

Estimation of Willingness-to-Pay for Budgetary Programs by Gender

Sun-Joo Cho

Senior Research Fellow, Korean Women's Development Institute

I. Introduction

As long as the financial management of the nation fails to take into consideration differences in gender roles and opportunity, as well as the demands of gender, it perpetuates gender inequalities which eventually lead to losses in economic efficiency.

In this context, South Korea recently introduced gender-responsive budgeting (GRB) through the National Financial Act. As a useful measure for supporting a gender-equal society, GRB has been drawing attention all over the world. While different definitions of GRB have been put forward by international experts and organizations,¹⁾ what they all share in common is an emphasis on GRB as not merely a supplemental budget for women, but as a productive act or a process of allocation of national financial resources based on principles of gender equality.

Gender Responsive Budgeting spread around the world following the 1995 Beijing Women's Global Congress and 2001 Brussels Summit. In South Korea, the 2006 National Finance Act dictated that the submission of gender budget and balance reports will be mandatory starting with the 2010 fiscal year. In 2009, the South Korean government submitted the first "2010 Gender

1) Budlender et al., (1998): Gender responsive budgeting (GRB) is not a separate budget for women, but instead a gendered analysis of a national budget assessing the different impacts of budgets on different groups. In other words, GRB can be a tool for translating political commitment into gender equality via budgetary commitment. The objective of GRB is to address gender issues through government programs, policies, and the allocation of resources rather than regarding women as a simple interest group. / Nordic Council of Minister-Belgium Government (2001): GRB is an application of gender mainstreaming in the budgetary process. It means a gender-based assessment of budgets, while incorporating a gender perspective at all levels of the budgetary process and restructuring revenues and expenditures in order to promote gender equality. Y. Kim et al. (2007): Gender-responsive budgeting can be defined as a series of allocation and implementation processes of public budgets in which a gender perspective is applied in order to advance gender equality. Ministry of Strategy and Finance (2009), "2010 guidelines for budgetary allocation report": GRB is a financial system which modifies financial resource allocation and policies at every stage of the budgeting process - planning, deliberating, implementing and evaluating. / National financial law article 26; GRB is a gender analysis that has already accounted for the effects of budget allocations on both women and men.

Responsive Budgeting Report” to the National Assembly, which contained a gender analysis of 195 projects under 29 central ministries and a total budget of 731,44 billion won.

Similarly to how the terms “gender budget” or “women’s budget” can be mistranslated, GRB is often misinterpreted to mean a separate budget that directly supports women or is limited to special interest services for gender equality.

GRB (gender responsive budgeting, gender sensitive budgeting) should be understood as a financing system which modifies the allocation of financial resources and policies at every stage of the budgeting process - planning, deliberation, implementation and evaluation. By analyzing the divergent effects of budgets on women, men, and gender inequality, it attempts to ensure the efficient use of government resources while fostering gender equality. In addition, GRB is more than simply an annual budgeting concept, but rather a policy of overall budget management including medium- and long-term fiscal management planning. (T. Kim, 2010)

Still, most studies on GRB have concentrated on building infrastructure, since it is only the first stage of policy implementation. Although the policy has been adopted, very little has been studied regarding the economic practices of GRB. As Woo (Woo, 2010) pointed out, if the implementation of GRB helps to improve gender equality in Korea and people rate this outcome as positive, the estimation of an economic value for GRB should be possible to a certain extent, albeit indirectly.

Therefore, this study attempts to assess the economic value of governmental financial projects that are sensitive to the gender identity of the public, the consumers of the policy, by using CVM (Contingent Valuation Method). CVM is a manner of eliciting a market valuation for non-market goods that uses survey questions to ask respondents how much they would be willing to pay after explaining the content of the goods and services of a public enterprise. CVM is already widely applied, especially in the context of environmental valuation, and its use is continuing to expand into a variety of domains. It is also recommended to apply CVM to the Preliminary Feasibility Test of cultural and scientific facilities (KDI, 2004). In this respect, the present study primarily focused on empirical analysis in order to estimate the monetary value of improvement in gender equality through the methods of econometrics.

II. Review of Previous Studies

1. Empirical Study on the Effect of Gender Equality

The economic discussion surrounding gender equality gradually transits from a general aspect that conceives of gender equality policy as a cost to the stage of recognition as an investment for future growth and economic progress. However, gender equality policy is often misunderstood by the general public, and even policy implementers, as simply that which deals with the problem of social justice - as in Women’s Studies, sociology, and political science - while creating

no economic benefits but only increasing expenses (Maier & Carl, 2003).

Particularly in Korea, the issue has been little discussed. It is within bounds to assert that there are hardly any empirical studies related to gender responsive budgeting. A handful of existing studies are primarily focused on the connection between gender equality, gender and benefit incidence analysis, and the demand for gender estimation.

First, empirical studies on gender equality and economic growth primarily examine the correlations between macro-economic indicators such as gender equality in education and inequality and per capita GDP and birth rate.

In a study by Asa Lofstrom (2008), the connection between gender equality, economic growth and employment was analyzed. Based on the assumption that women and men work equally in paying jobs having an equal portion of part-time work and self employment, the study estimated the maximum value of the primary benefits obtained from improved gender equality, demonstrating that among EU member states there is a potential for increasing GDP of between 15 and 45 percent. Volart (2004) identified gender discrimination as an inefficient economic practice through the analysis of Indian panel data spanning 1961 to 1991. His findings showed that a ten percent increase in the female-male ratio of all managers increases per capita GDP by two percent, while a ten percent increase in the female-male ratio of all workers increases per capita GDP by eight percent. He further argued that discrimination in managerial positions not requiring physical ability creates a negative influence on economic growth. In his 2000 study, Volart also analyzed the relationship between economic growth and gender inequality both in education and employment, in order to show that when females were excluded from the labor market per capita GDP is reduced to half its potential level in the absence of discrimination (Jeon, 2009).

In addition, Cho and Holst (2009) investigated whether a gender equality policy and social conservatism affect the economic growth of a country. In their study, they analyzed the effect of the Convention on the Elimination of All Forms of Discrimination against Women (CEDAW) on GDP by using panel data from 138 countries. However, they found no statistically significant evidence on the impact of CEDAW in other countries, while gender equality policy in 37 Muslim countries show statistically positive impacts on economic growth.

There have been other significant empirical studies on gender and benefit incidence analysis and demand analysis stressing that the policy instruments for government to perform financial policies influence differently the utility of men and women without reference to the intention of the government. They regard the recognition of gender discrimination of a policy to be a critical step toward gender equality, since the policy instrument can solve or at least alleviate the existing imbalance. A number of empirical studies have been conducted especially in education and medicine that examine benefit incidence by gender (Demery & Mehra (1996), Demery et al. (1995), Filmer (1999)) or calculate gender-based differences in the price and income elasticity of demand for education and health care (Alderman & Gertker (1997), Garg & Morduch (1996)).

2. Gender Responsive Budgeting and CVM

As the above, gender responsive budgeting is in line with other policy instruments available to the government for the performance of financial policies in that they all differently affect the utility of men and women. However, in this case the goods and services provided by the government are non-market items.

The economic value of private goods traded in the market can be identified through market prices, whereas it is a more difficult task to ascertain the economic value of non-market goods or services. This is primarily because in the case of non-market goods and services the market value cannot be assumed, due to transactions not being made within the market. Nevertheless, despite this characteristic of non-market commodities, if an individual concurs with the introduction of beneficial non-market goods and services, he or she should be willing to pay for this consumer benefit service. To the contrary, a consumer who objects to particular goods or services would be amenable to preventing it by bearing an expense. In the case of non-market goods, there is a method to partially estimate its economic value by measuring public willingness-to-pay (WTP).

This logic can be similarly applied to the object of this study, Gender Responsive Budgeting (Woo, 2010). It is possible to evaluate the economic value of Gender Responsive Budgeting (GRB) to a certain extent, given that the introduction of GRB improves gender equality in South Korea and its result is desirable by the public.

The economic value of goods or services is fundamentally determined by the preferences of consumers. If a utility function, namely the preference system of consumers toward goods or services, is determined, it would be a relatively simple matter to calculate the value of the goods or services involved. However, the utility of consumers cannot be observed. The sole factor researchers can observe in its place is the choices made by consumers.

In spite of limitations on knowledge and information regarding their utility function, researchers can partly determine the selection rule of consumers. That is, consumers make purchasing decisions after comparing the market price of goods or services to their subjective reservation price. In economics, this reservation price is generally referred to as willingness-to-pay (WTP). WTP consists of the price of goods or services and consumer surplus reflecting consumer preferences for particular goods and services. WTP expressed in terms of monetary units demonstrates the economic value of the consumption of selected goods or services. Regarding private goods, the economic value can be assessed by using the demand function. Similarly, the economic value of non-market goods is assumed, while estimating the demand function of the goods through the related market. Even with insufficient information, it is not impossible to rate WTP if a reliable demand curve can be constructed as a guideline for estimation.

In welfare economics, equivalent variation, also referred to as compensating variation, provides a useful measure of fluctuations in individual welfare according to changes in market conditions. As an example, assume that an excise tax is going to be adopted and as a result the wel-

fare of consumers will decline. In this situation, equivalent variation (EV) is the maximum amount of money a consumer would pay to prevent the introduction of the excise tax. On the other hand, compensating variation is the minimum amount of additional money a consumer would require in compensation for the reduced welfare following the introduction of the excise tax. Therefore, if the introduction of GRB is intended to enhance national welfare, equivalent variation estimates the minimum an individual must receive in order to abandon GRB, while compensating variation estimates how much money an individual would pay at a maximum to maintain GRB.

The difference between the maximum payment and the minimum amount of acceptable compensation would not be great if the change in the policy were not particularly radical. However, a significant change in policy may induce a notable difference between the two measurement of benefits. In most cases, the minimum acceptable price is overestimated compared to the maximum payment price. Therefore, for the purpose of examining the gaining of advantages, there is an inclination to prefer maximum payment price (WTP) in order to measure the benefits of non-market goods by using non-market valuation methods such as Contingent Valuation Method, or CVM.²⁾

III. Survey Design, Method of Payment, and Willingness-to-Pay

The survey of CVM includes two stages; survey design and actual inspection. In survey design, a questionnaire is constructed following the research and is modified several times (Yoo and Chae, 2001). The content of the questionnaire is determined after being pretested on a relatively small pilot sample of the target population. In this study, a pretest survey of 100 questionnaires was carried out in order to refine and supplement the survey. At every stage, the research center proceeded with the survey after close consultation with experts in research.

Here, individuals evaluate the impact of GRB rather than the quality of the policy itself. Thus, the economic value of GRB will equal the monetary value of its assumed effectiveness. The process of designing the questionnaire is as in the following.

2) Since the value of GRB cannot be found in the market and it generally includes non-use values, rather than use a value which people derive from the direct use of a good, Stated Preference Method is regarded to be more appropriate. Here, Choice Modeling is more suitable in order to analyze the individual characteristics of GRB, whereas Contingent Valuation Method is recommended if there is a need for overall evaluation of GRB. (Woo, 2010).

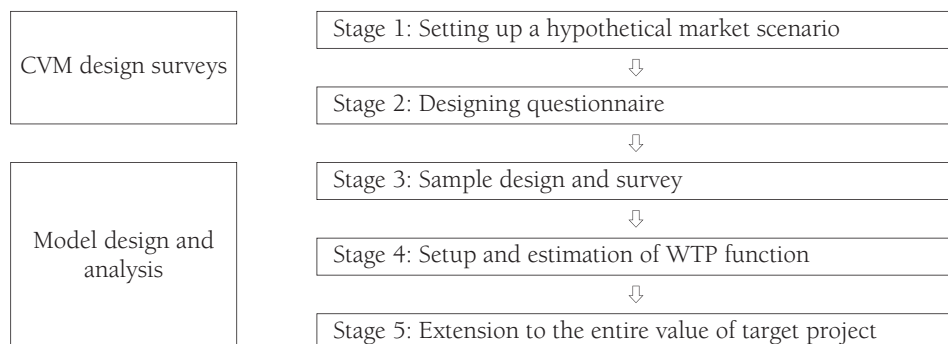


Figure 1. The process of questionnaire design

In setting up a hypothetical market, it is important to suggest the means of payment³⁾ in order to allow respondents to easily express their willingness to pay. Here, an income tax increase was selected as the payment vehicle, since financial services such as GRB are conducted through the general account⁴⁾.

Based on the pretest, questions were composed through a double-bounded dichotomous-choice method designed to procure the required number of samples for statistical analysis at small cost. In this model, if the first response is “yes,” the second bid is an amount greater than the first bid while if the first response is “no,” the second bid is a smaller amount.⁵⁾ By simply requesting a second bid to the respondents, the double-bounded dichotomous-choice method is considered to be more efficient than a single-bounded method, as it is able to obtain more information and samples from the same number of respondents.

Since certain other factors, such as the number of intervals and the price range, could affect estimates of WTP, optimal bid designs are proposed to maximize the efficiency of welfare estimates. According to Hanemann and Kanninen (1999), it is sufficient to form four to six bid

3) There are mandatory and voluntary payment vehicles. Mandatory payment vehicles includes taxes, levies, entrance fees, commissions, and price advances. Voluntary payment vehicles usually refers to donations and gifts. However, respondents may feel personal hostility to a mandatory payment vehicle which raises the possibility of non-response. On the other hand, voluntary payments are likely to invite strategic responses such as free-riding, which is why they are usually not employed in CVM practice.

4) In general, a temporary tax increase is proposed rather than a permanent one.

5) For example if the respondent answers yes to the X won bid, then they are asked if they are willing to pay 2X won, while those who answered no to the initial question are asked if they are willing to pay 0.5X won.

intervals within the 15-85 percentile range of the WTP distribution. Hence, this study randomly distributed respondents into five groups. The first bid was 100 won, and follow-up bid prices were 500, 1000, 2500, 5000 won.

Figure 2 shows an example of a WTP question when the first bid price is 100 won.

Q8. After Gender Responsive Budgeting (GRB) increases the number of toilets, you will be able to use public restrooms without waiting in a long line.⁶⁾ If public services were improved by adopting GRB, would you be willing to pay 100 won in addition to the present income tax?

① yes ☑ please answer Q 8-1 ② no ☑ please answer Q8-2

Q 8-1. Then are you willing to pay 200 won per month?

③ yes ☑ please answer Q10 ④ no ☑ please answer Q10

Q 8-2. Then are you willing to pay an extra 50 won per month?

⑤ yes ☑ please answer Q10 ⑥ no ☑ please answer Q9

Figure 2. Sample questionnaire from WTP survey

IV. WPT Model

1. Characteristics of the Data and Variables

The present study analyzed national survey data from adults aged 19 and over. The survey structure consists of multiple parts, including social demographic information, a precise description of GRB, questions on awareness of GRB, DBDC (double-bounded dichotomous-choice) questions, reasons for answers, attitude toward gender equality (respondent's experience and interest). For explanatory variables, respondent's perceptions and attitudes toward GRB, indi-

6) At the moment, it might be called into question whether or not a public toilet at an expressway rest area is a private good, as the restroom fee is already included in a toll. What is more, the fact that a public restroom and private restroom are substitute goods, and that most people use private restrooms rather than public restrooms can also raise questions. However, the example of a public restroom is selected for the scenario because it is the most commonly used case in the explanation of GRB, while the value of a public restroom includes comparatively more non-use value. In effect, the Korean government adjusted the number of toilets in public restrooms following the results of an investigation (average time for females: 3 mins; average time for males: 1 min 24 sec; Therefore, the number of toilets in the women's rooms should be double that of in the men's room). The government's effort to extend facilities such as diaper-changing tables in men's restrooms also reduced public inconvenience.

vidual characteristics, and household characteristics were selected. Here, dependent variables are nothing but the respondent's acceptance or rejection of five bids. The following transformation is required to apply the response data to first and second bid price. That is, a dependent variable is encoded as (LOW_WTP, UP_WTP) and the data is transformed into three different types; right censored incomplete data, left censored incomplete data, and interval data.

Table 1. Characteristics of Data

First Bid	Second Bid	Type of Response	Minimum WTP	Maximum WTP	Type of Data
100	200	yes, yes	200	.	right censored incomplete data
		yes, no	100	200	interval data
	50	no, yes	50	100	interval data
		no, no	.	50	left censored incomplete data
500	1,000	yes, yes	1,000	.	right censored incomplete data
		yes, no	500	1000	interval data
	250	no, yes	250	500	interval data
		no, no	.	250	left censored incomplete data
1,000	2,000	yes, yes	2000	.	right censored incomplete data
		yes, no	1000	2000	interval data
	500	no, yes	500	1000	interval data
		no, no	.	500	left censored incomplete data
2,500	5,000	yes, yes	5000	.	right censored incomplete data
		yes, no	2500	5000	interval data
	1,250	no, yes	1250	2500	interval data
		no, no	.	1250	left censored incomplete data
5,000	10,000	yes, yes	10,000	.	right censored incomplete data
		yes, no	5,000	10,000	interval data
	2,500	no, yes	2,500	5,000	interval data
		no, no	.	2,500	left censored incomplete data

2. WTP Estimation Model

In this study, the WTP survey instrument used a DBDC elicitation framework. When using a DBDC model, there are four possible types of responses: yes/yes, yes/no, no/yes, no/no. Thus, log likelihood function can be written as:

$$\ln L(\theta) = \sum_1^n [D_1 \times D_2 \ln \pi^{yy} + D_1 \times (1 - D_2) \ln \pi^{ym} + (1 - D_1) \times D_2 \ln \pi^{ny} + (1 - D_1) \times (1 - D_2) \ln \pi^{nm}] \quad (1)$$

$$\pi^{yy}(B_i, B_i^y) = \Pr[B_i^y \leq WTP_i] = 1 - F(B_i^y; \theta) \quad (2)$$

$$\pi^{ym}(B_i, B_i^y) = \Pr[B_i \leq WTP_i < B_i^y] = F(B_i^y; \theta) - F(B_i; \theta) \quad (3)$$

$$\pi^{ny}(B_i, B_i^d) = \Pr[B_i^d \leq WTP_i < B_i] = F(B_i; \theta) - F(B_i^d; \theta) \quad (4)$$

$$\pi^{nm}(B_i, B_i^d) = \Pr[WTP_i < B_i^d] = F(B_i^d; \theta) \quad (5)$$

where F is a cumulative probability distribution function of any probability distribution such as logistic cumulative distribution or normal cumulative distribution.

$$F(B; \theta) = F(\alpha + \beta \chi' + \beta_{bid} B) \text{ or } F(\alpha + \beta \chi' + \beta_{bid} \ln B) \quad (6)$$

α : constant term

β : coefficient vector of χ .

χ' : vector of characteristic variable showing characteristic of respondents

β_{bid} : B or coefficient of $\ln B$,

B: bid price

Parameters of can be estimated with a maximum likelihood estimator and we can also calculate the probability of acceptance with estimated parameters and the average of each property. Average WTP in this method is calculated by the numerical integration of the probability of acceptance. However, when the function converges to "0", the average WTP may diverge to infinity as WTP distribution becomes right-skewed. For this reason, a truncated mean is suggested as the average deduction method. The formula for the truncated mean is:

$$E(WTP) = WTP_{truncated\ mean} = \int_0^{WTP_{max}} F(B; \theta) dB \quad (7)$$

Because WTP is typically estimated through a temporary payment vehicle for K years, the average WTP has to be converted into the present value of the identical period. Then, from the present value of the benefits of financial services, the annual benefit during the period of benefit realization was computed.

V. Analytical Results

1. Analysis of Responses

Responses to the first and second bid clearly demonstrate the character of a normal demand curve. As the first and second bid increase, the “yes” response rate decreases, while the “no” response rate increases.

Table 2. response rate of bid price

First bid			Second bid		
price	response	rate (%)	price	response	rate (%)
100 won	no	26.7	50 won	no	20.8
				yes	5.9
	yes	73.3	200 won	no	17.3
				yes	55.9
500 won	no	36.1	250 won	no	28.2
				yes	7.9
	yes	63.9	1,000 won	no	26.2
				yes	37.6
1,000 won	no	51.2	500 won	no	33.3
				yes	17.9
	yes	48.8	2,000 won	no	24.4
				yes	24.4
2,500 won	no	69.3	1,250 won	no	57.4
				yes	11.9
	yes	30.7	5,000 won	no	22.3
				yes	8.4
5,000 won	no	76.2	2,500 won	no	67.8
				yes	8.8
	yes	23.8	10,000 won	no	14
				yes	9.8

In Figure 3, series 1 shows the rates of “yes” response to both the first and second bid, and series 2 signifies a hypothetical demand curve while showing the rates of “yes” response to the first bid. Conceptually, WTP stands for the integral value of consumer surplus below the hypothetical demand curve.

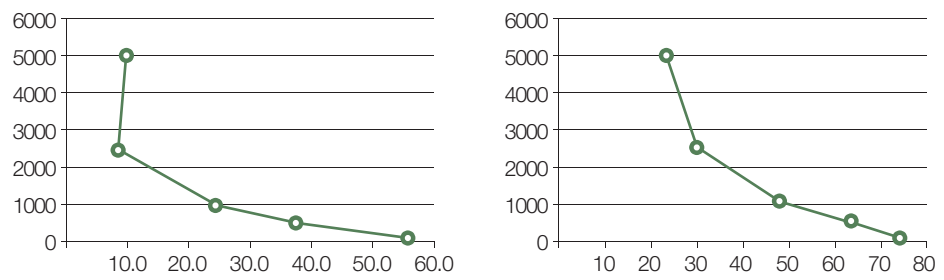


Figure 3. Hypothetical demand curve

2. Estimation Results

The result is shown in Table 3. First of all, an income equation for the whole group was estimated with sex as an explanatory variable. The result reveals that explanatory variables such as previous knowledge of GRB, age, region, and marital status explain WTP meaningfully.

Table 3. Estimation result

<div>dependant variable</div> <div>independent variable</div>	Total	female	male
	Coef. (Std. Err.)		
constant	5.812653(.7410854)***	5.301948(1.028298)***	6.499404(1.104066)***
sex	.0623657(.0866964)	-	-
q1	-.2856892(.1632618)*	-.3602162(.2447841)	-.2502066(.2212486)
q2r	.1143883(.1086716)	-.1293758(.1548104)	.3563852(.1540893)**
q3r	.1533971(.1077754)	.343924(.1559792)**	-.0133239(.1512777)
q6_1	.0359306(.0867373)	.097366(.1163493)	-.0471645(.1309446)
q7_1	.1480076(.1026305)	.2918077(.1413305)**	.0085606(.1510099)
age	.0143530(.0048449)***	.018882(.0067308)***	.0093459(.0070249)
area	-.1654191(.082875)**	-.1689502(.1148378)	-.1773376(.1210139)
dm3yer	.0470323(.0327089)	.0820725(.0453176)*	.0021725(.0484269)
lnbq8r	-.0163143(.0817446)	.0026916(.1090538)	.0306935(.1181071)
dm8	.273195(.1347559)**	.3210356(.1901579)*	.1710066(.1931935)
dm10	.0386962(.0459885)	.0117642(.0622644)	-
dm11	-.0559229(.2957691)	.0613841(1.244137)	-.1614597(.3098728)

note: *, **, *** are statistically significant at the level of 10%, 5%, 1% respectively.

In the case of female respondents, it was found that explanatory variables including age, importance of gender equality policy, government financial outlay, predicted areas of influence likely to be affected by governmental gender-sensitive budgeting, years of education, and marital status significantly influence WTP. Namely, WTP was shown to be higher when the respondent is older, educated, and unmarried. What is more, WTP was higher when they placed greater importance on gender equality policy than other government policies, and consider social welfare to be an area in which government expenditures can differently affect women and men.

Unlike female subjects, in the case of male respondents only the importance of gender equality policy could positively affect WTP. That is to say, WTP is significantly higher among male respondents who consider it important for the government to commit to gender equality in budgeting and allocating resources.

Table 4 shows the estimated WTP for GRB, provided that the compilation and allocation of government budgets promotes gender equality. Here, the value of improving both the quality and quantity of public restroom facilities is estimated in order to evaluate the effectiveness of GRB in increasing gender equality. Per capita monthly WTP was 1,069 won. When re-analyzing the data after dividing it according to gender, per capita WTP for females was 1,266 won, while male per capita WTP was 1,969 won. The mean monthly WTP was equivalent to 12,830 won annually per person. The annual WTP was 15,187 won for females and 23,626 won for males. Assuming the data refers to the adult population over 20 years of age, the economic value of improved gender equality after introducing GRB becomes 465,000 million won. When the total estimate is divided by number of households, the average economic value per household is 29,095 won per year. This means that the value of improved gender equality per household is 29,095 won per year when government budgeting is executed in a gender-equal way. If this value were applied to the 195 government projects, the annual benefit of each household would be 5,673,597 won.

Table 4. Estimated WTP

(unit: person, won)

	Total	Female	Male
WTP/month	1,069	1,266	1,969
WTP/year	12,830	15,187	23,626

VI. Conclusion

As previously described, this study empirically analyzed the monetary value of the benefits of gender equality. In other words, the economic value of GRB can be considered as the effect or influence of a service through the introduction of GRB.

The findings have shown a significant relationship in the case of women according to explanatory variables of age and importance of gender equality policy, areas that government financial outlays can affect according to sex, years of education, and marital status, while for men the only variable that offers a meaningful explanation was the importance of gender equality policy. Overall, a higher average WTP can be significantly explained when respondents place greater importance on budgeting that contributes to the advancement of gender equality. In addition, annual per capita WTP for GRB was 12,830 won, which can be estimated separately as 15,187 won for female per capita WTP and 23,626 won for male per capita WTP.

However, the empirical analysis above has several limitations in its methods of analysis. First, there is an issue regarding the scenario depicted in the questionnaire. The case of public restrooms was employed for the scenario since it is difficult to find a related market, and non-use value was more likely to be elicited for public toilets than use value, the value people derive from direct use of the good, or expend time and/or effort to acquire its utility. However, whether or not public toilet facilities at an expressway rest area can be perceived as private goods could be a matter of dispute because the expressway toll already includes a restroom fee. What is more, public and private restrooms are substitute goods. In fact, most people use private restrooms and the use of public restroom is particularly limited. More fundamentally, there is a difficulty in demonstrating empirical outcomes of the policy, since GRB has been enforced only for a short period of time. The fact that according to national financial law this policy is simply applied to the central administrative agency also restricts public understanding of the concept of GRB.

Although the limitations of this study must be taken into account, they are expected to provide grounds for further study which demands more delicate methodology. The significance of this study lies in the fact that it is the first attempt and the initial study to measure the monetary value of the effect of introducing GRB. In order to gain greater significance in analyzing the effect of introducing GRB, it seems to require an increasing awareness of GRB as well as a more elaborate simulation based on national budget data that has been submitted to the National Assembly.

Despite its shortcomings, this analysis showed that GRB provides services from which every individual can derive benefit. Hence, the result not only suggests the necessity of financial services that follow the principle of gender diversity, but also that emphasize the importance of research into the analysis of the effectiveness of GRB by Korean academia as seen in other advanced countries where the system and conception of gender equality have been successfully developed.

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