1.49	0.14	3.64	-0.01	0.06
Income (€)							
0-20,000	-	-	-	-	-	-	-
20,001-40,000	0.01	0.05	0.28	0.78	0.38	-0.09	0.12
40,001-60,000	0.01	0.06	0.15	0.88	0.20	-0.11	0.13
60,001-80,000	-0.04	0.08	-0.45	0.66	0.09	-0.20	0.12
80,001+	-0.03	0.09	-0.35	0.73	0.07	-0.21	0.15
Cable/Satellite	-0.05	0.05	-0.82	0.41	0.83	-0.15	0.06
Gender (1 if Male)	-0.03	0.04	-0.74	0.46	0.51	-0.11	0.05
Kids (1 if Yes)	-0.06	0.05	-1.19	0.24	0.53	-0.16	0.04
Age :							
15-24	0.11	0.08	1.25	0.21	0.18	-0.06	0.27
25-34	-0.13	0.09	-1.51	0.13	0.15	-0.30	0.04
35-50	-0.03	0.08	-0.34	0.73	0.35	-0.18	0.13
50-65	0.06	0.08	0.72	0.47	0.22	-0.09	0.20
65+	-	-	-	-	-	-	-
Education:							
Primary	-	-	-	-	-	-	-
Secondary	0.08	0.07	1.13	0.26	0.42	-0.06	0.23
Some College	0.03	0.08	0.38	0.70	0.20	-0.13	0.19
Completed Degree	0.11	0.08	1.37	0.17	0.23	-0.05	0.27
Postgraduate	0.19	0.10	1.85	0.06	0.05	0.01	0.38
Region:							
Rest of Leinster	0.01	0.05	0.20	0.85	0.27	-0.09	0.11
Munster	0.11	0.05	2.05	0.04	0.27	0.01	0.22
Connaught	0.10	0.06	1.67	0.09	0.19	-0.01	0.21
Dublin	-	-	-	-	-	-	-
N	689						
Chi-Squared	34.33						
P > Chi-Squared	0.016						
Pseudo R-Squared	0.037						

Table 2A.4: Median Regression of WTP (Household Measure).

	B	Standard Error	t	P>t	95% Confidence Interval	
Household Size	0.83	0.43	1.94	0.05	-0.01	1.68
Income (€)						
0-20,000	-	-	-	-	-	-
20,001-40,000	0.67	1.74	0.38	0.70	-2.76	4.09
40,001-60,000	-0.83	1.57	-0.53	0.60	-3.91	2.24
60,001-80,000	-1.50	2.48	-0.60	0.55	-6.37	3.37
80,001+	0.83	2.75	0.30	0.76	-4.58	6.24
Cable/Satellite	1.17	1.54	0.76	0.45	-1.86	4.19
Gender (1 if Male)	-1.83	1.52	-1.21	0.23	-4.81	1.15
Kids (1 if Yes)	-1.67	1.91	-0.87	0.38	-5.42	2.09
Age :						
15-24	4.50	4.18	1.08	0.28	-3.70	12.70
25-34	-2.50	4.34	-0.58	0.57	-11.02	6.02
35-50	-0.83	3.84	-0.22	0.83	-8.37	6.70
50-65	2.50	4.81	0.52	0.60	-6.94	11.94
65+	-	-	-	-	-	-
Education:						
Primary	-	-	-	-	-	-
Secondary	1.67	3.15	0.53	0.60	-4.51	7.84
Some College	-0.17	2.73	-0.06	0.95	-5.53	5.20
Completed Degree	2.50	3.67	0.68	0.50	-4.71	9.71
Postgraduate	4.00	3.46	1.16	0.25	-2.79	10.79
Region:						
Rest of Leinster	0.83	1.83	0.46	0.65	-2.75	4.42
Munster	3.50	2.00	1.75	0.08	-0.43	7.43
Connaught	3.17	1.64	1.93	0.05	-0.05	6.38
Dublin	-	-	-	-	-	-
N	656					
Pseudo R-Squared	0.05					

CHAPTER III

CONTINGENT VALUATION METHODOLOGY AND THE DISTRIBUTIONAL EFFECTS OF STATE-FINANCED CULTURAL ACTIVITY

Summary

This chapter applies contingent valuation methodology (CVM) as a mechanism for assessing horizontal and vertical distributional effects of state involvement in cultural markets, by examining the distributional effects of the provision of services by the Irish public service broadcaster, RTÉ. Conditional probabilities of usage of, satisfaction with, willingness to pay for and perception of improvement of, these services with respect to several demographic variables, as well as the presence or absence of other broadcasting services, are estimated. Support for a policy of redistribution whereby households with higher (lower) incomes would pay a higher (lower) licence fee is also examined.[57]

[57] A version of this chapter is under review of the *Journal of Media Economics* (co-authored with Francis O'Toole).

3.1 Introduction

Distributional issues are very important even when viewed from the relatively narrow standard economics perspective. The first welfare theorem, which implies that under certain conditions the market system will produce a Pareto-efficient allocation, appears neutral with respect to distributional issues. However, redistributions from one group to another that satisfy altruistic concerns contain elements of non-rivalry and non-exclusivity and hence provide a rationale for an interest in redistribution (Hochman and Rodgers 1969). In addition, the second welfare theorem directly addresses the issue of re-distribution, albeit in the context of non-distortionary lump-sum transfers.

More generally, the importance of distributional issues is paramount in public debate and it is clear that the distributional effects of actions by, and decisions of, the largest economic agent in the economy – the government – need to be considered. Governments continuously make decisions that directly or indirectly distribute resources from one grouping to another grouping in society. By levying taxes and spending the money on the provision of public services, the government redistributes from the taxpayer to the public service user. While, on average, these two people may be the same, a great deal of debate surrounds the claim that some groupings do better than other groupings from certain elements of the public finance system (e.g. the various subsidies offered to third-level education). However, the debate extends beyond the standard questions of the effect of government involvement on different income groupings. By taxing and spending, the governments constantly alters the distribution of societal benefits between age groups, educational groups, genders, ethnic groups, regional groups and the many other markers by which people define themselves in modern societies or cultures.

To what extent can information on which demographic groups happen to benefit from specific public funding improve understanding of the economy and aid policy formation? From a political economy perspective, decision-makers are human beings influenced by pressure from various lobby groups and by their own life experiences. These factors are particularly important in explaining the distribution of resources in a modern mixed economy. Thurow (1978) makes the case for the importance of inter-group distribution in arguing that one cannot just look at distribution from an individualistic perspective, particularly when trying to assess inequality, as an individual person may simply be unlucky. However, if an identifiable group is consistently gaining more or less than its expected proportion of societal benefits, it is possible to devise policies to correct for this imbalance.

One mechanism for evaluating the outcome of the processes that generate public expenditure is to examine which groups benefit from public expenditures in terms of their valuation of the services provided by the state. Traditional methodologies for doing so involve extrapolating utility functions from observed behaviour in other markets and calculating the conditional distribution of compensating and equivalent variations with respect to relevant variables (e.g. Travel Cost, Hedonic Pricing). However, a body of literature has emerged on the theme that the trails left by these behavioural data may be insufficient in placing a value on non-marketed goods (e.g. Mitchell and Carson 1989). Similarly, behavioural data may be insufficient in attempting to analyse the distribution of benefits from publicly financed goods (e.g. Clotfelter 1992). However, the use of survey data may offer a useful tool in analysing the distributional effects of publicly funded activity, perhaps in conjunction with any available behavioural data.

Measures of willingness to pay offer the possibility of estimating the benefits received by different groups from the transformation of taxes into the provision of publicly funded activities. In particular, contingent valuation methodology (CVM)

can be used to assess how the benefits derived from the provision of public goods financed by state funding are distributed to different groups in society. For example, papers have begun to emerge evaluating the effects of gender on the valuation of environmental products (Dupont 2004) and health products (Lampietti 1999). Furthermore, CVM and related methodologies have become heavily integrated in to the literature on Cultural Economics (e.g Noonan 2002, 2003). However, it appears that there are no papers explicitly addressing inter-group valuations of cultural projects from a CVM perspective.[58] CVM may be particularly suited for the evaluation of the benefits of cultural projects where familiarity with the projects is high, subjective assessment is relevant, and market data are limited and/or difficult to interpret.[59] This chapter focuses on the distribution of the benefits derived from the services produced by the Irish public service broadcaster, Radio Telefis Éireann (RTÉ), which is part-funded by a flat annual licence fee of €152 payable by all households (as well as businesses and institutions) possessing a television set.

CVM can also be used to empirically, as opposed to theoretically, address the possibility that even those who lose monetarily from redistributive policies may derive net benefits. Hochman and Rodgers (1969) introduced the concept of Pareto-improving transfers and derived a theoretical justification for progressive taxation. Similarly, given the transaction costs involved in private individuals transferring the benefits of say cultural activity to other private individuals from a sense of altruistic concern (i.e. the public goods nature of such a transfer), these transfers may be under-provided in a market economy without government intervention. CVM offers a mechanism by which to locate transfers that would

[58] A exception is provided by on-going work by Kenneth Willis and Jen Snowball on the valuation of cultural projects in South Africa, which addresses inter-group distributional issues from a Choice-experiment/CVM perspective.

[59] More generally, the analysis can be extended beyond the issue of indirect redistributions, via the provision of specific cultural products, to an examination of different formats of direct redistribution via the social welfare system.

benefit both those who lose monetarily and those who gain monetarily. In the specific context of public service broadcasting, a canvass of reactions to a proposal for making the licence fee less regressive offers a potentially interesting case study in this literature.

The rest of this chapter is structured as follows. Section 3.2 discusses distributional issues in Irish cultural markets in more detail. Section 3.3 outlines the results of a nationwide survey of preferences for public broadcasting services carried out in December 2002, and described in more detail in Chapter 2. The analysis includes several binary probit and censored tobit models of different measures of demand for public broadcasting services regressed on various important socio-demographic markers. Section 3.4 examines responses to the proposal to make the licence fee structure more progressive. Section 3.5 discusses the results and suggests possible future research projects.

3.2 Distributional Effects of Irish Public Service Broadcasting

The State intervenes in cultural activity in Ireland through numerous channels. The Arts Council is one highly visible channel through which central government funding is channelled, and the state also directly intervenes through organisations such as the Office of Public Works, local authorities, FÁS (the Irish national training and employment authority), state-funded cultural institutions and the Department of Arts, Sport and Tourism. The cultural sector also benefits from state support in the form of indirect intervention such as capital gains exemption rules, artists' income exemption provisions, other forms of tax relief and educational allocations in the form of specific culture-related schools and colleges, such as the National College of Art and Design, as well as funding for curricula at primary, secondary and third level. All of this funding represents a distribution

away from those whose valuation of the activity is lower than the amount they pay for it in taxes and towards those whose valuation of the outputs of the activity is higher than the amount they pay for it in taxes.[60] In particular, it is often claimed that that cultural funding produces output more tailored to the preferences of better-educated, higher income households (e.g. O'Hagan 1996).

Public broadcasting receives more public funding in Ireland than any other cultural activity. The significant increase in the licence fee to €150 (from €107) in January 2003, resulted in licence fee revenue of €150m in 2003. Net of contributions to An Post (the collection agency), the relevant Department and a Broadcasting Fund, RTÉ received €133.5m, which is slightly greater than the total revenue from the other sources of RTÉ income (e.g. advertising and sponsorship). Given that the provision of public broadcasting services in Ireland is financed from a license fee system whose impact is felt disproportionately by different income groups, it seems particularly important to know how the benefits are distributed.[61] O'Hagan and Jennings (2003) also discuss horizontal and vertical equity issues in the setting of the license fee. They argue against the notion that distributional issues are irrelevant due to the luxury status of television, arguing that television has become a necessity, and that furthermore the licence fee system imposes a lumpy choice on respondents rather than allowing them to choose a continuous amount of televisions services.

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[60] In addition, the State may also take decisions not to intervene. For example, in an Irish context, the State appears to have decided not to grant various tax incentives for GAA players. Decisions not to intervene also have distributional consequences.

[61] As previously indicated, all Irish households that possess a television set, pay the same licence fee of €152. Concessions in Ireland are available to fairly large groups of households, e.g. aged 70 or over, carers, aged above 65 subject to a means-test and aged under 65 if receiving certain categories of state payments (www.welfare.ie/publications/sw107.html, accessed 11/03/05). The BBC licence fee is £121, equivalent to approximately €173. Concessions in the UK are only granted to those over 74, blind or in residential care (see Allen, Cowling and Keaney, 2003 and www.tvlicensing.co.uk/information/ accessed 14/03/05).

There are several methods of assessing the value of a public broadcaster. Similarly, the distribution of the benefits provided by RTÉ services can be analysed in a number of ways. Detailed analysis of disaggregated usage figures is an obvious source of information. Another methodology involves qualitative studies of reactions to programming by different demographic groups. Qualitative analysis of programme content is another area in which researchers have analysed the distributive effect of television programming. Qualitative analysis of archival material such as ministerial documents and RTÉ annual reports may also yield information as to the changing focus of public service broadcasting as regards its differential serving of the needs of different groups in society. International comparisons of the distributional effect of financing would also yield important information.

In this chapter, a number of measures of how the benefits of public broadcasting are distributed at a point in time to different groups in society are examined.[62] The determinants of usage of television and radio services generally, uptake of cable and satellite service and, in order to provide an appropriate comparator, usage of, and satisfaction with, the main private indigenous competitor, TV3, are examined. The determinants of the level of satisfaction with RTÉ services and comparison of public service and private broadcasters are also accessed. These determinants are contrasted with the determinants of willingness to pay for RTÉ services. Another issue is how benefits are distributed over time and how this reflects societal changes in general. Has public broadcasting become more tailored to a specific gender, age group, educational group, regional group or occupational group?

[62] It should be noted that the CVM utilised in this paper does not attempt to capture all of the externalities arising from public broadcasting in that the basic scenario, although only implicit, is subscription-based. The Guardian (p.4, 22/05/04), in quoting Mark Thompson on his decision to cancel *One Man and his Dog* provides an illustrative example of the (practical as well as theoretical) difficulties of capturing all option value, "What I completely failed to realise was that, while people might not have wanted actually to watch the programme any more, they still wanted it to be there."

Although it is difficult to assess these issues in a cross-sectional survey analysis, a perception of improvement question was included in the survey in order to add a time dimension. Finally, as previously indicated, this chapter assesses the determinants of support for making the licence fee structure less regressive.

The form of the conditional distribution of these variables is interesting for a number of reasons. Firstly, we are interested in the degree to which the respondent's education and income affect satisfaction derived from the services provided by RTÉ. To what extent does RTÉ fit the model of a publicly funded cultural activity targeted at the tastes of the wealthy and educated elites of society, one that appears to fit at least some other forms of cultural endeavour in Ireland and perhaps elsewhere? Secondly, to what extent do regional factors affect satisfaction derived from the services? RTÉ appears to be responding to criticism that its services are Dublin-centred. To what extent is this response appropriate given the regional distribution of preferences for the services? Thirdly, from a distributional perspective, to what extent are measures of satisfaction and usage similar to measures of valuation, i.e. willingness to pay? The extent to which estimates derived from CVM data correspond with estimates derived from other means of assessing respondents' preferences is a crucial issue in the valuation literature. For example, children's programming, may not be watched. but highly valued, by parents.

3.3 Survey and Results

3.3.1 Survey

As described more completely in Chapter 2, the nationally representative survey of the landline telephone owning population aged 15+, was based on one thousand telephone interviews carried out by Lansdowne Market Research at the end of

November/beginning of December 2002.[63] There was quota controlling based on age, gender, telephone code (i.e. place of residence) and social class. All interviews were completed before the announcement of the increase in the licence fee to €150 (from €107) and also before budget day. A number of caveats, however, must be expressed. First, the sampling methodology as mentioned above was based on random digit dialling of landline telephones. Second, the characteristics of non-respondents are not available. Thus, the survey results must be interpreted as being based on a sample of 1,000 respondents that (a) possessed land-line telephone numbers; (b) were available to be sampled; and (c) agreed to participate in the survey.[64]

The questionnaire used in the nationwide survey consisted of 20 questions.[65] The questions were ordered such that respondents were initially asked to consider how much they used, and their level of satisfaction with, general and specific broadcasting services. Respondents were also asked how much they paid for other broadcasting services (e.g. cable). They were then asked to compare RTÉ's services with the services offered by other broadcasters and other questions about RTÉ's services. Respondents were then asked the willingness to pay question(s). To facilitate maximum response, the potentially sensitive income and education questions were placed towards the end of the questionnaire. Finally, the respondents were offered an opportunity to comment on Irish broadcasting.

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[63] The NOAA Panel on CVM encouraged the use of face-to-face interviewing where possible in order to facilitate the use of visual aids. Face-to-face interviewing was not financially possible in the present context. However, the telephone-based approach does have the relative advantage of minimising interviewer effects.

[64] A great deal of survey research in Ireland is carried out through the use of random digit dialling of landline telephones. There are a number of practical justifications, such as being able to determine location for the purposes of quota sampling. However, it does bias against those who do not have landline telephones, e.g. some users of mobile phones. It would be interesting to ascertain whether this group has any peculiar characteristics (outside of the quota demographics) that could potentially bias surveys.

[65] See Appendix 1.

The questionnaire included several questions asking about the respondents' broad demographic characteristics. The characteristics included in this analysis are: gender; age; household income; education of the respondent; marital status; province of residence; whether or not the respondent had children; and whether or not the respondent had access to other broadcasting services.

3.3.2 Estimation Framework:

With the exception of the willingness to pay item, the dependent variables are binary variables that are constructed by truncating 5-point scales (e.g. very satisfied, satisfied, neither satisfied nor dissatisfied, dissatisfied, very dissatisfied) into 2-point scales (e.g. satisfied or very dissatisfied, other) and estimated using binomial probit analysis, assuming an underlying normally distributed utility function. The rationale for truncating the distribution is to use the sample size more effectively and to reduce the probability of Type II errors. The conditional distribution of willingness to pay is estimated using censored tobit analysis to account for the corner-solution at zero. Significance tests are performed using likelihood ratio statistics, with the measure regressed on the constant as the baseline comparison.

There are a number of econometric issues surrounding estimating distributional effects that the current data set does not allow us to address. While in the case of estimating willingness to pay, the potential concern is that the estimate of average willingness to pay is biased due to selection effects, there is also a concern that the usage, satisfaction, valuation and perception functions become endogenous due to unobserved factors in the selection process that are correlated with the explanatory variables. Furthermore, there is a concern with multicollinearity among some of the independent variables that could potentially mask the effects of some demographic factors on people's valuations. Another issue is whether certain

groups are more or less likely to report their demographic information correctly. This is particularly the case for the income variable.

The binomial Probit model is one method of analysing the determinants of a "choice" between two discrete alternatives and the primary estimation technique in applied econometric analysis of binary responses. The general models describe the probability that $y_i = 1$, directly as the probability:

$$P\{y_i = 1 \mid x_i\} = G(x_i, \beta) \qquad (3.1)$$

Functional forms are generally restricted to $G(x_i, \beta) = F\{x_i \beta\}$. There are several different forms that the density function F can take. The probit model employs the normal distribution:[66]

$$F(w) = \theta(w) = \int_{\infty}^{w} \frac{1}{\sqrt{2\pi}} \exp\left\{-\frac{1}{2}\right\} dt \qquad (3.2)$$

The binomial and multinomial probit models can be motivated from underlying behavioural assumptions in the form of a randomized utility model. We can view the discrete responses as points on a continuous underlying latent scale. For example in the case of whether the respondent claims to be a high-user or low user of a specified service, we can represent utility from consuming broadcasting as lying on a continuous scale and therefore allow usage of specific services to follow a continuous underlying distribution. Furthermore we assume that this underlying distribution is normal. However, it has been widely noted that, in terms of calculating marginal effects, the use of the normal distribution as opposed to the logistic distribution is not important in the vast majority of applications. We make the further assumption that utility is related to demographic characteristics in a linear additive fashion

[66] The logistic distribution and the Weibull distribution are other common forms to assume for the density function. Greene (2003) points out that the literature on binary choice models provides little information on which form of the distribution to choose.

$$y_i^* = x_i'\beta + \in_i \qquad (3.3)$$

The variable y_i^* is unobserved. We instead observe y_i which takes the value 1 if y_i^* exceeds a certain threshold and 0 otherwise. The value of the threshold can be set to zero (Verbeek 2001) which leaves:

$$P\{y_i = 1) = P\{y_i^* > 0\} = P\{x_i'\beta + \in_i > 0\} = P\{-\in_i \leq x_i\beta\} = F\{x_i'\beta\} \quad (3.4)$$

where F specifies the distribution of the error term in the latent variable, which we assume to be normally distributed in the probit model. The model can then be estimated using maximum likelihood. The form of the likelihood function is given by:

$$L(\beta) = \prod_{i=1}^{n} P\{y_i = 1 \mid x_i;\beta\}^{y_i} P\{y_i = 0 \mid x_i;\beta\}^{1-y_i} \qquad (3.5)$$

Substituting $P\{y_i = 1 \mid x_i;\beta\}$ for $F\{x_i'\beta\}$ and deriving the log-likelihood function we obtain:

$$\log L(\beta) = \sum_{i=1}^{n} y_i \log F(x_i'\beta) + \sum_{i=1}^{n} (1 - y_i) \log\left(1 - F\left(x_i B\right)\right) \qquad (3.6)$$

The values of the parameter vector are then chosen such as to maximize the log-likelihood function. The parameter vector cannot be interpreted as a vector of marginal effects. The standard manner of calculating marginal effects in binary choice models is given by:

$$\frac{dE\{y \mid x\}}{dx} = \left\{\frac{dF(x'\beta)}{d\left(x'\beta\right)}\right\}\beta = f(x'\beta)\beta \qquad (3.7)$$

For the probit model, this becomes:

$$\frac{dE\{y \mid x\}}{dx} = \phi(x'\beta)\beta \qquad (3.8)$$

where ϕ (t) is the standard normal density function.

3.3.3 General Usage of Television Services:

Table 3.1 contains profiles of the users of television and radio services in the state, as well as profiling those who have access to other broadcasting services, in this case either cable or satellite television. The usage of television and radio variables are truncated binary variables, with the first category representing four or more hours a day and the second category representing less than four hours a day. Table 3.1 also contains profiles of those who use, and are satisfied with, the first indigenous private channel TV3, which is also a free-to-air channel; both the usage and satisfaction variables are truncated binary variables.

There is a strong effect of education on usage of television in Ireland, with the likelihood that a person watches four or more hours of television being significantly lower for those with secondary education and tertiary education. Respondents with a third level degree were also significantly less likely to listen to four or more hours of radio a day. Income is also a factor determining the amount of television consumed with the likelihood that a person watches four or more hours of television a day being significantly higher for respondents in the lowest income category (i.e. < €20,000). High television usage also appears to be related to being in the highest age category and residing in Munster, whereas females appear to listen to more hours of radio.

The likelihood of watching TV3, in particular, is also higher for those with a primary education. However, and perhaps not surprisingly given its marketing strategy, being in the 65+ age category reduces the probability of watching TV3. More surprising is the reduced probability of watching TV3 associated with residing in Dublin. In addition, females tend to watch TV3 more than males. Somewhat similar variables appear to determine satisfaction with the services, although age is no longer significant.

Income is a significant factor in determining whether or not respondents had access to other broadcasting services, with those in the €20,000 to €80,000 income bracket being significantly more likely to have access to cable/MMDS/satellite. Dublin residents are also more likely to have purchased other broadcasting services. To at least some extent, this can be seen as an indicator of the groups that are targeted more by private providers of broadcasting services.

3.3.4 Overall Satisfaction with Public Broadcasting Services and Comparison with Commercial Services

Usage is not a complete indicator of how much benefit people derive from a service. The questionnaire also addressed respondents' overall level of satisfaction with RTÉ services, as well as exploring how respondents felt that RTÉ services compared with other radio and television services in terms of quality. Overall satisfaction with RTÉ Services is negatively affected by being male, resident in Dublin and in the lowest income category. In terms of the comparison of RTÉ's television services, being resident in Dublin, being in the two younger age categories (i.e. 15-34) and having other broadcasting services signalled relative dissatisfaction with RTÉ.[67] Respondents in the 15-50 age groups were also significantly less likely to state that they found Those with a degree were relatively satisfied with RTÉ's radio and television services, while place of residence appears unimportant. Neither marital status nor the presence of children had a statistically significant effect.

3.3.5 Perception of Improvement

To assess respondents' perception of the performance of RTÉ services through time, respondents were asked whether they felt that RTÉ services were improving or getting worse. The distribution of this variable is an important indicator of the

[67] This is controlling for the effect of greater choice available to Dublin respondents.

trend in distribution of the benefits associated with public broadcasting services. The results in Table 3.2 show that respondents from outside Dublin were significantly more likely to state that they found RTÉ services to be improving. Women were also more likely to state that RTÉ services were improving, as were parents.

3.3.6. Willingness to Pay for RTÉ Services:

The difficulties associated with constructing and interpreting estimates of aggregate willingness to pay for RTÉ services is discussed more fully in Chapter 4. In the analysis summarised in Table 3.3, household willingness to pay is regressed on a vector of different qualitative variables, using a number of different econometric techniques so as to have greater understanding of the robustness of the various results. Willingness to pay represents the maximum amount of money that respondents claimed their households would be willing to pay for consuming RTÉ services. As expected, household size is positively related to household willingness to pay. In addition, being in the highest income category (i.e. above €80,000) and being appears to increase willingness to pay, while having other broadcasting services, being in the 25-34 age category and, to a lesser extent, being resident in Dublin, appears to decrease willingness to pay. There appears to be no relationship between education and willingness to pay.

3.3.7 Summary

Although the results in each of Tables 3.1, 3.2 and 3.3 are interesting in themselves in that they indicate the presence of significant differences across different demographic groups with respect to usage of, satisfaction with and willingness to pay for, RTÉ services, it is also interesting to examine the results in their totality. In particular, the strength of the correlations between the results in the three tables indicate the appropriateness, or otherwise, of using usage or satisfaction figures as a proxy for value. For example, the experiences of females

across the three tables appears fairly consistent; females (relative to males) tend to use television and radio more, are generally satisfied with RTÉ services, see RTÉ services as improving and are willing to pay more for RTÉ services. This consistency also appears to hold in the context of Dublin residents (relative to non-Dublin residents), who appear to use television and radio less, not be satisfied with RTÉ services, see RTÉ services as not improving and are willing to pay less for RTÉ services. However, this consistency disappears in the context of most of the other variables, i.e. age, income, education and other broadcasting services. For example, those with other broadcasting services (relative to those without) use television and radio more, are neither satisfied nor dissatisfied with RTÉ services but are less willing to pay for RTÉ services.

3.4 Preferences for Making the Licence Fee More Progressive

As previously indicated, the Irish and UK television licences are noteworthy in that they both impose a flat fee on all television households. As such, both licence fees represent a particularly regressive form of taxation. Respondents in the survey were asked whether they would support a policy whereby people with higher incomes would pay more for the licence than people with lower incomes, effectively making the license fee less regressive. The specific question asked was:

(i) Do you think that (A) everybody who pays the licence fee should pay the same amount or (B) people with higher incomes should pay mpre than people with lower incomes?

Table 3.4 contains the Probit regressions of support for the proposed policy change. The independent variables are gender, children, income and age. Of those who answered the question, 73.8 per cent disagreed with the proposal and chose the "everyone pays the same" option, while 26.2 per cent agreed and chose the

"those with higher incomes should pay more than those with lower incomes" option. Neither gender nor the presence, or absence, of children was statistically significant.[68] The oldest age category (65+), relative to the other age categories, was in support of the policy proposal. With respect to the age variable, however, it is noteworthy that all age categories were against the change. In particular, the oldest age category (65+) was 57 to 53 against the proposal.[69] A somewhat similar situation occurs with the income variables, with the lowest income category (€0 to €20,000) being only relatively in favour of the proposal; members were 140 to 82 against the proposal.[70]

The statistically significant coefficients on the income variables seem somewhat consistent with a self-interested economic appraisal of the policy, although greater support for the policy might have been expected from the lower income groups. More generally, it seems clear that there is no evidence from this survey that there is widespread demand for a policy of redistribution using the licence fee as a mechanism. However, it would be interesting to look further at how people are mentally modelling these and other policy options. In the context of the overall survey, however, it was not possible to probe respondents in depth as to what their responses reflected (e.g. open-ended follow up question), and the results must therefore be taken as somewhat indicative.

3.5 Discussion

Distribution in economics is frequently conceived of in terms of income (e.g. gini-coefficients before and after proposed tax changes), factors of production or skill

[68] The exclusion of these two variables does not impact on the significance of the other variables.
[69] The youngest age category was 150 to 31 against the proposal, while the other three age categories, from younger to older, were against the proposal by 115 to 22, 229 to 76 and 152 to 71, respectively.
[70] From second lowest to highest income category, the "votes" were 232 to 73 against, 129 to 26 against, 50 to 20 against and 43 to 11 against, respectively.

levels. This chapter examines distribution in terms of several different demographic factors and analysed how the benefits of a publicly financed cultural good are distributed across different societal groups. In particular, it is argued in this chapter that survey methodology is appropriate and perhaps even necessary when analysing the distributional effects associated with public cultural goods. This paper describes how a wide range of measures assessing benefits derived from public broadcasting services in Ireland are distributed across the population. In particular, usage and satisfaction figures do not necessarily correlate with value in this context. In addition, the chapter examines whether there is a demand for a policy of redistribution of burden of the method of finance from low-income households to high-income households. There is no evidence from the results of our survey that the Irish population is in favour of this form of redistribution. However, this leaves open the possibility that surveys can be meaningfully used to discriminate between different policies of redistribution, something that is explored in later chapters.

Future research could be directed to using valuation methodologies to examine distributional issues in broadcasting on many other dimensions aside from the ones outlined here. Many standard demographic markers were not analysed in this chapter. For example we did not look at religious belief of the respondent, the respondent's occupation, political affiliation, original place of residence or sexuality. The sampling focused on people over the age of 15, and it would also be interesting to interview those under 15 to ascertain their economic preferences for broadcasting. Furthermore, the role of local radio services in Irish life was not explored; this would be a particularly interesting topic to look at from an inter-group distributional perspective.

A number of issues arise in assessing inter-group distributional issues in broadcasting that would require going beyond standard sampling methodologies.

Firstly there is the inter-generational issue. To what extent does broadcasting meet the needs of past and future generations? Secondly one could analyse international aspects. Irish public broadcasting affects Irish nationals resident in Ireland, non-nationals resident in Ireland, non-nationals resident abroad and Irish nationals resident abroad. It would be interesting to measure valuations across these dimensions. A third avenue of future research would be the implementation of quota sampling to examine the valuations and perceptions of public broadcasting of minority groups in society that would not be picked up in large-scale surveys. Among the areas that would be interesting include sampling homeless people, people with disabilities, Irish language speakers[71] and new migrants.

[71] Watson (1997) writes about the Irish language station TG4 from the perspective of Irish language speakers using the Habermasian concept of public sphere. The notion of public sphere is one that could be applied to several other areas of distribution in public broadcasting.

Table 3.1: Results of Binomial Probit Regressions of General Usage of Television and Radio Services, Access to Other Services, and Usage and Satisfaction with TV3 with Robust Standard Errors.

	Usage of Radio		Usage of TV		TV3 Usage		TV3 Satisfac		Other Servs	
	B	**SE**	**B**	**SE**	**B**	**SE**	**B**	**SE**	**B**	**SE**
Constant	**-0.48***	**0.24**	-0.41	0.27	-0.15	0.23	**0.64***	**0.27**	**1.63****	**0.26**
Gender (1 if Male)	**-0.26***	**0.10**	-0.08	0.12	**-0.29****	**0.09**	**-0.33****	**0.11**	0.06	0.11
Kids (1 if Yes)	-0.16	0.12	0.10	0.15	-0.10	0.11	0.10	0.12	0.06	0.13
Other Services (1 if Yes)	0.14	0.13	**0.48****	**0.17**	-0.16	0.12	0.04	0.14	-	-
Age :										
15-24	-0.39	0.24	**-0.52***	**0.26**	**0.73****	**0.22**	-0.11	0.25	-0.25	0.26
25-34	0.35	0.21	-0.15	0.24	**0.66****	**0.21**	0.08	0.24	0.00	0.25
35-50	0.18	0.19	-0.26	0.21	**0.31**	**0.18**	-0.23	0.21	-0.30	0.21
50-65	0.26	0.18	**-0.46***	**0.20**	0.11	0.17	-0.27	0.20	-0.14	0.20
65+	-	-	-	-	-	-	-	-	-	-
Education:										
Primary	-	-	-	-	-	-	-	-	-	-
Secondary	-0.02	0.16	**-0.40***	**0.18**	**-0.29**	**0.16**	0.04	0.18	-0.06	0.18
Some College	0.12	0.18	**-0.70****	**0.22**	**-0.42***	**0.19**	0.00	0.21	-0.10	0.21
Completed Degree	**-0.63****	**0.20**	**-0.64****	**0.22**	**-0.53****	**0.19**	-0.21	0.20	-0.22	0.21
Postgraduate	**-1.23****	**0.38**	**-1.16****	**0.49**	**-0.59***	**0.27**	**-0.59***	0.28	-0.07	0.33
Income:										
<20,000	-	-	-	-	-	-	-	-	-	-
20,001-40,000	-0.12	0.13	**-0.64****	**0.15**	0.03	0.12	**0.23**	**0.14**	**0.41****	**0.14**
40,001-60,000	0.03	0.16	**-0.90****	**0.22**	0.08	0.15	-0.05	0.17	**0.39***	**0.17**
60,001-80,000	**-0.42**	0.24	**-0.42**	**0.26**	-0.30	0.20	-0.23	0.21	**1.09****	**0.28**
80,000+	-0.11	0.24	-0.81	0.31	0.03	0.21	0.24	0.23	0.37	0.27
Marital Status	0.01	0.13	-0.20	0.15	0.07	0.12	-0.10	0.14	-0.10	0.14
Region:										
Rest of Leinster	0.06	0.14	0.18	0.17	**0.28***	**0.13**	0.37	0.14	**-0.73****	**0.17**
Munster	-0.03	0.14	**0.34***	**0.17**	**0.38****	**0.13**	0.41	0.15	**-1.29****	**0.17**
Connaught	0.24	0.15	0.09	0.18	**0.24**	**0.14**	0.46	0.15	**-0.64****	**0.19**
Dublin	-	-	-	-	-	-	-	-	-	-
Log-Likelihood	-274.55		-435.431		-528.35		-400.27		-352.25	
Restricted Log-Likelihood	-317.59		-477.30		-557.007		-426.45		-399.20	
Chi-Squared	86.09		83.74		57.30		52.36		93.91	
Df	19		19		19		19		18	
Significance	0.000		0.000		0.0001		0.0005		0.0000	

Bold means significant at the .1 level, Bold and asterix means significant at the .05 level, Bold and two asterixes means significant at the .01 level.

Table 3.2: Results of Binomial Probit Regressions of Overall Satisfaction, Perception of Improvement and Comparison with Commercial Broadcasting Services with Robust Standard Errors.

	Overall Satisfaction		TV Comparison		Radio Comparison		Perception of Improvement	
	B	**SE**	**B**	**SE**	**B**	**SE**	**B**	**SE**
Constant	**0.45**	**0.26**	-0.32	0.26	0.02	0.25	**0.67****	**0.27**
Gender (1 if Male)	**-0.19**	**0.10**	0.01	0.10	-0.02	0.10	**-0.33****	**0.10**
Kids (1 if Yes)	0.00	0.12	0.06	0.12	-0.07	0.11	**0.26***	**0.12**
Other Services (1 if Yes)	0.07	0.14	-0.38	0.13	-0.09	0.13	0.03	0.14
Age :								
15-24	-0.09	0.24	**-0.78****	**0.23**	**-1.11****	**0.23**	0.21	0.25
25-34	-0.34	0.22	**-0.50***	**0.21**	**-0.83****	**0.22**	-0.13	0.23
35-50	-0.10	0.20	-0.25	0.19	**-0.32**	**0.20**	-0.29	0.21
50-65	0.22	0.19	0.14	0.18	-0.20	0.19	-0.23	0.19
65+	-	-	-	-	-	-	-	-
Education:								
Primary	-	-	-	-	-	-	-	-
Secondary	-0.01	0.18	0.21	0.17	0.25	0.17	-0.10	0.18
Some College	-0.34	0.20	0.07	0.20	0.25	0.20	-0.28	0.20
Completed Degree	0.00	0.21	**0.41***	**0.19**	**0.39***	**0.19**	-0.20	0.21
Postgraduate	-0.28	0.29	0.14	0.29	**0.61***	**0.29**	-0.32	0.28
Income:								
<20,000	-	-	-	-	-	-	-	-
20,001-40,000	0.11	0.14	-0.02	0.13	0.04	0.13	-0.01	0.14
40,001-60,000	**0.28**	**0.16**	0.06	0.16	0.26	0.16	0.17	0.16
60,001-80,000	0.01	0.21	0.01	0.21	0.11	0.21	0.31	0.23
80,000+	**0.39**	**0.24**	0.28	0.22	**0.35**	**0.22**	0.16	0.24
Marital Status	0.07	0.13	-0.17	0.13	-0.01	0.13	0.21	0.13
Region:								
Rest of Leinster	**0.36****	**0.13**	**0.31***	**0.13**	0.09	0.13	**0.37****	**0.14**
Munster	**0.56****	**0.15**	**0.30***	**0.14**	0.09	0.14	**0.31***	**0.14**
Connaught	**0.41****	**0.15**	**0.28***	**0.15**	0.01	0.15	**0.41****	**0.15**
Dublin	-	-	-	-	-	-	-	-
Log-Likelihood	-418.60		-465.81		-476.52		-401.76	
Restricted Log-Likelihood	-441.48		-493.83		-508.59		-422.13	
Chi-Squared	45.74		56.02		64.14		40.76	
Df	19		19		19		19	
Significance	0.000		0.0001		0.0001		0.0001	

Bold means significant at the .1 level, Bold and asterix means significant at the .05 level, Bold and two asterixes means significant at the .01 level.

Table 3.3: Regression Models of Demographic Determinants of Willingness to Pay for RTE Services (Combined)

	(1) OLS (including Outliers)	(2) TOBIT (including Outliers)	(3) TOBIT (excluding Outliers)	(4) LOGIT (on High/Low)
Constant	**23.51 (4.64)****	**21.25 (4.96)****	**11.83 (2.95)****	**-1.33 (0.38)****
Household Size	**2.03 (0.72)****	**2.19 (0.77)****	**0.76 (0.45)**	**0.15 (0.06)***
Income (€)				
0-20,000	-	-	-	-
20,001-40,000	-2.12(2.33)	-2.48 (2.49)	-0.15 (1.44)	0.06 (0.19)
40,001-60,000	-1.45 (2.77)	-1.9 (2.96)	0.21 (1.71)	0.09(0.24)
60,001-80,000	-0.44 (3.58)	-1.62 (3.84)	-2.02 (2.21)	-0.05(0.31)
80,001+	**7.12 (3.95)**	**7.06 (4.22)**	2.07 (2.49)	0.14 (0.33)
Cable/Satellite	**-7.65 (2.43)****	**-8.55 (2.58)****	-1.82 (1.55)	0.11 (0.19)
Gender (1 if Male)	-1.52 (1.76)	-1.41 (1.88)	**-1.93 (1.1)**	-0.08 (0.15)
Kids (1 if Yes)	-3.42 (2.28)	-3.5(2.43)	-1.33 (1.42)	-0.29 (0.19)
Age :				
15-24	0.63 (3.87)	1.71 (4.16)	**5.45 (2.49)***	0.44 (0.32)
25-34	**-10.32 (3.90)****	**-8.72 (4.21)***	-2.24 (2.48)	**-0.62 (0.33)**
35-50	-4.19 (3.55)	-2.56 (3.84)	0.91 (2.29)	-0.01(0.29)
50-65	-1.37 (3.46)	0.28 (3.73)	2.82 (2.23)	0.05 (0.27)
65+	-	-	-	-
Education:				
Primary	-	-	-	-
Secondary	2.33 (3.22)	1.75 (3.44)	2.88 (2.02)	0.25 (0.26)
Some College	0.24 (3.57)	-0.81 (3.82)	-0.03 (2.23)	-0.09 (0.30)
Completed Degree	1.59 (3.57)	1.4 (3.81)	**3.65 (2.23)**	0.33 (0.29)
Postgraduate	2.73 (4.99)	2.47 (5.33)	2.76 (3.13)	0.39 (0.43)
Region:				
Rest of Leinster	0.92 (2.35)	1.46 (2.51)	0.76 (1.45)	0.15 (0.21)
Munster	2.42 (2.48)	3.01 (2.65)	**2.77 (1.54)**	**0.42 (0.21)**
Connaught	2.28 (2.64)	2.93 (2.82)	**3.21 (1.63)***	0.29 (0.22)
Dublin	-	-	-	-
	R2 = 0.07 F = 2.67 Prob > F = 0.0002 N = 689	Chi-Sq = 51.29 df (19) P > Chi = 0.001 N = 689 Pseudo R2 = 0.008	Chi-Sq = 49.37 Df (19) P > Chi = 0.002 N = 597 Pseudo R2 = 0.009	Chi-Sq = 38.68 Df (19) P > Chi = 0.004 N = 827 Pseudo R2 = 0.03

Bold means significant at the .1 level, Bold and asterix means significant at the .05 level, Bold and two asterixes means significant at the .01 level.

Table 3.4: Results of Probit Regressions of Support for License Fee Change

	Coefficient	Standard Error	DF/dx
Constant	0.02	0.15	
Gender (1 if Male)	0.08	0.09	0.03
Kids (1 if Yes)	-0.14	0.11	-0.04
Income:			
0 – 20,000	-	-	-
20,001-40,000	**-0.23***	**0.12**	**-0.07**
40,001-60,000	**-0.43****	**0.15**	**-0.12**
60,001-80,000	-0.05	0.19	-0.02
80,000+	**-0.39***	**0.22**	**-0.11**
Age :			
15-24	**-0.8****	**0.19**	**-0.21**
25-34	**-0.79****	**0.2**	**-0.20**
35-50	**-0.39****	**0.17**	**-0.12**
50-65	**-0.36****	**0.16**	**-0.11**
65+	-	-	-
Log-Likelihood	-438.22		
Restricted Log-Likelihood			
Chi-Squared	50.79		
df	10		
Significance	0.000		
Pseudo-R-Squared	0.06		

[Ψ] Bold means significant at the .1 level, Bold and asterix means significant at the .05 level, Bold and two asterixes means significant at the .01 level.

CHAPTER IV

ELICITING HOUSEHOLD AND INDIVIDUAL WILLINGNESS TO PAY AND AGGREGATION

Summary

This chapter examines how individual respondents model the standard open-ended willingness to pay question: what is *your* maximum willingness to pay (WTP). Do they give total household WTP or do they give personal WTP? Several papers in the literature have used this format and decided ex-post to model the valuations as either household or individual valuations. In the context of valuing public broadcasting in Ireland, we asked respondents a follow-up question to determine whether the initial response was a personal or household bid. We examine the effects of this issue on aggregating the benefits derived from public broadcasting and analyzing the distributional effects of public broadcasting. We discuss our results in the context of the need for the development of psychological models of economic valuation that emphasize household factors as well as individual factors.[72]

[72] The ideas behind this chapter were largely formed in 2001/2002 and the empirical analysis was conducted in late 2002. Since then, a number of working papers have appeared on the topic which overlap with the themes discussed here, some of which are integrated posthoc in to this chapter.

4.1 Introduction

As reviewed in previous chapters, one of the most important issues in Welfare Economics is the estimation of the total value of products not traded in the market. This is particularly important for being able to assess the net benefits derived from government activity that must be financed by taxation. Furthermore, it is important from a public policy perspective to be able to estimate variations in valuations of public goods between different socio-demographic groups. This allows researchers to give estimates of the distributional effect of government provision of non-marketed goods. Reliable estimates of both the value and distributional effects of government provision of non-market products can then be linked to government and legal decision-making in real world contexts.

Stated Preference Methodologies have increasingly been used to estimate the value of non-market goods in a plethora of different fields and the literature on direct elicitation now spans many volumes. Contingent Valuation Methodology (CVM), in particular, has attracted a great deal of attention as a potential methodology for integrating non-market values in to legal and policy frameworks (e.g. Carson 2004). On a more theoretical level, CVM contributes to debates on what people value and the relative role of the state and the market in determining the distribution of resources. Finally, CVM has become an interdisciplinary arena in which psychological theory has been used to model the foundations of human choice and the special properties of human counterfactual reasoning and judgement in these domains (e.g. Pouta 2004, Fischoff 1991). However, despite the fact that, in the majority of the cultures in which CVM has been developed, the family/household is the main social and economic decision-making unit (e.g. Burgoyne 1995), the development of CVM has been almost exclusively conducted on an individualistic basis.

One issue, in particular, that has not received much attention in the literature is the question of household as opposed to individual willingness to pay (WTP). Several contingent valuation designs involve eliciting either household or individual WTP from an individual respondent and then aggregating over either households or individuals to estimate the social value of the non-marketed goods in the questions, and the distributional effects of government provision. However, there is very little discussion in the literatures on the differences between household and individual WTP, on the different modelling frameworks required for integrating intra-household factors in to valuation functions and, getting to the specific purpose of this paper, the practical consequences of these issues for actually *eliciting* valuations. This is particularly important, given that the function of eliciting willingness to pay measures in the public finance and welfare economics literature is not to forecast decisions as it is in the market research literature, but rather to assess valuations, which as we will see is a different exercise.

Recent papers by Quiggin (1998) and Strand (2003a, 2003b) have begun to address the question of eliciting household or individual WTP, and have specifically addressed the issue of eliciting valuations from an individual respondent. This chapter continues this work by identifying key new areas in the CVM literature that this new framework opens up and giving an empirical example that raises questions about several standard CVM studies. We discuss the implications of the results of our empirical example for the literature on valuation of cultural goods. The rest of the chapter is structured as follows. Section 4.2 reviews the existing literature in this area and applies the analysis to the literature on cultural goods. Section 4.3 analyses the results of a contingent valuation study of Irish public broadcasting that asked the standard open-ended elicitation question but followed up by asking respondents to state whether the bid represented personal or total household WTP. We examine the implications of our results for determining the aggregated benefits derived from public broadcasting in Ireland. We also derive regression models of the respondents'

decision to state whether the bid represented household or individual WTP examining the effects of gender, household size, age, the presence of children, marital status, type of accommodation and whether the respondent was the chief-income earner. We examine whether characteristics that determine the choice of whether to state household or personal WTP are endogenous determinants of valuations to the standard question. Section 4.4 offers concluding comments.

4.2 Household and Individual WTP and Cultural CVM

4.2.1. Background

Elicitation in CVM consists of discrete and open-ended questions that ask the respondent to state in the first case a response to a choice, and in the second case, a monetary amount that represents the respondent's WTP. The modeling foundation of CVM is the mathematico-statistical elucidation of models of individualised random choice. The individualistic basis of these models is inadequate to model the processes that lead to choices in CVM studies. The previous literature on household and individual WTP is sparse. Kerry Smith and Van Houtven (1998) discuss the implications of intra-household bargaining models on non-market valuation. Lampietti (1999) uses CVM to address the issues of unitary versus collective models of household choice. Quiggin (1998) is the only published paper to address the question of the differences between *eliciting* household valuations and individual valuations. Strand (2003a, 2003b) in two recent working papers has extended this work and concurs with Quiggin that this issue represents a crucial one for the CVM literature. This paper is more in line with Quiggin (1998) in examining the implications of these issues for practically eliciting willingness to pay. This paper will be, as far as we are aware, the first to begin the process of disentangling household and individual stated valuations empirically.

The literature on intra-household bargaining provides many guides as to how to approach this issue (e.g. Alderman et al 1995). This literature has consistently shown that household variables that effect the bargaining position of the agents in households have significant effects on the composition of household consumption and household labour supply decisions, which has been interpreted as evidence against unitary models of household behaviour. These studies point to the need for a more household orientated approach to welfare economics. Lampietti (1999) uses this literature to examine differences between husbands and wives in valuations of malarial prevention treatments in Northern Ethiopia. Lampietti finds that in modeling valuations of different types of malarial prevention treatments, husband and wives characteristics could be pooled and the family treated effectively like a unit maximising common utility, but that this was not the case for other types of treatment. Lampietti's paper suggests what types of variables would need to be incorporated in to updated models of valuation. However, the household bargaining literature does not offer a guide as to how to elicit WTP and the differences between the different methods, with very few papers focusing on the process of elicitation.

On the issue of eliciting WTP, Strand (2003) derives the value of marginal changes in a public good for two-person households, using either an individual household member's WTP on behalf of the household, or the sum of individual values across household members. Under non-restrictive assumptions, the former is shown to be on average a correct representation of the latter, which Strand gives as theoretical evidence for the validity of interviewing individual household members regarding total household WTP. Quiggin (1998) considers the elicitation of household and individual willingness to pay when members of the household are mutually altruistic. One key result of the paper is that, in the presence of altruism within the household, the sum of individual household members' WTP will be greater than household WTP. As well as this result, Quiggin also provides

the first discussion that we are aware of regarding the subtleties of eliciting household versus individual WTP. Following from this discussion, we briefly examine five methods of eliciting willingness to pay: (i) eliciting household WTP by getting household members to consult (ii) eliciting household WTP from an individual respondent (iii) eliciting an individual's household WTP, (iv) eliciting personal WTP and (v) eliciting WTP without specifying. A full portrait of the elicitation of values would look at the interaction between these formats and (i) the type of good; (ii) the type of market; (iii) the type of elicitation method (i.e. discrete or open-ended); and (iv) the interview method. This taxonomy is displayed in Table 4.1 (end of chapter).

(i) Eliciting Household WTP by Consultation: This involves interviewing household members jointly and asking them to consult to reach a joint decision on the household WTP. As Quiggin (1998) points out, this creates difficulties in that it is necessary to interview each household member at the same time, which may be extremely costly and greatly increase non-response. Also, the effects of spouse presence on individual reported preferences is unpredictable. Acquilinio (1993) examined the correlates of spouse presence during face-to-face interviews and the impact of spouse presence on responses to sensitive questions, finding significant effects including higher subjective assessments of the utility of marriage and higher estimates of spouse contribution to housework.[73]

Eliciting Household WTP by consultation also creates a new set of questions about what the responses represent that are not covered by traditional individualistic accounts of WTP measures. One question in particular is the extent to which gender will influence bargaining power and thus the response. Will males or

[73] Current work by Carol Newman (Trinity, Dublin) and Sara Cantillion (UCD) is finding similar results for reporting on deprivation in the Irish round of the European Community Household Panel Survey.

females exert more of an influence over the final decision? Furthermore, to what extent does the hypothetical nature of the scenarios influence the household consultation? A large literature exists explaining the effects of intra-household bargaining on intra-household allocations. Will the same factors that determine bargaining power in dynamic household contexts have an effect on static survey responses? This also leads us to ask whether we are interested in preferences below the level of the household. We may be specifically interested in how individuals in the household value the public goods we are studying. In this case we may need to go below the level of the household.

(ii) Eliciting Household WTP from an Individual: This is another common method of eliciting WTP. Household units are sampled and a representative member of the household is asked to give an estimate of the household's WTP. This is certainly less than perfect. Many respondents will not have co-ordinated sufficient information about the rest of their household to give an accurate estimate of household WTP for a public good. For example, Martin (1999) has even shown that a chief cause of bias in the US census is disagreement between household members on who actually lives in the residences being surveyed. Less extremely, several papers have discussed inferential biases involved in reporting on factual matters relating to other members of the household (e.g. Todorov 2002).

(iii) Eliciting Individual's Household WTP: This elicits the amount of money the individual would choose to take from the household income pool to pay for the benefits outlined in the scenario. This could take the form of a referendum where an individual is asked to vote on bringing in a household charge to pay for a specified policy. The advantage of this method is that it gives an index of valuation from individuals that allow us to assess valuations below the level of the household. Strand (2003a) demonstrates that this question, under non-restrictive assumptions, yields an unbiased estimate of willingness to pay over large samples.

(iv) Eliciting Individual WTP: This is the simplest format. Individuals are sampled from the population and asked how much they would be willing to pay or willing to accept to bring about/avoid the benefits/costs implied by a hypothetical scenario, using elicitation formats that try to elicit discrete or continuous indicators of underlying WTP. As mentioned above, the chief difficulty Quiggin outlines about this method is that it is difficult for the respondent to hold the utility of the other household members constant. Another concern is that it may be difficult for the respondent to think in terms of making a personal consumption decision from the respondents' own personal income. Households may not rigidly define property rights over income, and many household purchases are joint decisions financed by pooled income. Thus, our hypothesis is that the chief difficulty with eliciting individual WTP, particularly in private goods formats, is that the respondent may be unclear as to the appropriate budget constraint and "spend" from the household pool rather than their own allocation. This will lead to an overstatement of aggregated WTP, potentially quite a large one.[74]

(v) Eliciting WTP Without Specifying: One method that is often used in the literature is to ask an individual respondent his/her WTP without specifying whether this would be household or individual WTP. Insufficient attention to intra-household factors in the CVM literature has meant that several CVM studies have been carried out that follow this format, assuming that the response represents either household WTP or individual WTP. The consequences are quite clear. Without knowledge of whether the responses represent household or individual WTP, the implication is that all we can assume is that the responses lie somewhere between the two. A typical example in the CVM literature comes from a study of the benefits of reducing gun violence conducted by Ludwig and Cook (1999).

[74] We test for this more explicitly in Chapter 7.

Their final conclusion is that a 30% reduction in gun violence would be worth $23.8 billion dollars to the U.S. public. This is based on the responses to a question: *"Suppose that you were asked to vote for or against a new program in your state to reduce gun thefts and illegal gun dealers. This program would make it more difficult for criminals and delinquents to obtain guns. It would reduce gun injuries by about 30%, but taxes would have to be increased to pay for it. If it cost you an extra {$50/$100/$200} in annual taxes would you vote for or against the program"*. The authors make the assumption that respondents were reporting on household rather than individual WTP and state that this is conservative given that many respondents would have given personal rather than household.[75] This seems to us to be too much indeterminacy to allow in calculating societal benefits from a program. Further examples abound in the literature. We analyse this empirically in the next section and demonstrate quantitatively the importance of the issue.

4.2.2. Cultural CVM Studies

Contingent Valuation Methodology (CVM) has become a major tool in Cultural Economics as witnessed, for example, by the devotion of two recent issues of the *Journal of Cultural Economics* to the topic. Cultural goods share properties with the classes of environmental goods originally studied in CVM formats in that price-setting in cultural markets is often conducted on a non-standard basis, the benefits of cultural goods are in many cases public goods, and also much of cultural activity, particularly in Europe, is at least partly financed by the state. Noonan's (2003) meta-analysis of the literature isolates a number of common variables influencing WTP for cultural goods. The question we ask here is to what extent the valuation will be affected by whether respondents view their valuation as a household or individual choice.

[75] The results of our study outlined in the next section would seem to indicate that the assuming that the bid represented household WTP was certainly the preferred option.

As regards the issue of eliciting household or individual WTP for cultural goods, there are of course no prescriptive guidelines. Many cultural products will generate benefits that are non-excludable between households and within the household, which will make direct elicitation of personal WTP difficult. Furthermore, many cultural public goods will have significant age and gender dimensions to valuations, which will also need to be reflected in the method used to elicit the valuation. Some formats focus on eliciting maximum WTP through hypothetical voluntary donations (e.g. Santagata and Signorello 2000). In one of the most-cited examples in the literature, Hansen (1998) asked a random sample of the Danish population: "*All Danes over the age of 18 pay on average about DKK 60 a year to the Royal Theatre through taxes. How much are you willing to pay at the most to the Royal Theatre through taxes?*". This is then modelled as individual WTP in the subsequent analysis. No paper discusses the issue of whether to aggregate over households or individuals in coming to a total valuation of the cultural good.

4.2.3. Irish Public Broadcasting

We tested the properties of the standard question in the context of Irish Public Broadcasting.[76] Irish Public Broadcasting derives over half of its funding from a television license fee that is mandatory for all households and other institutions that receive television broadcasting signals. Uptake of the license fee is not an accurate measure of revealed preference due to the fact that one must pay the fee in order to receive any television broadcasting signals and not just the public broadcaster's output. It is important to estimate the population's WTP for public broadcasting for two reasons. Firstly, we want to know whether or not the average household/individual benefits derived from RTÉ services justify the cost of

[76] Radio Televis Éireann (RTÉ) is the Irish public service broadcasting organisation and it has provided a radio service since 1926 and a television service since 1961. RTÉ broadcasts three television services, RTÉ One, Network 2 and TG4 (an Irish language service), as well as four radio services, Radio 1, 2FM, Lyric FM and Raidió na Gaeltachta. RTÉ is also responsible for advertising, performing groups (e.g. National Symphony Orchestra), publishing (e.g. RTÉ Guide), transmission and a range of other services (e.g. Aertel).

provision of the services. Secondly we want to know the distributional implications of the financing of public broadcasting.[77] Both of these questions can be meaningfully addressed by eliciting WTP for the services.

In terms of eliciting household or individual WTP for public broadcasting, we firstly note that the main private benefits deriving from public broadcasting services are non-excludable within the household. Furthermore, one might expect a degree of altruistic preferences as in the Quiggin (1998) model with an individual family member's WTP being reflective of his/her wish for other household members to have access to the goods. This could potentially lead to aggregations based on estimations of individuals' WTP being overstatements of the total WTP, in the manner outlined in Quiggin. Papendrea (1999) takes a household approach in his valuation of the benefits of domestic content regulation of the Australian broadcasting market. His first valuation question elicits the individual's household WTP by asking: "*Considering the benefits your household and the community get from Australian programs, do you think this amount should be increased, decreased or remain the same*". He follows this up by eliciting the individual's perception of the household's WTP: "*What is the most your household would be prepared to pay in increased prices each year to retain the current amount of Australian programs on TV?*" He then models this as a household valuation. Ehrenberg and Mills (1990) take a household approach and Schwer and Daneshvary (1995) elicit WTP by asking household valuations where applicable. Given the fact that broadcasting services are generally non-excludable within the household, it is perhaps unsurprising that previous researchers have gone down the track of eliciting household WTP. Here we analyse household WTP also but examine the extent to which respondents, if unprompted, will give either their personal or household WTP.

[77] O'Hagan and Jennings (2003) include a discussion of the distributional implications of the financing of public broadcasting.

As mentioned above, one common method of eliciting WTP is to ask respondents in an open-ended format a question of the type; "What is your maximum WTP" for a specified improvement in a public good. It is then assumed that the answer represents either household or individual WTP. The question we address in the empirical section is what an answer to this question represents. Do respondents answer this question on behalf of their household or do they give their personal WTPs? A priori, one would suspect that some respondents will give household and some will give individual which itself introduces significant inaccuracy into the modeling and subsequent aggregation process. Secondly, to what extent can we predict which respondents give their personal WTP and which respondents give their household WTP from respondents' characteristics? If it were the case that certain characteristics predicted whether a respondent would give personal or household WTP, it would point to endogeneity, as well as the afore-mentioned bias, in WTP functions that utilise the popular form of the single open-ended question used above.

4.3 Survey and Results

4.3.1. Survey

Our WTP item took the form of a three-step question. We first asked each respondent to state his/her maximum WTP. Secondly, we asked whether this represented personal WTP or household WTP. Thirdly, those respondents who stated that this represented personal WTP were then asked to estimate their total household WTP The full text of the question is as follows:[78]

> *Q.13 "Thinking of a situation where there was no license fee and you had a choice of either paying to receive RTE services or not paying and not receiving RTE services. Bearing in mind that any money that you would pay would be money that could have been spent on other goods and services, what would be the maximum amount of money you would be prepared to pay each month in order to receive RTÉ's services? (Do not prompt)"*
>
> *Q 14. (Only asked if household contains more than one person). "Is this the most you personally would be willing to pay or the most your entire household would be willing to pay?"*
>
> *Q15. In light of your answer to Q14, what do you think is the maximum amount of money your household would be willing to pay each month to receive the services"*

[78] Here we focus on the issue of household versus individual WTP. A full account of the results of our study is available from the authors.

The results are based on one thousand telephone interviews carried out for us by Lansdowne Market Research in November and December 2002.[79] A number of caveats must be expressed about the results. Firstly, the sampling methodology was based on random digit dialling of landline telephones and, as such, ruled out households with no landline telephone. Secondly, we do not have detailed figures of the characteristics of non-respondents. Thus, the survey results must be interpreted as being based on a sample of 1,000 respondents that (a) possessed land-line telephone numbers and (b) were available to be contacted and (c) agreed to participate in the survey.

4.3.2. Results

The mean monthly WTP for Irish public broadcasting from the initial question was €18.02. Of the 669 relevant respondents, 241 respondents claimed that this represented personal WTP and 428 respondents claimed that it represented total household WTP. The mean WTP elicited from the follow up question was €28.63. Substituting the follow-up answer (where appropriate) for the initial answer effectively yields a measure of household WTP. The mean household WTP from this process was €21.05. There are thus several ways of aggregating WTP that yield very different estimates of the benefits provided by public broadcasting in Ireland. For example, if we assume that the first figure (€18.02) represents household WTP and aggregate over the total number of Irish households this yields a figure of approximately €278 million annually.[80] If we assume that the first figure represents personal WTP and aggregate over the total number of

[79] The NOAA Panel on CVM chaired by Kenneth Arrow and Robert Solow encouraged the use of face-to-face interviewing where possible to facilitate the use of visual aids. Given the expense of this form of interviewing this was not possible. Furthermore, it is certainly not a given that face-to-face interview methods are better. Using mail, telephone or face-to-face interviewing involves various trade-offs. The telephone approach bars the use of visual aids. However, it reduces interviewer effects.

[80] According to Census 2002 (Central Statistics Office Ireland, www.cso.ie) there were 1,287,958 private households in Ireland at the time of the survey, with 3,791,316 individuals, an average of 2.9 per household. There were 3,089,775 individuals aged over 15, the population of our study.

individuals (aged 15+), this yields a figure of €670 million annually. Aggregating over households for the third figure yields a figure of approximately €355 million annually. Table 4.2 displays interval estimates for mean WTP, demonstrating that the figure derived from the combined question is significantly different from the figure derived from the initial question, at very close to the .05 level of significance.

Table 4.2: 95% Confidence Intervals for Mean Willingness to Pay

Variable	Observations	Mean	Std. Error.	[95% Conf. Interval]	
First Question	807	18.01859	0.712974	16.61908	19.41809
Household	215	28.63256	2.129904	24.43428	32.83084
Combined	807	21.05328	0.861561	19.36212	22.74445

As can be seen in Table 4.3 some results emerge clearly from probit estimates of the effect of respondent characteristics on the likelihood of stating that the initial WTP represents a household valuation. Firstly, males are more likely to state that the amount represents their individual bid. This effect occurs regardless of whether the man is the chief income earner or not. Furthermore, respondents with children are less likely to state that their bid represents their personal WTP. Also respondents who are married or living as married are significantly less likely to state that their bids represents personal WTP. Household size itself does not have an effect controlling for the effects of marriage and children. We also tested whether people living in house-sharing arrangements would be less likely to state that their response represented total household WTP using whether the respondent was a student as an instrument. The insignificant parameter on the student variable offers no support for this hypothesis. In terms of modelling the distributional effects of public broadcasting, although there are patterns in terms of who are more likely to claim that their bids represent household and personal WTP this does not translate in to marked differences in the coefficients on the different

variables in the initial valuation function based on the first question and the final valuation function, based on the constructed WTP.

Table 4.4 displays four valuation functions. Valuation functions (1) and (2) are censored tobit regressions based on the full-sample, estimating the determinants of WTP as measured by the initial question (1) and estimating the determinants of WTP as measured by incorporating the follow-up question (2). As can be seen, with the exception of the income variables, there is no other marked change in the valuation function estimates in terms of statistical significance for the other main variables. This is borne out by comparing (3) and (4) which examine the determinants of giving a response above or below the median in both conditions; this latter method is much less sensitive to outliers. Again, there is little difference in the valuation functions. We do observe individual education level being more significant for the initial question than for the combined measure.

We also broke down the initial WTP bid by whether the respondent subsequently said that his/her bid represented household or individual WTP. The mean initial bid was not different across conditions. For the household condition the mean initial bid was €18.24, whereas for the individual condition the mean initial bid was €18.07. Significantly, including whether the respondent subsequently stated that his/her bid was a household bid as a dummy in a censored tobit regression on the original WTP bid does not yield a significant coefficient. This variable is positive and highly significant in explaining the household WTP constructed above. Thus, it would seem that a reminder to respondents to think about household or personal WTP could have a significant effect on their response in open-ended formats. It is of interest and not explainable by the data why it is that there is no difference in the mean response to the initial question between those who claimed ex post that it represented their personal bid, and those that claimed that it represented their household bid.

Table 4.3 Results of Probit Regressions on Whether Respondent Indicated that their initial bid was Household or Individual WTP (1 = Individual)

	(1)	(2)	(3)
Constant	0.0095 (0.25)	-0.115 (0.18)	-0.144 (0.18)
Gender (1 = Male)	0.197* (0.12)	0.241** (0.13)	0.232** (0.11)
Kids (1 = Yes)	-0.217* (0.12)	-0.265** (0.12)	-0.248** (0.12)
Household Size	-0.0015 (0.004)	-0.0002 (0.004)	-0.0024 (0.12)
Chief Income Earner (1 if Yes)	-0.0085 (0.130	-0.126 (0.12)	-0.103 (0.004)
Student (1 if Yes)	-	-	0.258 (0.2)
Married (1 = Yes)	-0.12 (0.14)	-0.215** (0.11)	-0.178* (0.11)
Age:			
15-24	-0.162 (0.26)	-	-
25-34	-0.292 (0.23)	-	-
35-49	-0.403* (0.21)	-	-
50 – 64	-0.427* (0.21)	-	-
65+	-	-	-
Log-Likelihood	-434.92	-437.82	-436.993
Restricted Log-Likelihood	-449.92	-449.840	-449.840
Chi-Squared	29.83	24.03	25.695
Df	9	5	6
Significance	0.00046***	0.00021***	0.00025***

* Means significant at the .10 level** means significant at the .05 level. *** means significant at the .01 level. Source: Lansdowne/TCD Survey of Preferences for Irish Public Broadcasting. December 2002.

Table 4.4 Regression Models of Demographic Determinants of Willingness to Pay for RTE Services (First Response and Combined Measure Compared)

	(1) TOBIT (first question)	(2) TOBIT (combined question)	(3) LOGIT (combined question)	(4) LOGIT (first question)
Constant	21.25 (4.96)***	21.08*** (4.46)	-1.33 (0.38)***	0.49 (0.47)
Household Size	2.19 (0.77)***	1.24* (0.69)	0.15 (0.06)**	0.18** (0.08)
Income (€)				
0-20,000	-	-	-	-
20,001-40,000	-2.48 (2.49)	-4.09* (2.24)	0.06 (0.19)	-0.2 (0.24)
40,001-60,000	-1.9 (2.96)	-2.39 (2.66)	0.09(0.24)	-0.04 (0.3)
60,001-80,000	-1.62 (3.84)	-2.77 (3.45)	-0.05(0.31)	-0.64* (0.36)
80,001+	7.06 (4.22)*	-0.41 (3.8)	0.14 (0.33)	-0.31 (0.42)
Cable/Satellite	-8.55 (2.58)***	-6.02*** (2.32)	0.11 (0.19)	-0.19 (0.27)
Gender (1 if Male)	-1.41 (1.88)	-0.17 (1.69)	-0.08 (0.15)	-0.08 (0.18)
Kids (1 if Yes)	-3.5(2.43)	-059 (2.19)	-0.29 (0.19)	-0.03 (0.24)
Age:				
15-24	1.71 (4.16)	-0.92 (3.74)	0.44 (0.32)	-0.00 (0.99)
25-34	-8.72 (4.21)**	-7.05* (3.78)	-0.62 (0.33)*	-0.75** (0.38)
35-50	-2.56 (3.84)	-2.55 (3.45)	-0.01(0.29)	0.05 (0.36)
50-65	0.28 (3.73)	0.5 (3.35)	0.05 (0.27)	0.13 (0.35)
65+	-	-	-	-
Education:				
Primary	-	-	-	-
Secondary	1.75 (3.44)	0.13 (3.09)	0.25 (0.26)	0.26 (0.32)
Some College	-0.81 (3.82)	0.26 (3.44)	-0.09 (0.30)	-0.07 (0.35)
Completed Degree	1.4 (3.81)	0.23 (3.47)	0.33 (0.29)	0.82** (0.38)
Postgraduate	2.47 (5.33)	-0.91 (4.18)	0.39 (0.43)	0.54 (0.51)
Region:				
Rest of Leinster	1.46 (2.51)	-0.12 (2.26)	0.15 (0.21)	0.06 (0.23)
Munster	3.01 (2.65)	2.48 (2.38)	0.42 (0.21)*	0.29 (0.26)
Connaught	2.93 (2.82)	1.63 (2.54)	0.29 (0.22)	0.19 (0.27)
Dublin	-	-	-	-
	Chi-Sq = 51.29 df (19) P > Chi = 0.001*** N = 689 Pseudo R2 = 0.008	Chi-Sq = 30.59 df (19) P > Chi = 0.04** N = 689 Pseudo R2 = 0.005	Chi-Sq = 38.68 df (19) P > Chi = 0.004*** N = 689 Pseudo R2 = 0.03	Chi-Sq = 37.15 df (19) P > Chi = 0.004*** N = 689 Pseudo R2 = 0.008

* Means significant at the .10 level** means significant at the .05 level. *** means significant at the .01 level. Source: Lansdowne/TCD Survey of Preferences for Irish Public Broadcasting. December 2002.

4.4 Discussion

4.4.1. Conclusions

Several CVM studies have employed a basic question format in either continuous or discrete units asking individual respondents "your" WTP, without adequately emphasising whether this represented household or individual WTP. In many cases, depending on the individual study, the subsequent welfare analysis is conducted assuming one or the other. In our study, the majority of respondents modeled the question as referring to the household, and it is clear that welfare analysis conducted at the individual level on that question would have provided a grossly over-stated valuation of public broadcasting in Ireland. One explanation for this could be intra-household altruism whereby individuals factor in the entire household's preferences when deciding their own WTP. Another, perhaps more plausible, explanation could be that many individuals do not actually process their own WTP as being distinct from household WTP. Either way, the conservative option of treating responses to the standard question as being a household response is a better option for modelling the responses to the initial question, had no other information been available.

However, modeling at the household level solely would also have given an under-stated valuation. Furthermore, patterns emerged as to which groups were more likely to give household as opposed to individual valuation, which has clear implications for the construction of demand functions. Another issue is that it is clear from our pilot testing and from the results that many individuals do not possess clear distinctions as to what is meant by household WTP and individual WTP. It is quite possible, although we cannot state this definitively from this paper, that even question formats that do spell out whether the question is eliciting household or individual WTP may be subject to the same biases we outline here.

Our results raise a number of questions. To what extent does the respondents modeling of their own agency affect responses to CV questions? What practical and theoretical developments are needed to provide a household model of CV response? We believe that CVM has become a standard part of "normal science" within cultural economics. There are a number of different streams that need to be integrated in the development of the discipline. In many ways, the contingent valuation of culture has entered the second stage of scientific development whereby a period of normalisation is followed by expansion and diversification. One area we think that needs to be developed is a coherent theoretical and practical architecture for dealing with household as opposed to individual response. This chapter has raised this issue, demonstrating its empirical importance and outlining the areas that need to be targeted. Given the tremendous efforts in firstly, increasing the efficiency of statistical models of CV response and secondly mapping the individual psychological processes underlying response, it would seem that an issue with potentially so much scope for creating ambiguity in the interpretation of WTP measures would receive more attention.

4.4.2. Future Research: Eliciting Household and Individual WTP

This chapter, empirically speaking, has only addressed one of the issues in eliciting household as opposed to individual WTP. The future work to be done on this project will involve working all the way through the different permutations of valuation types possible in a contingent valuation framework. One concept that could be usefully integrated in to the literature is, what we will call here, *Respondent's Self-perceived Agency (RSA).* The theoretical basis of the hypothetical question posed to the respondent may be directed specifically at eliciting household or individual valuations and the question phrased to the respondent in one way or another. However, it is far from clear that respondents will necessarily model their own agency in the manner dictated by the interview. One format that we are experimenting with at the moment involves asking

respondents their household's WTP and then subsequently asking them whether this referred to their own personal WTP or their total household WTP. Alternatively, one can ask respondents' their personal WTP and then ask them their household WTP. Finally, we will also test the issue of RSA for the standard question, as discussed in Strand (2003a) whereby a member of the household is asked "*How much are you willing to pay, on behalf of your household, for an increase in the quantity of a public good?*". The implications of the respondents modelling of their own agency on aggregation in CVM formats will be examined.

Table 4.1: A Typology of Contingent Valuation Designs

Public Good: The Good or Vector of Goods to be Valued. Typically, CV studies have focused on environmental public goods, but the literature has expanded in recent years to several other fields including health economics, cultural economics etc.

Private Market: The hypothetical scenario involves some form of market provision.								Public Market: The hypothetical scenario involves some form of public provision.							
Increase: Either an increase in the quantity of public goods or an increase in the quality.				Decrease: Either a decrease in the quantity of public goods or a decrease in the quality.				Increase: Either an increase in the quantity of public goods or an increase in the quality.				Decrease: Either a decrease in the quantity of public goods or a decrease in the quality.			
WTP to make the change		WTA to avoid the change		WTP to avoid the change		WTA to accept the change		WTP to make the change		WTA to avoid the change		WTP to avoid the change		WTA to accept the change	
DC	OE	DC	OE	DC	OE	DC	OE	DC	OE	DC	OE	DC	OE	DC	OE
Iterated	One-Shot	Iterated	One-Shot	Iterated	One-Shot	Iterated	One-Shot	Iterated	One-Shot	Iterated	One-Shot	Iterated	One-Shot	Iterated	One-Shot
H I	H I	H I	H I	H I	H I	H I	H I	H I	H I	H I	H I	H I	H I	H I	H I
House	Individual	House	Individual	House	Individual	House	Individual	House	Individual	House	Individual	House	Individual	House	Individual

The above taxonomy demonstrates the wide variety of different formats that could be potentially applied in CVM studies. The bottom row refers to the measure we are trying to elicit, separate individual WTP or household WTP. The second last row refers to the interview unit, individual interviews or household interviews

Table 4A.1: Binomial Probit Model of Whether Respondent Replied Indicated that their initial bid represented Household or Personal WTP (1 = Individual). Marginal Effects Displayed.

	Df/dx	Robust Standard Error	Z	P>Z	X-Bar	95% Confidence Interval	
Gender (1 =Male)	0.07	0.04	1.67	0.10	0.49	-0.01	0.16
Kids (1 = Yes)	-0.08	0.05	-1.58	0.11	0.59	-0.17	0.02
Household Size	-0.01	0.02	-0.40	0.69	3.96	-0.04	0.03
Chief Income Earner (1 if Yes)	-0.03	0.05	-0.61	0.54	0.39	-0.12	0.06
Student (1 if Yes)	0.08	0.08	0.97	0.33	0.07	-0.08	0.24
Married (1 if Yes)	-0.04	0.05	-0.87	0.39	0.64	-0.14	0.05
Age:							
15-24	-0.08	0.10	-0.77	0.44	0.24	-0.26	0.11
25-34	-0.10	0.08	-1.24	0.22	0.15	-0.25	0.05
35-49	-0.14	0.07	-1.85	0.06	0.34	-0.29	0.00
50-64	-0.15	0.07	-1.96	0.05	0.20	-0.28	-0.01
65+	-	-	-	-	-	-	-
Number of Observations	689						
Chi-Squared	30.35						
Df	10						
Significance	.000						
Pseudo R-Squared	0.03						

CHAPTER V

PREFERENCES FOR STATE TRANSFERS IN IRELAND WITH EUROPEAN COMPARISONS

Summary

The Irish income maintenance system consists of a series of schemes that transfer approximately €11 billion per annum and is financed from the central exchequer and a social insurance fund. This chapter examines the results of a nationwide survey of preferences for specific welfare schemes in Ireland, as well as looking at general attitudes to distribution and redistribution. We firstly examine the demographic determinants of preferences for benefit schemes using various estimation techniques. In addition we analyse the correlations between preferences for specific benefit schemes, general attitudes to redistribution and personal values, as measured by the Schwartz Personal Values Inventory. We thirdly examine public preferences by analyzing the results of asking a group of experts to predict the distribution of public support for the array of existing income maintenance schemes. Finally the results of our Irish nationwide survey are compared with the first round of the European Social Survey through exploratory cross-country regressions on the determinants of support for government intervention to reduce inequality across Europe.

5.1 Introduction

Most governments redistribute income through both direct and indirect means. As Alesina and Le Ferrara (2001) point out, amongst the three traditional roles of government, provision of public goods, stabilisation and redistribution, the latter is increasingly important in today's industrial countries. While redistributions are generally thought to equalize differences between different points on the income distribution, government policies also alter the balance between regions, genders, age groups and several other types of important demographic markers. The history of provision of income maintenance in Ireland has been traced in a number of different works which begin with the codified system of family relations exemplified in the Brehon Laws, then examine the colonial activities of the British government and finally examine Ireland's welfare experience pre and post WWII (e.g. Curry 2003).[81] The current system consists of a number of schemes administered by the Department of Social and Family Affairs, which amount to approximately eleven billion euro annually at the time of writing.[82] The system consists of three main types of transfers, social insurance schemes funded by employer and employee contributions, social assistance schemes which are means-tested and universal schemes which depend on claimant characteristics (e.g. having children) but are not means-tested.

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[81] Coughlan (1966) reviewing the development of social service provision provides s a quote that is illustrative: "*Most people are aware of the ad hoc and fragmentary way in which the social services came into being; they were largely a piecemeal growth, introduced at different times to cover different categories of need and in response to different pressures, the result of a wide variety of motives – humanitarianism, social idealism, political expediency, the desire to damp down social discontent, the response to the spread of democracy and universal suffrage, the need to provide an environment conducive to industrial development. Seldom were they the expression of a coherent philosophical outlook*". (cited in Curry 2003).

[82] See the Department of Social and Family Affairs Website http://www.welfare.ie/ for more details of the schemes. The Department of Finance Website also contains regularly updated information about the specific costs of welfare schemes: http://www.finance.gov.ie/

The main source of information on public preferences for social welfare spending and taxation come from large general international surveys that do not ask questions about specific schemes (e.g. World Values Survey, European Social Survey), and do not employ split-sampling procedures, as well as opinion polls commissioned by news organizations and political parties that provide an overall indicator of national mood but do not examine trade-offs between different programmes. This will be one of the first attempts to address the Irish populations' economic preferences for the array of transfers provided by the government. We examine the Irish populations preferences for overall government spending, for social welfare spending in general and for different income maintenance schemes. Several papers have shown that social welfare spending is not a key area in determining individual vote choice (e.g. Gallagher, Marsh and Mitchell 2002) and that in general the public is not well informed on issues surrounding government expenditure and taxation (e.g. Gemmel, Morrisey and Pinar 2003).[83] Therefore, it cannot be assumed that the amount of provision arising from the political market is necessarily optimal with regard to public preferences.

A number of issues arise about the meaningfulness of such an exercise from an economic perspective. The first issue is the extent to which people have preferences for social welfare policy.[84] Much analysis in modern political science and economics eschews the direct analysis of public opinion as a rational input to policy decisions or even as a determinant of policy decisions (e.g. Diamond and Hausman 1994, Boudreaux, Meiners and Zywicki 2004). Several papers have instead analysed the role of the media and political elites in agenda setting and subsequent policy formation. Given that the majority of the population are not well

[83] When asked what was the key issue determining their vote choice in the 2002 Irish general election, 39% cited health, 33% cited crime and 22% cited managing the economy. 6% cited pensions as an issue and less than half a percent cited poverty as an issue (Gallagher, Marsh and Mitchell 2002).

[84] For a discipline that has so rigidly maintained the assumption of rationality, the reactions of many neo-classical economists to the incorporation of self-reports is surprising.

informed directly about policy issues and must therefore rely on the media and political elites for guides as to their preferences, this literature suggests that an analysis of these elites would be a more informative guide as to how public preferences and policy making interact.

Another key issue is the path-dependency of preferences with relation to broader social change. A large literature on endowment effects has shown how people value gains less than they disvalue equivalent losses (e.g. Kahneman, Knetsch and Thaler 1991, Tversky and Kahneman 1991). A concomitant of this is that preferences in many domains are dependent on the status quo, with changes of reference point often leading to reversals in choice behaviour (e.g. Dolan and Robinson 2002). All this implies that preferences for marginal changes at the current level of provision will be heavily dependent on the previous historical path of welfare spending in a country. Furthermore, it cannot be inferred from a static survey the extent to which the structure of preferences would change following an exogenous change in the path of welfare spending. It may be the case that policy prescriptions based on surveys of preferences could simply be supporting the old regime, and limiting the scope for social change.[85] This then must limit the scope to which we make policy prescriptions based on preferences data.

One final issue that must be addressed is the distinction between demand for transfers and *effective* demand for transfers. Effective demand is demand that translates in to actual political redistribution and needs to be analysed in a different way than the actual demand that we elicit here. An analysis of effective demand would require a more detailed analysis of the institutional structures in which the

[85] Thanks to Constantine Gurdgiev for clarifying my thinking on these issues through much debate. It should be noted however that this point refers as much to respondents' choice of private goods as well as public goods.

main players in the social transfer determination games decide welfare policy.[86] An analysis of the time-series behaviour of the Irish social welfare budget would facilitate this type of analysis.[87] The account we offer here acts as a comparison to such an analysis. In particular, many of the variables that we look at here in a cross-sectional setting will begin to become available in panel format as international repeated attitudinal and value surveys begin to accumulate over time.

The main aim of this chapter is to describe preferences for an array of transfers holding the societal order constant. This has the limitations described above but does, however, allow us to begin to derive models of preferences that are more realistic than those described in standard microeconomics accounts of choice, as well as exploring further the preferences that are being examined in the current economic accounts of survey preferences currently beginning to proliferate in economics (e.g. Scheve and Slaughter 2003, O'Rourke and Sinnott 2004, Fong 2001, Corneo and Gruner 2002). While this account builds on models from a number of different disciplines, the aim of this particular study is to construct a platform that could meaningfully interact with the economics and public policy literatures. There are also a number of advantages to examining single-country case studies. For example, there is less scope for cross-cultural differences in question interpretation, which may arise in large-scale international surveys.[88]

We examine a number of key issues in the course of this chapter. Firstly, what are the determinants of preferences for different types of social welfare spending?

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[86] Kwon and Pontusson (2003), for example, analyse the effects of government partisanship on social expenditure in the OECD from 1962-1998 demonstrating that government partisanship has become an increasingly important determinant of welfare budgets.

[87] Aidan Kane of University College Galway has gathered a very detailed database of Irish Government Expenditure that could be used for this purpose. Philip Lane and Colin Hunt of Trinity College Dublin are also preparing work on decomposing Irish government expenditure.

[88] See for example Table 5.17 and Table 5.18. Both statements could refer to very different things depending on the culture one in which one is asking the question. This is also possible in a national context but not likely to be as pronounced.

Secondly, to what extent are these preferences predictable by experts in the field? For the allocation of expenditure between different categories to be optimal with regard to preferences, it requires those preferences not only to be relatively common, but also to be understood to be common by experts in the field. Thirdly, we look at correlations between general preferences for redistribution and preferences for specific policies of redistribution. This issue is important as the current literature on the economic determinants of attitudes is taking place at a very general level and a large body of literature suggests that general attitudes and specific preferences are only weakly linked (e.g. Green and Tunstall 1999). Fourthly, we examine the role of personal values in determining preferences for specific policies of redistribution, working within the value paradigm of Schwartz and colleagues (e.g. Schwartz and Bilsky 1987, Schwartz and Bilsky 1990, Roccas et al 2002).

Finally, we set the discussion in the context of wider European preferences for spending to reduce inequality and provide an initial account of the determinants of national preferences for redistribution and country-specific determinants of individual preferences for redistribution. This analysis is tentative and correlative in nature. The aim of analysing this data is to place our case study in a wider European context and to prepare material for future international studies. Furthermore, the first round of the European Social Survey implemented the Schwartz Personal Values Inventory and therefore we can provide the first analysis of the linkages between human values and preferences for redistribution on a European level.

The rest of this chapter is structured as follows. Section 5.2 looks at the existing literature across disciplines on preferences for redistribution in society as well as looking specifically at the existing information on preferences in Ireland. The purpose of this section is to describe in detail the literature across disciplines

analyzing determinants of support for transfer spending. Section 5.3 specifically addresses the research questions that we empirically analyse in this chapter and describes the design and administration of the survey instrument. Section 5.4 describes the results of the surveys and an analysis of international cross-sectional survey evidence. Section 5.5 concludes with a discussion of the results and suggestions for future research.

5.2 Literature Review

Hoschild (1981) is a classic reference on public support for welfare spending. Her work emphasizes that respondents to questions on tax and social welfare are reporting on, in many cases, internally conflicting views. Quantitative approaches to public preferences for welfare policy have sought to determine statistical correlates of public preferences for social welfare policy, in order to test micro-theory and to make predictions as to the future course of macroeconomic development. The proliferation of international survey data sets has coincided with a surge in interest in the topic. The literature, across disciplines, yields several themes. The first main set of studies describes demographic determinants of preferences for different transfer policies. Overlapping and extending these studies are sociological and psychological theories and survey and interview evidence examining the role of group identity in generating demographic differences in preferences for societal formation. Looking further in to motivational factors in determining preferences for transfers are economic and evolutionary theories that emphasize (i) individual gain (ii) familial gain and (iii) non-kin altruism. An emerging literature that examines the equilibrating role of beliefs and preferences has been employed to examine the self-fulfilling nature of psychological phenomenon such as "belief in a just world" (Lerner 1980, Benabou and Tirole 2002), and beliefs in the fairness of society (e.g. Alesina and Angelotos 2002). Finally, the economics of globalization has been employed to explain how

differing exposures to the risks and rewards of increasing labour and capital mobility can explain inter-country and inter-temporal differences in preferences for transfers (e.g. Scheve and Slaughter 2003). Each of these theories is described in turn below.

5.2.1. Demographic Factors

In this chapter, we analyse preferences for a wide array of redistributions designed to address both horizontal and vertical concerns. Demographic determinants of preferences will vary according to the degree to which benefits of a scheme generate both benefits for the individual and for their household. A number of papers have explored the individual demographic determinants of preferences of preferences for different forms of government spending and specifically for government transfer policies. Gender, Income, Age, Region, Religious Beliefs and other variables have been shown, across studies, to significantly influence respondents' preferences for an array of transfer policies (e.g. Suhrcke 2001, Peillion 2001).[89] Demographic factors can affect demand both on an individual and at national level. For example, just as age is expected to affect a person's preferences for the level of state pension, it may also be the case that a country's age structure will determine countrywide preferences. However, it is certainly not the case that one can extrapolate from individual demographics to the population. For example, while older people may be more supportive of higher rates of state pensions, it does not follow that the average level of support for state pensions in any given country will rise with the proportion of the population in or near retirement. For example, it may be the case that as the population of a country ages, polarisation occurs between younger and older age groups reducing the level of overall support for benefits for older people.

[89] Peillion (2001) gives a good overview of research in to the demographic determinants of preferences for the welfare state in Ireland and Europe.

5.2.2. Social Identity Theory and Social Dominance Theory

Social Identity Theory (e.g. Tajfel and Turner 1986) assumes that attitudes are shaped by individuals' membership in social groups and the structural context in which those groups are situated. Those in advantaged groups may be motivated to maintain positive narratives about their group including myths surrounding the role of innate ability or effort in determining success. As outlined by, for example Schmitt et al (2003), Social dominance theory "builds on the perspective that cultures of inequality tend to reproduce and reinforce the inequality that exists within them by proposing a psychological mechanism through which inequality is maintained". Social dominance theorists have examined how attitudes are used as a tool to reproduce existing patterns of inequality by those who gain most advantage from the systems. In related frameworks, Andreß and Heien (1999) explain individual attitudes to redistribution using the concept of socialization within a "dominant social welfare state ideology".[90] Those socialized under strong welfare states will be more likely to reproduce the attitudes that preserve these orders than those socialized in states with smaller welfare shares.[91]

5.2.3. Individual Gain

Net gainers from policies of social transfer should, according to economic theory, be more supportive of these transfers. This operates both from the perspective of welfare recipients and from that of taxpayers. The effect of objective gain or loss is also mitigated by the type of transfer that is under discussion, individuals' information about the transfer and individuals' information about their own standing in society. Romer (1975) and Meltzer and Richards (1981) discuss the case of a proportional tax on income levied on individuals with different

[90] AndreB and Heien (1999) review other sociological and social dominance literatures that are not reviewed here.

[91] This may be related to the point made in the introduction about endowment effects. Kahneman (2002) has informally discussed the notion of life being the accumulation of an endowment of memories, a concept that may link the decision literature to the ideology literature.

productivity, with the proceeds distributed in a lump sum manner. Preferences for redistribution are determined, in this simple model, by pre-tax income. People on lower incomes will choose a higher tax rate than people on higher incomes. The median voter will then determine the level of taxation.

In addition, the rich of today may be the poor of tomorrow, and redistribution may be justified on the grounds of risk aversion. To this extent peoples' perception of their future position may have a significant effect on their preferences for redistributions. "Prospects of social mobility" has generally been employed to demonstrate why those at the bottom end of the income distribution are not necessarily those who are most in favour of redistribution (e.g. Benebaou and Ok 2000). Differential rates of social mobility have also been postulated as a political-economy factor explaining different welfare regimes in the US and the EU (e.g. Alesina and Angeletos 2002). Hirschman (1973) developed the concept of a *tunnel effect* whereby people at the bottom end of the income distribution tolerate rising levels of inequality in societies where they perceive themselves to be rising in absolute income. Furthermore people may favour redistribution because of the negative externalities generated by inequality. Thus, apparently altruistic preferences for redistributive policies may be instead a "rational" willingness to pay for crime reduction or an investment in a lower future tax rate and better public infrastructure (e.g. Alesina, Di Tella and McCulloch 2001). A further aspect of individual gain is the gain to those who benefit from *producing the transfers.* Authors such as Tullock (e.g. 1997), among others, have proposed that those working in the public sector, and hence the providers of welfare benefits are more likely to be favourable towards the welfare state than others.[92] The preferences of

[92] Tullock is famously sceptical about public service rationales for poverty alleviation. "*My point is simply that there is a contradiction in saying that a program is intended to eliminate poverty when it gives only very small amounts of money to the Third World. If we wish, we can ignore the poor in the Third World, but if we do ignore them, we should not talk about our deep desire to take serious efforts to help the poorest of the poor*"(Tullock 1997, page vii)

elites within the public sector may then have a disproportionate role in deciding welfare policy.[93]

5.2.4. Familial Gain

Standard evolutionary and economic theory place the individual as the unit of economic utility, but it is clear from observing both human and non-human species that actors maximise the fitness of their genetic relations rather than their own specific fitness (e.g. Dawkins 1976). Therefore people may be in favour of redistributive policies that cost them financially but benefit their genetic relations. Hamiltonian biology (e.g. Hamilton 1964) specifies formal conditions under which an apparently self-sacrificing act designed to help kin will increase the donor's genetic fitness. An altruistic act will be favored if $k>1/r$, where r is the genetic relatedness between individuals and k is the ratio of gain to loss of the behaviour.[94] In this scheme, demand for transfers that financially benefit the respondents family, but not the respondent themselves, are permissible and thus demographic factors such as family size and composition play a complex role in determining preferences than in individualized models.[95]

5.2.5. Non-Kin Altruism

Trivers (1972) revolutionised evolutionary socio-biology by chronicling the widely observed phenomenon of non-kin co-operative behaviour and placing this

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[93] A further aspect of this is that many benefits in Ireland are service provision discounts that are financed by the Department of Social and Family Affairs and not the semi-state companies who provide them. For example the provision of a free television license does not mean that the state broadcaster forgoes revenue but instead that the DSFA pays the bill. This could reinforce public sector support for this type of transfer.

[94] Hamilton explains the inclusive fitness approach as follows: "This means [see equation] that for a hereditary tendency to perform an action of this kind to evolve the benefit to a sib must average at least twice the loss to the individual, the benefit to a half-sib must be at least four times the loss, to a cousin eight times and so on. To express the matter more vividly, in the world of our model organisms, whose behavior is determined strictly by genotype, we expect to find that no one is prepared to sacrifice his life for any single person but that everyone will sacrifice it when he can thereby save more than two brothers, or four half-brothers, or eight first cousins...."

[95] We deal with economic models of household behaviour in Chapter 7.

in to a coherent theoretical framework. Hochman and Rodgers (1969) developed the concept of Pareto-Improving transfers to motivate an efficiency argument for progressive taxation. In the Hochman and Rodgers formulation people have altruistic preferences but direct transfers of income by private citizens are a socially inefficient mechanism to achieve the necessary redistribution, which motivates a role for government to provide redistribution through the form of a progressive income tax.[96] A key issue is that redistribution on a national scale is a public good with concomitant incentives for any given individual to free-ride off the contributions of others, meaning that observed behaviour and outcomes in the market cannot be taken as revealing the preferences for the utility of others.

5.2.6. Belief in a Just World

People's belief in a just world may also determine their willingness to pay for social transfers. Lerner (1980) instantiated the modern form of this theory, summarizing the phenomenon by saying "*Individuals have a need to believe that they live in a world where people generally get what they deserve*". Benabou and Tirole (2002) incorporate "belief in a just world" into economic models that they claim explain the stability of social welfare systems. Parents in socializing their children may do so by convincing the children, and themselves that the world is a fair place where people get rewarded for their effort. This may limit support for downward distributions.

Cognitive dissonance theories (e.g. Festinger 1957) may offer another potential window to explain the role of norms and beliefs in explaining preferences for distribution that accord well with the results generated from belief in a just world. One plausible result that accords with cognitive dissonance theory is that those at the top end of the income distribution may find the cognition that success is

[96] A very large literature has emerged that analyse the implications of the ideas of this paper. The Social Science Citation Index indexes 271 papers that reference the work.

determined by luck and birth as much as by effort incongruent with self-concept constructions of being a successful person. Conversely, those at the bottom at the income distribution may find the cognition that success is determined by effort and innate ability incongruent with aspects of their own self-concept.

5.2.7. Dispositional versus Situational Attributions

A similar psychological mechanism that may mediate preferences for redistribution is the extent to which individuals ascribe poverty, or the need for social welfare payments in general, to dispositional rather than situational factors. Ross and Nisbett (1991), for example, discuss the more general case of this phenomenon, as a "fundamental attribution error" in human causal attribution for which there is an impressive array of laboratory and field evidence. For example, people may discount situational circumstances in evaluating the causes by which an individual became homeless, and instead attribute causality to innate character deficiencies. As with, "belief in a just world", it can be speculated that this tendency as it applies to social welfare may be, as Benabou and Tirole (2002) put it "*a self-sustaining reality distortion*".

5.2.8. Quasi-Magical Thinking

Heuristics of thought that irrationally govern the relationship between an individual's action and a societal outcome have been demonstrated to determine response effects in experimental and survey formats. The Kantian categorical imperative may become, psychologically speaking, a literal imperative with respondents giving the response they feel that every individual *should* give in order for society to reproduce itself rather than their own preferences. Quasi-magical thinking refers to situations in which people act as if they could change an

outcome even if they believe or know rationally that they cannot. [97] For example, when asked whether they would prefer to take a reduction in social welfare benefits to reduce their tax bill, the respondent may factor in what would happen if everybody shared their preferences and modify their responses to take this in to account.[98]

5.2.9. Attitudanal Variables

Social and cultural factors also play a role in determining preferences for social welfare spending. This is seen through the effects of religion and religiosity as well as other demographic factors. However, attitudinal variables, orthogonal to demographics and distributed randomly throughout society can also be thought of as determinants of willingness to pay for social transfers (e.g. O'Rourke and Sinnot 2004). Green and Tunstall (1999) and Pouta (2003) apply the Theory of Planned Behaviour (TPB) to explain willingness to pay for environmental public goods and the use of bio-psycho-social models of economic valuation may be an active future research stream. The theory of planned behaviour also gives a coherent structure to the analysis of the relationship between general attitudes and specific preferences and the types of variables that mediate between the two. Furthermore, as argued in previous papers, TPB and related theories allow theoretical rigour in parametric specification of psychological phenomenon such as attitudes, behavioural intentions, preferences, social norms and information thus informing model construction.

5.2.10. Genetic Factors

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[97] Shafir and Tversky (1992) demonstrated, with an experimental variant of Newcomb's Paradox that people behave as if they can influence the amount of money already placed in a box.

[98] It is beyond the bounds of this discussion to discuss problems with the construct of quasi-magical thinking as applied to attitudes to distribution but it should be noted that attempts to link the two concepts are potentially troubled by, for some, narrow definitions of rationality.

Olson et al (2001) demonstrated in studies of both monozygotic and dizygotic twins that, while the majority of attitude variance in their sample was explained by non-shared environmental factors, there were systematic attitudinal differences in the samples that could be explained by genetic factors. This work links with studies conducted analyzing the biological foundations of social evaluation (e.g. Cacioppo and Petty 1987, Cunningham, Johnson and Gatenby 2001). As far as we could establish from a comprehensive literature search, no economist has written on the possible significance of genetic factors in determining attitudes to social transfers. A number of mechanisms are plausible, including niche-seeking (e.g. Tesser 1993) leading to individuals clustering in to groups of other individuals with similar skill-sets with communal attitudes being used as a device to maintain or enhance group position relative to other groups, as in the social dominance theories. Genetic factors may also operate through intervening variables such as skill levels, intelligence and vulnerability to illness, all of which are partly genetically transmitted and may influence preferences for government activity.

5.2.11. Effect of Information

The next vector we isolate is the effect of availability of information. People are generally poorly informed about the cost and extent of government programmes (e.g Gemmell, Morrissey and Pinar 2003). Kemp (2003) demonstrated that experimental manipulation of cost information had a marked effect on respondents' preferences for government allocation of funds to different public expenditure programmes. The effect of how informed respondents are can also be assessed through the use of education variables, personal experience variables, and political sophistication indices. The availability and use of different types of print and audiovisual media including the Internet may also determine attitudes to social welfare, albeit in a co-determined fashion.

5.2.12. Mechanism Appraisal

The degree to which the respondent perceives default and cheating behaviour to be detectable and sanctioned, will also have an effect on their support for mechanisms of redistribution. Evolutionary social-psychology has emerged as a growing field and emphasizes cognitive mechanisms in humans and other animals that evolved in response to the need to react to cheating behaviour in the complex social environments of hunter-gatherer societies. The evolutionary socio-biology literature predicts that we are particularly sensitive to being "cheated on" in social exchange situations (e.g. Cosmides and Tooby 1995) and that our cognitive architecture is designed to act as a set of functionally adapted tools, one of which is a "cheater-detection" module. In terms of social transfer, this literature would predict lower support for structures that involve risks of moral hazard and other forms of cheating behaviour. Another form of mechanism appraisal concerns the respondent's beliefs in the role of government as a vehicle for redistribution. Perception of government inefficiency has been shown to mitigate demand for public expenditure in several applications including Irish applications (McDowell 1990). We assess both perceptions of overall government inefficiency and perceptions of inefficient use of social welfare spending.

5.2.13. Punitive Sentiment

Similar to the effect of social norms is the belief that others will scorn one if one does not contribute to a particular public good scheme. Andreoni's (1990) theory of impure altruism and later work by Price, Cosmides and Tooby (2002) emphasise the role of punitive sentiment in motivating donations to public goods. Price et. al. hypothesise that punitive sentiment developed to alter relative fitness ratios between donors and non-donors as a labour-recruiting device to collective action. Punitive sentiment, they found, was a sensitive tracker of willingness to participate in collective action. Perceived punitive sentiment of others and punitive sentiment toward others may determine willingness to pay for social welfare

schemes. The perception of punitive sentiment from others may motivate us to be willing to participate toward the provision of transfers as in the case of impure altruism, whereas punitive sentiment toward cheaters may lead us to overshoot and be unwilling to contribute to transfers as in the case of the Price et al scheme.

5.2.14. Globalisation and Support for Social Welfare

A number of papers, mainly utilising international survey data-sets, have analysed preferences for social welfare across the world with a view to estimating the effect of liberalisation of labor and capital markets on support for the welfare state. Scheve and Slaughter (2003) link economic openness with support for the welfare state. They test the premise that, because international integration increases the costs of welfare policies for a particular nation, then this should lead to lower public support for redistributive policies. Their evidence is inconclusive, at the time of writing, but they strongly argue against the notion that economic liberalization is inherently in conflict with strong support for welfare state policies. They conclude; "*the evidence presented in this paper certainly suggests that simple conclusions that substantial social insurance and redistributive policies are inconsistent with economic globalization are implausible because it seems that political support for liberalism itself depends in part on those very policies*". This is in line with the view of some economists (e.g. Rodrik 1998) that openness to the world economy generates greater risks to workers, which leads them to demand greater levels of public social insurance.

Another channel through which globalisation may affect public preferences for social transfers is through increasing ethnic diversity among industrialised nations. Alesina, Glaeser and Sacerdote (2001) among others demonstrate a negative relationship between ethnic fractionalisation and the size of transfers relative to GDP, suggesting this as one factor explaining why America does not have an EU-style welfare state. In the Irish case, ethnic diversity of any appreciable scale has in

the past been restricted to the travelling community but will become an increasing factor in determining public attitudes to government budgets, as inward migration flows become a more prominent feature of the Irish economy.

5.2.15. Existing Survey Evidence on Preferences for Transfers in Ireland

The first round of the European Social Survey conducted in 2002 contained questions on social inequality that we use as a broad benchmark here, and to compare Irish general attitudes to inequality and distribution to those of other countries. Table 5.17 (Section 5.4.3.) shows the cross-country pattern of responses to the question, *"The Government should reduce differences in income levels"*. The ISSP Modules on the Role of Government also contained questions concerning the role of the state and welfare policy. Table 5.18 (Section 5.4.3.) shows the cross-country patterns of response to the question: *"Government should be responsible for reducing income differences between rich and poor"*. Of particular interest is national survey evidence from a recent paper by Hardiman, McCashin and Payne (2004) who based their work on the International Social Justice Project and asked a number of questions pertinent to this discussion. In response to the statement *"The Government does not give enough money to people on Social Welfare"* 34.8% of respondents disagreed, 16.3% were in the middle and 48.9% of respondents agreed, indicating a general level of soft support for increases in welfare spending.[99]

5.3 Research Questions and Survey Design

As discussed in the introduction, this chapter was motivated by a number of different issues; the demographic determinants of preferences for redistributive policies, the correlations between general attitudes to redistribution and preferences for specific policies of redistribution, the link between personal value

[99] The authors also review a number of theories and writings on Irish cultural attitudes that we do not review here.

and preferences for redistribution, the extent to which preferences for redistribution are predictable by those researching and advising policy in the area, and the extent to which Irish preferences are similar to those across Europe. In terms of specific policies of redistribution we focus, in particular on child benefit, unemployment benefit and non-contributory old-age pension. Furthermore, as well as looking at the correlations between general attitudes to redistribution and specific preferences, we also examine preferences for redistribution and political party alliance. Each of these issues is discussed separately below.

5.3.1. Preferences for Child Benefit Payments

Child Benefit is a direct transfer to members of society with children, and in the Irish case is generally paid to the mother. The rate increases with the number of children and there are extra payments for multiple births. Child-Benefit payments are the single biggest item of welfare expenditure in Ireland, transferring €1.7 billion annually. The first question that needs to be asked is whether this simply represents a cost of being part of society for non-kin members. To use Hochman and Rodgers (1969) original framework, are taxpayers who do not receive financial gain from this system being effectively forced to act counter-preferentially by the government, or are they willing donors to a scheme from which they derive non-marketed benefits? If one does not have children, will this be reflected in one not being willing to pay money to child benefit schemes? Following standard evolutionary theory, number of genetic relatives who benefit from these schemes would also be a useful predictor. Furthermore, non-marketed benefits to non-kin may also be pecuniary (e.g. Folbre 1994) in which case we could view willingness to pay for child-benefit as a form of investment demand. For example, this may be the case for a respondent who believes that increasing provision of child benefit and other child-related spending will lead to positive societal outcomes more generally such as lower crime rates.

Another aspect of the donor framework is the extent to which the current child welfare system in Ireland does not act progressively. The Irish Child Benefit system is a universal system i.e. it is not means-tested. To what extent would a means testing of the child benefit system that was used to increase the amounts paid out to lower income families represent a pareto-improving transfer? Furthermore, mechanism appraisal will determine the level of preferences for child benefit. Cigno, Luporini and Pettini (2003) employ the principal-agent paradigm to evaluate different mechanisms for transferring income from the state to families, and demonstrate the efficiency of different forms of conditional transfer. One aspect of the principal agent problem that would effect peoples' preferences for child benefit as a transfer is the extent to which the respondent believes that money transferred through child benefit is used on the child in a manner in accordance with the respondents' preferences. One final aspect we examine in this section which will be looked at in more detail in a later work is the extent to which child welfare preferences are determined by knowledge of the welfare system and by political sophistication.

5.3.2. Preferences for Old-Age Non-Contributory Pensions in Ireland[100]

State pension provision in Ireland takes the form of a number of schemes financed either through the general exchequer and paid out as means-tested payments, or financed through contributions to a social-insurance fund. Preferences for the level of state-pensions, should in theory, be motivated by a number of factors. Firstly, moral hazard risks that the payment of pensions induces are less pronounced than those incurred from financing unemployment benefit payments. Related to this, one would expect that attitudinal determinants of preferences for other welfare benefits such as perceptions that people cheat the

[100] As with the case of Unemployment Assistance/Benefit there is a difference between contributory pensions financed by employee and employer contributions and non-contributory pensions which are paid regardless of contribution. This is something we would have explored in more depth had we sufficient survey resources.

welfare system, or pro-market ideologies and beliefs to be less pronounced in the case of pension provision.

Another important aspect of the pension system is the sustainability of higher levels of pensions in the face of an ageing population. While Ireland's demographic pyramid is more robust than France or Germany it is still the case that the country faces an increasing pension bill. De Vaus, Gray and Stanton (2004) review some of the potential consequences of increasingly ageing populations, among them increasing age polarisation and age group consciousness and conflict between generations undermining social cohesion.[101]

However, they argue against the "greedy geezers" theory of increased pension provision and point out, in the Australian context, that older people provide a substantial amount of non-paid home and caring work that does not enter the national accounts. Furthermore, Fahey, Fitzgerald and Maitre (1997) in an Irish context argue that the increased pension bill going forward will be offset by favourable employment trends. If the public takes in to account such factors, this would increase support for the transfer. Nevertheless, individual gain predicts that those who perceive that they will financially benefit from higher rates of state pension provision will be more likely to demand higher levels. Those who are older and hence closer to receiving the payments and with less time left in the tax system and those outside the tax system or on lower incomes should demand higher levels of pension payments. Perceptions of pension bills being a burden on the state is also expected to negatively predict support for the levels of pension.

[101] They cite, for example Thomson (1992) delivering a polemic against pensions "Why should the young adults of the 1990s and beyond feel bound to pay for the welfare state of their predecessors?... Why should they not argue that there is now no contract between generations, because it has been violated by the behaviour of their elders" and Peterson (1999) who states "From a society that once felt obliged to endow future generations, we have become a society that feels entitled to support from our children. Unless this mind-set changes Americans may one day find that all they are really "entitled" to is a piece of the national debt".

5.3.3. Preferences for Unemployment Benefit in Ireland

In 2 Thessalonians (3:10) Paul urges, *"If any would not work, neither let him eat."* Unemployment benefit is consistently marked as a controversial issue in industrial economies. Unemployment benefit cheating in particular consistently creates tension and is a popular source of outrage stirring, as well as resonating in historical debates. Individual gain would predict that risk factors associated with unemployment would be a prime motivator of preferences for unemployment benefit. Conversely, non-exposure to this risk would predict preferences for a lower spend. This may also be reinforced by the status of the respondent as an employee or an employer. Employers may have preferences for lower unemployment benefits as higher payments weaken their bargaining position in wage negotiations. This is compounded by the fact that Ireland is a small open-economy with relatively high labour turnover rates, and high exposure to international competition. This raises both the competitive pressures on firms to keep wages low and the risk of temporary spells of unemployment for workers.

5.3.4. Evaluating Expert Predictions: Are public preferences news?

A number of authors in the Contingent Valuation literature have written recently on the use of the "Delphi-Method", (e.g. Ziglio 1996), named after the oracle, whereby experts are asked to state the distribution of population demand for different policies. Carson and colleagues are working on an ongoing project applying this method to value the Fes Medina in Morocco. Were the Delphi method shown to yield reasonable estimates, it is argued, the possibility of valuing public goods using worldwide samples would be greatly facilitated (e.g. Navrud 2002). In this chapter we compare the actual results obtained from a study of the populations' preferences for policies of redistribution with those obtained from sampling a group of economists and those active in public policy.

We did not employ a full Delphi analysis here but instead sampled a group of experts in the field of social policy in Ireland and requested that they give their own preferences with regard to spending on each of the 15 different income-maintenance schemes supplied by the Department of Social and Family Affairs and to predict the mean population level of support for each scheme. This serves a dual function in that it allows us to examine whether preferences are both co-ordinated and predictable. The former is important to the extent that policy advice will be reflective of public preferences and the second is important as it demonstrates the extent to which a small panel could be used to accurately predict national preferences, which would point toward the viability of using such panels to proxy public attitude surveys. As regards the relationship between the policy-makers and the public, a number of alternatives are possible.

1. The average policy-adviser is in favour of greater amounts of redistribution than the average member of the public and is aware of this.
2. The average policy-adviser is in favour of less redistribution than the general public and is aware of this.
3. The average policy-adviser is in favour of greater amounts of redistribution than the average member of the public and is not aware of this.
4. The average policy-adviser is in favour of less redistribution than the general public and is not aware of this.
5. Public Preferences and Expert Preferences are aligned and *understood by both to be aligned.*

5.3.5. The Role of Personal Values

Significant research in to the structure of human values have led researchers to draw conclusions as to the universal structure of human value types (e.g Schwartz and Bilsky 1987, 1990, Roccas et al 2002). Schwartz and his colleagues offer one

definition of values as *"concepts or beliefs about desirable end-states or behaviours that transcend specific situations, guide selection or evaluation of behaviour and events and are ordered by relative importance"*. They specify different types of value domain. For example in the circular structure presented in Figures 5.2 (end of chapter) there are ten value types that in turn can be encapsulated as different motivational domains such as self-enhancement and self-transcendence. The use of this scale provides us with a quantifiable, assessable survey compatible methodology to assess the values of respondents.[102] Personal value theories have been invoked across a wide range of literatures to examine differences across cultures.

Some issues which are important in terms of the international literatures is the extent to which (i) general attitudes to redistribution can be mapped on a personal values scale and (ii) specific economic preferences for government policy can be mapped on to a personal values scale. There are many reasons why one would expect *apriori* the personal value typology outlined by Schwartz to interact with preferences for specific transfers. Self-enhancement values might be expected to be associated with low valuations of the utility of others, which in turn will be reflected in low willingness to pay for social transfers not directly benefiting the person. Personal values emphasizing tradition and group cohesion may be associated with higher willingness to pay. However, once again we emphasize that general values and specific preferences may be mediated by different response patterns, and therefore a further possibility is that, for example, while the individual's ordering of values may be towards altruistic concerns on a general level, this may not translate into higher willingness to pay for social transfers. Similarly, an individual or even the representative individual's ordering of values may be towards self-enhancement and power values, and this need not necessarily

[102] The author used this scale as part of a survey of economists resident in Ireland, enabling comparison of the group with the population in this data set (Lucey and Delaney 2004).

translate in to lower willingness to pay for social transfers. Given the considerable research that has amassed on personal values within the Schwartz framework, this analysis will contribute to empirically bridging the Schwartz literature to the literatures on economic attitudes, preferences for redistribution and willingness to pay.

5.3.6. Correlations between General Attitudes and Specific Preferences

International survey programmes have emerged to analyse preferences for distribution across the globe so that researchers can monitor the effects of changing economic variables. These survey programmes are now providing the basis for much of our knowledge about the determinants of preferences for redistribution and the welfare state (e.g. Scheve and Slaughter 2003). However, as outlined previously, the focus of these surveys is on general preferences for redistribution rather than on preferences for the specific vehicles of redistribution, which, *de facto,* are among the policy instruments by which governments alter the income distribution in a country, or provide welfare. To what extent are general level attitudes reflective of actual desires to see the government take or refrain from different types of actions in altering the distribution of income in a country? The general level may, of course, be appropriate for a number of different reasons. It is the general level that will be reflected in peoples' voting behaviour, the general level that will motivate government behaviour. Preferences for specific transfers may not have a great role to play in the course of elections and the wider sweep of national change. However, this is precisely the reason that a more specific approach to preferences for redistribution needs to be taken, namely that political markets will not sufficiently encode specific level preferences for public goods, given that electioneering takes place at a more general level.

Related to this question is the extent to which the conditional distribution of disaggregated categories on socio-demographic and attitudinal variables matches the conditional distribution of the general questions. For example, if it is demonstrated that older people are more in favour of redistribution, what forms of redistribution will older people be in favour of. Furthermore, it may be the case that confronting people with specific instances of redistribution could polarise responses with regards to group differences in preferences for some categories and galvanise support/lack of support across demographics for other categories of distribution. None of this will be picked up at the general level at which many economic papers utilising stated preferences for economic policies operate.

5.3.7. Political Party Alliance and Preferences for Social Welfare

The political economy of social welfare in Europe has been extensively discussed in other works. Anecdotal evidence from the media suggests that there is a widespread belief among commentators that party affiliation predicts a wide range of preferences for public spending in Ireland. This is something that has not been tested empirically before and represents a useful contribution to the political economy of welfare debate in Ireland.[103] We estimate multinomial logistic models of party affiliation examining the effect of support for social welfare increases and redistribution, while controlling for basic demographic determinants of vote choice like age and income. This concept is particularly interesting at this particular point in Irish economic history, following a number of years of very rapid economic growth with a concomitant increase in income inequality. The rise of the economically left-wing Sinn-Fein party parallels many

[103] Indeed it is commonly assumed that party political factors are not operant in determining social policy. Curry (2003) writes, "*While party political ideology may have influenced the shape of social service provision in other countries, its impact in Ireland has not been significant. In general there are no fundamental differences between the Irish political parties on matters of social policy.*" The salience of Sinn Fein and the Progressive Democrats, parties with very opposing views on welfare issues would appear to contradict the latter part of the statement in recent times.

movements in history in its use of the Gini coefficient as a lever for political gains. The extent to which support for this party is mediated by attitudes toward distribution is a key link between economic preferences and vote-choice which links the rest of the analysis in this chapter to a more applied behavioural context.[104]

5.3.8. Pre-Testing, Nationwide Survey Design and Administration

Pre-Testing took the form of an online survey of 298 respondents, mainly undergraduate and postgraduate students that was completed in September and October 2003. One of the main functions of the pilot-test was to rule out the concern that the survey would generate a mass level of protest response of such a nature as to make comparisons of relative priorities and effects difficult, before proceeding to a relatively expensive national study.[105] Lansdowne Market Research also conducted a number of pilot-tests on the scales used in the survey to reduce the complexity of the scales and to speed up the interviews. The final version of the nationwide survey (Appendix 2) is divided in to five separate sections.

1. Personal Values: The full Schwartz values battery could not be administered due to the prohibitive time-increment this would have imposed. Previous research on a sample of Irish economists (Lucey and Delaney 2004) utilized just the broad value types asking respondents to self-rate with the results being similar to another paper by Gandal and Roccas (2002) that utilized the full scale. We investigated

[104] Previous analysis of the results of the 2004 local elections by the author revealed an average gain of 6% of the percentage vote share by Sinn Fein across the 180 local election wards. Many of their more dramatic gains were in low-income areas, and came at the expense of the main ruling party Fianna Fail.

[105] The pilot study itself is an interesting window in to the attitudes and preferences of students in one of the country's most elite colleges and gives an insight in to, perhaps, what the future business and political leaders of the country are thinking. The survey was also used as homework for a Senior Sophister political psychology class, which yielded several interesting suggestions.

other ways of reducing the scale by analyzing the recent literature. However, none of the tested shorten-form scales which were utilized in papers in the literature were suitable, being mainly used in environmental applications (e.g. Thogerson and Olander 2002) and focusing on environmental values. We constructed a modified form of the Schwartz inventory that included at least two value types from each value domain, with extra questions measuring the value domains of self-transcendence and self-enhancement that we felt would be most involved in the problems to be analysed. Respondents were asked, "*for each of these statements I read out, please tell me how important or unimportant each is in your life*".[106]

2. Government Spending: Respondents were asked whether more or less money should be spent on the three categories of Health, Education and Social Welfare subject to the caveat that more spending on any category would mean less on another or more taxes. This question served both an information-gathering purpose as well as leading the respondent to consider their preferences for public spending and the trade-offs involved before answering the substantive questions on social welfare. Respondents were also asked the basic government spending questions: "*Overall, would you be in favour of (a) More government spending and more taxes; (b) less government spending and less taxes; (c) an unchanged amount of government spending and taxes.* Finally respondents were asked to consider how efficiently they believed that the government used tax to provide public services in the arena of social welfare, health, education and overall. Once again, this question served an information-gathering purpose as well as priming respondents to consider relative efficiencies of different types of public expenditure in Ireland.

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[106] This particular wording is not recommended for future surveys. Our original wording "How important is each of the following as a guiding principle in your life" seemed to us to offer a more discriminative scale. However, we changed the scale to the above wording on advice from the survey administrators that some respondents found this confusing.

3. Willingness to Pay (WTP) for Social Welfare: Respondents were first asked an open-ended WTP question; "*Imagine that the government proposed increasing spending on social welfare, for example on children, the disabled, pensioners, carers, the unemployed and those on low incomes and paying for these increases by increasing taxes. How much extra tax, if any, would you be willing to pay per week to allow for this increase in spending?*" The full purpose of this question was to examine issues in household and individual elicitation, and the respondents were asked follow-ups to determine whether this represented their household or personal WTP that are described and will be more fully explored in Chapter 7.

4. Domain Specific Attitudes to Social Welfare: Respondents were given a grid listing the majority of schemes administered by the Department of Social and Family Affairs and asked to decide on a seven-point scale whether they thought government spending in these areas should be increased, decreased or left the same. Half of the respondents were given information as to the cost of the schemes and half were not, the effect of which we examine in detail in Chapter 6. Following this, they were asked to choose between pensions, child benefit, benefits for unemployed people, benefits for disabled people, benefits for single parents or none of them as to which was their highest priority for government spending on social benefits. They were also asked how important social welfare policy was in terms of deciding which party/politician they voted for.

Respondents were then asked three blocks of questions, on child-benefit, unemployment assistance and pensions respectively. In each case, respondents were first asked to decide how much of each benefit they believed should be paid. Following this, for each category they were asked to give their attitudes towards making the benefit conditional either on income/wealth (in the case of child benefit and pensions) or work (in the case of unemployment benefit). The degree of

punitive or positive sentiment for the recipients of each benefit category was also elicited.

5. General Attitudes to Welfare: General attitudes to distribution in society as measured by the *World Values Survey* and the *ISSP* module on Social Inequality 1998, were assessed in order to compare them with the specific attitudes to redistribution. Respondents were asked on a 10 point scale to choose between: "*A society with extensive social welfare but high taxes"* and *"A society where taxes and social welfare are low and people take responsibilities for themselves".* Respondents were also asked on a 10 point scale to choose between: *"An egalitarian society where the gap between rich and poor is small regardless of achievement"* and "*A competitive society where wealth is distributed according to ones achievement".* As well as this respondents were also asked to rate themselves on a 10-point scale from left to right. Respondents were then asked on a 7-point scale to rate their level of agreement with the statements: "*The government should take steps to reduce differences in income inequality"* and *"Large numbers of people falsely claim social welfare benefits in Ireland these days".*

6. Demographics: The standard demographics were elicited. As well as this, we also asked political party affiliation, religious practice and a question on intra-household finance. Finally, a set of factual items was asked in order to construct a proxy-scale for political sophistication in the area. Respondents were asked to name (i) The Taoiseach (Prime-Minister) (ii) The leader of the main opposition party (iii) The Finance Minister (iv) The Minister for Social and Family Affairs and (v) The spokesperson on Social and Family Affairs of the main opposition party, Fine Gael. In the context of the present discussion a number of other types of comprehension and economic literacy variables would also be of interest but would be very difficult to assess in the context of a once-off survey.

Lansdowne Market Research administered the Survey to a sample of 1,149 people in June 2004 employing quota controls to match the sample characteristics by gender, social class, region and age to the 2002 Census. The administration took the form of face-to-face interviews and a number of caveats apply. Firstly the lack of anonymity may have led to a degree of "social desirability bias" in responding. Secondly, we do not have characteristics of non-respondents and therefore cannot test for endogenous determinants of survey response. A sample of 32 people, working primarily as researchers in the Republic of Ireland, acted as an "expert panel" and were administered a shortened form of the survey instrument through the Internet.

5.4 Results and Discussion

The results section overlaps in terms of addressing the specific research questions outlined. Section 5.4.1 outlines the descriptive statistics and sample properties. It also outlines the structure of the personal values responses from both our own nationwide survey and the European Social Survey. We analyse the demographic determinants of responses to the general attitude questions and attitudes to specific benefit questions in Section 5.4.2. This allows us both to assess how general attitudes toward redistribution affects preferences for specific policies of redistribution holding other factors constant, as well as allowing us to compare and contrast the demographic determinants of preferences for general redistribution and specific policies of redistribution. Section 5.4.3 firstly outlines the results of survey questions asked in the International Social Survey Programme module in 1998 and the European Social Survey (ESS) Programme in 2002. Following this, the section examines the macroeconomic correlates of preferences for increased government redistribution using the ESS data as a measure. The purpose of this analysis is to place the Irish study in context and to generate hypotheses for future work. The next analysis is to examine the individual demographic determinants of

preferences for redistribution both over the whole sample and within each country. Included in this analysis are values scale derived using factor-analytic methods from the Schwartz personal values scale, which allow us to address the link between values and preferences for redistribution in a manner not made possible by our own nationwide data-set. Section 5.4.4 is a largely self-contained section examining tests of differences between population preferences, the preferences of experts and the experts' predictions of the populations' preferences. Finally, Section 5.4.5 is also a largely self-contained section examining the link between individuals' attitudes to redistribution and their political-party alignment.

5.4.1. Descriptive Statistics and Bivariate Correlations

The mean age of the sample was 40.1, with 51.6% being female. 87.7% of the respondents had telephones in their houses. 61% of the respondents were the chief income earners in their household. Both the income and political party support questions yielded a comparatively low rate of response of approximately 60%. However, a full response rate was achieved on the occupation question.

Of the 1040 respondents who answered the questions (90.5%) 21.5% chose "more government spending and more taxation", 42.2% chose "same level of government spending and taxation" and 36.2% chose "less government spending and taxation". When asked their highest priority for extra social welfare spending, 30.2% chose pensions, 26.6% of respondents chose benefits for the disabled, 11.7% chose child benefit, 8.02% chose benefits for unemployed people, 6.04% chose benefits for single parents, and 14.4 chose "none of the above". This is reflected in Table 5.1a which demonstrates that disability allowance, carer's allowance, blind pension, old-age pension and widow's, widowers' and orphans' pension score highest in terms of mean score on a scale from 1-7 asking respondents whether they thought extra spending should be allocated to the benefit category. The lowest mean scores were for one-parent family allowance, unemployment assistance, pre-retirement

allowance and farm-assist scheme. A principal components analysis with Varimax rotation yields the rotated component matrix displayed in Table 5.1b demonstrating that the items reduce down to two main factors with eigen-values above one. The first factor loads highly with the Pensions, Carer's Allowance, Disability Allowance, Blind Pensions and Widow's, Widower's and Orphan's Pension. The second factor loads highly with Unemployment Assistance, Employment Support Services, Social Assistance, Family Income Supplement and Supplementary Welfare Allowance. Labeling factors in a factor analysis entails subjective appraisal to a degree. One interpretation is that the first represents transfers for which there is low risk of incentive effects, while the second entail a distortion of work incentives.

The results of the general attitudes to redistribution questions are displayed in Table 5.5. Respondents were, on average, significantly more inclined toward a low-tax, low spend model than a high-tax, high spend model of the economy, and marginally more identified with a "competitive according to ability" rather than an "egalitarian according to need" model of the economy. In accordance with other studies, the majority of respondents agreed that the government should take steps to reduce income inequality. There was almost unanimous support for extra spending on health and education, with less support for increases in social welfare expenditure. This was despite the fact that respondents found health to be the lowest in terms of efficiency and social welfare the highest.

The scores on the personal values items are displayed in Table 5.6. As can be observed, the phrasing of the question led to a significant degree of high-value responding, making interpretations of specific items difficult. A Principal Components analysis, employing a Varimax rotation yielded two main factors (eigen-value greater than one). The first component loads highly with traditional measures of self-transcendence and social orientation while the second loads

highly with traditional measures of self-enhancement. A Principal Components Analysis on the wider personal values scale from the European Social Survey yields three factors with eigen values greater than one from the 21 items used in the survey instrument that broadly correspond with the Schwartz taxonomies of Self-Enhancement, Group Cohesion and Self-Transcendence (Table 5A.5). Table A6 displays the rankings of each country in the European Social Survey modules on the regressed scores of these factors.

The scores on the factual knowledge based items are used as a measure of domain-specific political sophistication. Summing the scores to produce this scale yields a Cronbach alpha coefficient of 0.75, which is satisfactory by the standards of the literature. Table 5A.7 displays the Pearson product moment correlations between this measure and age (continuous), gender, having a degree or a postgraduate, and being male. The score on this scale is positively correlated with being male, university educated and being older. An OLS linear regression confirms that these variables are significant. Furthermore, age follows a quadratic form.

Raw correlations of general attitudes with specific preferences do yield a convincing picture of general attitudes to distribution being correlated with support for specific benefit transfers. Responses to the general question "*The Government should take steps to reduce differences between rich and poor, either by raising taxes or by giving more income assistance to the poor*" were statistically significantly and substantially correlated with support for increased benefit spending for all fifteen benefit categories outlined. Similarly, responses to the statement "*Large numbers of people in Ireland falsely claim social welfare benefit in Ireland*" significantly and substantially negatively predict support for increased spending on each of the fifteen benefit categories. The general level variable assessing whether the respondent aligned himself or herself to the left or the right was not correlated with preferences for many of the specific level variables.

Statistically significant, but not substantial correlations, between self-rated affiliations with the right were observed with support for the benefit categories of one-parent family allowance, farm-assist, pre-retirement allowance and blind pension. The "other minus self" variable is a scale derived from subtracting the score on the "Self" scale constructed from the first personal values factor from the score on the "Other" scale constructed from the second personal values factor (See Table 5A.2 for Factor Loadings). Thus, the scale gives a measure of the rate at which the respondent trades off personal values surrounding self-promotion with personal values surrounding maintenance of society and care for others. Scores on this scale correlates positively and statistically significantly with support for increased spending on Pensions, Blind Pension, and Widow's, Widower's and Orphan's Pension, and negatively with support for Family Income Supplement, Student Grants, Employment Support Services, One-parent family allowance and Child Benefit.

In terms of the specific benefit categories, the mean respondent judged €150 per child per month to an appropriate target for child benefit payments, €160 per week to be an appropriate target for unemployment assistance and €200 to be an appropriate target for old-age pensions. The frequency and cumulative distribution of actual amounts suggested by respondents is displayed in Table 5A.1. Table 5.5 displays the mean scaled scores on agreement with a set of domain-specific questions about child benefit, old-age pension, and unemployment assistance. The mean respondent displayed strong support for child benefit and a belief that the government should be more active in helping families with children. Consistent with the hypothesis that preferences for social welfare benefits are heavily bound up with perceived moral hazard, there was almost unanimous support for the proposition that instead of spending more on unemployment assistance, the government should instead spend more on training and job search assistance.

However, there was low level of support for replacing child-benefit with other child-related spending.

Table 5.1a: Central Tendency and Spread of Preferences for Increasing or Decreasing Social Welfare Benefits (1 to 7 Scale, 1=Reduce Substantially, 4 = Same, 7 = Increase Substantially)

	Mean	Median	Mode	Std Deviation
Disability allowance	5.53	6.00	6.00	1.17
Carer's allowance	5.51	6.00	6.00	1.14
Blind pension	5.50	6.00	6.00	1.13
Old-age pension	5.48	6.00	6.00	1.17
Widow's, Widower's and Orphan's pension	5.44	5.00	4.00	1.17
Student grants	5.22	5.00	4.00	1.25
Child benefit	5.08	5.00	4.00	1.16
Family Income Supplement	4.95	5.00	4.00	1.13
Social assistance and other allowances	4.92	5.00	4.00	1.17
Supplementary welfare allowance	4.90	5.00	4.00	1.16
Employment support services	4.85	5.00	4.00	1.11
One-parent family allowance	4.82	5.00	4.00	1.19
Unemployment assistance/benefit	4.77	5.00	4.00	1.28
Pre-retirement allowance	4.70	4.00	4.00	1.15
Farm assist scheme	4.47	4.00	4.00	1.34

Table 5.1b:Rotated Component Matrix of Social Benefit Items

	Component	
	1	2
Old-age pension	.136	.877
Blind pension	.222	.880
Child benefit	.533	.520
Unemployment assistance/benefit	.805	.204
Farm assist scheme	.594	.117
Employment support services	.807	.243
Pre-retirement allowance	.559	.394
One-parent family allowance	.747	.301
Widow's, Widower's and orphan's pension	.372	.818
Social assistance and other allowances	.803	.333
Family Income Supplement	.776	.375
Carer's Allowance	.291	.761
Supplementary Welfare Allowance	.828	.314
Disability allowance	.434	.713
Student grants	.440	.452

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization. Rotation converged in 3 iterations.

Table 5.2: Respondents Priorities for Extra Social Welfare Spending

	Frequency	Percent
Pensions	350.00	30.20
Benefits for Disabled People	309.00	26.66
None of These	167.00	14.41
Child Benefit	136.00	11.73
Benefit for Unemployed People	93.00	8.02
Benefits for Single Parents	70.00	6.04
Missing	34.00	2.93
Total	1159.00	100.00

Table 5.3: Respondents Judgment of Suitable Level of Benefit

	Mean	Median	Mode	Std Deviation
Child Benefit (Per Month)	147.47	150.00	150.00	81.51
Unemployment Assistance (Per Week)	163.62	160.00	200.00	75.03
Pensions (Per Week)	203.08	200.00	200.00	57.65

Table 5.4: Preferences for Expenditure and Perception of Efficiency

	Mean	Median	Mode	Std Deviation
Preferences for Spend (1 = Decrease Substantially, 7 = Increase Substantially)				
Health spend	6.13	7.00	7.00	1.09
Education spend	5.66	6.00	7.00	1.20
Social welfare spend	4.99	5.00	4.00	1.38
Efficiency (1 = Very Inefficient, 7 = Very Efficient)				
Social and Family Affairs	3.42	4.00	4.00	1.64
Education	3.31	3.00	1.00	1.66
Health	2.35	2.00	1.00	1.50
Total Government Efficiency	3.34	3.00	4.00	1.60

Table 5.5: Specific Attitude to Benefits and General Attitudes to Redistribution

	Mean	Median	Mode	Std Deviation
Child Benefit Attitudes (1 = SD, 7 = SA)				
Child Benefit is Effective	5.52	6.00	7.00	1.33
Government should do more to help children	5.34	5.00	7.00	1.38
Child Benefit Only Paid to those who need it	4.83	5.00	7.00	2.00
Less Paid to higher income families	4.54	5.00	4.00	1.93
Child Benefit Should be Unrestricted	4.22	4.00	4.00	1.97
Child Benefit should be Replaced	3.74	4.00	4.00	1.74
Child Benefit Should be Taxable	3.01	3.00	1.00	1.81
Unemployment Attitudes (1 = SD, 7 = SA)				
Unemployment Assistance Replaced	5.32	5.00	7.00	1.55
More to help those who are unemployed	5.11	5.00	5.00	1.57
Unemployment Assistance effective	4.82	5.00	5.00	1.55
Working without a job anger	4.55	5.00	4.00	1.76
Majority do not want a job	4.31	4.00	5.00	1.89
Pension Attitudes (1 = SD, 7 = SA)				
Pensions effective	5.68	6.00	7.00	1.18
Should spend more to help elderly	5.65	6.00	7.00	1.23
Spend more on extra facilities instead	4.03	4.00	4.00	1.70
Cannot afford current level of spending	3.22	4.00	4.00	1.63
General Attitudes				
High Tax/High (1) or Spend Low Tax/Low Spend(10)	6.31	6.00	5.00	2.24
Egalitarian (1) or competitive (10)	5.83	6.00	5.00	2.38
Left (1) /Right (10)	5.61	5.00	5.00	1.58
government should take steps to reduce inequality	4.91	5.00	5.00	1.63
A lot of people cheat	4.94	5.00	7.00	1.77

Table 5.6: Scores on Modified Schwartz Personal Values Items (1-10)

	Mean	Median	Mode	Std Deviation
Being Honest, Loyal and Responsible	8.56	9.00	10.00	1.54
Living in a World of Peace and Beauty	8.56	9.00	10.00	1.63
Being Helpful to those around You	8.52	9.00	10.00	1.56
Respecting Elders	8.48	9.00	10.00	1.65
Security of Country, Social Stability	8.39	9.00	10.00	1.66
Pleasure and Enjoying Life	8.32	9.00	10.00	1.80
Being Free and Not Dependent on Others	8.30	9.00	10.00	1.77
Social Justice and Equality	8.29	9.00	10.00	1.77
Being Obedient and Polite	8.13	9.00	10.00	1.88
Having Respect for Tradition	8.12	8.00	10.00	1.74
Being Modest, Being Devout, Being Moderate	7.99	8.00	10.00	1.80
Self-Direction and Choosing Your Own Goals	7.70	8.00	10.00	2.07
Being at One with Nature and Protecting the Environment	7.52	8.00	10.00	2.02
Excitement, Novelty and Variety	7.20	8.00	10.00	2.37
Being Successful, Ambitious and Influential	6.86	7.00	7.00	2.32
Personal Wealth	6.79	7.00	7.00	2.25
Looking for Adventures and Taking Risks	6.36	7.00	7.00	2.63
Social Status, Power and Authority	5.80	6.00	5.00	2.53

Table 5.7: Spearman Rank Correlations between General Attitudes, Personal Values and Preferences for Specific Transfers

		Right[a]	Government should take Steps[b]	Cheat[c]	Other minus Self[d]
Old-age pension	Correlation	0.04	0.19	-0.12	0.13
	Sig. (2-tailed)	0.25	0.00	0.00	0.00
Blind pension	Correlation	0.06	0.21	-0.18	0.11
	Sig. (2-tailed)	0.04	0.00	0.00	0.00
Child benefit	Correlation	-0.03	0.28	-0.13	-0.11
	Sig. (2-tailed)	0.30	0.00	0.00	0.00
Unemployment Assistance/benefit	Correlation	-0.05	0.30	-0.30	-0.04
	Sig. (2-tailed)	0.14	0.00	0.00	0.20
Farm assist scheme	Correlation	0.07	0.19	-0.15	0.02
	Sig. (2-tailed)	0.04	0.00	0.00	0.55
Employment support services	Correlation	-0.01	0.22	-0.21	-0.07
	Sig. (2-tailed)	0.83	0.00	0.00	0.03
Pre-retirement allowance	Correlation	-0.09	0.11	-0.09	0.05
	Sig. (2-tailed)	0.00	0.00	0.00	0.13
One-parent family allowance	Correlation	-0.06	0.21	-0.20	-0.05
	Sig. (2-tailed)	0.07	0.00	0.00	0.09
Widow's, Widower's and Orphan's pension	Correlation	0.03	0.27	-0.23	0.06
	Sig. (2-tailed)	0.34	0.00	0.00	0.06
Social assistance and other allowances	Correlation	0.00	0.28	-0.24	-0.02
	Sig. (2-tailed)	0.97	0.00	0.00	0.52
Family Income Supplement	Correlation	0.03	0.25	-0.20	-0.07
	Sig. (2-tailed)	0.33	0.00	0.00	0.02
Carer's Allowance	Correlation	0.01	0.21	-0.21	0.02
	Sig. (2-tailed)	0.70	0.00	0.00	0.44
Supplementary Welfare Allowance	Correlation	-0.03	0.28	-0.25	-0.06
	Sig. (2-tailed)	0.37	0.00	0.00	0.06
Disability Allowance	Correlation	0.02	0.30	-0.21	0.00
	Sig. (2-tailed)	0.59	0.00	0.00	0.97
Student Grants	Correlation	0.00	0.17	-0.06	-0.12
	Sig. (2-tailed)	0.88	0.00	0.05	0.00

a (1 = Left, 10 =Right). b (1= Strongly Disagree, 7 =Strongly Agree). c (1 = Strongly Disagree that "large numbers of people falsely claim social welfare benefits", 7 = Strongly Agree). d Score on Personal Values Scales .

5.4.2. Models of Valuation and Judgment of Benefit Levels[107]

Preston and Ridge (1995) and Gemmel, Morrisey and Pinar (2003), among other papers, offer a simple structure for estimating preferences for public spending with household income, tax price faced and socio-demographic characteristics as arguments. A demand function for government spending is given by:

$$E_i^* / E = y_i^{\alpha} \tau_i^{\beta} z_i^{\gamma}$$

where E_i^* / E is public expenditure demanded by individual i, E_i^* relative to current level of public expenditure, E, y_i^{α} is income τ_i^{β} is the tax price faced by the individual, z_i^{γ} is vector of socio-demographic and attitudinal characteristics.

Tables 5.8 - 5.12 display the estimates of the determinants of whether the respondent wanted to see more government spending and more taxation (table 5.8), the level of support the respondent expressed for extra or less social welfare spending (table 5.9), a summative scale adding up support for each of the fifteen individual welfare benefits (table 5.10), and the respondents level of support for the government intervening to reduce income differences (table 5.11). Ideological orientation toward a pro-market economy negatively predicts support for redistribution and government spending across measures. Having a degree or postgraduate qualification, while increasing support for government intervention itself, significantly decreases support for social welfare transfers and for redistribution. Furthermore, there is no evidence of significant gender differences

[107] Our modelling strategy is to treat judged levels of benefits as preferences and willingness to pay as a behavioural intention. In this respect, it makes sense to think of them as dependent variables being determined by independent variables such as demographics. We model the scores on the "competitive-egalatarian" axis and perception of cheating scale as being independent determinants of preferences for public policy. Variance Inflation Factors and Tolerance levels for the models indicate that this is not an untenable strategy. We have experimented with structural equation modelling which may be theoretically more appropriate. However, the data set is not large enough to permit a full rendering of this approach. Ordered Logit models produce almost identical results with respect to sign and statistical significance. The advantage of displaying the OLS coefficients is that they can, to some extent, be thought of as marginal effects.

in preferences for either government spending or preferences for redistribution as measured by these scales.

Comparing coefficients on the determinants of response to the "support for social welfare" question in Table 5.8 and the determinants of scores on the scaled variable, a summative function of support for each individual category, in Table 5.9 allows us to comment on the issue of differences between the determinants of general versus the determinants of specific preferences. The effects of ideology and perception of abuse of the system remain strong on both measures. However, the income variable is not a significant determinant on the scaled variable even though it is a significant determinant of preferences for social welfare spending. Thus, those on incomes of greater than sixty thousand euro are less likely to want "*increases in social welfare spending*". However, their level of support for a scaled combination of each of the sub-components of social welfare spending is not different from those on lower incomes.

Table 5.12 examines the determinants of log judged level of unemployment benefit with outliers removed. In terms of significance levels, being male and educated both negatively predict the amount given by the respondent. Punitive sentiment toward the unemployed and a perception that social welfare claimants are cheating also both negatively predict amount judged, as does a preference for a competitive over an egalitarian economy. Table 5.13 examines the determinants of log amount judged by respondents to be a suitable child-benefit payment. In this case, general attitudes towards having a more competitive economy do not predict amount given, nor does level of education, age or income levels. Being male significantly decreases the amount judged to be suitable, as do levels of political sophistication, and the perception that social welfare claimants are cheating the system. Having dependent children significantly and substantially increases the amount judged to be suitable. Table 5.14 examines the determinants of log amount

judged by respondents to be a suitable amount to give to pensions. The mean amount suggested is largely invariant across groups with the exception that judged amount increases with age.

Table 5.15 gives a model of the square root of willingness to pay extra taxation to fund social welfare benefits. Gender is not significant in any model. The higher income bracket is willing to pay more in all models, as are those who are educated and score highly on the political sophistication index. More complex specifications of the model including Censored Tobit regressions yield similar results. Two robust models, firstly an ordinal logit model on the categorized variable and secondly a binary logistic model also yields similar results in terms of variable significance.

Table 5.16 displays binary logistic regressions analyzing the determinants of response to the "government should reduce inequality" question in the 2002 round of the European Social Survey for the Irish subset and allows us to analyze a broader set of coefficients. The results are sensitive to changes in specification. Those on higher incomes are less likely to support government intervention to support redistribution, although there is evident multicollinearity between educational level and income level that masks the effect of income in some models. High scores on family values also positively influences support for social welfare. Consistent with the results of our own survey but to a greater extent in terms of statistical significance, females are more likely to support redistribution holding other factors constant.

One notable feature of public preferences for government spending in general and for spending on social transfers, is that the perception that government is inefficient positively predicts support for increased spending. This relation, indeed, is among the most robust. One explanation is that the respondents coded the word

"efficient" to mean "effective" and those viewing the current system as "ineffective" believed that increased spending would remedy the situation. It is also possible that respondents hold an implicit conceptualization of a minimum efficient scale whereby perceived inefficiencies are seen as resulting from insufficient funding size to generate optimal scale economies.

Table 5.8: Binary Logistic Regression on Whether wanted more government spending

	B	S.E.	Wald	df	Sig.	Exp(B)
Gender (1 = Male)	-.197	.191	1.064	1	.302	.821
Age	-.053	.030	3.116	1	.078	.948
Age-Squared	.001	.000	2.929	1	.087	1.001
Income:			3.393	2	.183	
<30,000	.268	.356	.568	1	.451	1.308
30,000-60,000	.581	.361	2.593	1	.107	1.787
Political Sophistication	.292	.072	16.465	1	.000	1.340
Degree	-.309	.265	1.361	1	.243	.734
Perception of Cheating	-.281	.052	29.052	1	.000	.755
Competitive Society	-.194	.042	21.519	1	.000	.823
Efficiency of Government	-.131	.061	4.692	1	.030	.877
Dependent Children	-.104	.220	.224	1	.636	.901
Constant	1.820	.907	4.025	1	.045	6.170

		Predicted		
		MORE GOV SPENDING		Percentage Correct
Observed		.00	1.00	
More Government	.00	559	17	97.0
spending	1.00	133	35	20.8
Overall Percentage				79.8

-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
708.444	.110	.167

Table 5.9*: OLS Regressions of Support for Social Welfare Spending

	B	Std. Error	Beta	t	Sig.	Tolerance	VIF
(Constant)	7.24	0.27		26.78	0.00		
Gender (1 = Male)	-0.06	0.09	-0.02	-0.76	0.45	0.97	1.03
Age	0.01	0.00	0.12	3.08	0.00	0.68	1.46
Income greater than 60000	-0.32	0.14	-0.07	-2.23	0.03	0.94	1.06
Political Sophistication	-0.05	0.03	-0.05	-1.61	0.11	0.90	1.11
Education	-0.02	0.07	-0.01	-0.32	0.75	0.69	1.44
Perception of Cheating	-0.21	0.02	-0.27	-8.69	0.00	0.97	1.03
Efficiency of Department	-0.12	0.03	-0.14	-4.32	0.00	0.95	1.05
Competitive (1 to 10)	-0.18	0.02	-0.30	-9.37	0.00	0.93	1.07

Model Summary

R	R Square	Adjusted R Square	Std. Error of the Estimate
.510	.261	.253	1.17333

*Models including quadratic age-specifications lead to Variance Inflation factors that preclude accurate analysis. Different specifications of the dependent variable do not have an effect on significance of the independent variables.

Table 5.10: OLS Regressions of Support for Social Welfare Spending (Scale) *

	B	Std. Error	Beta	t	Sig.	Tolerance	VIF
(Constant)	95.17	2.58		36.86	0.00		
Gender (1 = Male)	0.42	0.82	0.02	0.51	0.61	0.97	1.03
Age	0.04	0.03	0.06	1.47	0.14	0.68	1.46
Income greater than 60000	-0.22	1.41	-0.01	-0.15	0.88	0.95	1.06
Political Sophistication	0.36	0.30	0.04	1.21	0.23	0.90	1.11
Degree	-0.46	0.67	-0.03	-0.69	0.49	0.70	1.43
Perception of Cheating	-2.02	0.23	-0.29	-8.65	0.00	0.97	1.03
Efficiency of Department	-2.04	0.26	-0.26	-7.91	0.00	0.95	1.06
Competitive (1 to 10)	-0.87	0.18	-0.17	-4.91	0.00	0.93	1.07

Model Summary

R	R Square	Adjusted R Square	Std. Error of the Estimate
.478	.228	.220	11.00494

*Models including quadratic age-specifications lead to Variance Inflation factors that preclude accurate analysis. Different specifications of the dependent variable do not have an effect on significance of the independent variables.

The scaled variable is a summative scale constructing by summing scores on preferences for increased spending on each individual benefit category.

Table 5.11: OLS Regressions of Support for Redistribution*

	B	Std. Error	Beta	t	Sig.	Tolerance	VIF
(Constant)	6.77	0.32		21.13	0.00		
Gender (1 = Male)	-0.09	0.10	-0.03	-0.89	0.38	0.97	1.03
Age	0.01	0.00	0.09	2.32	0.02	0.68	1.48
Income greater than 60000	-0.47	0.17	-0.09	-2.75	0.01	0.94	1.06
Political Sophistication	0.01	0.04	0.01	0.33	0.74	0.90	1.11
Degree	-0.11	0.08	-0.05	-1.30	0.19	0.69	1.45
Perception of Cheating	-0.06	0.03	-0.07	-2.06	0.04	0.97	1.03
Efficiency of Department	-0.10	0.03	-0.11	-3.31	0.00	0.96	1.05
Competitive (1 to 10)	-0.21	0.02	-0.32	-9.34	0.00	0.93	1.08

Model Summary

R	R Square	Adjusted R Square	Std. Error of the Estimate
.421	.177	.169	1.39304

*Models including quadratic age-specifications lead to Variance Inflation factors that preclude accurate analysis. Different specifications of the dependent variable do not have an effect on significance of the independent variables.

Table 5.12: OLS Regressions of Log Amount of Judged Unemployed Benefit With Outliers Excluded

	B	Std. Error	t	sig	Tolerance	VIF
Constant	2.47	0.03	88.29	0.00		
Gender (1 = Male)	-0.03	0.01	-2.85	0.01	0.97	1.03
Age	0.00	0.00	-0.36	0.72	0.91	1.10
Income greater than 60000	0.01	0.02	0.29	0.77	0.94	1.06
Political Sophistication	0.00	0.00	-0.88	0.38	0.89	1.13
Degree	-0.03	0.02	-1.79	0.07	0.93	1.07
Perception of Cheating	-0.01	0.00	-2.02	0.04	0.61	1.65
Competitive (1 to 10)	-0.01	0.00	-2.11	0.04	0.88	1.14
Punitive Sentiment toward the unemployed	-0.02	0.00	-6.56	0.00	0.58	1.73
Efficiency of Department	-0.01	0.00	-1.84	0.07	0.93	1.08

Model Summary

R	R Square	Adjusted R Square	Std. Error of the Estimate
.444	.197	.186	.15345

Table 5.13: OLS Regressions of Log Amount of Judged Child Benefit With Outliers Excluded

	B	Std. Error	t	sig	Tolerance	VIF
Constant	2.31	0.04	59.68	0.00		
Gender (1 = Male)	-0.05	0.02	-3.31	0.00	0.96	1.04
Age	0.00	0.00	-0.99	0.32	0.89	1.12
Income greater than 60000	-0.01	0.03	-0.51	0.61	0.93	1.08
Political Sophistication	-0.01	0.01	-1.92	0.06	0.91	1.10
Degree	-0.02	0.02	-0.92	0.36	0.90	1.11
Perception of Cheating	-0.02	0.00	-4.72	0.00	0.96	1.04
Competitive (1 t o10)	0.00	0.00	-0.70	0.48	0.91	1.09
Efficiency of Department	-0.01	0.01	-2.67	0.01	0.94	1.07
Dependent Children?	0.09	0.02	5.65	0.00	0.96	1.04

Model Summary

R	R Square	Adjusted R Square	Std. Error of the Estimate
.382	.146	.133	.19966

Table 5.14: OLS Regression of Log of Judged Pension Amount

	B	Std. Error	T	Sig	Tolerance	VIF
Constant	2.29	0.03	90.29	0.00		
Gender (1 = Male)	-0.02	0.01	-1.41	0.16	0.97	1.03
Age	0.00	0.00	2.34	0.02	0.91	1.10
Income greater than 60000	0.03	0.02	1.43	0.16	0.94	1.06
Political Sophistication	0.00	0.00	0.98	0.33	0.92	1.08
Degree	0.00	0.02	0.13	0.90	0.92	1.08
Perception of Cheating	0.00	0.00	-0.15	0.89	0.97	1.03
Competitive (1 to 10)	0.00	0.00	-0.35	0.73	0.92	1.09
Efficiency of Department	-0.01	0.00	-2.49	0.01	0.94	1.06

Model Summary

R	R Square	Adjusted R Square	Std. Error of the Estimate
.169	.029	.016	.14093

Table 5.15: OLS Regression of Square-Root WTP (Outliers Removed)

	B	Std. Error	Beta	t	Sig	Tolerance	VIF
Constant	2.01	0.31		6.50	0.00		
Gender (1 = Male)	0.02	0.13	0.01	0.15	0.88	0.97	1.03
Age	-0.01	0.00	-0.14	-3.77	0.00	0.91	1.11
Income greater than 60000	0.61	0.22	0.10	2.73	0.01	0.95	1.05
Political Sophistication	0.13	0.05	0.10	2.78	0.01	0.92	1.09
Degree	0.77	0.18	0.16	4.23	0.00	0.93	1.07
Perception of Cheating	-0.03	0.04	-0.03	-0.94	0.35	0.97	1.03
Competitive (1 to 10)	-0.12	0.03	-0.15	-4.13	0.00	0.92	1.09
Efficiency of Department	0.01	0.04	0.01	0.22	0.83	0.95	1.05

Model Summary

R	R Square	Adjusted R Square	Std. Error of the Estimate
.307	.094	.084	1.71258

Table 5.16: Binary Logistic Regression of Whether the Respondent wanted the government to intervene to reduce income inequality (1 =Yes): Source ESS Irish Module*

	B	S.E.	Wald	df	Sig.	Exp(B)
Household Income	-.117	.024	23.237	1	.000	.889
Trade Union:			1.197	2	.550	
Yes	.159	.156	1.047	1	.306	1.173
Previously	.098	.148	.441	1	.507	1.103
Male	-.451	.130	11.963	1	.001	.637
People cant be trusted	-.055	.027	4.065	1	.044	.946
Family Important	.136	.059	5.397	1	.020	1.146
Subjective Feeling of Unsafety	-.068	.077	.773	1	.379	.934
Constant	1.218	.630	3.738	1	.053	3.381

*The model fails to predict lack of support for government intervention to reduce income inequality.

Model Summary

-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1706.933	.030	.045

5.4.3. International Comparisons

Macroeconomic Correlates

Table 5.17, below, shows the across countries response to the question: "*The Government should take steps to reduce differences in income inequality*". As can be seen, Ireland scores below the median category in responses to this question. The purpose of this section is not to deliver a full international model of preferences for social welfare spending, however given that we have demonstrated that this question does predict preferences for specific transfers, an outline of its main correlates is a useful exercise for comparison purposes. As can be seen in Table 5.19 that displays non-parametric Spearman rank correlations between a number of macro-economic variables and scaled support for increased government intervention to reduce income differences, gdp per capita is very significantly and substantially negatively correlated with preferences for income inequality reduction. Birth rates are not at all correlated with preferences for government intervention to reduce inequality as measured by this question, nor is the dependency ratio. Also, the gini coefficient does not predict support for reduction in inequality by the government to a significant extent. There is more evidence that the degree of openness is negatively correlated with preferences for government involvement with inequality with rank correlations with the preference measure being negative with both FDI as a percentage of GDP, and exports as a percentage of GDP. Furthermore, there is very little evidence from a cross-section analysis that support for intervention to reduce inequality in the countries is determined by the size of the public sector in the country. However, other variables associated with economic liberalism do correlate with support for government intervention but do not remain significant when gdp per capita is controlled for. Furthermore, variables that measure faith in the efficiency of the political system such as trust in politicians do not predict national support for government intervention to reduce income inequality. The hypothesis that subjective feelings of exposure to crime would lead to greater demands for income redistribution also does not fit the data.

There is little evidence to support a cross-sectional effect of personal values on support for active government support to reduce government inequality. Measures of individualism negatively predict support for redistribution, while measures of collectivism and other-centeredness positively predict support for redistribution. However, these effects do not remain significant in simple two-variable models that incorporate gdp-per capita. However, given the sample size the use of regression parameters in multiple regression models cannot be taken as wholly reliable.

Individual-Level Regressions

The first regression (Table 5.21) outlined is an exploratory regression over the whole sample of approximately forty thousand respondents examining the effects of age, education, personal values, previous unemployment experience, gender, household income, family values, religiosity, internet usage (used as a proxy for skill), subjective health, trust in other people and family background as variables. As expected, income substantially negatively predicts support for income redistribution, as do personal values associated with maintenance of societal order and discipline and Internet usage and being male. Family background characteristics have a significant thought modest effect, with higher levels of both mothers and fathers education negatively predicting support for income redistribution. Both family values and religiosity positively predict support for redistribution, albeit at a modest level. One caveat that must be made about the results is the lack of significant variability in the scale. A measure that more adequately distinguished between those in favour of redistribution and those opposed to redistribution would also perhaps reveal the inter-group differences in support for redistribution to a greater extent.

Table 5.22 displays country-specific regressions utilizing the same set of variables. While there is heterogeneity in the effect size, higher household income negatively

predicts support for redistribution, taking other factors in to account, and significantly so in the majority of the countries. The importance of core level personal values in determining preferences for redistribution is underscored by the predominant importance of personal values emphasizing societal and group maintenance and self-transcendence in positively affecting desire for redistribution across the majority of countries in the sample. Skill levels, as measured by education and Internet usage negatively predict support for redistribution in most countries.

Table 5.17: "Government should take steps to reduce differences in income levels" (Data Source: European Social Survey, 2002)

	SA	A	Neither	D	SD	N
Greece	44.96	45.24	7.00	2.20	0.60	2500.00
Portugal	41.54	47.64	8.36	2.19	0.27	1459.00
Hungary	40.42	43.66	9.68	4.84	1.41	1633.00
Israel	40.34	40.94	10.00	7.63	1.08	2489.00
Finland	37.25	39.48	12.01	8.57	2.69	1973.00
Slovenia	34.38	49.97	9.30	5.22	1.14	1495.00
Italy	33.62	45.97	13.04	6.26	1.11	1166.00
Spain	30.14	49.63	13.76	5.67	0.81	1606.00
Poland	27.29	52.39	9.45	9.16	1.71	2052.00
Austria	27.11	39.79	16.25	12.69	4.17	2136.00
Luxembourg	24.52	40.79	11.91	16.62	6.16	1444.00
Belgium	22.89	47.56	12.41	13.92	3.22	1861.00
Czech Republic	22.34	31.14	17.21	19.43	9.87	1307.00
Ireland	17.35	59.64	9.96	11.43	1.62	1977.00
Germany	15.47	42.70	16.97	21.21	3.65	2876.00
Norway	15.32	54.98	13.40	14.98	1.33	2030.00
Sweden	14.48	54.24	16.80	12.89	1.59	1947.00
Switzerland	12.82	50.77	13.82	18.95	3.64	2005.00
United Kingdom	12.31	50.25	15.13	19.73	2.57	2022.00
Netherlands	10.56	48.59	14.57	23.03	3.25	2340.00
Denmark	7.63	35.78	12.19	36.14	8.27	1403.00
Total	25.10	46.51	12.59	13.08	2.72	39721.00

Table 5.18: "Government Should be Responsible for Reducing Income Differences between Rich and Poor" (Data Source: ISSP 1998)

	Def. Should be	Prob. Should be.	Prob should not be	Def. Should not be
RCH-Chile	87.84	7.97	2.50	1.69
P-Portugal	76.50	15.55	2.70	5.24
SLO-Slovenia	65.73	30.15	2.81	1.31
IL-Israel Jews Arabs	63.77	24.21	7.76	4.26
PL-Poland	62.43	27.97	6.31	3.30
H-Hungary	61.09	25.87	7.80	5.24
D-E-Germany-East	58.88	29.75	8.47	2.89
SK-Slovak Republic	58.66	27.86	8.66	4.82
RUS-Russia	56.87	26.55	12.93	3.64
BG-Bulgaria	56.64	26.48	8.29	8.58
E-Spain	55.03	29.08	8.99	6.90
IRL-Ireland	54.07	36.79	6.50	2.64
N-Norway	50.14	31.01	14.60	4.24
I-Italy	47.35	30.82	13.06	8.78
F-France	46.36	34.56	11.71	7.37
S-Sweden	44.70	28.38	18.86	8.07
NIRL-Northern Ireland	44.65	42.28	9.04	4.03
GB-Great Britain	43.72	38.62	10.48	7.17
CY-Cyprus	42.20	33.82	14.55	9.42
CH-Switzerland	40.75	32.63	19.23	7.38
NL-Netherlands	39.08	40.91	13.90	6.11
RP-Philippines	37.75	27.92	21.09	13.24
NZ-New Zealand	35.72	30.27	15.61	18.40
A-Austria	35.29	42.11	15.89	6.71
D-W-Germany-West	34.95	46.63	15.47	2.95
LV-Latvia	32.92	34.51	23.06	9.51
AUS-Australia	31.62	36.92	19.05	12.41
CZ-Czech Republic	30.62	32.00	25.07	12.32
CDN-Canada	28.53	33.01	20.94	17.52
J-Japan	27.35	41.02	19.21	12.42
D-Denmark	19.68	24.81	28.26	27.24
USA-United States	18.49	28.42	25.60	27.48
Total	47.29	30.75	13.59	8.37

Table 5.19: Rank Correlations between Mean Support for Govt. Intervention and Macroeconomic Indicators (21 ESS Countries)

Exports (% of GDP)*	Spearman Correlation	-0.23
	Sig. (2-tailed)	0.31
Dependency Ratio*	Spearman Correlation	0.02
	Sig. (2-tailed)	0.95
FDI (% of GDP)*	Spearman Correlation	-0.44
	Sig. (2-tailed)	0.06
GDP per capita*	Spearman Correlation	-0.54
	Sig. (2-tailed)	0.01
Size of Government**	Spearman Correlation	-0.09
	Sig. (2-tailed)	0.69
Legal Structure**	Spearman Correlation	-0.40
	Sig. (2-tailed)	0.07
Access to Money**	Spearman Correlation	0.06
	Sig. (2-tailed)	0.80
Freedom to Trade**	Spearman Correlation	-0.06
	Sig. (2-tailed)	0.80
Regulation Index**	Spearman Correlation	-0.30
	Sig. (2-tailed)	0.19
Regulation of credit**	Spearman Correlation	-0.40
	Sig. (2-tailed)	0.07
Regulation of Labour**	Spearman Correlation	-0.16
	Sig. (2-tailed)	0.49
Business Regulation**	Spearman Correlation	-0.23
	Sig. (2-tailed)	0.32
GDP per capita squared	Spearman Correlation	-0.51
	Sig. (2-tailed)	0.02
Trust in Politician***	Spearman Correlation	-0.60
	Sig. (2-tailed)	0.00
Satisfied with life***	Spearman Correlation	-0.64
	Sig. (2-tailed)	0.00
Satisfied with economy***	Spearman Correlation	-0.52
	Sig. (2-tailed)	0.01
Feeling Safe***	Spearman Correlation	0.21
	Sig. (2-tailed)	0.37
Right-Wing Orientation***	Spearman Correlation	-0.13
	Sig. (2-tailed)	0.58
Internet Usage***	Spearman Correlation	-0.67
	Sig. (2-tailed)	0.00

Subjective Health***	Spearman Correlation	0.37
	Sig. (2-tailed)	0.10
Gini Coefficient**	Spearman Correlation	0.20
	Sig. (2-tailed)	0.40
Log Gini	Spearman Correlation	0.21
	Sig. (2-tailed)	0.38
Log GDP per capita	Spearman Correlation	-0.44
	Sig. (2-tailed)	0.04
Supporting Attitudes***	Spearman Correlation	0.43
	Sig. (2-tailed)	0.05
Family Values***	Spearman Correlation	0.43
	Sig. (2-tailed)	0.05
Religiosity***	Spearman Correlation	0.66
	Sig. (2-tailed)	0.00
Self-enhancement***	Spearman Correlation	-0.44
	Sig. (2-tailed)	0.06
Group-Maintenance***	Spearman Correlation	-0.65
	Sig. (2-tailed)	0.00
Self-transcendence***	Spearman Correlation	0.16
	Sig. (2-tailed)	0.51

* Source: World Bank, World Development Indicators

** Source: Economic Freedom of the World Annual Report 2003

*** Source: European Social Survey, Round 1, 2002.

Table 5.20: Mean Level of Support for Government Intervention to Reduce Income Differences by Country Level Variables

	B	Std. Error	t	Sig.	Tolerance	VIF
Constant	4.403	.160	27.507	.000		
% FDI	-4.911E-02	.019	-2.523	.023	1.000	1.000
Gdp per Capita	-1.597E-05	.000	-3.246	.005	1.000	1.000
R-Squared	0.43					

Table 5.21: OLS Regressions on Support for Redistribution on the Full European Sample

	B	Std. Error	Beta	t	Sig.
(Constant)	4.48	0.09		49.24	0.00
Age	0.00	0.00	0.04	1.04	0.30
Age-Squared	0.00	0.00	-0.13	-3.63	0.00
Years of Education Squared	0.00	0.00	0.09	3.74	0.00
Years of full-time education completed	-0.04	0.01	-0.14	-5.50	0.00
Self-Enhancement	-0.05	0.01	-0.05	-7.14	0.00
Group-Maintenance	0.06	0.01	0.06	8.58	0.00
Self-Transcendence	0.13	0.01	0.12	19.22	0.00
Never unemployed and seeking work for a period more than three months	-0.09	0.02	-0.04	-5.51	0.00
Female	0.08	0.01	0.04	5.84	0.00
Important in life: religion	0.00	0.00	0.01	0.73	0.47
Household's total net income, all sources	-0.06	0.00	-0.16	-20.49	0.00
Important in life: family	0.03	0.01	0.04	5.64	0.00
Most people can be trusted (1 to 10)	-0.01	0.00	-0.02	-3.61	0.00
Personal use of internet/e-mail/www	-0.02	0.00	-0.06	-8.05	0.00
Subjective general Unhealthy (1 to 5)	0.04	0.01	0.04	5.09	0.00
Father's highest level of education	-0.03	0.01	-0.05	-5.77	0.00
Mother's highest level of education	-0.03	0.01	-0.04	-4.53	0.00

a Dependent Variable: "Government should reduce differences in income levels"

R	R Square	Adjusted R Square	Std. Error of the Estimate
.356	.127	.126	.961

Table 5.22: Country Specific Regressions on Support for Redistribution

	Austria		Belgium		Switzerland	
	B	Std. Error	B	Std. Error	B	Std. Error
(Constant)	**4.84*** **	**0.52**	**4.03*** **	**0.48**	**5.03*** **	**0.44**
Age	-0.01	0.01	0.00	0.01	-0.02	0.01
Age-Squared	0.00	0.00	0.00	0.00	0.00	0.00
Years of Education Squared	0.00	0.00	0.00	0.00	0.00	0.00
Years of full-time education completed	-0.04	0.06	-0.01	0.05	-0.05	0.04
Self-Enhancement	-0.05	0.04	-0.02	0.04	**-0.10*** **	**0.04**
Group-Maintenance	**0.12*** **	**0.03**	0.03	0.04	-0.04	0.03
Self-Transcendence	**0.23*** **	**0.03**	**0.10*** **	**0.04**	**0.11*** **	**0.03**
Never unemployed	**-0.14** **	**0.07**	-0.11	0.07	**-0.15***	**0.08**
Female	0.08	0.06	**0.12***	**0.06**	**0.14** **	**0.06**
Important in life: religion	**-0.03** **	**0.01**	0.00	0.01	0.01	0.01
Household's total net income, all sources	**-0.06*** **	**0.02**	**-0.04*** **	**0.02**	**-0.07*** **	**0.02**
Important in life: family	**0.03** **	**0.02**	0.04	0.02	0.00	0.02
Most people can be trusted (1 to 10)	**0.05*** **	**0.01**	0.01	0.01	-0.01	0.01
Personal use of internet/e-mail/www	**-0.02***	**0.01**	0.00	0.01	**-0.03** **	**0.01**
Subjective general Unhealthy (1 to 5)	-0.01	0.04	0.00	0.04	**0.09** **	**0.04**
Father's highest level of education	-0.04	0.03	**-0.05***	**0.03**	-0.04	0.03
Mother's highest level of education	-0.03	0.04	-0.05	0.03	0.02	0.03
Adjusted R-Squared	**0.093*** **		**0.058*** **		**0.069*** **	

Table 5.22 (Continued): Country Specific Regressions on Support for Redistribution

	Denmark		Spain		Finland	
	B	Std. Error	B	Std. Error	B	Std. Error
(Constant)	**4.24*** **	**0.61**	**4.79*** **	**0.43**	**3.87*** **	**0.41**
Age	0.00	0.01	-0.01	0.01	**0.02** **	**0.01**
Age-Squared	0.00	0.00	0.00	0.00	**0.00** **	**0.00**
Years of Education Squared	0.00	0.00	0.00	0.00	0.00	0.00
Years of full-time education completed	-0.03	0.06	-0.02	0.02	-0.06	0.04
Self-Enhancement	**-0.20*** **	**0.04**	**-0.06** **	**0.03**	-0.04	0.03
Group-Maintenance	**0.11*** **	**0.04**	**0.17*** **	**0.04**	-0.00	0.03
Self-Transcendence	**0.14*** **	**0.04**	**0.10*** **	**0.03**	**0.18*** **	0.03
Never unemployed	-0.08	0.08	-0.06	0.07	-0.09	0.06
Female	0.11	0.07	0.02	0.07	**0.14*** **	**0.06**
Important in life: religion	-0.02	0.02	-0.01	0.01	-0.01	0.01
Household's total net income, all sources	-0.03	0.02	-0.02	0.02	**-0.06*** **	**0.01**
Important in life: family	**-0.07** **	**0.03**	-0.01	0.03	**0.05** **	**0.02**
Most people can be trusted (1 to 10)	-0.01	0.02	0.00	0.01	**0.03** **	**0.01**
Personal use of internet/e-mail/www	**-0.03** **	**0.01**	-0.01	0.02	**-0.02** *	**0.01**
Subjective general Unhealthy (1 to 5)	**0.07** **	**0.04**	-0.01	0.04	**0.11*** **	**0.04**
Father's highest level of education	-0.01	0.04	-0.01	0.03	**-0.06** **	**0.02**
Mother's highest level of education	0.05	0.04	-0.04	0.04	-0.01	0.03
R-Squared	0.06		0.04		0.124	

Table 5.22 (Continued): Country Specific Regressions on Support for Redistribution

	Great Britain		Greece		Hungary	
	B	Std. Error	B	Std. Error	B	Std. Error
(Constant)	**4.72*** **	**0.47**	**3.98*** **	**0.29**	**4.65*** **	**0.40**
Age	0.01	0.01	**0.01** **	**0.01**	-0.01	0.01
Age-Squared	**0.01***	**0.00**	**-0.01** **	**0.00**	0.00	0.00
Years of Education Squared	**0.01***	**0.00**	-0.01	0.00	**0.01***	**0.00**
Years of full-time education completed	**-0.08** **	**0.04**	0.01	0.02	-0.05	0.03
Self-Enhancement	-0.07	0.03	**-0.06*** **	**0.02**	**-0.07** **	**0.03**
Group-Maintenance	0.03	0.03	**0.09*** **	**0.03**	**0.08*** **	**0.03**
Self-Transcendence	**0.16*** **	**0.03**	**0.09*** **	**0.02**	**0.05*** **	**0.03**
Never unemployed	-0.02	0.07	-0.05	0.04	-0.08	0.06
Female	**0.13** **	**0.06**	-0.01	0.04	-0.01	0.05
Important in life: religion	0.01	0.01	**0.02** **	**0.01**	0.01	0.01
Household's total net income, all sources	**-0.05** **	**0.01**	-0.01	0.01	**-0.04** **	**0.02**
Important in life: family	-0.02	0.02	0.01	0.02	**0.04***	**0.03**
Most people can be trusted (1 to 10)	0.00	0.01	-0.01	0.01	0.00	0.01
Personal use of internet/e-mail/www	**-0.04*** **	**0.01**	0.00	0.01	-0.04	0.01
Subjective general Unhealthy (1 to 5)	0.04	0.03	-0.01	0.02	-0.03	0.03
Father's highest level of education	0.01	0.03	-0.02	0.02	-0.02	0.02
Mother's highest level of education	-0.05	0.03	**-0.05** **	**0.02**	-0.03	0.03
R-Squared	**0.09*** **		**0.049*** **		**0.051*** **	

Table 5.22 (Continued): Country Specific Regressions on Support for Redistribution

	Ireland		Israel		Netherlands	
	B	Std. Error	B	Std. Error	B	Std. Error
(Constant)	**3.43*** **	**0.47**	**3.66*** **	**0.42**	**4.13*** **	**0.37**
Age	0.00	0.01	0.02	0.01	0.00	0.01
Age-Squared	0.00	0.00	0.00	0.00	0.00	0.00
Years of Education Squared	**0.01***	**0.00**	0.00	0.00	0.00	0.00
Years of full-time education completed	0.05	0.04	0.02	0.03	-0.02	0.03
Self-Enhancement	-0.00	0.03	0.03	0.03	**-0.08** **	**0.03**
Group-Maintenance	0.05	0.03	0.02	0.03	-0.02	0.03
Self-Transcendence	**0.13*** **	**0.03**	**0.07*** **	**0.03**	**0.16*** **	**0.03**
Never unemployed	-0.10	0.07	-0.03	0.06	**-0.14** **	**0.07**
Female	**0.13** **	**0.05**	0.05	0.05	0.07	0.05
Important in life: religion	0.02	0.01	0.00	0.01	0.01	0.01
Household's total net income, all sources	-0.01	0.01	**-0.05*** **	**0.01**	**-0.08*** **	**0.01**
Important in life: family	0.02	0.03	0.05	0.03	0.01	0.01
Most people can be trusted (1 to 10)	0.00	0.01	-0.01	0.01	0.02	0.01
Personal use of internet/e-mail/www	**-0.03*** **	**0.01**	0.00	0.01	0.00	0.01
Subjective general Unhealthy (1 to 5)	**0.07***	**0.04**	0.01	0.03	**0.15*** **	**0.03**
Father's highest level of education	**-0.05** **	**0.03**	-0.01	0.02	-0.02	0.02
Mother's highest level of education	**0.05***	**0.03**	**-0.04***	**0.02**	-0.04	0.03
R-Squared	**0.068*** **		**0.031*** **		**0.089*** **	

Table 5.22 (Continued): Country Specific Regressions on Support for Redistribution

	Norway		Poland		Portugal	
	B	Std. Error	B	Std. Error	B	Std. Error
(Constant)	**4.76*** **	**0.40**	**3.86*** **	**0.41**	**4.41*** **	**0.36**
Age	0.00	0.01	**0.02** **	**0.01**	0.00	0.01
Age-Squared	0.00	0.00	**0.01** **	**0.00**	0.00	0.00
Years of Education Squared	0.00	0.00	0.00	0.00	0.00	0.00
Years of full-time education completed	-0.04	0.04	0.06	0.04	-0.03	0.02
Self-Enhancement	**-0.16*** **	**0.03**	0.01	0.03	**-0.13*** **	**0.03**
Group-Maintenance	**0.05** **	**0.03**	**0.11*** **	**0.03**	**0.07*** **	**0.03**
Self-Transcendence	**0.13*** **	**0.02**	0.01	0.03	**0.18*** **	**0.03**
Never unemployed	**-0.23*** **	**0.06**	-0.02	0.05	-0.06	0.06
Female	0.10	0.05	**0.12** **	**0.05**	0.03	0.05
Important in life: religion	0.00	0.01	-0.01	0.01	0.02	0.01
Household's total net income, all sources	**-0.03** **	**0.01**	**-0.05*** **	**0.02**	-0.02	0.01
Important in life: family	-0.03	0.02	0.01	0.03	**0.05** **	**0.02**
Most people can be trusted (1 to 10)	0.01	0.01	-0.01	0.01	**-0.03** **	**0.01**
Personal use of internet/e-mail/www	0.00	0.01	**-0.03** **	**0.01**	-0.01	0.01
Subjective general Unhealthy (1 to 5)	**0.08*** **	**0.03**	-0.02	0.03	0.01	0.03
Father's highest level of education	**-0.04** **	**0.02**	-0.03	0.03	-0.05	0.03
Mother's highest level of education	-0.03	0.02	-0.03	0.03	**0.09** **	**0.04**
R-Squared	**0.106*** **		**0.115*** **		**0.124*** **	

Table 5.22 (Continued): Country Specific Regressions on Support for Redistribution

	Sweden		Slovenia	
	B	Std. Error	B	Std. Error
(Constant)	**4.52*** **	**0.41**	**4.15*** **	**0.41**
Age	0.00	0.01	0.01	0.01
Age-Squared	0.00	0.00	0.00	0.00
Years of Education Squared	0.00	0.00	**-0.01*** **	**0.00**
Years of full-time education completed	**-0.08***	**0.04**	**0.13*** **	**0.04**
Self-Enhancement	**-0.15*** **	**0.03**	**-0.10*** **	**0.03**
Group-Maintenance	0.03	0.03	**0.09*** **	**0.03**
Self-Transcendence	**0.13*** **	**0.02**	**0.19*** **	**0.03**
Never unemployed	**-0.21*** **	**0.06**	-0.02	0.06
Female	**0.17*** **	**0.05**	-0.01	0.05
Important in life: religion	0.00	0.01	0.01	0.01
Household's total net income, all sources	**-0.06*** **	**0.01**	**-0.12*** **	**0.02**
Important in life: family	**0.05** **	**0.02**	0.01	0.03
Most people can be trusted (1 to 10)	**0.02** **	**0.01**	**-0.04*** **	**0.01**
Personal use of internet/e-mail/www	**-0.02***	**0.01**	0.00	0.01
Subjective general Unhealthy (1 to 5)	0.04	0.03	-0.04	0.03
Father's highest level of education	-0.02	0.02	0.03	0.03
Mother's highest level of education	**-0.04** **	**0.02**	-0.02	0.03
R-Squared	**0.144*** **		**0.144*** **	

5.4.4. Expert Predictions

33 respondents, in total, from the "experts" sample recorded responses. Of this, 32 recorded information as to which sector they worked in. Nineteen were academic researchers, nine were public sector researchers, three worked in other areas of the public sector and one was a private sector researcher. The mean scores on firstly general preferences in the population are displayed in Table 29. These scores are illustrated graphically in Figure 5.1 at the end of the chapter. One-way ANOVA models demonstrate significant discordance between expert predictions, expert preferences and population predictions across the majority of benefit categories. Standard post-hoc testing procedures are not valid in the presence of both heteroscedasticity and different sample sizes. Therefore we employ the Games-Howell post-hoc procedure to analyse differences between expert predictions, expert preferences and population preferences. The results are displayed in Table A4. The expert sample overestimate support for the benefit categories of Pensions (MD = 0.62, $p<0.01$), Child benefit (MD = 0.79, $p<0.01$), and Carer's Allowance (MD = 0.43, $p = 0.06$) and underestimate support for the benefit categories of Unemployment Assistance (MD = -0.57, $p=0.05$), Farm-Assist Scheme (MD = -0.84, $p<0.01$), One-Parent Family Allowance (-0.82, $p<0.01$) and Social assistance and other allowances (MD = -0.45, $p =0.08$). Overall, however, the level of fit between expert preferences, population preferences and population predictions is high. Isolating mean scores and calculating Spearman Rank Correlation coefficients yields a coefficient of 0.925 between expert preferences and population preferences, and 0.899 between expert predictions and population preferences.

5.4.5 Political Party Affiliation and Support for Income Maintenance

As displayed in Table A3, political party affiliation correlates with preferences and attitudes to redistribution in several domains. Table 30 displays a multinomial model of vote-choice, including age, competitive ideology and income as control

variables, particularly shows that preferences for increased spending on social welfare positively predicts support for Sinn Fein. In this case, the base category is the incumbent party, Fianna Fail.[108] The results lend themselves to a weak version of the political mobilization argument as it relates to social welfare transfers. There is considerable evidence (albeit from a small sample size) that Sinn Fein voters are more in favour in a range of income maintenance increases and are generally more orientated toward to an interventionist approach to income redistribution. Contrastingly, Progressive Democrat voters display opposite preferences across an array of transfers. Basic Multinomial regressions controlling for the effect of age and income demonstrate the case that support for income maintenance does not play a large role in this sample in terms of the individual's choice between the three largest parties, Fianna Fail, Fine Gael and Labour.

[108] In models, where "no party" is used as the base category, the Sinn Fein parameters remain statistically significant. Support for the incumbent party itself is not statistically significantly determined by preferences for social benefit transfers.

Table 5.23: Population Preferences, Expert Preferences and Predicted Preferences for Welfare Benefits

	Population Preferences		Expert Preference		Expert Predictions	
	Mean	Std. Deviation	Mean	Std. Deviation	Mean	Std. Deviation
Old-age pension	5.48	1.17	5.88	1.01	6.10	0.84
Blind pension	5.50	1.13	5.48	1.15	5.73	0.94
Child benefit	5.08	1.16	5.44	1.46	5.87	1.04
Unemployment assistance/benefit	4.77	1.28	5.00	1.67	4.20	1.27
Farm assist scheme	4.47	1.34	4.06	1.57	3.63	1.07
Employment support services	4.85	1.11	5.07	1.34	4.53	1.04
Pre-retirement allowance	4.70	1.15	4.29	1.64	4.38	0.94
One-parent family allowance	4.82	1.19	5.38	1.50	4.00	1.29
Widow's, Widower's and Orphan's pension	5.44	1.17	5.50	1.41	5.67	1.12
Social assistance and other allowances	4.92	1.17	5.29	1.40	4.47	1.11
Family Income Supplement	4.95	1.13	5.31	1.45	5.23	0.97
carer's allowance	5.51	1.14	5.97	1.18	5.93	0.98
Supplementary welfare allowance	4.90	1.16	5.16	1.44	4.73	0.98
Disability allowance	5.53	1.17	5.72	1.14	5.83	0.99

Table 5.24: Multinomial Logistic Regressions on Support for Political Parties By Respondent Age, Income and Preferences for Social Welfare Spending. (Base Category: Fianna Fail)

Party		B	Std. Error	Wald	df	Sig.	Exp(B)
None	Intercept	3.923	.838	21.907	1	.000	
	Competitive Ideology	-.082	.045	3.297	1	.069	.921
	Support Social Welfare	-.005	.008	.423	1	.515	.995
	AGE	-.062	.007	85.624	1	.000	.939
	Income	-.278	.156	3.204	1	.073	.757
Fine Gael	Intercept	-2.831	1.128	6.303	1	.012	
	Competitive Ideology	.132	.057	5.252	1	.022	1.141
	Support Social Welfare	.007	.011	.437	1	.509	1.007
	AGE	.003	.008	.164	1	.686	1.003
	Income	.283	.188	2.262	1	.133	1.327
Sinn Fein	Intercept	1.581	1.282	1.521	1	.217	
	Competitive Ideology	-.132	.070	3.560	1	.059	.876
	Support Social Welfare	.021	.013	2.814	1	.093	1.022
	AGE	-.066	.011	36.904	1	.000	.936
	Income	-.853	.299	8.159	1	.004	.426
Labour	Intercept	-.822	1.105	.554	1	.457	
	Competitive Ideology	.033	.058	.331	1	.565	1.034
	Support Social Welfare	.012	.011	1.277	1	.258	1.012
	AGE	-.027	.008	10.958	1	.001	.974
	Income	-.040	.197	.041	1	.840	.961
Green	Intercept	-.996	2.645	.142	1	.706	
	Competitive Ideology	-.123	.144	.730	1	.393	.884
	Support Social Welfare	.005	.027	.034	1	.854	1.005
	AGE	-.037	.021	3.135	1	.077	.964
	Income	-.109	.494	.049	1	.826	.897
PD's	Intercept	-12.483	6.629	3.546	1	.060	
	Competitive Ideology	.659	.381	2.987	1	.084	1.933
	Support Social Welfare	-.017	.056	.096	1	.757	.983
	AGE	-.025	.044	.308	1	.579	.976
	Income	2.657	1.108	5.746	1	.017	14.254
Other	Intercept	.231	1.710	.018	1	.893	
	Competitive Ideology	-.180	.094	3.696	1	.055	.835
	Support Social Welfare	.000	.017	.000	1	.991	1.000
	AGE	-.027	.013	4.335	1	.037	.974
	Income	-.136	.325	.176	1	.675	.873

5.5 Conclusions and Future Research

This chapter has examined preferences for social spending in Ireland using three primary data-sets, the European Social Survey, a nationwide representative survey interviewed face-to-face in July 2004 and a survey of 32 experts, interviewed on-line in July 2004. Respondents to the nationwide survey were, on average, significantly more inclined toward a low-tax, low spend model than a high-tax, high spend model of the economy, and marginally more identified with a "competitive according to ability" rather than an "egalitarian according to need" model of the economy. There was almost unanimous support for extra spending on health and education, with less support for increases in social welfare expenditure. This was despite the fact that respondents found health to be the lowest in terms of efficiency and social welfare the highest.

However, in accordance with other studies, the majority of respondents agreed that the government should take steps to reduce income inequality. While not as high a priority as education or health spending, the public is nevertheless supportive in general of social transfers, with particularly positive levels of support for Pensions and Disability allowances. However, this strong level of support was not directly matched by willingness to pay extra taxation to finance increases in these types of social provision. Higher income people and younger people are less supportive of social transfer in general, which would be predicted by standard economic incentive arguments as they bear a higher tax burden and utilise the services less. However, other demographic variables such as education and gender play only a modest role in predicting support for social transfers in general. Political sophistication, as measured by a factual knowledge index, did not significantly predict support for transfers, which along with the low coefficient on education points away from an interpretation of these figures as representing differing degrees of knowledge about

the system.[109] The main statistical predictors of support for social transfers generally are attitudinal variables such as perception of efficiency and perception of fraud. At one level, it could perhaps be argued that these variables are in reality the same variable as the dependent variable and the relation between them is tautological. This is something that could be explored more fully in later work.

The demographic determinants of preferences for different schemes diverge in ways that could be predicted by economic theory. Of the most obvious include the fact that older people support significantly higher pensions but do not support significantly higher levels of child benefit or unemployment benefit. Other examples include the fact that having a university degree negatively predicts support for unemployment benefit but not for child benefit or pensions. Political sophistication negatively predicts support for child benefit, indicating that those who know more about the system in general are less likely to support it. While pro-market ideology substantially negatively predicts support for unemployment benefit, this does not carry over in to Pensions or Child benefit. Willingness to pay extra taxation is positively predicted by being younger, higher income, educated and adopting a pro-social ideology. These contrast with the profile of those who are supportive in general of redistribution, indicating that there is a disjunction between support and willingness to pay, which the results would seem to indicate reflect a natural concern about budget constraint (e.g. higher income people less supportive but willing to give higher **absolute** amounts of their income).

Support for redistribution is high in general throughout Europe. In accordance with economic incentives, those on higher incomes are less likely to support income redistribution in all of the countries selected in the analysis. Gender does not have a significant effect overall. In the countries where it does have an effect, the effect

[109] This is reinforced by the fact that the provision of information does not change preferences as demonstrated in Chapter 6.

is that women are more supportive of redistribution than men. Exposure to risk in the labour market also significantly affects support for redistribution across Europe. Higher levels of education negatively predict support for redistribution, albeit in a quadratic form. Furthermore, those who use the Internet and have no history of unemployment are also less supportive of redistribution. However, it is clear that an analysis of support for redistribution would be incomplete without an account of the role of personal values. Personal values play a strong role across Europe in determining support for income redistribution, with a tension between values of self-transcendence and group maintenance, which positively predict support for active redistribution, and values of self-enhancement, which negatively predict support.

Public preferences for specific redistributions are predictable by a small group of experts, up to the point that the rank order of support for the fifteen main benefit categories that comprise the Irish income maintenance system is quite close to a one to one basis with mean expert predictions. This is something that has extreme relevance for future studies. A more detailed study would examine the extent to which a wider range of public preferences is predictable by experts. This would facilitate an examination of the extent to which public values are represented in the policy process. Related to this is the extent to which preferences for redistribution are represented in the electoral domain. While there is a disjunction between different party electoral bases with regard to competitive ideology, this does not necessarily translate in to differences between the main parties in the extent to which their voters support social transfers, with the exception of Sinn Fein and the Progressive Democrats. The relatively polarised positions of these two parties with regard to social transfer issues has brought these issues in to the domain of electoral choice to a greater extent in Ireland.

Table 5A.1: Frequencies of Judged Amounts of Child Benefit, Unemployment Benefit and Pensions

Pensions			Unemployment			Child Benefit		
Amount	Frequency	Cumulative Percent	Amount	Frequency	Cumulative Percent	Amount	Frequency	Cumulative Percent
.00	14	1.4	.00	69	6.9	.00	21	2.3
5.00	2	1.6	25.00	1	7.0	1.00	1	2.4
25.00	2	1.8	30.00	1	7.1	16.00	1	2.5
50.00	1	1.9	35.00	1	7.2	20.00	5	3.1
60.00	1	1.9	40.00	1	7.3	30.00	1	3.2
75.00	1	2.0	50.00	16	8.9	40.00	10	4.3
80.00	1	2.1	60.00	6	9.5	45.00	2	4.5
90.00	2	2.3	65.00	1	9.6	50.00	51	10.2
95.00	1	2.4	70.00	9	10.5	60.00	30	13.5
100.00	7	3.1	75.00	2	10.7	65.00	1	13.6
110.00	1	3.2	80.00	8	11.5	70.00	9	14.6
120.00	12	4.4	90.00	7	12.2	75.00	2	14.8
125.00	2	4.6	100.00	83	20.5	80.00	25	17.5
130.00	11	5.6	110.00	9	21.4	85.00	1	17.7
135.00	1	5.7	115.00	1	21.5	90.00	4	18.1
140.00	12	6.9	120.00	29	24.4	95.00	1	18.2
145.00	1	7.0	125.00	3	24.7	100.00	124	31.9
150.00	88	15.6	127.00	1	24.8	110.00	7	32.7
155.00	2	15.8	130.00	22	26.9	115.00	2	32.9
160.00	23	18.0	134.00	1	27.0	120.00	42	37.5
165.00	2	18.2	135.00	1	27.1	125.00	14	39.1
167.00	1	18.3	140.00	29	30.0	130.00	52	44.8
170.00	30	21.2	141.00	1	30.1	131.00	1	44.9
175.00	12	22.4	145.00	1	30.2	132.00	1	45.0
180.00	84	30.6	150.00	155	45.7	135.00	6	45.7
185.00	4	31.0	155.00	1	45.8	137.00	1	45.8
187.00	1	31.1	160.00	46	50.4	140.00	18	47.8
190.00	36	34.6	165.00	4	50.8	145.00	1	47.9
191.00	1	34.7	170.00	34	54.2	150.00	156	65.1
195.00	4	35.1	175.00	11	55.3	155.00	2	65.3
200.00	372	71.3	180.00	60	61.3	160.00	41	69.9
210.00	12	72.4	181.00	1	61.4	170.00	22	72.3
220.00	30	75.4	185.00	4	61.8	175.00	7	73.1
225.00	1	75.5	187.00	1	61.9	180.00	37	77.2
230.00	12	76.6	190.00	17	63.6	185.00	2	77.4
240.00	15	78.1	195.00	3	63.9	190.00	6	78.0
250.00	119	89.7	200.00	203	84.1	200.00	134	92.8

260.00	2	89.9	210.00	4	84.5	210.00	5	93.4
270.00	2	90.1	220.00	10	85.5	220.00	9	94.4
280.00	9	90.9	225.00	2	85.7	240.00	2	94.6
290.00	1	91.0	230.00	4	86.1	250.00	24	97.2
300.00	69	97.8	235.00	1	86.2	260.00	3	97.6
350.00	15	99.2	240.00	2	86.4	280.00	3	97.9
400.00	3	99.5	250.00	58	92.2	300.00	17	99.8
425.00	1	99.6	260.00	2	92.4	350.00	2	100.0
500.00	3	99.9	270.00	4	92.8	Total	906	
532.00	1	100.0	280.00	6	93.4	Missing	253	
Total	1027		290.00	1	93.5		1159	
Missing	132		300.00	43	97.8			
	1159		310.00	1	97.9			
			350.00	14	99.3			
			400.00	6	99.9			
			520.00	1	100.0			
			Total	1002				
			Missing	157				
				1159				

Table 5A.2: Rotated Component Matrix Personal Values Items

	Component	
	1.00	2.00
Social Status, Power and Authority	0.08	**0.78**
Personal Wealth	0.09	**0.78**
Being Successful, Ambitious and Influential	0.12	**0.83**
Pleasure and Enjoying Life	0.45	0.59
Excitement, Novelty and Variety	0.15	**0.81**
Looking for Adventures and Taking Risks	0.05	**0.80**
Self-Direction and Choosing Your Own Goals	0.43	0.67
Being Free and Not Dependent on Others	0.54	0.48
Social Justice and Equality	0.68	0.36
Being at One with Nature and Protecting the Environment	0.64	0.22
Living in a World of Peace and Beauty	**0.82**	0.12
Being Helpful to those around You	**0.88**	0.16
Being Honest, Loyal and Responsible	**0.88**	0.15
Being Modest, Being Devout, Being Moderate	**0.81**	0.09
Having Respect for Tradition	**0.84**	0.09
Being Obedient and Polite	**0.82**	0.11
Respecting Elders	**0.86**	0.13
Security of Country, Social Stability	**0.79**	0.20

Table 5A.3: Mean Support for Social Welfare Increases by Political Party Affiliation

	FF	FG	SF	Lab	GP	PD	Other	Total
Old-age pension	5.51	5.47	5.53	5.74	5.14	5.00	6.03	5.56
Blind pension	5.53	5.65	5.48	5.80	5.07	5.20	5.66	5.58
Child benefit	4.96	4.85	5.34	5.22	4.79	5.00	5.26	5.04
Unemployment assistance/benefit	4.82	4.44	5.23	4.65	4.50	3.80	4.53	4.75
Farm assist scheme	4.64	4.66	4.69	4.14	3.79	3.80	4.16	4.52
Employment support services	4.84	4.70	5.24	4.75	4.93	4.80	4.47	4.83
Pre-retirement allowance	4.69	4.77	4.75	4.70	4.43	3.80	4.35	4.68
One-parent family allowance	4.73	4.56	4.97	4.90	5.00	5.00	4.34	4.74
Widow's, widower's and orphan's pension	5.49	5.55	5.54	5.66	5.29	4.80	5.61	5.53
Social assistance and other allowances	4.96	4.74	5.26	4.78	4.79	4.40	4.74	4.91
Family income supplement	4.93	4.83	5.18	4.80	4.93	4.60	4.61	4.90
Carer's allowance	5.52	5.53	5.62	5.67	5.57	5.20	5.41	5.55
Supplementary welfare allowance	4.93	4.76	5.12	4.87	4.64	3.80	4.56	4.88
Disability allowance	5.50	5.71	5.53	5.58	5.79	4.80	5.75	5.57
Student grants	5.22	5.00	5.36	5.25	5.14	5.40	4.86	5.18
Social Welfare important for Vote Choice	5.33	4.77	5.30	5.73	5.08	3.80	4.50	5.22
CB should be progressive (1 to 7)	4.65	4.44	4.90	4.60	4.43	5.80	4.67	4.64
Unemployed don't want a job (1 to 7)	4.48	4.96	3.78	4.21	4.29	5.00	4.24	4.43
taxes low or taxes high (1 to 10)	6.27	6.21	5.96	6.72	6.00	7.60	6.31	6.30
egalitarian or competitive (1 to 10)	5.92	6.40	5.44	5.92	5.67	8.60	5.26	5.93
left/right (1 to 10)	5.84	6.20	4.97	5.01	4.85	5.80	5.18	5.62
Govt. should reduce inequality (1 to 7)	4.89	4.53	5.24	5.04	4.71	3.40	4.95	4.88
Probability of Male	0.50	0.56	0.53	0.51	0.21	0.60	0.46	0.51
Mean Age	48.39	47.88	34.44	41.05	40.71	32.80	42.92	44.93
Probability of Degree	0.14	0.18	0.06	0.15	0.43	0.40	0.21	0.15
Factual Knowledge (1 to 5)	3.39	3.54	2.56	3.05	3.00	4.00	3.05	3.24
Efficiency social and family affairs (1 to 7)	3.67	3.70	3.04	3.57	3.36	4.40	2.74	3.53
Efficiency of Health (1 to 7)	2.41	2.21	2.36	2.39	2.00	2.60	1.84	2.33
Efficiency of Education (1 to 7)	3.56	3.32	3.06	3.54	3.07	4.60	2.76	3.41
Total Government efficiency (1 to 7)	3.48	3.56	3.09	3.41	3.79	4.20	2.63	3.40
other minus self	27.81	27.16	20.77	25.41	24.07	27.20	30.74	26.57
Mean Extra taxes willing to pay with outliers greater than fifty removed	3.28	5.61	3.74	5.66	10.36	6.75	2.72	4.27

Table 5A.4: Significance Tests of Discordance between Expert Preferences, Expert Predictions and Population Preferences (Games Howell Post-hoc Procedure)

Dependent Variable			Mean Difference (I-J)	Std. Error	Sig.
Old-age pension	Population	Expert preference	-0.40	0.18	0.09
		Expert predictions	-0.62	0.16	0.00
	Expert predictions	Population	0.62	0.16	0.00
		Expert preference	0.23	0.24	0.61
Blind pension	Population	Expert preference	0.02	0.21	1.00
		Expert predictions	-0.23	0.18	0.39
	Expert predictions	Population	0.23	0.18	0.39
		Expert preference	0.25	0.27	0.63
Child benefit	Population	Expert preference	-0.36	0.26	0.36
		Expert predictions	-0.79	0.19	0.00
	Expert predictions	Population	0.79	0.19	0.00
		Expert preference	0.43	0.32	0.38
Unemployment assistance/benefit	Population	Expert preference	-0.23	0.30	0.73
		Expert predictions	0.57	0.24	0.05
	Expert predictions	Population	-0.57	0.24	0.05
		Expert preference	-0.80	0.37	0.09
Farm assist scheme	Population	Expert preference	0.41	0.28	0.33
		Expert predictions	0.84	0.20	0.00
	Expert predictions	Population	-0.84	0.20	0.00
		Expert preference	-0.43	0.34	0.42
Employment support services	Population	Expert preference	-0.21	0.25	0.67
		Expert predictions	0.32	0.19	0.24
	Expert predictions	Population	-0.32	0.19	0.24
		Expert preference	-0.53	0.31	0.21
Pre-retirement allowance	Population	Expert preference	0.41	0.30	0.35
		Expert predictions	0.32	0.18	0.18
	Expert predictions	Population	-0.32	0.18	0.18
		Expert preference	0.09	0.34	0.96
One-parent family allowance	Population	Expert preference	-0.56	0.27	0.11
		Expert predictions	0.82	0.24	0.00
	Expert predictions	Population	-0.82	0.24	0.00
		Expert preference	-1.38	0.35	0.00
Widow's, widower's and	Population	Expert preference	-0.06	0.25	0.97

orphan's pension					
		Expert predictions	-0.23	0.21	0.52
	Expert predictions	Population	0.23	0.21	0.52
		Expert preference	0.17	0.32	0.86
Social assistance and population allowances	Population	Expert preference	-0.37	0.25	0.32
		Expert predictions	0.45	0.20	0.08
	Expert predictions	Population	-0.45	0.20	0.08
		Expert preference	-0.82	0.32	0.03
Family income supplement	Population	Expert preference	-0.37	0.26	0.34
		Expert predictions	-0.29	0.18	0.26
	Expert predictions	Population	0.29	0.18	0.26
		Expert preference	-0.08	0.31	0.96
Carer's allowance	Population	Expert preference	-0.46	0.21	0.09
		Expert predictions	-0.43	0.18	0.06
	Expert predictions	Population	0.43	0.18	0.06
		Expert preference	-0.04	0.27	0.99
Supplementary welfare allowance	Population	Expert preference	-0.26	0.26	0.58
		Expert predictions	0.17	0.18	0.64
	Expert predictions	Population	-0.17	0.18	0.64
		Expert preference	-0.42	0.31	0.37
Disability allowance	Population	Expert preference	-0.19	0.21	0.63
		Expert predictions	-0.30	0.18	0.24
	Expert predictions	Population	0.30	0.18	0.24
		Expert preference	0.11	0.27	0.91

Table 5A.5: Principal Components Analysis with Varimax Rotation of Scores on the Schwartz Personal Values Inventory for the Full European Sample. Source: European Social Survey 2002

	Component		
	1.00	**2.00**	**3.00**
Important to think new ideas and being creative	0.42	-0.13	0.43
Important to be rich, have money and expensive things	**0.65**	0.17	-0.23
Important that people are treated equally and have equal opportunities	0.03	0.16	**0.59**
Important to show abilities and be admired	**0.69**	0.20	0.00
Important to live in secure and safe surroundings	0.08	**0.66**	0.15
Important to try new and different things in life	**0.58**	-0.12	0.38
Important to do what is told and follow rules	-0.01	**0.64**	0.01
Important to understand different people	0.07	0.10	**0.67**
Important to be humble and modest, not draw attention	-0.17	0.50	0.27
Important to have a good time	**0.64**	-0.10	0.24
Important to make own decisions and be free	0.41	-0.02	0.46
Important to help people and care for others well-being	0.08	0.26	0.63
Important to be successful and that people recognize achievements	**0.73**	0.20	0.05
Important that government is strong and ensures safety	0.13	**0.62**	0.23
Important to seek adventures and have an exiting life	**0.67**	-0.26	0.10
Important to behave properly	0.02	**0.73**	0.13
Important to get respect from others	0.50	0.43	-0.06
Important to be loyal to friends and devote to people close	0.14	0.23	**0.59**
Important to care for nature and environment	0.00	0.24	**0.62**
Important to follow traditions and customs	-0.03	**0.59**	0.16
Important to seek fun and things that give pleasure	0.61	-0.05	0.21
Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.			

The three components explain 46% of the variance.

Table 5A.6: Rankings of European Countries on the Regressed Factor Scores from the Principal Components Analysis (ESS 2002)

Self-Enhancement		Tradition/Security		Self-Transcendence	
Israel	0.55	Greece	0.75	Switzerland	0.44
Greece	0.31	Poland	0.53	Belgium	0.20
Slovenia	0.20	Spain	0.37	Germany	0.13
Hungary	0.20	Israel	0.30	Spain	0.12
Austria	0.18	Czech Republic	0.27	Greece	0.12
Denmark	0.07	Hungary	0.26	Finland	0.11
Belgium	0.05	Slovenia	0.17	Denmark	0.10
Switzerland	-0.01	Ireland	0.15	Austria	0.05
Spain	-0.03	Portugal	-0.05	Ireland	-0.02
Portugal	-0.05	Belgium	-0.13	Israel	-0.03
Poland	-0.05	Austria	-0.16	Hungary	-0.03
Netherlands	-0.05	United Kingdom	-0.17	Netherlands	-0.04
United Kingdom	-0.10	Germany	-0.20	Slovenia	-0.08
Ireland	-0.10	Finland	-0.20	United Kingdom	-0.12
Germany	-0.13	Netherlands	-0.24	Czech Republic	-0.16
Finland	-0.27	Norway	-0.32	Sweden	-0.19
Sweden	-0.31	Switzerland	-0.44	Poland	-0.23
Norway	-0.33	Denmark	-0.49	Portugal	-0.28
Czech Republic	-0.48	Sweden	-0.57	Norway	-0.36
Total	0.00	Total	0.00	Total	0.00

*The factor scores were produced using the regression method in SPSS 11.0. Estimated scores on the factors have a mean of 0 and a variance equal to the squared multiple correlation between the estimated factor scores and the true factor values.

Table 5A.7: Pearson Product Moment Correlations between Age, Gender, Third Level Education and Political Sophistication

		Political Sophistication	Education (1 = Third level	Age	Male
Political Sophistication	Pearson Correlation	1	.103	.287	.109
	Sig. (2-tailed)	.	.000	.000	.000
	N	1159	1159	1159	1159
Education (1 = Third level)	Pearson Correlation	.103	1	-.084	.040
	Sig. (2-tailed)	.000	.	.004	.172
	N	1159	1159	1159	1159
Age	Pearson Correlation	.287	-.084	1	.014
	Sig. (2-tailed)	.000	.004	.	.644
	N	1159	1159	1159	1159
Male	Pearson Correlation	.109	.040	.014	1
	Sig. (2-tailed)	.000	.172	.644	.
	N	1159	1159	1159	1159

** Correlation is significant at the 0.01 level (2-tailed).

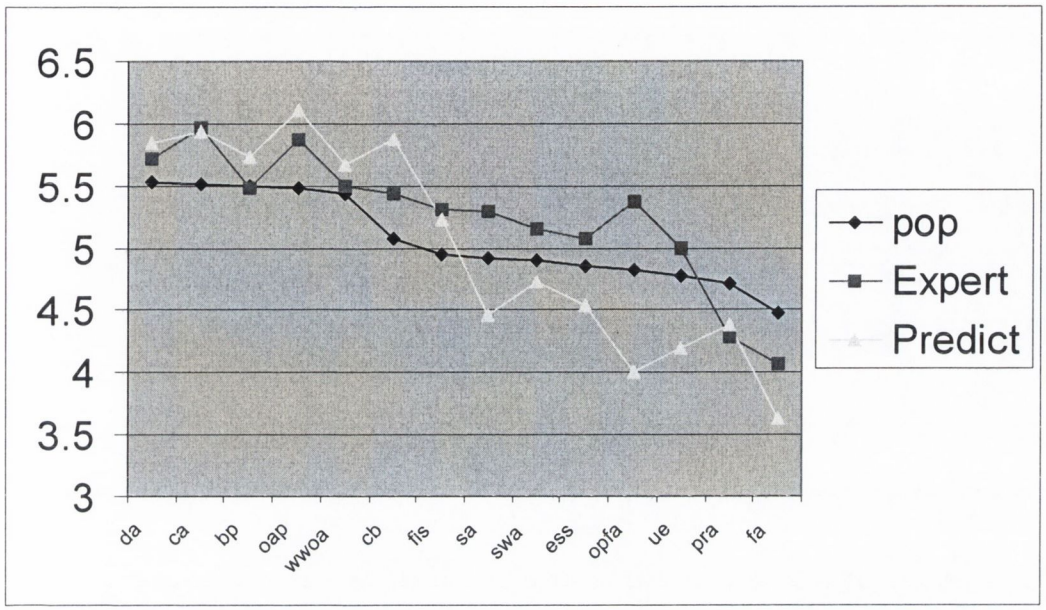
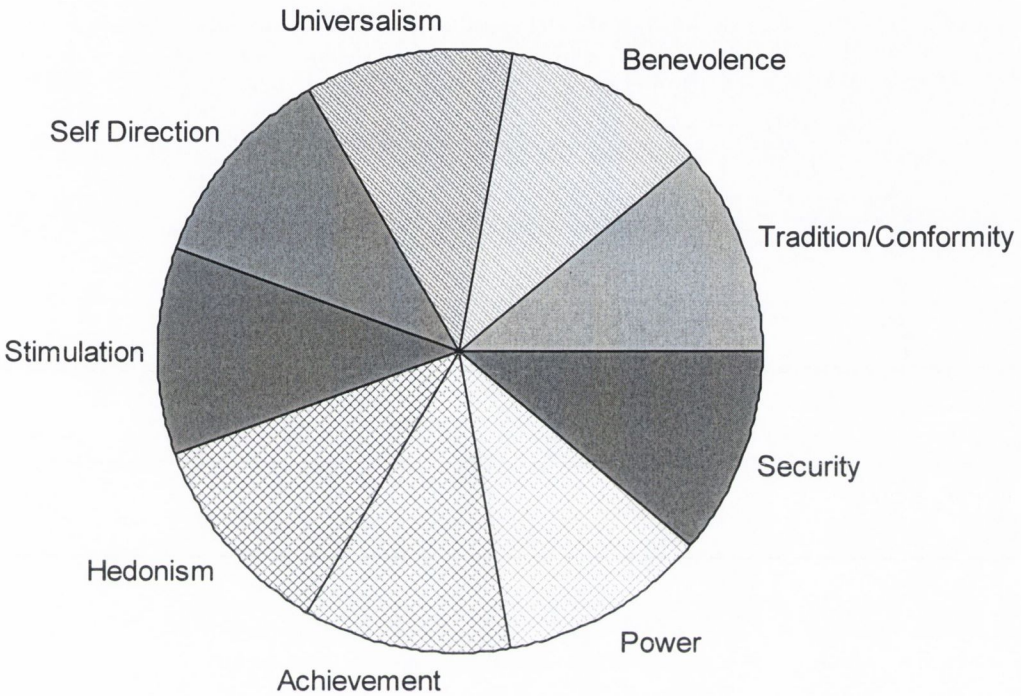


Figure 5.1: Population Preferences, Expert Preferences and Expert Predictions

Key:
da: Disability Allowance
ca: Carer's Allowance
bp: Blind Pensions
oap: Old-Age Pension
wwoa: Widow's, Widowers' and Orphan's Allowance
cb: Child Benefit
fis: Family Income Supplement
sa: Social Assistance
swa: Supplementary Welfare Allowance
ess: Employment Support Services
opfa: One-Parent Family Allowance
ue: Unemployment Assistance
pra: Pre-Retirement Allowance
fa: Farm-Assist

Figure 5.2: Relationships between Motivational Value Types



Hedonism, Achievement and Power are referred to as *Self Enhancement Values,* while Universalism and Benevolence are *Self Transcendent Values.*

Adapted from Gandal and Roccas (2002) and Schwartz (2003).

CHAPTER VI

PROCEDURAL AND DESCRIPTIVE INVARIANCE AND WILLINGNESS TO PAY FOR SOCIAL TRANSFERS IN IRELAND

Summary

This chapter expands on the analysis in Chapter 5 by examining how robust the respondents' answers to the questions posed are to a variety of survey manipulations. The standard normative model of rational agents making decisions on the basis of perfect information is used as a baseline to compare our results that test for a variety of informational and surface features on respondents stated preferences for social welfare policy. Using original data from surveys of Irish respondents, this chapter examines evidence for four categories of survey effect on willingness to pay for social welfare policies (i) information effects (ii) time-unit effects (iii) ordering effects and (iv) contextual attitudinal effects. While the nature of the data precludes us from making definitive statements about the universality of our findings, the chapter suggests that responses are robust to different questionnaire treatments, indicating preferences that are relatively stable.[110]

[110] Due to prohibitive expense and other unforeseen cost factors, it was not possible to collect fully representative nationwide survey data to test for all the response effects outlined in this chapter. Therefore much of the analysis is offered as a pilot test for later work. The results of these pilot tests are nevertheless informative as to the expected magnitude of the different cognitive effects.

6.1 Introduction

This chapter presents further evidence assessing ideological, descriptive and cognitive factors in determining stated preferences for social welfare policy from original data on Irish respondents. As argued in previous chapters, willingness to pay studies are one important arena for the increasing union of economic theory and empirical psychology. The blue-ribbon NOAA panel guidelines that willingness to pay studies should contain reliability tests (Arrow, Solow et al 1993) has been, in many cases, interpreted as a call for psychometric proofing of the responses elicited in willingness to pay studies. A large literature, discussed in Chapter 1, has emerged examining the effects of different psychological survey manipulations on willingness to pay for non-marketed goods. This work has drawn heavily on the decision-theoretic frameworks associated with the work of Kahneman and Tversky (e.g. Kahneman and Tversky 2000, Kahneman and Tversky 1984, Tversky and Kahneman 1974, Kahneman, Tversky and Slovic 1982).[111]

The issue of preferences for social welfare spending is one particularly interesting case as regards the unions of microeconomic theory, micro-econometrics, and psychology. Social Welfare policy is generally a politically charged area with information and presentation widely manipulated by various lobby groups to influence public opinion and government spending decisions. While social welfare

[111] Rabin (1998) gives an account of the reaction in economics to the integration of non-standard models of consumer and citizen behaviour. He coins the term "*non-Varian hoc ergo ad-hoc*" to summarize the reaction of many i.e. "*that assumption is not in my graduate microeconomics text therefore you just made it up*". One of the most famous episodes in the literature is Grether and Plott's (1979) attempt to "*discredit the psychologists work as it applies to economics*" by controlling for other variables. Having duly controlled for the variables in a tour-de-force work they found that "the preference reversal phenomenon still remained". In a comment with evident traces of exasperation, they insightfully remark that "*it is rather curious that this inconsistency between the theory and certain human choices should be discovered at a time when the theory is being successfully extended to explain choices of non-humans.*"

policy, is by its nature, independent of public preferences to the degree to which legal entitlements and rights-based arguments motivate provision, there is nevertheless a role for public preferences in determining welfare policy. As well as this, investigating public preferences for welfare spending sheds lights on debates about altruism and the relationship between the individual and the state. Investigating the effects of survey manipulations on stated preferences is an important means by which to examine barriers to the expression of public demands for policies.

Several studies exist demonstrating the effect of surface survey features on responses to attitude surveys. Zaller and Feldman (1992), for example, explore race of interviewer effects, reference group effects, question wording and question order, and report the effects of "stop-and-think" protocols on responses and as mediators of question effects. The results of such studies that have examined manipulations of survey questions have demonstrated that we cannot simply assume that the responses to economic valuation questions are consistent representations of stable underlying economic preferences. If the public's preferences are to be factored in to economic evaluation decisions, then it is necessary to establish the extent to which surface survey features have effects on responses and what this implies for the bounds on which we can set estimates of total demand for different social transfer policies.[112]

[112] Zaller and Feldman (1992) summarising the political science literature on public opinion write "*Most citizens simply do not possess preformed attitudes at the level of specificity demanded in surveys. Rather, they carry around in their heads a mix of only partially consistent ideas and considerations. When questioned, they call to mind a sample of ideas, including an oversample of ideas made salient by the questionnaire and other recent events, and use them to choose among the options offered. But their choices do not, in most reflect anything that can be described as true attitudes; rather, they reflect the thoughts that are most accessible in memory at the moment of response.*" The classic work is Converse (1964) who argues "*Large portions of the electorate simply do not have meaningful beliefs, even on issues that have formed the basis for intense controversy among elites for substantial periods of time*".

The economic-psychology literature has provided parallel explanations of the widely observed phenomenon of survey and interview effects on stated preferences. The conclusion that can be drawn from an extensive literature is that people do not simply have a pre-existing rank-order of preferences over attributes that they call upon to evaluate different world-states but rather that people construct their preferences in the act of evaluating based on the information at hand. Much of this literature has focused on attempting to demonstrate conclusively that economic valuations elicited in preference surveys are symbolic attitudes expressions rather than economic demands. In many cases, and perhaps due to the highly charged environment in which the current debate has been played out, this has been used to dismiss the methodology as a useful tool in economics, rather than to focus on its use in understanding how individuals construct valuations under uncertainty (e.g. Diamond and Hausman 1994).[113]

In this chapter we analyse the effects of various experimental manipulations on respondents preferences for different categories of social welfare spending in Ireland. The effects of experimental survey manipulations should not just be viewed as ways of demonstrating the unreliability of preferences elicited in contingent valuation. The cognitive effects we demonstrate in this chapter have policy significance that we will discuss. The rest of the chapter is structured as follows. Section 6.2 discusses previous work on the different type of effects that we examine. We discuss, in turn, information effects, ordering effects, time-unit effects and contextual-attitudinal effects and their application to social welfare spending. Section 6.3 discusses the design of the various split-sampling procedures designed to test the effects of these four categories of survey effect on social

[113] Kahneman, Ritov and Schkade (1999) phrase it well: "*The economic model of choice is concerned with a rational agent whose preferences obey a tight web of logical rules, formalised in consumer theory and in models of decision under risk. The tradition of psychology, in contrast, is not congenial to the idea that a logic of rational choice can serve double duty as a model of actual decision behaviour...it is then fair to ask: if people do not have economic preferences, what do they have instead*".

welfare spending in Ireland as well as describing the sampling and administration of the survey. Section 6.4 presents the results of these experiments looking at ANOVA and logistic models describing the effects of being in the different conditions. Section 6.5 concludes.

6.2 Cognitive Effects

The principles of descriptive invariance and procedural invariance in rational choice theory are the normative assumptions that motivate the different tests employed in this chapter. Descriptive invariance implies that differences in describing a good or attributes of a good should not affect respondents stated preference for the good. Procedural invariance implies that difference in the procedure for eliciting preferences should not yield significant differences in the stated preferences. According to procedural invariance none of the split-sampling procedures employed here should have an effect on the responses.[114] The four cognitive effects we examine in this paper are information effects, ordering effects, time-unit effects and contextual-attitudinal effects.

6.2.1. Information Effects

Several papers (e.g. Gemmel, Morrissey and Pinar 2003) have discussed the fact that the public are imperfectly informed about the nature and extent of government spending programmes. Kemp (2003) explicitly manipulated information about different tax and spend policies to experimentally assess the effects of levels of information on preferences for different transfer policies. This paper found that preferences for the allocation of spending among government services are heavily influenced by people's perceptions of their costs but that the perceived value of the services takes little account of costs. Kemp's result has the implication that although manipulation of information may not change people's value of public

[114] See Pouta (2003) for how the principle of procedural invariance relates to contextual attitude effects and Stewart et al (2002) for how this principle relates to ordering effects.

programmes, they may reduce *effective* support for the funding of these goods. Informational effects have also been explored in a variety of other willingness to pay contexts such as theatres (Hansen 1997), GM foods (Li, McCluskey and Wahl 2004) and heritage sites (e.g. Alberini, Rosato, Longo and Zanatta 2004).

Kemp's results raises interesting questions as to what an information effect represents. One hypothesis that we explore here is that information effects represent a "big number effect" on respondents, an initial scare that quickly fades and does not actually influence preferences for the transfer *per se*. We do this by examining firstly whether the provision of cost information leads to an increase or decrease in preferences for the amount spent on 10 different schemes of social transfer. We then subsequently examine whether the cost information leads to a subsequent preference for reducing or increasing the actual amounts given to people on the different benefit categories, and preferences for making the transfers conditional.

6.2.2. Ordering Effects

Ordering effects are a concern for many different types of contingent valuation survey.[115] In the standard model of rational choice the order in which alternatives are presented should not influence people's choices or valuations. However several papers in the literature (e.g Stewart, O'Shea, Donaldson and Shackley 2002, Boyle, Welsh, and Bishop 1993, Bateman and Langford 1997, Kartman, Stalhammar and Johannesson 1996) have shown that ordering effects can have a significant influence on willingness to pay.[116] As Stewart et al (2002) put it, the problem of ordering can be phrased as "*whether WTP for the provision of a given*

[115] In this section we focus on the order in which proposals are presented. Other types of ordering effects such as placing sensitive questions (e.g. about income) before or last are not considered.
[116] Boyle, Welsh and Bishop (1993) found that experience with a natural amenity (grand canyon rafting) mitigated the ordering effects in their contingent valuation study.

good depends upon its position in a sequence of n goods when n is greater than 1".[117]

Stewart et al hypothesise five reasons that may be driving observed ordering effects in willingness to pay studies; starting point bias, increasingly binding budget constraints, moral satisfaction or warm-glow, auto-correlated "yea-saying" or "nay-saying" and lack of previous experience with the goods being valued. In their study they found no evidence for a starting point bias, inconclusive evidence for the binding budget constraint hypothesis and no evidence for the auto-correlated response hypothesis. Surprisingly they found that lack of previous experience actually inoculated respondents from ordering effects, a result that may reflect specific features of the case study involved.

6.2.3. Time-Unit Effects

Payment schedule and temporal cost-distribution effects have been widely discussed in a variety of stated preference literatures (e.g. Stevens, DeCoteau and Willis 1997). Given the static and, at times, low motivational context of survey analysis respondents may not recruit enough cognitive effort to accurately benchmark the associated costs and benefits of policies to the time-periods in which they are substantively processing the task. "Currency numerosity" effects (e.g. Cannon and Cipriana 2003) and money illusion (e.g. Fehr and Tyran 2001, Shafir, Diamond and Tversky 1997) have been extensively discussed in the literature and it is clear that the standard microeconomic assumption that units should not have any effect is too restrictive an account of behaviour, in real as well as experimental and survey markets.

[117] A fuller review of the relatively sparse literature on ordering effects is also provided in this paper.

Our calendar system divides the year in to 12 months, 52 weeks and 365 days. Many forms of payment are done on a weekly, monthly or annual basis. The fact that time-units are divided in to irregular units poses problems for immediate conversion of monetary amounts in to different accounting periods for cognitive processing and comparison. A further aspect of this is the tendency for individuals to use short cuts to convert from one time-unit to another. We have not seen an empirical paper to document this phenomenon, but anecdotally we do observe a common tendency to convert weekly amounts in to monthly amounts by multiplying by four, which is of course inaccurate. Instead, the respondent should multiply by 52 and divide by 12 to convert the weekly amount in to a monthly amount, something that respondents are unlikely to do in the context of a valuation question. This has relevance for willingness to pay studies, and we can question whether the unit in which the person is asked to process the scenario will have effects on the monetary valuation given.

Time-Unit effects have been widely observed in a variety of different studies of demand for market and non-market goods (e.g. Ehrenberg and Mills 1990). Related to the phenomenon of temporal embedding (e.g. Johnson, Mondello and Whitehead 2003) one explanation of time-unit effects is that respondents do not adequately distinguish between the different time frames of projects. Time-unit effects may also be reflective of "warm-glow" or other types of symbolic responding whereby the respondents valuations reflects a symbolic attempt to reflect underlying attitudes rather than an economic valuation. The importance of time-unit effects can easily be overlooked. In several applications, whether the willingness to pay question was phrased in weekly, monthly or annual amounts has had a significant and sometimes substantial effect on respondents' willingness to pay. This has significant implications for aggregating welfare and for performing cost-benefit analyses, effects that will be overlooked in a standard micro-economic framework. Mathematically, observing a time-unit effect on the

average respondents' choices is equivalent to assuming that the respondent's decision functions are not homogenous of degree zero.

Large Number Hypothesis: *Time-Unit effects are due to a large number effect on respondents processing. The large-number hypothesis predicts that a respondent will process a monthly amount as being a bigger effective figure than an equivalent weekly amount.*[118] *The large number effect will increase as the amount of money increases in a non-linear fashion. Larger money amounts will be disproportionately affected by the time-unit in which they are expressed than smaller money amounts.*

One explanation of time-unit effects on willingness to pay is that they represent a response to large rather than small numbers and lead respondents to conceptualise the trade-offs that they are making in terms of larger (in the case of longer periods) versus smaller consumption bundles. The potential consumption bundles of the consumer may also exhibit economies of scale, with increments of money having a non-linear effect on utility. This will reinforce the effect with respondents mentally modelling a consumption bundle consisting of €1080 as containing more than 4.33 times a consumption bundle of €250.

The effect of time-unit on whether respondents want a amount of benefit to be increased may be different. In the first case of WTP, they are being asked to forgo a given amount of income, in the second case they are being asked to judge whether another person should be given an increment to their income. For example, in one case a respondent may be asked to decide whether they would be willing to pay €20 per week versus €86 per month. In the second case the

[118] To facilitate exposition, the rest of this discussion with look at two cases; weekly versus monthly amounts.

respondent may be asked to decide whether someone else should receive €20 per week extra versus €86 per month.

If the large number hypothesis were correct, then one would suspect that in the second case that the effect of time-unit would interact with the affective support of the respondent for the people receiving the benefit. The move from weekly to monthly should increase the chance that the respondent will reject the transfer if they are negatively inclined towards the beneficiaries, and increase the chance that they will accept the transfer if they are positively inclined toward the beneficiaries. The effect is ambiguous in terms of the first case. If the respondent is generally supportive of the beneficiaries the effect of expressing the amounts in monthly rather than weekly amounts should be to dampen the level of support, given the large number hypothesis. However, if warm-glow effects are operant (e.g. Andreoni 1990), then expressing the figure in monthly amounts may actually increase the acceptance level. If the respondent is negatively inclined towards the recipients of the benefits, then expressing the figure in monthly rather than weekly amounts should lead to a decrease in the chance that they will accept the transfer.

6.2.4. Contextual Attitudanal Effects

In Chapter 5 we discussed the effects of attitude and personal values items on willingness to pay for social transfers. A further facet of this effect is that the inclusion of these items can in itself influence the respondents stated preferences. On the one hand the inclusion of attitude-items may lead respondents to work through their thoughts and beliefs on the subjects being discussed and thus lead them to a more fully considered judgement of their values. Secondly there may be somewhat of an ordering effect whereby responses to earlier questions could influence responses to later questions by a form of dissonance reduction (e.g. Festinger 1957) or by self-concept construction (e.g. Bem 1970). Respondents who have claimed to be pro-welfare or left leaning in previous questions may be

reluctant to appear inconsistent to the interviewer by then expressing a low willingness to pay for social transfers. Early work in the attitude literature by McGuire proposed a "Socratic Effect" whereby asking related questions can change peoples answers (McGuire 1960). This occurs, according to the initial papers by making the relation between different ideas more salient to the respondent and thus motivating them to tailor their responses to consistency between the different response types.

Pouta (2003) analysed the extent to which attitude and belief items included in the same mail survey as a contingent valuation question influenced the subsequent responses given to this question. Using logit models on dichotomous choice data, the paper reports that the inclusion of attitudes and belief items significantly increased the probability of choosing an environmentally orientated alternative. Significantly, this paper found that when attitude and belief items were included respondents bids were not sensitive to the expenses that the environmental good entailed for their household.[119]

6.2.5. Mediators of Cognitive Response Effects

A large literature has examined the mediators of response effects in attitude surveys. Attitude crystallisation, cognitive sophistication, topic salience among several others have been found to mediate the systematic effect of manipulation of surface features of survey design. Education is commonly used as a proxy for cognitive sophistication in the general attitude-measurement literature. Schuman and Presser (1981) analysed over 130 experiments to investigate the mediating effect of education and concluded that the effect was not convincing. However, in a meta-analysis of the experiments used by Schuman and Presser, Narayan and Krosnick (1996) report that lower education was associated with greater

[119] Tversky and Simonson (2003) offer a more generalized discussion of context-dependent preferences.

susceptibility to a wide range of response effects including question order effects. On the other hand, Kahneman and Tversky have demonstrated that experts as well as novices have been shown to be susceptible to the influence of framing effects in statistical judgement tasks (Kahneman, Slovic and Tversky 1982).

Age is another potential mediator, acting on the one hand as a proxy for experience or learning, and on the other as a proxy for cognitive ability, on the assumption that working memory capacity declines with age. Knauper (1999) conducted a meta-analysis utilising the original data-set of experiments utilised by Schumann and Presser (1981) found that ageing was correlated with increased susceptibility to response-order effects. Knauper suggests that education and age as mediating variables, are both acting as proxies for the same thing, namely cognitive sophistication. Knauper did not examine whether response order effects might be non-linear in age. We cannot put exact bounds on this hypothesised non-linearity but we expect the relation between age and response effects to be the result of two competing forces. On the one hand, age is associated with greater experiences of the domains under examination, whereas on the other hand associated with a decline in working memory capacities.[120] It is unclear *apriori* at what point, if any the effects of lessening working memory capacity will override the effects of greater experience. As said above, given that ageing is associated with higher levels of susceptibility, then we can say that the former effect has been shown to override the later. However, they did not examine whether this is the case for the whole distribution, or whether there is a non-linear relationship.

Political sophistication is also employed as a potential mediator of cognitive response effects in the public opinion literature. The political sophistication

[120] The literature on cognitive decline in ageing is reviewed more fully in Knauper (1999). She cites several studies that demonstrate that cognitive decline begins in early adulthood and increases slowly and linearly with age, and is associated with text comprehension problems and problems with reading and learning.

literature on framing and survey effects has shown in several papers that those who are more aware in general about political issues are less susceptible to survey effects (e.g. Baek 2002). Ajzen, Brown and Rosenthal (1996) focused on the effect of personal relevance as a mediating factor in information effects on WTP. In their study, WTP was found to increase with the quality of arguments used to describe the good, especially under conditions of high personal relevance. Importantly for our study, they also found that activation of altruistic as opposed to individualistic orientations was found to have a significant and positive effect on WTP particularly in the case of low personal relevance.

6.3 Survey Design and Administration

6.3.1. Pilot-Test and Survey Instruments

Pilot-Testing

Pilot testing was conducted through 2003 including an Internet survey of 298 respondents, mainly students, conducted in October 2003. Respondents were asked several questions about their preferences, attitudes and beliefs across a wide array of distributive issues. In the main question, respondents were asked to decide whether ten separate social welfare benefit schemes should be given more or less funding from the government. Half of the respondents were given information as to how much the schemes cost and half were not given this information. This was shown to have a significant effect on the percentage of respondents who wished to increase the scheme, sometimes in an upward direction and sometimes downwards. Furthermore, there was some evidence that the effect of cost information carried through into other questions asking respondents the maximum amount of money should be given to individuals on a subset of the schemes outlined, and also whether they thought one of the biggest schemes (child-benefit)

should be taxable. The pilot-tests provided strong initial evidence that information effects were a significant operator.

Nationwide Sample

The survey instrument used in the nationwide sample included a question listing the different social welfare schemes in Ireland and asking respondents whether they felt the government should increase or decrease finance provided to the scheme or whether they felt that spending on the scheme should remain the same. Kemp and Willets (1995) have compared the use of this type of question with several other methods of assessing preferences concluding that "although there were differences in the results obtained with the different measures, there was little practical difference for identifying services that were perceived as unusually good or poor value". In the full sample of 1,149 respondents, one split-sample was used whereby half of the respondents were given information as to the cost of the schemes, and half were not given this information. Expense precluded us from conducting the other split-sampling procedures on the nationwide sample. Several mediating variables were elicited including, respondents' education, political sophistication (as measured by a factual knowledge index), age and newspaper readership.

Nationwide Convenience Sample

Further tests were carried out using a convenience sample. Respondents were asked to choose between 5 options (Increase by 20%, Increase by 10%, Leave the Same, Decrease by 10%, Decrease by 20%) for three separate benefit categories, Unemployment Benefit, Child Benefit and Pensions. For each benefit respondents were informed as to the amounts paid out to the recipient. A 2x2x2x2 orthogonal ANOVA design was employed with two levels of information (no information vs telling respondents the cost of the schemes to the state), two orders, two levels of time-unit (weekly and monthly) and two levels of precedence with respect to the

attitude questions (amount elicited before attitudes and amount elicited after attitudes). This amounted to 16 separate version of the questionnaire.

To assess actual monetary willingness to pay for social welfare spending, the following question was asked:

"Imagine that the government proposed increasing spending on social welfare, for example on children, the disabled, pensioners, carers, the unemployed and those on low incomes and paying for these increases by increasing taxes. If it cost your household €x per (week, month year) in extra taxes to reallocate money to extra social welfare spending, which of the following best represents your views on such a move? ***(Please Tick One (✓))"***

I am not willing to pay this extra money on social welfare benefits because I think the government has higher priorities.	☐
I am willing to pay this extra money if it goes directly to social welfare spending and not used for anything else.	☐
I am not willing to pay this extra money on social welfare because I think we spend enough already on social welfare.	☐
I am not willing to pay this extra money because it is too expensive for me.	☐

To avoid yea-saying, the Dissonance-Minimizing (DM) format (Blamey, Bennett and Morrison 1998) was utilised. The respondent was also invited to comment in more detail on their answer using a comment box. A 4 x 4 factorial design was employed with four levels of amount and three levels of time period (weekly, monthly, annually) with the fourth condition containing all the information as to

whether it was weekly, monthly or yearly to compare the effects to the case where they offered only one time-unit.

A number of demographic factors were elicited to test for mediation effects, including age and education. We also asked a number of questions to determine the degree of interest and involvement of respondents with social welfare and taxation policies. Respondents were asked (i) "*How often do you discuss tax and social welfare issues with friends and family?*" (ii) *"How interested are you in tax and social welfare issues"*. (iii) *"How often do you watch current affairs television programmes"* and (iv) *"How often do you read newspaper/website articles about politics?"*. These questions also allow us to, at least partially, address the issue personal relevance as outlined by Ajzen et al (1996).

We used four questions to assess general attitudes, beliefs and ideology. The first assessed general preferences for social welfare and taxation, *"Which would you prefer?: 1. A society with extensive social welfare but high taxes or 2. A society where taxes and social welfare are low"*. The second assessed general attitudes to distribution in society, *"Which would you prefer?: 1. An egalitarian society where the gap between rich and poor is small regardless of achievement or 2. A competitive society where wealth is distributed according to one's achievement with little emphasis on need"*. The third question asked respondents to decide whether they aligned themselves, generally speaking, with the left or the right, "*In political matters, people talk of "the left" and "the right". How would you place your views on this scale generally speaking?*". Finally, respondents were asked to assess the general state of social welfare transfers in Ireland, "*Overall, do you think that spending on social welfare in Ireland e.g. Unemployment, Child Benefit, One-Parent Family Allowance and Pensions represents good value for money or bad value for money?*"

6.3.2. Administration:

The administration of the nationwide survey is described in Chapter 5. The use of the Omnibus market research network has a number of advantages. One marked disadvantage is the prohibitive (for our purposes) expense of conducting factorial designs. Using more than one split-sample would have entailed at least a doubling of the research cost which, quite aside from the inability to attain such funding, raises questions about the cost/benefit ratio to society of the marginal quality of face-to-face interviewing over less expensive modes. The challenge for the administration of this study was to attain a reasonably representative sample of the population with no research budget. Harrison and Lesley (1996) discuss the use of weighting on a sample of students to approximate the population and report favourable results. However, using students to test for cognitive response biases, we felt would be seriously open to question, given the greater exposure that students would have to written material and solving problems analogous to the ones posed in these questionnaires. [121]

As in the case of the pilot-testing described in Chapter 2, we utilised rail networks to obtain a close-to-representative sample. The properties of the sample are discussed in Section 6.4. Given that we could not employ detailed split-sampling procedures using a professional agency due to the expense this is, to the authors' knowledge, the best way to obtain a representative sample with little or no budget. Inevitably, the use of rail-networks introduces non-measurable potential errors, although there is not a convincing argument as to why it would produce *biases* in

[121] Given that the author had access to very large classes of undergraduates, conducting a student survey with a similar size would have been a (much easier) alternative, and one that would have made it easier to explain away sampling problems. We would argue that the potential biases that come from using this type of convenience methodology in the general population, a priori, are not greater than the potential biases of restricting the focus of cognitive economics to economics and psychology students. Our initial intention was to embed split-sampling procedures into the nationwide sample. Indeed this had been fully appraised in terms of cost and time. Unfortunately, the survey research company that we had initially employed revised their estimate upward beyond our research budget at a very advanced stage in the process.

one direction or another when compared to other forms of interviewing.[122] Furthermore, although there may be a compromise in terms of the face-validity of the survey, there may be other advantages over the more standard approaches to interviewing. People may feel more relaxed about giving their real views in a context where the survey is being self-administered. There is also a greater chance of attaining a high response rate in that people, who originally intend to fill out the survey are less likely to lay it aside, as often occurs with mail surveys.[123]

As in the previous surveys, the guiding principles of the design of this questionnaire were survey length and comprehensibility. The questions were extensively pilot-tested on a wide variety of respondents to ensure that they were readily comprehensible. Respondents were explicitly reminded that the survey was being conducted by independent academic researchers and not being used for lobbying purposes. Respondents were also instructed to answer each page of the questionnaire in turn. Several studies have shown that questionnaire compliance reduces with survey length in mail surveys, with a steep decline in compliance for surveys greater than four pages (Yammarino, Skinner and Childers 1991). Our previous work using commuter lines had yielded a response rate in excess of 80% with a questionnaire of seven pages in length. Given the similar level of cognitive complexity, we used a similar survey length in this questionnaire.

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[122] Given that we have data from a nationally representative survey that was carried out for us by a professional research organisation at the same time, it is possible to compare the results of the questions. However given that the context of the questions in the national survey is different, this comparison does not permit us to say whether any reported differences are due to the nature of the interview mechanism i.e. face-to-face interviewing versus self-reporting on a train or whether they are due to the confounding effects of background questions.

[123] Due to the more sensitive nature of this survey, it was felt by representatives of Irish rail that it would not be appropriate to conduct this on a large scale on their rail network. As stated at the beginning of the chapter, this research was conducted and pilot-tested in the full expectation of collecting a large sample. The fact that unforeseen factors precluded us from doing so means that the results of this study can only be taken as suggestive.

6.4 Results

The properties of the sample collected in our nationwide survey are described in more detail in Chapter 5. The levels of support for the different social welfare schemes both with and without information are displayed in Table 6.1. As can be seen, the initial evidence from the pilot-testing that information regarding the aggregated amount of money transferred had an effect on stated preferences for the transfers is not corroborated in the nationwide sample. While support for the transfers is lower for some transfers in the cost information scenario, this effect is not statistically significant and is not substantial. Table 6.2 displays support for different transfer policies and the amount respondents judged to be suitable levels of benefits broken down by whether the respondent had been given information as to the cost of the schemes or not. Once again, while small differences emerge, they are not substantial or statistically significant for any of the items. Respondents were asked these questions in a later block. Therefore, we find no statistical evidence from this study of either an initial effect or a lingering effect on preferences for transfers of providing the respondents with information as to the financial cost of the transfers. The size and representativeness of the sample allows us to state with confidence that this is not due to sampling effects.

In total, 241 respondents were administered the second survey on Irish national train routes. Exactly 50% of the respondents who recorded demographic information were male, and 50% female. 59% of the respondents had a degree or a postgraduate qualification, a figure that is substantially higher than in the general population indicating a bias in the sample toward more educated respondents. 35% of respondents were in the 16-25 year old age bracket, 55% in the 26-50 year old bracket with the remainder being over the age of 50. The sample bias would thus appear to be toward professionals rather than students. 30% of the respondents were parents.

While the nature of the data collected in the convenience sample preclude us from generalising beyond the sample, there is very little evidence to suggest that respondents' preferences for state transfers were affected by the time-unit in which the question was phrased, the order in which the alternatives were presented, or whether attitude questions were presented before or after. Also, in support of the results found in the nationwide face-to-face interview sample, there is little evidence to suggest that the provision of information as to the cost of the schemes affects the stated preferences for the schemes. Table 6.3 displays the results of an ordered probit regression, regressing the choice between the five options (increase by 20%, increase by 10%, leave the same, decrease by 10%, decrease by 20%) on the four dummy variables indicating which version of the question the respondent was posed. We do this for each of the three transfers studied; Child benefit, Pensions and Unemployment Benefit.

Similarly we find very little evidence to suggest that the time-unit in which the question is phrased has an effect on the probability that the respondent will agree to pay an extra amount of taxation to finance social welfare increases. In total 46.9% of respondents indicated that they would be willing to pay the amounts suggested in the question put to them. Table 6.4 displays the levels of acceptance across the different conditions. As can be seen, there is very little evidence for a pattern in the manner in which the time-unit affected the probability of acceptance. Table 6.5 displays the results of a binary logistic regression examining the effect of different tax levels and different time-units in determining respondents willingness to pay extra taxation to finance social welfare increases.

Table 6.1: Support for Income Maintenance Schemes With Cost Information and Without Cost Information

	Cost Information		No Cost Information	
	Mean	Std. Deviation	Mean	Std. Deviation
Disability allowance	5.52	1.18	5.54	1.17
Blind pension	5.50	1.15	5.50	1.12
Carer's allowance	5.49	1.12	5.52	1.15
Old-age pension	5.46	1.18	5.50	1.17
Widow's, widower's and orphan's pension	5.42	1.18	5.46	1.15
Student grants	5.25	1.26	5.18	1.25
Child benefit	5.06	1.15	5.10	1.17
Family income supplement	4.93	1.13	4.97	1.13
Social assistance and other allowances	4.91	1.16	4.93	1.18
Supplementary welfare allowance	4.88	1.19	4.92	1.14
Employment support services	4.86	1.11	4.85	1.11
One-parent family allowance	4.81	1.20	4.82	1.19
Unemployment assistance/benefit	4.74	1.28	4.80	1.28
Pre-retirement allowance	4.71	1.16	4.70	1.15
Farm assist scheme	4.48	1.33	4.47	1.36

Table 6.2: Support for Different Policies With Cost Information and Without Cost Information

	Cost Information		No Cost Information	
	Mean	Std. Deviation	Mean	Std. Deviation
Child Benefit Amount (€ per month)	139.39	58.43	139.49	62.10
CB Only Paid to Those Who Need it (1 to 7)	4.82	1.97	4.84	2.02
CB Should be Unrestricted (1 to 7)	4.20	1.96	4.25	1.99
CB Should be Taxable (1 to 7)	3.05	1.81	2.96	1.80
CB should be progressive	4.53	1.96	4.55	1.90
CB replaced with Child-Related Spending	3.79	1.72	3.70	1.75
Unemployment Benefit Amount (€ per week)	162.21	71.14	161.47	73.12
UE Replaced	5.37	1.55	5.27	1.56
Anger at People who do not Work	4.52	1.78	4.57	1.75
Amount Pensions (€ per week)	199.96	52.11	202.22	54.05
Should spend more on Elderly	5.64	1.23	5.67	1.23
Afford pensions	3.27	1.65	3.18	1.61
Egalitarian (1) or Competitive (10)	5.78	2.40	5.89	2.36
Left (1) /right (10)	5.54	1.61	5.68	1.54
Government should take steps (1 to 7)	4.90	1.61	4.92	1.64
Perception of Fraud (1 to 7)	4.92	1.75	4.96	1.78

Table 6.3: Effects of Information, Order, Time-Unit and Whether Attitude Questions Were Asked Before or After on Respondents choice for Whether to Increase or Decrease Benefit Levels by Specified Percentages (Base-Category: Increase by 20%)

		Child Benefit			Pensions			Unemployment		
		Estimate	Std. Error	Sig.	Estimate	Std. Error	Sig.	Estimate	Std. Error	Sig.
Threshold	-20%	**-3.39**	**0.46**	0.00	**-4.05**	**0.58**	0.00	**-1.61**	**0.34**	0.00
	-10%	**-2.59**	**0.39**	0.00	**-2.83**	**0.41**	0.00	**-0.93**	**0.32**	0.00
	Same	-0.49	0.32	0.13	**-0.87**	**0.33**	0.01	**0.52**	**0.32**	0.10
	+10%	**0.60**	**0.32**	0.06	0.49	0.32	0.13	**1.59**	**0.33**	0.00
Location	Att. After	0.22	0.24	0.37	**0.41**	**0.24**	0.09	0.01	0.24	0.96
	Month Units	0.04	0.28	0.89	0.01	0.28	0.97	-0.13	0.27	0.64
	No Info	0.12	0.24	0.62	0.05	0.24	0.85	**0.45**	**0.24**	0.06
	Child Benefit Second	**-0.44**	**0.24**	0.07	-0.37	0.24	0.13	0.09	0.24	0.69

Note: "Att. After" indicates that the respondent was in the condition were attitude and belief questions were asked after the choice questions rather than before. "Month Units" indicates that the respondent was asked to choose between monthly rather than weekly amounts. "No Info" indicates that respondents were not given information about the cost of the scheme to the exchequer. Child Benefit Second indicates that the questions were ordered such that the Child Benefit question was placed second, the pensions question third and the unemployment question first as opposed to the other condition in which the Child Benefit question was placed first, the pensions question second and the unemployment question third.

Table 6.4: Willingness to Pay Extra Taxation Broken down by Absolute Amount and Time Unit in which this Amount was presented to the Respondent

Time Unit	Willing?	Amount Level (€ per annum)				Total
		312	624	936	1250	
Week	No	4	6	10	4	24
		30.8%	35.3%	62.5%	36.4%	42.1%
	Yes	9	11	6	7	33
		69.2%	64.7%	37.5%	63.6%	57.9%
Month	No	11	8	11	9	39
		64.7%	50.0%	68.8%	64.3%	61.9%
	Yes	6	8	5	5	24
		35.3%	50.0%	31.3%	35.7%	38.1%
Year	No	9	8	7	9	33
		69.2%	38.1%	58.3%	50.0%	51.6%
	Yes	4	13	5	9	31
		30.8%	61.9%	41.7%	50.0%	48.4%
All three	No	5	9	9	8	31
		41.7%	50.0%	64.3%	66.7%	55.4%
	Yes	7	9	5	4	25
		58.3%	50.0%	35.7%	33.3%	44.6%

Table 6.5: Binary Logistic Regression on Whether Respondent was Willing to Pay an Extra Amount of Taxation to Increase Spending on Social Welfare Benefits

	B	S.E.	Wald	df	Sig.	Exp(B)
Time-Unit			2.77	3.00	0.43	
Week	1.25	0.88	2.04	1.00	0.15	3.50
Month	0.11	0.83	0.02	1.00	0.90	1.11
Year	0.69	0.77	0.80	1.00	0.37	2.00
AMOUNT			2.15	3.00	0.54	
€6	1.03	0.85	1.48	1.00	0.22	2.80
€12	0.69	0.77	0.80	1.00	0.37	2.00
€18	0.11	0.83	0.02	1.00	0.90	1.11
AMOUNT * TIME			4.97	9.00	0.84	
€6*Week	-0.78	1.21	0.41	1.00	0.52	0.46
€6*Month	-1.05	1.13	0.85	1.00	0.36	0.35
€6*Year	**-1.84**	**1.14**	**2.60**	**1.00**	**0.11**	**0.16**
€12*Week	-0.65	1.12	0.34	1.00	0.56	0.52
€12*Month	-0.11	1.08	0.01	1.00	0.92	0.90
€12*Year	-0.21	1.01	0.04	1.00	0.84	0.81
€18*Week	-1.18	1.16	1.03	1.00	0.31	0.31
€18*Month	-0.31	1.13	0.07	1.00	0.79	0.74
€18*Year	-0.44	1.12	0.16	1.00	0.69	0.64
Constant	-0.69	0.61	1.28	1.00	0.26	0.50

Note: The base category for Time Unit is all three units of information given. The base category for Amount is €24 per week.

6.5 Discussion

6.5.1. Conclusions

While manipulations of the order in which alternatives appear, whether or not respondents were provided with information as to the cost of the schemes to the state, whether they were asked attitude questions before or after being asked to make choices, and whether they were asked to judge in weekly, monthly or annual amounts do emerge as being statistically significant in some models there is very little evidence from this chapter that any of these effects are large. This is in line with, for example Gemmell, Morrissey and Pinar (2003), who demonstrated that a tendency to overestimate tax burdens had an insubstantial effect on demands for public spending. While the nature of our data precludes us from making definitive statements about the underlying processes and whether this would generalise to other circumstances, it can be said that the case has still very much to be made that these effects are operant.

6.5.2. Future Work

Although we found little effect of cost information on preferences for spending on different transfer policies, this is a partial account of the effect of information on preferences for social welfare. A future study should address the effect of provision of information about default rates, labour market effects, respondents own position with regard to benefits, other entitlements that benefit claimants possess, larger information about opportunity costs, and more information about potential methods of financing increases.

In terms of future data-collection, our results would provide a useful backdrop for a richer qualitative study of views on social welfare in Ireland on a smaller sample. Interesting work underway in Ireland and other countries on the use of citizen juries may act as a platform for this work. A further issue, discussed in a previous

chapter is the models we utilise in this chapter all have as their reference individualistic psychological choice models. Very few, if any, papers have addressed the issue of how these models apply when one is eliciting valuations from a household (e.g. interviewing a couple). The interaction of psychological theories of cognition with the literature on intra-household bargaining represents a very exciting future direction in this type of research.

Another argument, and one which dates back at least as far as Scott (1965) is that the responses elicited in questionnaires where no payment compulsion is involved cannot be taken as meaningful indicators of preference. Grether and Plott (1979) make the most eloquent rendition of this theme. Addressing the then emergent literature on preference reversals, they argue that "*results of experiments where subjects may be bored, playing games, or otherwise not motivated present no immediate challenges to theory*". They go on to say that "*several experiments can be disregarded as applying to economics even though they may be very enlightening to psychology*". Grether and Plott's challenge to the preference reversal literature twenty years ago is the same challenge that must be placed to the survey-response effects literature now. Are survey responses themselves, artefacts of low motivational and low information scenarios with the absence of corrective feedback and a binding budget constraint, or do they point to more fundamental features of utility. A future study should examine the persistence of peoples views on social welfare, whether the various cognitive effects led to long-term changes in valuations and indeed behaviour.

A further area of analysis is the interaction of respondent uncertainty with the effect of format changes. Several papers (e.g. Ready, Navrud and Dubourg 2001) have augmented the standard WTP questions with a follow-up question asking the respondent how certain they are that they would actually pay the amount. Ready, and Dubourg (2001) compare the effects of weighting responses by degree of

certainty in both Dichotomous Choice and Open-ended CV formats, finding that respondents were unsure of DC bid versus Open-ended bids. It may be the case that the degree of familiarity respondents had with the items been appraised in this study may have inoculated them against being affected by the survey manipulations.

CHAPTER VII

HOUSEHOLD AND INDIVIDUAL PREFERENCES FOR SOCIAL TRANSFERS IN IRELAND

Summary

This chapter reports the results of questions that assessed household and individual willingness to pay extra taxation for increased levels of social transfers in Ireland elicited from individual respondents in a representative nationwide sample. A split-sampling procedure was employed. Half of the respondents were asked to give their total household willingness to pay, while the other half was asked their personal willingness to pay followed by their household willingness to pay. The chapter reports the results of this experiment analysing response covariates and determining the magnitude of standard biases in the literature on the aggregation of demand for social welfare in Ireland. We also examine intra-household factors in determining demand for transfer policies. We report the results of a test of the pooled income model of household behaviour, assessing support levels of men and women for child benefit transfers, and particularly analysing support for changing the child-benefit system to a progressive model.[124]

[124] A version of this chapter is in preparation for submission to the *Journal of Economic Psychology*.

7.1 Introduction

The study of public preferences for state transfers is a prominent arena in which social psychology, economics and political science meet and has relevance to public policy and media debate.[125] Social welfare spending is a non-marketed activity administered by government bodies with public preferences entering the process only indirectly through the effect of pressure groups on government decisions. Standard models of voter preferences assume that only those who gain monetarily either directly or indirectly from different welfare schemes will support these policies but, as reviewed in previous papers, the literature across disciplines has incorporated more flexible functional forms on utility with respect to the consumption and/or utility of others (e.g. Fong 2001).

The literature on willingness to pay for non-marketed goods can be traced back to several roots, particularly the environmental economics literature and recently a willingness to pay approach has begun to inform a number of different fields including health economics (e.g. Diener et al 1998), cultural economics (e.g. Noonan 2002, Noonan 2003, Throsby 2003) and agricultural and forestry economics (e.g. Pouta 2003). Potential problems with eliciting willingness to pay for non-marketed goods are numerous and revolve around the issues of firstly whether respondents have the incentive to reveal their actual preferences and secondly whether they are capable of mentally modeling the tasks required to perform the relevant counterfactuals involved in making the choices (see Carson 2004 for a review).

This chapter analyses an issue that has not been assessed in the literature on public preferences for social welfare, and one that has wider relevance to the literature on

[125] The literature across disciplines is extensively reviewed in Chapter 5.

willingness to pay for non-marketed goods, the issue of eliciting household as opposed to individual preferences. This issue is important for a number of reasons. As we have outlined in Chapter 5, the vast majority of current papers on preferences for inequality have been conducted on large international data sets that analyse general attitudes to redistribution rather than preferences, and willingness to pay for specific policies of redistribution and social transfers (e.g. Scheve and Slaughter 2003). Once we consider specific willingness to pay, we need to develop a more contextualised model of the manner in which individuals, *as parts of households,* make choices, particularly if the goal of the analysis is to construct aggregated measures of valuation to be used in cost-benefit analysis.

While several international data-sets are available on preferences for public goods and preferences for redistribution that also include detailed information about the demographic characteristics of respondents, a specific country case-study is warranted for a number of reasons. Large international studies (e.g. ISSP, World Values Survey, European Social Survey, General Social Survey) rarely include questions about specific policies of redistribution with most questions assessing general attitudes to the economy and to redistribution. Furthermore, cultural differences in interpretation of questions may mitigate against making necessary comparisons. Also, the effects of different institutional, cultural and historical factors may mitigate against isolating the effects of individual demographic variables. In summary, the utilization of cross-cultural data-sets that assess general preferences for redistribution may not be sufficient to begin to analyse the specific individual micro-foundations of preferences for government transfer policies and redistribution. Furthermore, most international studies of preferences are conducted within an individual attitude paradigm, with questions designed to

assess individual attitudes, without regard to household as opposed to individual preferences.[126]

The first task of this paper then is to further analyse the technical issues outlined in Chapter 4 of how to *elicit* preferences from individuals, bearing in mind that they are part of a household. We also consider how to empirically model preferences for transfers from a household perspective. Tests of the pooled income hypothesis have consistently shown that differences in income between husbands and wives in a family have significant effects on allocation of income across different expenditure items, and on family-related outcomes such as child health. Specifically and building on work by Lampietti (1999), we address whether males' and females' preferences are the same for transfer policies or whether intra-household allocation factors determine preferences over non-marketed government activity. We report tests of whether women from high income households are more opposed than men from high-income households to a set of policies that would make child benefit, a transfer generally made to the mother, progressive in income or taxable.

7.2 Households and Individual WTP for Social Transfers

7.2.1. Background

In Chapter 4, we examined the issue of eliciting individual and household WTP and argued that a large gap existed in the literature in the area of dealing with how households, as opposed to individuals, value non-marketed goods, and how intra-household factors determine both the structure of preferences and dictate the conditions under which interviews of preferences should be carried out in order to elicit different types of information. The aim of this analysis is not to improve

[126] It must be noted, however, that such surveys have placed an increasing emphasis on recording the characteristics of members of the household other than the respondent, something that we will exploit in analysing preferences for redistribution in other work.

forecasting decisions but instead to better understand how to model valuations which is, as argued, a different task. Here we examine this in further detail in the context of social transfers. Firstly, we look at one example of the importance of household factors in *eliciting* preferences from an individual respondent (7.2.2), and secondly we examine the impact of household factors in modelling the preferences of an individual respondent (7.2.3).

7.2.2. Individual Willingness to Pay: Respondents Self-Perceived Agency

As reviewed previously, there are several methods of eliciting willingness to pay, and a full taxonomy of different elicitation methods would involve interacting the traditional taxonomy with permutations of the different manners in which a household could conceivably be interviewed. In Chapter 4 we analysed the issue of eliciting household and personal willingness to pay from individual respondents in a standard contingent valuation setting. Following Quiggin (1998) we argued that this issue had crucial significance for the literatures on contingent valuation and that many studies were rendered very imprecise by failing to adequately address this issue. We showed that respondents varied significantly in the way they modelled the standard willingness to pay question with some respondents choosing to give their personal willingness to pay and some respondents choosing to give their household willingness to pay. Furthermore we showed that this decision depended significantly on socio-demographic characteristics such as gender, age and the presence of children. Thus, we argued, that as well as making it difficult to meaningfully aggregate the results of many willingness to pay studies, the issue of how respondents modeled their own agency also has implications for determining how the benefits of different non-marketed activities are distributed.[127]

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[127] In another context, tracing this idea through the history of utility and value theory is interesting. For example, Bentham (1815) exemplifies the individualism inherent in discussions of value: *"To a person considered by himself, the value of a pleasure or pain, considered by itself, will be greater or less according to the four following circumstances: (1) Its intensity. (2) Its duration. (3) Its*

In this chapter we develop and empirically test the concept of *Respondents' Self-perceived Agency* in valuation studies.[128] The key issue is the extent to which the respondent to a willingness to pay question views the relevant budget constraint as being his/her own personal share of the family budget or the total household budget. Some respondents may view a standard contingent valuation question as asking them to make a family purchase from the household account, while some may view this as asking to make a purchase from his/her own share of the account. Furthermore there may be significant heterogeneity in perceived entitlement to "spend" from the household account. In this paper, we analyse the open-ended WTP question and ask two related questions:

1. Do individual respondents process the standard open-ended question, "*what is your maximum WTP* as being their own personal WTP from their own budget constraint or will they instead give household WTP? Studies that model the responses to this question as an individual demand are implicitly assuming that the proportion of respondents that respond by giving their household WTP is zero. If it were the case that a non-zero proportion of respondents were giving total household WTP then the results of aggregation procedures that failed to take this in to account would represent significant over-estimates of the WTP.

2. Do individual respondents process the open-ended question, "*what is your maximum household WTP",* as being their own personal WTP or as being their household WTP? Once again, if a non-zero proportion of respondents process this

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certainty or uncertainty. (4) Its propinquity or remoteness... He further mentions *(5) Fecundity (6) Purity and (7) Extent.* Beginning here one could begin to critique the value literature from our household perspective.

[128] Some seminar participants have linked this concept to more sociological notions of agency. However, what we have in mind here is a technical conceptualization of decision-making units. While it may be interesting, for example, to conceptualise WTP in terms of a town's WTP or a country's WTP, this does not create the type of confusion that household WTP creates. A respondent is unlikely to confuse their personal WTP with their town's WTP, but very likely to do so in the case of household WTP.

question as being their personal rather than their household WTP, then aggregation procedures will include built-in bias, in this case downward bias. This effect can be characterized either as a form of measurement error, or more fundamentally as in-built stochastic uncertainty in the individuals' response function.

The results of this chapter are a stronger test of the assumptions embodied in modeling individual responses to WTP questions than in Chapter 4 in which we analysed how respondents modeled the first question where the agency question is left open to the respondent. The aim of that analysis was to demonstrate the aggregation biases that result when respondents are left to model their own agency. The aim of this analysis is to demonstrate that even when the researcher frames the agency of the respondent, the respondent may not for a number of reasons model the task set in the manner dictated by the question set-up. For the standard form of the open-ended question to be valid, a number of conditions must hold. The proportion of respondents who give their own personal WTP when asked to give household WTP must be zero. Furthermore, respondents must be meaningfully able to distinguish between their own personal budget constraint and their households' budget constraint.[129]

The determinants of how individual respondents model the standard WTP questions can be usefully analyzed by estimating conditional distributions on demographic factors such as gender, age and occupation as in previous papers. Financial integration within the household is a measure we explore in the empirical analysis (e.g. Burgoyne 1995, Pahl 1995). Respondents who are in a financially integrated relationship may not distinguish between their own "personal" willingness to pay and "household" willingness to pay, whereas those

[129] I have not found a paper that documents this, but it would seem plausible that individuals as part of households may suppress income-sharing rules within the household from consciousness for psychological or cultural reasons. A further way of exploring this that I did not find (nor attempt) would be to explore the valuation procedure as a Wittgenstein-type language game.

in a relationship that is not financially integrated may be able to distinguish more between household and personal WTP. Financial Integration is measured nominally by the manner in which the respondents' household conducts their finances, particularly with reference to their banking and spending decisions.

7.2.3. Intra-household Factors and Preferences for Transfers

As well as looking at how respondents model the questions as regards their personal and household constraints, we also examine how intra-household factors determine preferences for transfers. As discussed in Chapter 4, Lampietti (1999) uses differences in willingness to pay for malarial prevention between husbands and wives to test the "pooled income hypothesis". Tests of the pooling hypothesis have consistently demonstrated a difference in the effect of income controlled by either husbands or wives on a number of different outcomes such as child health and nutrition (Schultz 1990, Thomas 1990) and expenditure on alcohol and tobacco (Phipps and Burton, 1992, Hoddinott and Haddad 1995). Bargaining models of household behaviour and preferences may also be employed to examine preferences for wide-scale government activity.

Several papers have assessed the concept of a "gender gap" in fiscal preferences (e.g. Gilligan 1982, Alvarez and McCaffrey 2000).[130] The evidence is mixed with some papers finding very little evidence for substantive gender differences that would justify a bargaining model of household behaviour and other papers finding marked differences related to males focus on financial issues and women's focus on altruistic and familial concerns. If the later stream were correct, we would expect in this sample to find significant gender differences in preferences for family-related transfers. Several papers have demonstrated that males preferences tend to be more reflected in couples' private charitable allocation decisions than

[130] A number of recent papers have also examined gender differences in preferences for environmental goods (e.g. Loomis and Lee, 1999, Dupont, 2004).

female preferences (e.g. Andreoni, Brown and Rischall 2001). This may be true at a societal level also, and it is of course possible that males' preferences would be more reflected in government policy decisions also. In this case, looking for a gender gap in fiscal preferences as evidence of household bargaining may not be a fruitful exercise. Instead, evidence for household bargaining and its effects on preferences should be sought by examining preferences for public goods that change entitlements to income within the household.

One particularly interesting test of the shared income hypothesis in the Irish context is preferences for conditionality of child-benefit payments. Child-benefit payments in Ireland are universal and generally paid to the mother. One of the chief arguments against making child–benefit conditional on income is that given that it is a payment to the mother, reducing it to any segment in society would have negative consequences for the mother in the intra-household allocation process.[131] The shared income hypothesis, whereby households maximize a common-utility function, puts testable restrictions on parameters describing individual preference structures on our survey data. If preference structures are formed in this type of world, then there is no reason to believe that men and women would have different preferences for this proposal at different levels of income. It may be the case that men and women have different preferences for other reasons, but if income is pooled then this should not be different at different levels of income. However, a model where degree of entitlement to income within

[131] Proposals to tax child benefit are met with considerable opposition from some women's groups. For example, in response to a 2002 proposal, one commentator (quoted on the National Women's Council website) wrote: '*For the first time in the history of the State, the increases in Child Benefit were beginning to be worth something to parents. For the first time, women could begin to look forward to the possibility of returning to the workforce with the hope of significant future increases in Child Benefit to assist with childcare. So just when the possibility of genuinely eliminating child poverty and genuinely supporting parents in paying for childcare were on the horizon, the Government is planning to betray them. We will not stand by and watch the Government scapegoat children and women*'.

a household determines intra-household allocations would predict an interaction between income and support for conditionality. Specifically, women from higher income households being the group that would lose effective entitlement to income should be more opposed to the proposal that child-benefit be made conditional on income than men from higher income households.

7.3 Survey Design and Scenario

7.3.1. Willingness to Pay for Social Welfare

The questions used in this chapter form part of a wider survey eliciting preferences for social welfare in Ireland described in Chapter 5. The willingness to pay scenario followed a number of questions eliciting preferences for social welfare spending in Ireland. The question has the disadvantage that it does not specify a precise vector of benefits deriving from the tax to be paid over. Pilot testing indicated that respondents interpreted the question as demanding a monetary amount to achieve *necessary* improvements to social welfare benefits. Importantly, informal pilot-tests demonstrated considerable lack of clarity among respondents as to whether the amount they pay would come from their own budget or their household budget and that differential phrasing of the initial question did not mitigate this. It was the case that after several clarifications, pilot-test respondents settled on a valuation that they felt represented their preferences. This was frequently far different from the initial amount. The practicalities of the interview process in our nationwide sample precluded us from conducting the type of detailed interview protocols necessary to fully explore the initial issues raised.

A 2x2 split-sampling procedure was employed. The scenario went as follows, with half of the respondents being asked Version A and half of the respondents being asked Version B:

(i)

A. Would you be willing to pay more money in taxes each week in order to support extra social welfare spending on children, the disabled, pensioners, carers, the unemployed and those on low incomes? In other words, imagine that the government proposed increasing spending on these schemes and paying for these increases by increasing taxes on products and services and this were to cost you money. How much extra money, at a maximum, would you be willing to pay per week? _____

B. Would your household be willing to pay more money in taxes each week in order to support extra social welfare spending on children, the disabled, pensioners, carers, the unemployed and those on low incomes? In other words, imagine that the government proposed increasing spending on these schemes and paying for these increases by increasing taxes on products and services and this were to cost your household money. How much extra money, at a maximum, would your household be willing to pay per week? _____

Both sets of respondents were then asked the follow-up question:

(ii) Which of the following best represents your response to the above question?

(a) This is the total amount of extra money that my household would be willing to pay.

(b) This is the total amount of extra money that I would be willing to pay.

Respondents who answered (b) to question ii were asked the follow-up question?

(iii) How much money at a maximum would your household be willing to pay.

Standard socio-demographic variables such as gender, age, income, and education were assessed. We also included a question asking respondents who were in a

relationship to state the manner in which their household conducted their finances. Respondents were asked to choose between a number of options:

"*We have completely separate finances which we rarely discuss*",
" *We have separate accounts*",
" *We have joint accounts*",
"We have joint accounts and conduct all our finances together",
"We have joint accounts but what we do with the rest of our money, we decide as individuals".

7.3.2. Preferences for Government Spending and Attitudes towards Conditionality

The full questionnaire used to elicit attitudes toward conditionality is described in more detail in Chapter 5. The questions analysed in this chapter are general questions assessing respondent's preferences for taxation and government spending, and questions eliciting preferences for specific welfare schemes. Respondents were asked about their general level of preferences for government activity and asked to choose between: *"More government spending and more taxes"*, *"Less Government Spending and Less Taxes"* and "*An unchanged amount of government spending and taxes"*. Respondents were also asked their preferences for increased or decreased expenditure on each of Social Welfare, Education and Health on a seven-point scale. Respondents were also asked to choose their top priority for social welfare spending among the categories of pensions, child benefit, benefits for unemployed people, benefits for disabled people, benefits for single parents or none of the above. We examine attitudes toward conditionality of child-benefit in particular detail. Included in the questionnaire were a number of questions eliciting attitudes toward the child benefit scheme.

Respondents were asked to rate their level of agreement with a series of statements:

"Child benefit should only be paid to those who need it",
"Child benefit should be paid to everyone with children regardless of income",
"Child benefit should be part of taxable income",
"People with high incomes should be given less than people with low incomes".

7.3.3. Administration

The survey was carried out in June 2004. Interviews were conducted by trained administrators, face-to-face in the respondents' home. A quota sampling procedure was employed, with age, region, gender and occupation used as quota-markers. Sampling was employed on an individual basis. 1159 respondents were interviewed face-to-face in their homes by a trained interviewer and with the use of visual aids. The split-sample procedure was implemented randomly by the interviewer at each interview. One caveat is that we do not have information on non-respondents which means that the results must be interpreted as a sample of people who (a) were available to be contacted and (b) agreed to participate. We have no way of knowing whether unobserved selection variables could be generating the results.

7.4 Results

7.4.1. Household or Personal Willingness to Pay

Of the 1159 respondents who were asked the WTP question, 129 did not give an amount (11.1%). This is not significantly different between versions (12% versus 10.3%, $p>0.36$). The majority of respondents to both questions signaled that they would not be willing to pay any amount of extra taxation to finance increases in social welfare expenditure. In Version 1, where respondents were first asked to

give "your" WTP, 339/507 respondents (66.9%) responded that they would not be willing to pay extra taxation to fund increases in social welfare provision. In Version 2, where respondents were asked to give "your households" WTP, 353/523 (67.5%) of respondents responded that they would not be willing to pay extra taxation to fund increases in social welfare provision.

The results of the follow-up question, asking respondents whether their amount represented personal or household WTP, is displayed in Table 7.2. This question was restricted to respondents who had previously answered that they were married or living as married. 70.3% of respondents who answered the question claimed that their bid represented household WTP. Importantly, this does not vary greatly between the two different versions of the survey. In Version 1, where respondents are asked to give "your" WTP, 68.4% of respondents respond that this represents household WTP, whereas in version 2 where respondents are asked to give "your household's WTP", 70.3% of respondents respond that this represents household WTP. This means that 29.7% of respondents who were asked to give their "household WTP" instead give their personal WTP.

Table 7.4 describes the distribution of respondents stated level of financial integration with their partners. This questions was asked only to respondents who had previously stated that they were married or living as married. In total 535 respondents answered the question. 8% of these respondents stated that they held completely separate finances from their partner, versus 36.6% who stated that they held completed integrated finances with their partner. Given the small sample size, we created a binary dummy variable that simply codes whether respondents held separate or joint accounts. On this measure, 26.4% of the respondents held separate accounts versus 73.6% of respondents who stated that they held joint accounts.

Table 7.5 analyses the breakdown of whether respondents replied that their bid represented household or individual WTP by both the version and the degree of financial integration in the respondent's household. The results show a clear linear trend in the degree of financial integration with greater degrees of financial integration being associated with a greater likelihood of stating that one's bid represents household rather than personal WTP. For example, for respondents whose relationship is one where "joint accounts are held and all finances are conducted together", 88% answer the follow-up question by saying their bid represents total household WTP. For respondents whose relationship is one were finances are "completely separate", 62.9% claim that their bid represents household WTP. Table 6 isolates those cases where respondents returned a positive (non-zero) WTP, and demonstrates a similar trend.

Table 7.7 further breaks down the results by gender and level of financial integration. Wald tests on the binary logistic model incorporating version, gender, financial integration (joint versus separate) and an interaction between gender and financial integration are displayed in Table 7.8. Financial Integration is demonstrated to be a statistically significant determinant of replying that the amount represents a household bid. Specifying "household" WTP in the question does make the respondent more likely to state that their bid represents a household bid. However, as demonstrated in Table 7.9, this does not lead to any difference in the actual amount stated. Table 7.9 displays the results of ANOVA tests of differences in the mean of several different transformations of the willingness to pay response by version. No transformation of the dependent variable renders the differences in mean WTP between the two versions statistically significant.

Table 7.10 displays mean amounts elicited from the follow-up question, asked to those who replied that their bid represented personal rather than household WTP. There is evidence that respondents who gave an initial personal bid subsequently

increase the bid when asked to give the total household bid by a significant degree, particularly when one removes zero bids. However, this is to a large extent outlier driven, and when one removes bids over €50 the effect is more modest. Thus, in this case, the effect on aggregating WTP for extra social welfare spending of incorporating this measure is quite small.

7.4.2. Preferences for Social Welfare Spending

Table 7.11 displays support for increased government spending by gender and income category. Table 7.12 displays the results of a multinomial logistic model of support for increased and decreased government spending, using support for keeping expenditure and taxation constant as the baseline. There is little evidence of a main effect of gender on support for government expenditure. However, there is evidence of an interaction effect between gender and income, with women outside the top household income bracket being more likely to support more government expenditure than women in the top income bracket.

Table 7.13 analyses support for social welfare expenditure broken down by income and gender. Table 7.14 displays the results of a binary logistic regression of support for increased social welfare expenditure, analyzing the effects of gender, income and the interaction. Once again, there is little evidence for a main effect of gender in determining preferences for social welfare expenditure. There is a significant main effect of income in determining preferences for extra social welfare expenditure, with those in the top bracket being significantly less likely to support increases in social welfare expenditure. However both the main effect of gender and the interactions between gender and income are not statistically significant determinants of preferences for increased social welfare expenditure.

Table 7.16 displays levels of support for making child benefit a taxable benefit broken down by gender and income. Table 7.17 analyses the determinants using a

binary logistic model. There is a significant interaction effect between gender and income with support for this policy the difference between male and female support for the policy being significantly higher in the top income bracket with more high-income males and less high-income females supporting the policy. The inclusion of the interaction effect reverses the effect of gender on preferences for this policy, with males being significantly less supportive of it. This pattern is demonstrated in Tables 7.18 and 7.19, which analyse support for making child benefit a progressive scheme, looking at the effect of gender and income. Once again there is a significant interaction effect between gender and income, with support for this policy among females being significantly lower than support from males in the top income group compared to the other income groups

7.5 Discussion and Conclusion

7.5.1. Conclusions

There has been renewed interest of late in the use of the open-ended willingness to pay question as a method of eliciting respondents' preferences for non-marketed goods (e.g. Ready, Navrud and Dubourg 2001). The use of the question implies a serious caveat in many applications, namely whether the respondent models the implied valuation as being a household or an individual valuation. In our previous study on public broadcasting and in this study, we have found that respondents who are part of a couple primarily model their bid as being a household valuation. Financial integration within the household is a key variable in determining the nature of the monetary amount that was elicited in this study. We have demonstrated in this chapter a strong correlation between financial integration and whether the respondent models a CVM question as a household or individual decision.

However, modelling respondents WTP as a household valuation is problematic and may lead to an underestimate of WTP for multi-person households. We found that even when respondents are asked the WTP of "their household" a substantial number do not model this as being a household valuation and instead interpret this as eliciting their personal valuation. When asked willingness to pay questions, the average respondent responds partly as an individual "spending" from their own personal budget constraint and partly as a household "spending" from the household budget constraint. Explicitly asking respondents to spend from the household budget constraint is no guarantee that they will do so, particularly if the respondent is not in a financially integrated relationship. The implication for CV practice is that studies that assess WTP should include probes to inquire whether the respondent is giving their household or personal WTP.

Furthermore, we find similar to Lampietti (1999) that women and men have different preferences for household public goods, lending further evidence to the view that "household" preferences is a problematic construct. Women did not demonstrate significantly higher patterns of support for transfers than men, or for government activity in general. However, we found significant evidence that income and gender has an effect on determining preferences for a proposal to make child benefit a conditional payment on income (restricting our analysis to couples with children). Men and women in the higher income bracket showed statistically significant differences in support for this proposal, supporting the view that conditionality would weaken the bargaining position of women in the top tax bracket relative to their partners. This is further and novel empirical evidence for how the economics of intra-household bargaining determines the structure of preferences for public goods, and society-wide allocations. Particularly, it demonstrates that, at least in this case-study, gender differences emerge significantly for a household public good when the provision of that good alters the intra-household entitlement to income between the partners.

7.5.2. Future Research

Future research in to the issues of *eliciting* household and individual valuations should focus on the effects of the respondents' agency across a wide array of elicitation formats. Our study is limited in that it examines only the open-ended elicitation method and in a context where the benefits to be gained from the money spent were not explicit. Further studies should examine how respondents conceive of their budget constraints in more defined scenarios and using different payment vehicles and elicitation methods. More in-depth psychological micro-studies of how people process their budget constraints from an intra-household perspective should be conducted. A very large literature exists analyzing the role of individual psychological biases and heuristics in determining responses to willingness to pay questions. However, very little research has examined how households construct valuations. Studies examining the processes by which couples make non-market valuations in consultation would enable the formation of more realistic and contextualized models of the valuation process and aid the development of question design and interpretation of response.[132] A body of research has analysed how private households make decisions. For example, Kirchler (1995) describes the "couples experience diary" which attempts to analyze in a contextualized manner, the processes by which couples make financial decisions and this could be extended to analyze non-market valuation.[133]

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[132] Pahl (1995) identifies a number of different income allocation strategies among couples: *female whole wage* where the women controls the allocation of the total wage, *male whole wage* where the male earns the money and decides how it all should be allocated, *housekeeping allowance* where the husband gives the wife a fixed sum to manage housekeeping activities, *income pooling* where there is complete or near-complete income sharing, and *independent management systems* where both partners have their own income and finances are conducted separately.

[133] In terms of assessing intra-household issues in altruistic preferences, Andreoni, Brown and Rischall (2001) applied bargaining theory to household charitable donations. They replicate the findings of several other studies in concluding that men and women have significantly different tastes for giving, which motivates intra-household conflict. They find that conflict resolution tends, in most cases, to fall on the side of the husband's preferences. Furthermore, they find that household bargaining imposes a cost on the amount donated in the order of six percent. As

The Irish Child Benefit system is an interesting case-study in the literature on intra-household preferences for public goods in that it is one of the few benefits for which entitlements are clearly delineated to the mother, allowing us to test directly for the effects on intra-household entitlements on preferences for a specific transfer. Comparison of our results with results from other studies in different countries that have this system is the first avenue for future research. A further area of study would be to analyze preferences for other forms of regulation and transfers that have direct bearing on entitlements and threat points within the household, such as different tax-credit regimes. Indeed, using parameter estimates of intra-household variables on preferences and attitudes toward an array of measures may be a method by which to "reverse-engineer" the structure of intra-household interaction.

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mentioned in a previous paper, it is unclear as to whether these effects would be observed in elicited preference formats where the cost of "losing" a bargaining round would not be high.

Table 7.1: Frequency of Initial Willingness To Pay by Version

Amount (€ per Week)	Version		
	Personal First	Household First	Total
.00	339	353	692
1.00	7	6	13
2.00	8	10	18
3.00	11	5	16
4.00	2	1	3
5.00	42	44	86
6.00	1	3	4
7.00	3	2	5
8.00	1	3	4
10.00	29	33	62
15.00	4	6	10
20.00	27	27	54
25.00	3	6	9
30.00	6	4	10
35.00		1	1
40.00	4	3	7
50.00	10	6	16
70.00		2	2
75.00	1		1
80.00	1		1
90.00		1	1
100.00	1	4	5
135.00		1	1
150.00	3	1	4
200.00	2	1	3
500.00	2		2
	507	523	1030

Table 7.2: Household or Personal Willingness to Pay by Version

	Version		
Response:	Personal First	Household First	Total
Household	296 (68.4%)	320 (72.2%)	616 (70.3%)
Personal	137 (31.6%)	123 (27.8%)	260 (29.7%)
	433	443	876

Table 7.3: Frequency of Follow-Up Willingness To Pay by Version

Amount (€ per week)	Version		
	Personal First	Household First	Total
.00	113	133	246
1.00	2	1	3
2.00	5	6	11
3.00	4	1	5
4.00	4	2	6
5.00	20	20	40
6.00	2	1	3
7.00	1		1
10.00	16	20	36
14.00	1		1
15.00	3	3	6
20.00	11	10	21
28.00		1	1
30.00		1	1
38.00		1	1
40.00	2	3	5
50.00	4	2	6
55.00	1		1
60.00	1	1	2
70.00		1	1
75.00	1	2	3
80.00	1		1
85.00		1	1
90.00		1	1
100.00	3	4	7
210.00	1		1
220.00	1		1
555.00		1	1
	197	216	413

Table 7.4: Financial Integration of Married/Living as Married Households

	Frequency	Valid Percent	Cumulative Percent
Separate Finances/Rarely Discuss	43	8.0	8.0
Separate Accounts	98	18.3	26.4
Joint Accounts	154	28.8	55.1
Joint but other Money Separate	44	8.2	63.3
Joint Accounts and Conduct Together	196	36.6	
Total	535	100.0	

Table 7.5: Whether Respondent Replied "household" or "individual" by Version and Finances

			Version		Total
Finances	**Response**		Personal First	Household First	
Completely Separate	Household	Count	12	10	22
		% within version	57.1%	71.4%	62.9%
	Personal	Count	9	4	13
		% within version	42.9%	28.6%	37.1%
		Count	21	14	35
Separate	Household	Count	30	24	54
		% within version	65.2%	75.0%	69.2%
	Personal	Count	16	8	24
		% within version	34.8%	25.0%	30.8%
		Count	46	32	78
Joint	Household	Count	52	54	106
		% within version	78.8%	84.4%	81.5%
	Personal	Count	14	10	24
		% within version	21.2%	15.6%	18.5%
		Count	66	64	130
Joint but Other Money	Household	Count	16	13	29
		% within version	84.2%	86.7%	85.3%
	Personal	Count	3	2	5
		% within version	15.8%	13.3%	14.7%
		Count	19	15	34
Joint and Conduct All Finances Together	Household	Count	60	79	139
		% within version	83.3%	91.9%	88.0%
	Personal	Count	12	7	19
		% within version	16.7%	8.1%	12.0%
		Count	72	86	158

Table 7.6: Whether Respondent Replied "household" or "individual" by Version and Finances (Excluding Zero Amounts)

			Version		Total
Finances	**Response**		Personal First	Household First	
Completely Separate	Household	Count	5	3	8
		% within version	55.6%	60.0%	57.1%
	Personal	Count	4	2	6
		% within version	44.4%	40.0%	42.9%
		Count	9	5	14
Separate	Household	Count	13	12	25
		% within version	56.5%	66.7%	61.0%
	Personal	Count	10	6	16
		% within version	43.5%	33.3%	39.0%
		Count	23	18	41
Joint	Household	Count	19	21	40
		% within version	76.0%	84.0%	80.0%
	Personal	Count	6	4	10
		% within version	24.0%	16.0%	20.0%
		Count	25	25	50
Joint but Other Money	Household	Count	8	6	14
		% within version	80.0%	75.0%	77.8%
	Personal	Count	2	2	4
		% within version	20.0%	25.0%	22.2%
		Count	10	8	18
Joint and Conduct All Finances Together	Household	Count	19	19	38
		% within version	70.4%	79.2%	74.5%
	Personal	Count	8	5	13
		% within version	29.6%	20.8%	25.5%
		Count	27	24	51

Table 7.7: Cross-tabulations of Whether Respondent replied household or individual by Finances, Version and Gender

				Gender		Total
Finances	**Version**	**Response**		Female	Male	
Separate	Unspecified	Personal	Count	15.00	10.00	25.00
			% within Gender	41.67	32.26	37.31
		Household	Count	21.00	21.00	42.00
			% within Gender	58.33	67.74	62.69
			Count	36.00	31.00	67.00
	Household	Personal	Count	3.00	9.00	12.00
			% within Gender	11.54	45.00	26.09
		Household	Count	23.00	11.00	34.00
			% within Gender	88.46	55.00	73.91
			Count	26.00	20.00	46.00
Joint	Unspecified	Personal	Count	10.00	19.00	29.00
			% within Gender	13.16	23.46	18.47
		Household	Count	66.00	62.00	128.00
			% within Gender	86.84	76.54	81.53
			Count	76.00	81.00	157.00
	Household	Personal	Count	4.00	15.00	19.00
			% within Gender	5.26	16.85	11.52
		Household	Count	72.00	74.00	146.00
			% within Gender	94.74	83.15	88.48
			Count	76.00	89.00	165.00

Table 7.8: Binary Logistic Regression of Whether Respondent replied household or individual (1 is Household)

	B	S.E.	Wald	df	Sig.	Exp(B)
Household Version	0.56	0.26	4.80	1.00	0.03	1.75
Male	-0.36	0.41	0.80	1.00	0.37	0.70
Joint	1.36	0.40	11.73	1.00	0.00	3.91
Male*Joint Accounts	-0.56	0.53	1.11	1.00	0.29	0.57
Constant	0.67	0.30	5.17	1.00	0.02	1.96

Table 7.9: Different Measures of Initial Willingness to Pay Broken down by Version

Version	Measure	Amount	Amount without zeroes	Square Root of Amount without zeroes	Logarithm of amount without zeroes	Amount without outliers (>50)	Root Amount without Outliers (>50)
Unspecified	Mean	8.32	25.11	3.91	2.33	4.25	1.05
	N	507.00	168.00	168.00	168.00	497.00	497.00
	Std. Deviation	36.90	60.85	3.14	1.19	9.60	1.78
	Maximum	500.00	500.00	22.36	6.21	50.00	7.07
	Median	0.00	10.00	3.16	2.30	0.00	0.00
Household WTP	Mean	5.97	18.36	3.66	2.30	3.91	1.01
	N	523.00	170.00	170.00	170.00	513.00	513.00
	Std. Deviation	17.80	27.39	2.24	1.06	8.57	1.70
	Maximum	200.00	200.00	14.14	5.30	50.00	7.07
	Median	0.00	10.00	3.16	2.30	0.00	0.00
Total	Mean	7.13	21.72	3.79	2.31	4.08	1.03
	N	1030.00	338.00	338.00	338.00	1010.00	1010.00
	Std. Deviation	28.84	47.14	2.72	1.13	9.09	1.74
	Maximum	500.00	500.00	22.36	6.21	50.00	7.07
	Median	0.00	10.00	3.16	2.30	0.00	0.00
	Significance Tests for Differences Between the Mean Scores (ANOVA)						
	Sum of Squares	1426.55	3854.77	5.50	0.08	29.73	0.35
	df	1.00	1.00	1.00	1.00	1.00	1.00
	Mean Square	1426.55	3854.77	5.50	0.08	29.73	0.35
	F	1.72	1.74	0.74	0.06	0.36	0.12
	Sig.	0.19	0.19	0.39	0.80	0.55	0.73

Table 7.10: Different Measures of Second Willingness to Pay Broken down by Version

Version	Measure	Amount	Amount without zeroes	Square Root of Amount without zeroes	Logarithm of amount without zeroes	Amount without outliers (>50)	Root Amount without Outliers (>50)
Unspecified	Mean	9.53	22.36	3.86	2.33	3.68	1.11
	N	197.00	84.00	84.00	84.00	184.00	184.00
	Std. Deviation	27.11	38.02	2.74	1.16	6.74	1.57
	Maximum	220.00	220.00	14.83	5.39	40.00	6.32
	Median	0.00	10.00	3.16	2.30	0.00	0.00
Household WTP	Mean	10.65	27.72	4.19	2.48	3.90	1.07
	N	216.00	83.00	83.00	83.00	203.00	203.00
	Std. Deviation	41.97	64.35	3.21	1.18	7.75	1.66
	Maximum	555.00	555.00	23.56	6.32	40.00	6.32
	Median	0.00	10.00	3.16	2.30	0.00	0.00
Total	Mean	10.12	25.02	4.02	2.41	3.80	1.09
	N	413.00	167.00	167.00	167.00	387.00	387.00
	Std. Deviation	35.63	52.68	2.98	1.17	7.28	1.62
	Maximum	555.00	555.00	23.56	6.32	40.00	6.32
	Median	0.00	10.00	3.16	2.30	0.00	0.00
	Significance Tests for Differences Between the Mean Scores (ANOVA)						
	Sum of Squares	129.19	1201.99	4.46	0.92	4.33	0.12
	df	1.00	1.00	1.00	1.00	1.00	1.00
	Mean Square	129.19	1201.99	4.46	0.92	4.33	0.12
	F	0.10	0.43	0.50	0.67	0.08	0.05
	Sig.	0.75	0.51	0.48	0.41	0.78	0.83

Table 7.11: Support for Government Spending by Gender and Income

			Gender		Total
Income	**Response**		Female	Male	
€0-30	More	Count	55	52	107
		% within Gender	21.7%	23.9%	22.7%
	Less	Count	103	77	180
		% within Gender	40.7%	35.3%	38.2%
	Same	Count	95	89	184
		% within Gender	37.5%	40.8%	39.1%
		Count	253	218	471
€30-60	More	Count	27	25	52
		% within Gender	25.2%	21.0%	23.0%
	Less	Count	46	52	98
		% within Gender	43.0%	43.7%	43.4%
	Same	Count	34	42	76
		% within Gender	31.8%	35.3%	33.6%
		Count	107	119	226
€60+	More	Count	4	10	14
		% within Gender	10.8%	23.3%	17.5%
	Less	Count	12	13	25
		% within Gender	32.4%	30.2%	31.3%
	Same	Count	21	20	41
		% within Gender	56.8%	46.5%	51.3%
		Count	37	43	80

Table 7.12: Multinomial Logistic Model of Support for Government Spending

		B	Std. Error	Wald	df	Sig.	Exp(B)
More	Intercept	-0.69	0.39	3.20	1.00	0.07	
	Female	-0.97	0.67	2.08	1.00	0.15	0.38
	€0-30	0.16	0.42	0.13	1.00	0.71	1.17
	€30-60	0.17	0.46	0.14	1.00	0.71	1.19
	Female*€0-30	0.96	0.71	1.80	1.00	0.18	2.60
	Female*€30-60	1.25	0.76	2.72	1.00	0.10	3.50
Less	Intercept	-0.43	0.36	1.46	1.00	0.23	
	Female	-0.13	0.51	0.06	1.00	0.80	0.88
	€0-30	0.29	0.39	0.54	1.00	0.46	1.33
	€30-60	0.64	0.41	2.44	1.00	0.12	1.90
	Female*€0-30	0.35	0.55	0.42	1.00	0.52	1.43
	Female*€30-60	0.22	0.59	0.13	1.00	0.71	1.24

Table 7.13: Social Welfare Spending * Gender * Income Crosstabulation

Income			Gender		Total
			Female	Male	
€0-30	Don't add/Take Away	Count	86	87	173
		% within Gender	32.1%	36.4%	34.1%
	Add	Count	182	152	334
		% within Gender	67.9%	63.6%	65.9%
		Count	268	239	507
€30-60	Don't add/Take Away	Count	51	62	113
		% within Gender	44.7%	52.1%	48.5%
	Add	Count	63	57	120
		% within Gender	55.3%	47.9%	51.5%
		Count	114	119	233
€60+	Don't add/Take Away	Count	19	27	46
		% within Gender	51.4%	62.8%	57.5%
	Add	Count	18	16	34
		% within Gender	48.6%	37.2%	42.5%
		Count	37	43	80

Table 7.14: Binary Logistic Model of Support for Social Welfare Spending (1 = Add, 0=Don't Add/Take Away)

	B	S.E.	Wald	df	Sig.	Exp(B)
Male	0.06	0.36	0.03	1.00	0.86	1.07
Income	-0.57	0.15	14.28	1.00	0.00	0.56
Male*Income	0.13	0.22	0.34	1.00	0.56	1.13
Constant	1.12	0.25	19.59	1.00	0.00	3.06

Table 7.15: Multinomial Logistic Regression of Priorities for Extra Social Welfare Spending by Gender and Income (Full Factorial Model)

	Variable	B	Std. Error	Wald	df	Sig.
Priority						
Pensions	Intercept	0.75	0.43	3.09	1.00	0.08
	Female	0.23	0.64	0.12	1.00	0.72
	€0-30	0.53	0.49	1.17	1.00	0.28
	€30-60	-0.19	0.51	0.14	1.00	0.70
	Female * €0-30	-0.14	0.73	0.04	1.00	0.85
	Female * €30-60	-0.51	0.76	0.46	1.00	0.50
Child Benefit	Intercept	-0.69	0.61	1.28	1.00	0.26
	Female	-0.41	1.02	0.16	1.00	0.69
	€0-30	0.50	0.69	0.54	1.00	0.46
	€30-60	0.00	0.72	0.00	1.00	1.00
	Female * €0-30	1.26	1.10	1.32	1.00	0.25
	Female * €30-60	0.65	1.14	0.32	1.00	0.57
Benefits for Unemployed People	Intercept	-1.39	0.79	3.07	1.00	0.08
	Female	0.29	1.14	0.06	1.00	0.80
	€0-30	1.86	0.83	4.98	1.00	0.03
	€30-60	0.59	0.89	0.44	1.00	0.51
	Female * €0-30	-0.50	1.20	0.17	1.00	0.68
	Female * €30-60	-0.79	1.29	0.37	1.00	0.54
Benefits for Disabled People	Intercept	0.22	0.47	0.22	1.00	0.64
	Female	0.38	0.69	0.30	1.00	0.58
	€0-30	0.88	0.53	2.71	1.00	0.10
	€30-60	0.47	0.55	0.74	1.00	0.39
	Female * €0-30	-0.16	0.78	0.04	1.00	0.84
	Female * €30-60	-0.64	0.80	0.65	1.00	0.42
Benefits for Single Parents	Intercept	-2.08	1.06	3.84	1.00	0.05
	Female	-16.86	0.62	734.63	1.00	0.00
	€0-30	1.25	1.13	1.22	1.00	0.27
	€30-60	0.88	1.16	0.57	1.00	0.45
	Female * €0-30	18.17	0.78	539.40	1.00	0.00
	Female * €30-60	17.06	0.00	.	1.00	.

Table 7.16: Support for Making Child Benefit Taxable Broken Down by Gender and Income

			Gender		
Income	**Support?**		Female	Male	Total
€0-30	No	Count	210	204	414
		% within Gender	78.4%	84.3%	81.2%
	Yes	Count	58	38	96
		% within Gender	21.6%	15.7%	18.8%
	Total	Count	268	242	510
€30-60	No	Count	95	100	195
		% within Gender	84.1%	83.3%	83.7%
	Yes	Count	18	20	38
		% within Gender	15.9%	16.7%	16.3%
	Total	Count	113	120	233
€60+	No	Count	31	30	61
		% within Gender	81.6%	69.8%	75.3%
	Yes	Count	7	13	20
		% within Gender	18.4%	30.2%	24.7%
		Count	38	43	81

Table 7.17: Binary Logistic Regression on Support for Making Child Benefit Taxable Income

	B	S.E.	Wald	df	Sig.	Exp(B)
Male	-.970	.441	4.844	1	.028	.379
Income	-.200	.197	1.030	1	.310	.819
Male*Income	.543	.268	4.101	1	.043	1.721
Constant	-1.113	.302	13.603	1	.000	.328

Table 7.18: Support for Making Child Benefit Progressive in Income Broken Down by Gender and Income

Income	Support?		Gender		Total
			Female	Male	
€0-30	No	Count	109	102	211
		% within Gender	40.5%	42.1%	41.3%
	Yes	Count	160	140	300
		% within Gender	59.5%	57.9%	58.7%
		Count	269	242	511
€30-60	No	Count	58	62	120
		% within Gender	50.9%	51.7%	51.3%
	Yes	Count	56	58	114
		% within Gender	49.1%	48.3%	48.7%
		Count	114	120	234
€60+	No	Count	24	16	40
		% within Gender	63.2%	37.2%	49.4%
	Yes	Count	14	27	41
		% within Gender	36.8%	62.8%	50.6%
		Count	38	43	81

Table 7.19: Binary Logistic Regression on Support for Making Child Benefit Progressive in Income

	B	S.E.	Wald	df	Sig.	Exp(B)
Male	-.532	.343	2.398	1	.121	.587
Income	-.446	.152	8.588	1	.003	.640
Male*Income	.393	.212	3.457	1	.063	1.482
Constant	.835	.242	11.866	1	.001	2.304

CONCLUSIONS

This dissertation has provided two large-scale studies on preferences for public goods in Ireland. In total, over 3,000 people were interviewed by phone, face-to-face in their homes, and on the Internet not including a large number of respondents interviewed in informal pilot-tests. As such it represents the most important attempt to date to assess preferences for public goods in Ireland as well as contributing to the international literature on a number of theoretical points. Attempting to generalise from two studies to the wider set of all possible studies of public's preferences for public goods, taxation and expenditure is an exercise fraught with caveats. The results of our two studies do, however, yield a number of similarities and differences that merit comparison with future studies.

In the first study we examined willingness to pay for Irish public service broadcasting. The results of the study showed that the mean willingness to pay for the services provided was in excess of the license fee revenue generated but that there was substantial heterogeneity in the amounts elicited with median willingness to pay being considerably less than mean willingness to pay. In the second study, we examined attitudes to redistribution in Ireland and willingness to pay extra taxation to finance social welfare increases. The study showed a general level of positive support for extra redistribution in Ireland with particularly positive support for Pensions and Disability allowances. However, this strong level of support was not directly matched by willingness to pay extra taxation to finance increases in these types of social provision.

Both studies show a modest role for standard socio-demographics in explaining preferences for the goods under discussion. Gender, Age and Education emerge as statistically significant in some models of preferences for public broadcasting and social expenditure but do not explain a substantial amount of the variance in

response to these questions. It is difficult to explain exactly why there is a low fit between demographic variables and survey responses in these instances. It is at least partly due to the inherent variability in individuals, and the statistical fit produced in our models is not unusually low by the standards of the survey literature. Measurement error will also, of course, play a role. From a policy perspective, the results caution against exaggerated judgements of the effect of demographics on preferences for policy mixes. As demonstrated in Chapter 7, it is possible to refine our thinking about the relationship between demographics and preferences for policy by thinking more in depth about the potential effects of the policies and how they impact on different groups.

Furthermore, both studies demonstrate a modest role for standard question-effects in determining responses. While cognitive anchoring to the initial bid emerges as statistically significant in some models of response to a dichotomous choice with open-ended follow-up question in Chapter 2, the initial bid is clearly playing a very limited role in explaining responses to the open-ended follow-up question. Similarly, in Chapter 6, while we do find statistically significant roles for cognitive effects in some models of preferences for social transfers, these effects do not play a substantial role in determining preferences. The provision of information about the cost to the state of the schemes being assessed also did not play a role in determining preferences in our nationwide survey. The degree to which familiarity plays a role in inoculating respondents against survey effects is an interesting area for future research in this regard. This could partly address the concern that many commentators have expressed about the fact that different question wording can yield very different estimates of value in the context of CVM. If it were the case that this effect was substantially mediated by the familiarity of the good, as our results would suggest, this could justify a stronger role for CVM in valuing high-profile national goods such as broadcasting.

Analysing the distributional implications of public broadcasting with CVM yielded a number of points for discussion. Usage and Satisfaction functions for individual services and for the services overall yielded a greater degree of demographic variation than analysing WTP functions, and the linkage between WTP and overall usage and satisfaction, while statistically significant is not predominant. This yields a number of potential research questions as to the link between experience, habit, usage, satisfaction and valuation that could be analysed from an economic approach. Future work is needed to begin to further disentangle these relationships.

From a policy perspective, Ireland has never fully addressed the distributional implications of spending in the cultural sphere. This is particularly important at a time where government spending on culture, sport, heritage and other such areas has become far higher than past levels. A study that addressed the full distributional implications of this type of spending would go a long way to clarifying our thinking on the effects of this spending. While such a study would, of course, include standard measures such as attendance data, such data would be insufficient to fully capture the nature of distributional effects when it comes to cultural intangibles. One of the strong points that our thesis raises is that distributional effects extend beyond income deciles. In a public system characterised by decision-makers making decisions on the basis of their own demographics and lobby groups who lobby on the basis of demographics, as well as individuals who define themselves on the basis of demographics, distributional effects must be conceived of in terms of these demographics. It is insufficient to examine gender, age and other types of demographic variables as taste parameters when it comes to assessing the distributional effects of public goods.

The issue of household versus individual responding is one that merits future research in this area. While the referendum format in CVM does, to an extent, bypass some of the issues involved, it is nevertheless the case that a substantial

number of papers in this literature are ambiguous about how the individual respondent models their budget constraint when asked WTP questions and that this can have crucial implications for designing contingent valuation surveys and for interpreting the results. While it certainly the case that one should not ever expect a CVM study to yield a definitive amount, it is equally the case that the level of bias produced by an inattention to the household/individual ambiguity could be such as to outweigh several other types of bias that are corrected for routinely. The results displayed in Chapter 2 and Chapter 7 indicate that those asking willingness to pay questions should include protocols or reminders about the issue of whether it would come from the household or personal budget. Indeed, the relevant chapters would indicate that such a set of protocols should be standard in any CVM study where the relevant valuation is at the household level.

A future study could examine the decisions made by couples in hypothetical markets under different levels of consultation. Such a study would yield valuable information about how respondents actually respond to CVM questions as well as allowing the testing of several hypotheses in the household bargaining literature. This issue takes on increasing importance in a context where households are becoming increasingly heterogeneous and standard modelling tools that have at their heart a conceptualisation of either a completely integrated or one-headed household are losing their explanatory power.

Household budget surveys have been conducted for a number of years in Ireland and other countries, chronicling in detail how people distribute their private income toward various goods and services. The ultimate aim of the type of work conducted in this dissertation would be to apply a similar concept to how people spend their tax income. Such an exercise would present to people exactly how much of their tax income is distributed to various types of public activity in the country and ask them to choose to assign more or less to each activity subject to their budget constraint.

The only previous attempt to do this in a systematic way in the Irish case came from McDowell in 1990. His paper attempted to examine attitudes toward government expenditure from an economic perspective and provided a useful precedent for such an analysis. It is not likely that such a study would be used to directly set government policy. What it could do is improve levels of accountability and the quality of public debate surrounding public spending, allow people to rationally decide what services are giving them value for money and allow them some voice in the process thereby increasing procedural fairness. It may not be the case that activities for which there is low public support would necessarily have their funding cut back. However, it would force such groups to examine why exactly they are being funded. The analysis presented in this dissertation has examined a substantial number of the main issues that would need to be addressed on the way to such an innovation in policy. It would be very interesting to examine the extent to which making this process a public and routine policy tool would influence the quality of the data derived from such an exercise.

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APPENDIX 1:

NATIONWIDE SURVEY INSTRUMENT: PUBLIC BROADCASTING STUDY

(Please note that the following instrument was the basis for a set of telephone interviews and therefore not designed for visual display to respondents. The final version of the survey administered by Lansdowne Market Research included extra demographic questions)

I would like to begin with some questions about the type of broadcasting services that your household receives, how often you use them and about the composition of your household.

Q.1 (a) On average how many hours of Television a day do you watch?

☐ None	☐ 0-2	☐ >2-4	☐ >4-6	☐ >6

(b) On average how many hours of radio a day do you listen to?

☐ None	☐ 0-2	☐ >2-4	☐ >4-6	☐ >6

Q.2 Size of Household (*Include the Respondent, Exclude Children living permanently outside the household*)

Number Aged under 11 _____

Number Aged between 12 and 19_____

Number Aged 20 –35 _____

Number Aged 36-50_____

Number Aged 51-65_____

Number Aged 65+_____

Q.3 Which of the following best describes the television services available in your home?

☐ None	☐ Irish Channels only	☐ Irish Channels, BBC, C4 and ITV	☐ Cable TV (including MMDS)	☐ Satellite TV

Q.4 (a) *ONLY ASK IF RESPONDENT HAS INDICATED THAT THEY RECEIVE CABLE (INCLUDING MMDS) OR SATELLITE* **How much does your household pay for these Cable or Satellite services?**

ALLOW THE RESPONDENT TO ANSWER AND THEN PLACE AMOUNT IN APPROPRIATE CATEGORY

Every Week	€
Every Two Weeks	€
Every Month	€
Every Three Months	€
Every Year	€
Don't Know	☐
Refuse Answer	☐

(b) *ONLY ASK IF RESPONDENT'S HOUSEHOLD CONTAINS MORE THAN ONE INDIVIDUAL*

How much of this payment do you contribute yourself ; all, most, some or none

☐ All	☐ Most	☐ Some	☐ None	☐ Refuse Answer

Q.5 How often do you use the following services?

	Very Often	Often	Sometimes	Rarely	Never
RTE 1	☐	☐	☐	☐	☐
Network 2	☐	☐	☐	☐	☐
TV3	☐	☐	☐	☐	☐
TG4	☐	☐	☐	☐	☐
Radio One	☐	☐	☐	☐	☐
Today FM	☐	☐	☐	☐	☐
2FM	☐	☐	☐	☐	☐
Lyric FM	☐	☐	☐	☐	☐
RnaG	☐	☐	☐	☐	☐
National Concert Orchestra	☐	☐	☐	☐	☐
RTE Symphony Orchestra	☐	☐	☐	☐	☐

I now would like to ask some questions about how satisfied you are with the services you receive.

Q.6 How satisfied are you with the following television and radio channels? *If never use ,please leave blank.*

	Very Satisfied	Satisfied	Neither	Dissatisfied	Very Dissatisfied	Never Use
RTE 1	☐	☐	☐	☐	☐	☐
Network 2	☐	☐	☐	☐	☐	☐
TV3	☐	☐	☐	☐	☐	☐
TG4	☐	☐	☐	☐	☐	☐
Radio One	☐	☐	☐	☐	☐	☐
Today FM	☐	☐	☐	☐	☐	☐
2FM	☐	☐	☐	☐	☐	☐
Lyric FM	☐	☐	☐	☐	☐	☐
RnaG	☐	☐	☐	☐	☐	☐

Q.7 Of the television channels available to you, which one best provides the following types of programs? *√Tick one for each type (Do not prompt unless asked)*

	Soaps	Comedy	Sport	Educational Programs	News	Drama (ex-Soaps)	Current Affairs	Morning Shows	Films
RTE 1	☐	☐	☐	☐	☐	☐	☐	☐	☐
Net 2	☐	☐	☐	☐	☐	☐	☐	☐	☐
Tg4	☐	☐	☐	☐	☐	☐	☐	☐	☐
UTV	☐	☐	☐	☐	☐	☐	☐	☐	☐
C4	☐	☐	☐	☐	☐	☐	☐	☐	☐
TV3	☐	☐	☐	☐	☐	☐	☐	☐	☐
BBC 1	☐	☐	☐	☐	☐	☐	☐	☐	☐
BBC 2	☐	☐	☐	☐	☐	☐	☐	☐	☐
Sky News	☐	☐	☐	☐	☐	☐	☐	☐	☐
Sky Sports	☐	☐	☐	☐	☐	☐	☐	☐	☐
Discovery	☐	☐	☐	☐	☐	☐	☐	☐	☐
Sky Movies	☐	☐	☐	☐	☐	☐	☐	☐	☐
Sky One	☐	☐	☐	☐	☐	☐	☐	☐	☐
E4	☐	☐	☐	☐	☐	☐	☐	☐	☐
Other	☐	☐	☐	☐	☐	☐	☐	☐	☐
None	☐	☐	☐	☐	☐	☐	☐	☐	☐

Q.8 Of the four Irish Television channels, RTE One, Network 2, TV 3 and TG4 if you could only keep two, which two would you pick?

☐ RTE One	☐ Network 2	☐ TV3	☐ TG4	☐ No Opinion/Don't Know/Refuse to Answer

The following questions ask about RTE which provides RTE 1, Network 2 and TG4 on television and Radio One, 2FM, Lyric FM and RnaG on radio as well as running the National Concert Orchestra and the RTE Symphony Orchestra, RTE Online and the RTE Guide.

Q.9 Do you notice any difference between RTE television channels and other television channels that you receive? Do you think that they are.....

☐ Much Better	☐ Better	☐ Same	☐ Worse	☐ Much Worse	☐ No Opinion

Q.10 Do you notice any difference between RTE radio channels and other radio channels that you receive? Do you think that they are.....

☐ Much Better	☐ Better	☐ Same	☐ Worse	☐ Much Worse	☐ No Opinion

Q.11 Overall, how satisfied or dissatisfied are you with RTE services ?

☐ Very Satisfied	☐ Satisfied	☐ Neither	☐ Dissatisfied	☐ Very Dissatisfied	☐ No Opinion

Q.12 Do you think that the value of the services provided by RTE is improving, staying the same or getting worse?

☐ Improving	☐ Staying Same	☐ Getting Worse	☐ No Opinion

Q.13 thinking of a situation where there was no license fee and you had a choice of either paying to receive RTE services or not paying and not receiving RTE services. Bearing in mind that any money that you spend is money that you could spend on other goods and services, what would be the maximum amount of money you would be prepared to pay each month in order to receive RTE's services? *(Do not prompt)*

Amount per Month →	☐ Don't Know	☐ Refuse Answer (then skip to Q16)

☐ Respondent indicates that they are willing to pay no more than the current license fee

Q.14 NOTE: Only ask this question if there is more than one person in the respondent's household. Which of the following best describes your answer to Q.13 *√Tick one*

☐ This is the most you personally would be willing to pay (If Yes then ask Q15).
☐ This is the most your entire household would be willing to pay. (If Yes then skip Q15, go to Q16)

Q.15 In light of your answer to Q.14, what do you think is the maximum amount of money your household would be prepared to pay each month to receive RTE services?

Amount per Month →	☐ Don't Know	☐ Refuse Answer

Q.16 Should RTE provide more, the same or less of the following types of Television programs? *√Tick one for each type*

	Drama	Comedy	Sport	Educational Programs	News	Soaps	Current Affairs	Morning Shows	Films
More	☐	☐	☐	☐	☐	☐	☐	☐	☐
Same	☐	☐	☐	☐	☐	☐	☐	☐	☐
Less	☐	☐	☐	☐	☐	☐	☐	☐	☐

Q.17 Do you think that (a) everybody who pays the license fee should pay the same amount or (b) that people with higher incomes should pay more than people with lower incomes.

☐ A ☐ B ☐ No Opinion

Thank you for answering all the questions so far. I want to conclude with three short questions.

Q.18 Could I ask about the approximate level of household income? This means the total income of all members of the household. It includes all types of Income e.g. income from employment, social welfare payments, profits etc. I would like to assure you once again that all information collected will be treated with strict confidentiality. We simply need a indicator of which broad category your household income falls under. Perhaps you could indicate which of the following describes your household income per year.

☐ 0-€20,000	☐ €20,001-€40,000	☐ €40,001-€60,000	☐ €60,001-€80,000	☐ €80,000+

Q.19 Which best describes your level of formal schooling?

☐ Primary	☐ Secondary	☐ Some College/Training	☐ Completed Diploma/Degree	☐ Postgraduate Degree

Q.20 Thank you for your co-operation. Are there any comments you would like to make about this section of the survey or about broadcasting in Ireland in general?

APPENDIX 2:

NATIONWIDE SURVEY INSTRUMENT: PREFERENCES FOR REDISTRIBUTION STUDY

(Please note that the final version of the survey administered by Lansdowne Market Research included extra demographic questions and also some minor modifications which are referred to in Chapter 5.)

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LANSDOWNE MARKET RESEARCH
ASK ALL AGED 15+
VERSION 2

Q.1 For each of the statements I read out, please tell me how important or unimportant each is in your life. Where 1 is very unimportant and 10 is extremely important.
SHOWCARD "1"

TICK START AND ROTATE READ OUT ↓	1 Not Important At all	2	3	4	5	6	7	8	9	10 Extremely Important	
☐ Social Status, Power and Authority	1	2	3	4	5	6	7	8	9	0	
☐ Personal Wealth	1	2	3	4	5	6	7	8	9	0	
☐ Being Successful, Ambitious and Influential	1	2	3	4	5	6	7	8	9	0	
☐ Pleasure and Enjoying Life	1	2	3	4	5	6	7	8	9	0	
☐ Excitement, Novelty and Variety	1	2	3	4	5	6	7	8	9	0	
☐ Looking for Adventures and Taking risks	1	2	3	4	5	6	7	8	9	0	
☐ Self-Direction and Choosing your Own Goals	1	2	3	4	5	6	7	8	9	0	
☐ Being Free and Not Dependent on Others	1	2	3	4	5	6	7	8	9	0	
☐ Social Justice and Equality	1	2	3	4	5	6	7	8	9	0	
☐ Being at One with Nature and Protecting the Environment	1	2	3	4	5	6	7	8	9	0	
☐ Living in a World of Peace and Beauty	1	2	3	4	5	6	7	8	9	0	
☐ Being Helpful to those around you	1	2	3	4	5	6	7	8	9	0	
☐ Being Honest, Loyal and Responsible	1	2	3	4	5	6	7	8	9	0	
☐ Being Modest, Being Devout, Being Moderate	1	2	3	4	5	6	7	8	9	0	
☐ Having Respect for Tradition	1	2	3	4	5	6	7	8	9	0	
☐ Being Obedient and Polite	1	2	3	4	5	6	7	8	9	0	
☐ Respecting Elders	1	2	3	4	5	6	7	8	9	0	
☐ Security of Country, Social Stability	1	2	3	4	5	6	7	8	9	0	

Q.2 I am going to read out some categories of government spending. For each category I read out can you please tell if you think more money should be spent on that category, or if less money should be spent on that category – either through changes in taxation or moving resources from one area to another. Please use the scale on this card where 0 means leaving spending as it is, minus 5 means taking away a very significant amount and plus 5 means adding a very significant amount. You may of course choose any number in between.

SHOWCARD "2"

	-5 -4 -3 -2 -1 Taking Away		0 1 2 3 4 5 Same as before Adding	
Social Welfare	5 ..... 4 ..... 3 ..... 2 1		0 ..... 1 ..... 2 ..... 3 ..... 4 5	
Health	5 ..... 4 ..... 3 ..... 2 1		0 ..... 1 ..... 2 ..... 3 ..... 4 5	
Education	5 ..... 4 ..... 3 ..... 2 1		0 ..... 1 ..... 2 ..... 3 ..... 4 5	

SHOWCARD "3"

Q.3 Overall, would you be in favour of...?
SINGLE CODE ONLY

READ OUT ↓	
a) More government spending and more taxes; 1	
b) Less government spending and less taxes; 2	
c) An unchanged amount of government spending and taxes 3	

SHOWCARD "4"

Q.4 For each category of government spending I read out, please tell me how efficiently or inefficiently you feel the government is using taxes to provide public services in this area. Where minus 5 means very inefficiently and plus 5 means very efficiently.

	-5 -4 -3 -2 -1 Very Inefficiently		0 1 2 3 4 5 Neither Efficient Nor Inefficient Very Efficiently	
Social and Family Affairs	5 ..... 4 ..... 3 ..... 2 1		0 ..... 1 ..... 2 ..... 3 ..... 4 5	
Health	5 ..... 4 ..... 3 ..... 2 1		0 ..... 1 ..... 2 ..... 3 ..... 4 5	
Education	5 ..... 4 ..... 3 ..... 2 1		0 ..... 1 ..... 2 ..... 3 ..... 4 5	
Total Public Services	5 ..... 4 ..... 3 ..... 2 1		0 ..... 1 ..... 2 ..... 3 ..... 4 5	

Q.5a Imagine that the government proposed increasing spending on social welfare, for example, on children, the disabled, pensioners, carers, the unemployed and those on low incomes and paying for these increases by increasing taxes. How much extra tax, if any, would **your household** be willing to pay per week to allow for this increase in spending?

ENTER AMOUNT IN EURO USE LEADING ZERO

€ | | | |

IF ANSWER IS NONE RECORD AS:

€ | 0 | 0 | 0 |

Q.5b Is this…?

READ OUT

↓

The total amount of extra money that **my household** would be willing to pay.....1

The total amount of extra money that I would be willing to pay 2

ASK IF CODE 2 AT Q.5B

Q.5c What is the most amount of extra tax, if any, your household would be willing to pay?

ENTER AMOUNT IN EURO USE LEADING ZERO

€ | | | |

IF ANSWER IS NONE RECORD AS:

€ | 0 | 0 | 0 |

Q.6 The Department of Social and Family Affairs spends money on various social welfare schemes. For each social welfare scheme I read out, please tell me whether you think the scheme should be allocated more money or less money, either through changes in taxation or moving resources from one scheme to another. Please use the scale on this card where 0 means leaving spending as it is, minus 5 means taking away a very significant amount and plus 5 means adding a very significant amount. You may of course choose any number in between.

SHOWCARD "5"

TICK START AND ROTATE READ OUT ↓	-5 Taking Away	-4	-3	-2	-1	0 Same as before	1	2	3	4	5 Adding	
☐ Old-Age Pension	1	2	3	4	5	6	7	8	9	0	X	
☐ Blind Pension	1	2	3	4	5	6	7	8	9	0	X	
☐ Child Benefit	1	2	3	4	5	6	7	8	9	0	X	
☐ Unemployment Assistance /Benefit	1	2	3	4	5	6	7	8	9	0	X	
☐ Farm Assist Scheme	1	2	3	4	5	6	7	8	9	0	X	
☐ Employment Support Services	1	2	3	4	5	6	7	8	9	0	X	
☐ Pre-Retirement Allowance	1	2	3	4	5	6	7	8	9	0	X	
One-Parent Family Allowance	1	2	3	4	5	6	7	8	9	0	X	
☐ Widow's, Widower's and Orphan's Pension	1	2	3	4	5	6	7	8	9	0	X	
☐ Social Assistance and other Allowances	1	2	3	4	5	6	7	8	9	0	X	
☐ Family Income Supplement	1	2	3	4	5	6	7	8	9	0	X	
☐ Carer's Allowance	1	2	3	4	5	6	7	8	9	0	X	
☐ Supplementary Welfare Allowance	1	2	3	4	5	6	7	8	9	0	X	
☐ Disability Allowance	1	2	3	4	5	6	7	8	9	0	X	
☐ Students Grant	1	2	3	4	5	6	7	8	9	0	X	

SHOWCARD "6"

Q.7 Thinking of government spending on social welfare benefits, which of the following would be your highest priority for extra spending?
SINGLE CODE ONLY

a) Pensions	1
b) Child Benefit	2
c) Benefits for Unemployed People	3
d) Benefits for Disabled People	4
e) Benefits for Single Parents	5
f) None of these	6

SHOWCARD "7"

Q.8 How important an issue is social welfare to you in terms of deciding what party/politician you support, where minus 5 represents very unimportant and plus 5 represents very important?

-5 Very Unimportant	-4	-3	-2	-1	0	1	2	3	4	5 Very Important	
1	2	3	4	5	6	7	8	9	0	X	

Q.9 How much child benefit, if any, do you think should be paid for each child per month?
GIVE AMOUNT IN EURO

ENTER AMOUNT IN EURO USE LEADING ZERO

€ | | | |

IF ANSWER IS NONE RECORD AS:

€ | 0 | 0 | 0 |

Q.10 Please tell me to what extent you agree or disagree with the following statements about child benefit, where minus 5 means you disagree completely and plus 5 means you agree completely.
SHOWCARD "8"

TICK START AND ROTATE READ OUT ↓	-5 Completely Disagree	-4	-3	-2	-1	0	1	2	3	4	5 Completely Agree	
☐ Child benefit should only be paid to those who need it	1	2	3	4	5	6	7	8	9	0	X	
☐ Child benefit should be paid to everyone with children regardless of household income.	1	2	3	4	5	6	7	8	9	0	X	
☐ Child benefit should be part of taxable income	1	2	3	4	5	6	7	8	9	0	X	
☐ The government should do more to help households with children	1	2	3	4	5	6	7	8	9	0	X	
☐ People with high incomes should be given less child benefit than people with low incomes.	1	2	3	4	5	6	7	8	9	0	X	
☐ Child benefit should be replaced by extra child-related spending, e.g. schooling, child-care.	1	2	3	4	5	6	7	8	9	0	X	
☐ Child benefit is an effective way of helping households with children	1	2	3	4	5	6	7	8	9	0	X	

Q.11 How much unemployment assistance, if any, do you think should be paid to an unemployed individual per week? RECORD EXACT AMOUNT IN EURO

RECORD EXACT AMOUNT IN EURO USE LEADING ZERO

€ ☐☐☐

IF ANSWER IS NONE RECORD AS:

€ 0 0 0

Q.12 Please tell me to what extent you agree or disagree with the following statements about unemployment assistance, where minus 5 means you disagree completely and plus 5 means you agree completely.
SHOWCARD "8" AGAIN

TICK START AND ROTATE READ OUT ↓	-5 Completely Disagree	-4	-3	-2	-1	0	1	2	3	4	5 Completely Agree	
☐ The government should do more to help people who are unemployed	1	2	3	4	5	6	7	8	9	0	X	
☐ Unemployment assistance should be replaced by extra employment related spending, e.g. training.	1	2	3	4	5	6	7	8	9	0	X	
☐ Unemployment assistance is an effective way of helping people who are unemployed.	1	2	3	4	5	6	7	8	9	0	X	
☐ In general, the thought of people getting money without working angers me	1	2	3	4	5	6	7	8	9	0	X	
☐ Most people who receive unemployment assistance do not want a job	1	2	3	4	5	6	7	8	9	0	X	

Q.13 What amount of old age pension, if any, do you think should be paid to a retired person per week?
RECORD EXACT AMOUNT IN EURO

RECORD EXACT AMOUNT IN EURO USE LEADING ZERO	
€ ☐☐☐	
IF ANSWER IS NONE RECORD AS:	
€ 0 0 0	

Q.14 Please tell me to what extent you agree or disagree with the following statements about old age pensions where minus 5 means you completely disagree and plus 5 means you completely agree?
SHOWCARD "8" AGAIN

TICK START AND ROTATE READ OUT ↓	-5 Completely Disagree	-4	-3	-2	-1	0	1	2	3	4	5 Completely Agree	
☐ The government should spend more to help people who are retired	1	2	3	4	5	6	7	8	9	0	X	
☐ The country cannot afford the current level of spending on pensions	1	2	3	4	5	6	7	8	9	0	X	
☐ The old aged pension is an effective way of helping people who are retired	1	2	3	4	5	6	7	8	9	0	X	
☐ Instead of spending more money on pensions, the government should use the extra money to spend on facilities for the elderly.	1	2	3	4	5	6	7	8	9	0	X	

Q.15 Please tell me to what extent you agree/disagree with the following statements, where 1 represents very close agreement with the first option and 10 represents very close agreement with the second option. **INTERVIEWER READ OUT BOTH OPTIONS AND RECORD ANSWER ON SCALE BELOW.**
SHOWCARD "9

a) A society with extensive social welfare but high taxes

or

A society where taxes and welfare are low and people take responsibilities for themselves

1 Close to first option	2	3	4	5	6	7	8	9	10 Close to second option	
1	2	3	4	5	6	7	8	9	0	

b) An egalitarian society where the gap between rich and poor is small regardless of achievement

or

A competitive society where wealth is distributed according to one's achievement

1 Close to first option	2	3	4	5	6	7	8	9	10 Close to second option	
1	2	3	4	5	6	7	8	9	0	

SHOWCARD "10"

c) In political matters, people talk of "the left" and "the right". Using this scale how would you place your views on this scale, generally speaking?

1 Close to "left"	2	3	4	5	6	7	8	9	10 Close to "right"	
1	2	3	4	5	6	7	8	9	0	

SHOWCARD "8" AGAIN

Q.16 Please tell me to what extent you agree or disagree with the following statements, where minus 5 means you disagree completely and plus 5 means you agree completely.

	-5 Completely Disagree	-4	-3	-2	-1	0	1	2	3	4	5 Completely Agree	
☐ The government should take steps to reduce income differences between rich and poor in Ireland, either by raising taxes or by giving more income assistance to the poor.	1	2	3	4	5	6	7	8	9	0	X	
☐ Large numbers of people falsely claim social welfare benefits in Ireland these days.	1	2	3	4	5	6	7	8	9	0	X	

ASK IF RESPONDENT IS MARRIED OR LIVING AS MARRIED

Q.17 Which of the following statements best describes how you and your partner conduct your financial affairs?

SINGLE CODE ONLY

READ OUT ↓

a)	We have completely separate finances which we rarely discuss	1
b)	We have separate accounts	2
c)	We have joint accounts	3
d)	We have joint accounts and conduct all our finances together	4
e)	We have joint accounts but what we do with the rest of our money we decide as individuals	5

Q.18 Which religion if any are you?
SHOWCARD "11"

Practicing Catholic	1
Non-Practicing Catholic	2
Practicing Christian (Other)	3
Non-Practicing Christian (Other)	4
Other Faith	5
Not Religious	6

Q.19 What political party if any do you support?
PROBE TO PRECODES

Fianna Fáil	1
Fine Gael	2
Sinn Féin	3
Labour	4
Green Party	5
Progressive Democrats	6
None of the above parties	7

Q.20. Who is the Minister responsible for social welfare in Ireland? **DO NOT PROMPT**

Q.21. Who is the Fine Gael leader? **DO NOT PROMPT**

Q.22. Who is the Fianna Fail leader? **DO NOT PROMPT**

Q.23. Who is the Minister for Finance? **DO NOT PROMPT**

Q.24. Who is the Fine Gael spokesperson on Social Welfare? **DO NOT PROMPT**

SINGLE CODE ONLY

	Q.20 Social Welfare	Q.21 Fine Gael	Q.22 Fianna Fail	Q.23 Finance Minister	Q.24 FG Spokesperson	
Bertie Ahern	1	1	1	1	1	
Mary Coughlan	2	2	2	2	2	
Enda Kenny	3	3	3	3	3	
Charlie McCreevy	4	4	4	4	4	
Michael Ring	5	5	5	5	5	
Other (specify _____ _____and code)	6	6	6	6	6	
Don't know	7	7	7	7	7	

Q.25 Which of these best describes your annual household income?
SHOWCARD "10"

€0 - €29,999	1
€30,000 - €59,999	2
€60,000+	3