

What Discourages Participation in the Lay Judge System (Saiban'in Seido) of Japan? Interaction between the Secrecy Requirement and Social Networks

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(Saiban'in Seido) of Japan? Interaction between the

Secrecy Requirement and Social Networks.

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The lay judge system, a quasi jury system, was introduced in Japan from May

2009. This paper attempts to analyze Japanese people's attitude towards this system by

examining whether they show a willingness to serve as a lay judge. The major findings

from regression analysis are: (1) In general, people with a spouse inclined to adopt a

negative attitude about serving as a lay judge. This tendency is, however, not observed

in large cities. (2) Long-time residents and homeowners are more likely to have a negative attitude about serving as a lay judge. These results show that a tightly knitted

interpersonal social network discourages people from serving as a lay judge. Because of

the life time secrecy obligation and the penalty provisions for those who break this

obligation, people with closer interpersonal ties are under greater pressure and strains,

leading to larger psychological cost. The obligation and its penalty should be eased to

improve people's attitudes about serving as a lay judge.

JEL classification: I28, K23, K40.

Keywords: Lay judge system; Social network; Secrecy requirement

1. Introduction

As part of Japan's legal reform¹, the lay judge system, Saiban'in Seido in Japanese, was introduced from 21 May 2009. Under this system, ordinary citizens will be involved in criminal proceedings as judges to help decide trial outcomes. Citizens are selected at random for the most serious criminal cases. "Once this system commences it is hoped that more people will feel involved in the justice process. The Ministry of Justice has been actively involved in publicizing and promoting the Saiban'in system so that more people will be able to understand its role and functions" (Ministry of Justice 2009). According to a survey conducted by the Supreme Court, 48% of respondents, however, expressed reluctance to serve as a lay judge. The results of a Cabinet Office survey showed 78 % were unwilling to take part (Kyodo News 2007). These results are despite the efforts of the Ministry of Justice. Thus a question is naturally raised; Why are people unwilling to serve as a lay judge? The negative attitude might be partly because of the requirement that lay judges are subject to a life time secrecy obligation. Lay judges who leak trial-related information will be punished. An American lawyer Colin Jones, a of law school professor in Japan, has criticized the secrecy requirement as follows: "If the system's purpose is to educate the public about trials and have their views reflected in the criminal justice system, gagging participants for life seems counterproductive" (Jones 2009). From the standpoint of economics, the secrecy requirement can be considered to reduce the incentive to serve as a lay judge.

The Supreme Court issued a public promotional DVD to try and educate citizens about the lay judge system. The story of the DVD can be described as follows: One day, Mr. Murase, a typical Japanese white collar worker, receives a letter from the Supreme Court summoning him to act as a lay judge. "Having initially decided to refuse the request he is encouraged by his wife and eldest daughter to seize the opportunity and let his subordinates in the office have a chance to get by on their own... In the process of the trial Mr. Murase is exposed to a number of judicial and moral dilemmas, but is also able to spend more time at home with his family and learn to trust his juniors at work to do their jobs by themselves." (Harris 2007). This story, however, makes no mention of an important issue, and so is out of touch with reality. As a matter of course, a lay judge must not divulge information to work place colleagues, neighbors and family members. Inevitably, Mr. Murase would like to call for comments from his supportive family when he is confronted with difficulties in the trial. It seems also plausible that the supportive

¹ Some works are concerned with Japan's legal reforms of the lawyer market (Kinoshita 2000, 2002; Ginsburg and Hoetker 2006).

family and the trustful colleagues in his work place ask him about trial-related information. If a lay judge has supportive and trustful people such as family members and colleagues surrounding him or her, there are may be situations in which a lay judge might be tempted to leak trial-related information. The secrecy requirement seems to be a more severe restriction for those who have the close interpersonal ties within a tightly knitted group such as a community or family. These people communicate and interact with members of their group through various channels². As a consequence, a lay judge with such close ties is more apt to be tempted to reveal information³. A lay judge is thus exposed to a moral dilemma and an imposed burden overcoming such temptation, resulting in psychological cost. The secrecy requirement interacts with interpersonal ties, leading to discourage people from serving as a community servant.

To make the lay judge system effective and for it to function well, it is important to examine how it was designed. Jurists have paid much attention to the lay judge system, especially from a comparative point of view (e.g., Dawson 1960; Landsman 2003; Hans 2003, 2008). Recently, a number of jurists have explored the lay judge system as it applies to Japan (e.g., Bloom 2005; Ambler 2007; Wilson 2007; Levin 2008; Jones 2008; Soldwedel 2009). No speculation, however, has taken place concerning the incentives for citizens to serve as lay judges. Necessarily, economic analysis is called for to investigate how incentives to participate in the system increase⁴. Thanks to "Social and Political Consciousness Survey in 21st Century Japan", researchers can obtain individual level data about people's attitudes towards serving as a lay judge. This paper uses this data to empirically analyze the incentive problem for the lay judge system by shedding light on the interaction between the secrecy requirement and interpersonal social networks. Further, based on findings arrived at through statistical estimation, some policy implications are suggested.

The organization of this paper is as follows: Section II gives background and provides an overview of the lay judge system. Some testable hypotheses about citizens' attitudes about serving as lay judges are then presented. Section III details the construction of the data and a simple econometric framework to examine the hypotheses. The results of the estimations and discussion are provided in Section IV. The final section offers concluding observations and some policy implications.

² Close ties within a community are considered to be social capital (Putnam 2000).

³ It is found that surrounding people such as family members have an influence on an individual's opinion and political standpoint (Warner 1991; Edlund and Pande 2002; Washington 2008). This can be explained theoretically (Becker and Murphy 2000).

⁴ Voigt (2008) tried to examine how lay participation is associated with corruption within the judiciary, government effectiveness, and total factor productivity.

2. Overview of the Lay Judge system in Japan

2.1. The lay judge system

Long-term economic decline Japan suffered during the 1990s forced the Government to institute various reforms to promote economic recovery. "As part of this change, reformers also sought to revise the legal system. Japan's legal system has been widely criticized as being an insular bureaucracy detached from the needs of the people." (Soldwedel 2008, p. 1419)⁵. In 1999, the government of Japan established the Justice System Reform Council (JSRC) for the purpose of studying basic policies and modifying the legal system. The legal reforms presented by JSRC are based on three pillars: (1) achieving "a justice system that meets public expectations", (2) reforming "the legal profession supporting the justice system", (3) "establishment of a popular base" (JSRC 2001, Chapter I Part 3).

The third pillar is concerned with the introduction of a lay judge system where citizens are required to take part in serious criminal trials⁶. "For the first time in Japan's judicial history, ordinary citizens will have their opinions directly reflected in trials, although Japan used a limited jury system between 1928 and 1943 in which jurors were chosen from among male tax payers over the age of 30⁷." (Japan Times, 2007). Lay judges are selected from lists of registered voters⁸. Although disagreement exists concerning the number of lay judges to be selected, members of panels are decided as follows: "six citizens are selected at random…under the guidance of three professional judges. The nine-member panels have to determine not only guilt or

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⁵ In addition to realizing better justice and democracy, the lay judge system in the 21st century can be viewed as a measure for making trials shorter and more efficient under the increasing international competitive pressure (Anderson and Nolan 2004). Considering the origin of civil participation in trials, the innovations for the system were induced in response to the requirement for improvement of economic efficiency. "the use of laymen within the common law system was not the result of careful reflection or an appraisal of their virtues and defects; it came in the twelfth and early thirteenth centuries because of a driving need to economize on the time of professional judges" (Dawson 1960, p.293).

⁶ The lay judge system of Japan is said to be closely modeled on the French and German systems of "trial by consultation" or "mixed jury" where professional judges and citizens work together (Japan Times 2004; Boom 2005; Soldwedel, 2008).

⁷ "A jury system based on the Anglo-American model was used...The underlying reason for its abolition must have been the failure of democracy in a country in the grip of surging militarism." (Japan Times, 2004).

⁸ Citizens are ineligible for reasons such as advanced age, criminal history, government member, and employment status (Soldwedel 2008).

innocence, but also any punishment involved." (Kamiya, 2009)9.

The lay judge system aims to expand citizen participation in the justice system and to reflect public views on the administration of the courts. Actually, a simple calculation shows "About 2,600 cases that would be subject to a lay judge trial took place in fiscal 2007, according to the Supreme Court. Based on that number, the court estimates that one in 5,000 citizens will likely participate in proceedings either as lay judges or their substitutes at 50 district courts and 10 branches nationwide." (Kamaiya, 2008). Although the Supreme Court makes efforts to minimize the cost of serving as a lay judge¹⁰, about half of all Japanese citizens do not show any willingness to serve as a lay judge (Kyodo News 2007). Such a negative tendency makes it difficult to achieve the purpose of the lay judge system. One of the main reasons why people are reluctant to serve as a lay judge is the requirement that lay judges must not reveal trial related information¹¹. The original plan for a penalty for a breach of confidentiality was that those who revealed details of deliberations could be imprisoned for up to one year or fined a maximum of 500,000 yen. In response to the criticism about the severity of the confidentiality requirements, "the revisions made in the Diet...calls for less stringent penalties."(Japan Times 2004). For instance, lay judges who divulge private information or comments by panel members while on duty will be imprisoned for up to six months or fined a maximum of 500,000 yen. The same penalties will be imposed on those who reveal the "deliberation process" for monetary gain. Those who reveal the process without such intent will be fined up to 500,000 yen (Japan Times 2004). Despite of the revisions, the severe requirements for confidentiality have a detrimental effect on a lay judge's activities and thus impede public participation (Japan Times 2004)12.

2.2. Social networks and attitude to serve as a lay judge

Opinions vary regarding the effects on legal issues of the cultural characteristics of

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⁹ The lay judge system differs from the jury system in the United States in various ways. For instance, lay judges decide issues of fact (guilty or innocence) and law (punishment), whereas United States juries only determine issues of fact (Jones 2008). The jury system, where generally unanimous verdicts are required for a conviction of a crime, a majority vote usually determines culpability in Japan's lay judge system (Jones 2008).

¹⁰ "Seven in 10 trials will be completed within 3 days" (Nakai 2008). "The detailed procedure... will help remove an unnecessary burden on people who cannot sit on the court bench from beginning to end "(Japan Times 2007).

¹¹ Information contains remarks made by panel members during deliberations and privacy matters involving people implicated in cases (Japan Times 2004)

¹² The media expressed concern that heavy penalties would lead to the restriction of freedom of the press (Japan Times 2004).

Japan. Some researchers point out that Japanese culture, which places a high value on group relationships and social norms provides a powerful deterrent for crime in Japan (e.g., Bloom 2005; Yamamura 2008b, 2009a). Kawashima (1963) focused on the cultural preference for informal mechanisms of dispute resolution in Japan, asserting that the harmonious nature of Japanese society discouraged people from litigating. If this line is followed, Japanese would appear as reluctant to serve as a lay judge. As a consequence, Japanese cultural attitudes will impede the effectiveness of a lay judge system (Bloom 2005). Contrary to these assertions, considering traffic accidents, Ramseyer and Nakazato (1999:ch. 4) argued that despite the consensual nature of Japanese society and notwithstanding any costs involved in Japanese litigation, heirs do not ignore the law and do not eat their losses. Consistent with this, Ginsburg and Hoetker (2006) find no supporting evidence for the hypothesis that cultural factors play a major role in Japan.

Yamamura (2008a) bridged the gap between these opposing views concerning the effects of Japanese culture. Social interaction among community members was found to continue to play a crucial role for conflicts resolution in modern Japan, although to a certain extent people depended on lawyers to formally resolve conflicts (Yamamura 2008a). If colleagues share various kinds of information and know each other through long-term and continual personal interaction, social networks and social trust among them are formed (Hayami 2001). It is widely acknowledged that social networks enhance civic participation in formal or informal social activities (Putnam 2000). If this is correct, social networks would encourage people to serve as lay judges. Nevertheless, as earlier stated, the severe secrecy requirement inhibits lay judges from freely discussing trials with colleagues and family. Thus, in respect to a trial they participate in, lay judges cannot behave as full members of their social network. In turning to deal with the relationship between a social network and civic participation in the lay judge system, it is worthwhile to consider the question of how a social network is associated with the effectiveness of the lay judge system when the severe secrecy requirement exists.

Figure 1 (a) shows a comparison between people with or without a spouse concerning willingness to serve as a lay judge. I see from it that people with a spouse are less apt to want to serve than those without a spouse. It seems appropriate that a basic personal relationship exists in a family. The relationship between a husband and wife can be considered to be a profoundly intimate one, even though there is the possibility of divorce. If this is true, I deduce from Figure 1 (a) that intimate interpersonal relationships discourage people from serving as a lay judge. Further,

Figure 1 (b) compares long-residents and others; showing that long-residents are less likely to serve than others. I see from Figure 1 (c), comparing homeowners and non-homeowners, that homeowners are less inclined to serve than non-homeowners. Long-residents and homeowners are likely to invest in social capital and so be members of social networks (DiPasquale and Glaeser, 1999; Hilber 2007). Considering that observed in Figure 1(b) and (c), social networks result in the impediment of people's participation in the lay judge system. This is contrary to the argument of Putnam (2000) that social networks enhance people's involvement in social activities. My conjecture is that the secrecy requirement imposes a large burden on lay judges who belong to a social network than it does on others. Ordinarily, people belonging to a social network are likely to freely discuss various matters with other members. Nevertheless, if people within a social network become a lay judge, if asked about a trial by a network member, they cannot discuss, resulting in a dilemma and psychological cost. Even if members of a social network do not ask about trial-related information, lay judges within a social network would be frustrated at the inhibition related to revealing trial-related information to members. Such frustration also seems to be interpreted as a psychological cost 13. These arguments are summarized in the following hypothesis about the effects of a social network on people's willingness to serve as a lay judge:

Hypothesis: Interaction of the secrecy requirement causes a negative externality of the social network, leading to impediment of people's participation in the lay judge system.

2.3. Opportunity cost of serving as a lay judge.

People would tend to avoid serving as a lay judge because of the huge time commitment. For this reason the government seeks to compensate by granting a financial reward that does not exceed 10,000 Yen (about 100 US\$) (Supreme Court of Japan, 2009)14. The amount of the compensation partly depends upon the cost of transportation and the hours served. Under these conditions I consider the opportunity cost of serving as a lay judge.

I assume that a person is self employed and that every day served as a lay judge is a day's earnings lost. Thus it is a straightforward, onerous economic burden. A person would obviously be adamantly opposed to jury duty if a day's lost earnings outweighed

¹³ According to the situation, a social network enhances punishing behavior, leading to a negative effect on its members (Reuben and van Winden 2008).

¹⁴ Companies are not obliged to give paid time off for serving as a lay judge (Supreme Court of Japan, 2009). There are no data about whether companies give paid time off for serving as a lay judge, although such considerations appear critical. However, this is beyond the scope of this paper and needs to be examined in a future study.

the compensation paid by the government. Based on the data used for statistical analyses in this paper, a self-employed person's annual income is more than 4 million yen¹⁵. If 4 million yen is divided by the 246 annual working days, an average day's earnings is about 16200 yen; much higher than any compensation paid by the government¹⁶. Hence, self-employed persons are generally expected to try to avoid serving as a lay judge. I now assume that a person has a fairly senior managerial job. It would not matter to him/her whether the company gives him/her paid time off. It will also not matter to how much the government pays as compensation. Such a person will strongly want to avoid jury duty as a lot of their work would not get done while they are away. Co-workers might help while that person was on a jury, but most will be waiting for their return to work. The result would be that that person would have to work evenings and weekends to get caught. Thus the time spent as a lay judge would simply be valuable time lost.

3. Estimated Model and Interaction of Results.

3.1. Data

This paper used individual level data including information such as attitude about serving as a lay judge, years of living at the current address, homeownership, schooling years, demographics (age and sex) status, and household income¹⁷. This data was compiled from: "Social and Political Consciousness Survey in 21st Century Japan" (GLOPE 2005 hereafter) conducted across all Japan in 2005. Sample points are divided into 5 groups. Cities and towns were divided into 5 groups according to population size; 15 metropolitan cities, cities with at least 200,000 people, cities with at least 100,000 people, other cities, and towns and villages. Three thousand adults were invited to participate in the survey with stratified two-stage random sampling. The survey collected data on 1397 adults, a response rate of 46.6%.

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¹⁵ 76 % of self employed persons earned over 4 million yen a year.

¹⁶ Under the labour standards law (article 35), an employer shall provide workers at least one rest day per week

⁽http://info.pref.fukui.jp/kokusai/tagengo/html_e/konnatoki/3sigoto/e_hourei/roudou.html: accessed on August 21, 2009). In reality, most companies make every Saturday and Sunday holidays. As well, there are national holidays. In total, Japanese people ordinarily have 119 non-working days annually. Hence, people work approximately246 days a year in Japan; the figure I take for my calculations.

¹⁷ Data for this secondary analysis is "Social and Political Consciousness Survey in 21st Century Japan (GLOPE 2005)". This data was collated by Waseda University Centre of Excellence Program for the 21st Century: Constructing Open Political-Economic Systems (21 COE-GLOPE). The research was subcontracted to Chuo Chosa-Sha. Data was provided by the Social Science Japan Data Archive, Information Center for Social Science Research on Japan, Institute of Social Science, The University of Tokyo.

The construction of samples used in this research is shown in Table 1. The original sample contained 1397 observations. Among these observations, 1200 responded to the question about the lay judge system. I omitted observations without valid answers for respondent's characteristics, thus the sample size became 774. This sample was used for the basic statistics in Table 2 and for the estimations reported in Table 3. Further, the 774 samples were divided into residents in mega-cities (133) and other places (641. These samples were used for the estimations in Table 4.

3.2. Function form

Following from the discussion above, to examine people's willingness to serve as a lay judge, the estimated function takes the following form:

Lay judge $_{in} = \alpha_0 + \alpha_1$ (Spouse dummy) $_{in} + \alpha_2$ (Long residents) $_{in} + \alpha_3$ (Homeowner) $_{in} + \alpha_4$ (Female) $_{in} + \alpha_5$ Schooling years $_{in} + \alpha_5$ Age $_{in} + \alpha_6$ Koizumi support $_{in} + \alpha_7$ Self-employed $_{in} + \alpha_8$ Manager $_{in} + \alpha_9$ (Household income 200~400) $_{in} + \alpha_{10}$ (Household income 400~600) $_{in} + \alpha_{11}$ (Household income 600~800) $_{in} + \alpha_{12}$ (Household income 800~) $_{in} + f_n + u_{imn}$,

where $Lay judge_{in}$ represents the dependent variable in individual i, city size where individual resides n. Regression parameters are symbolized by α' . α' reported in Tables 3 and 4 is the marginal effect. Unobservable city size specific effects are represented by f_n , and are controlled by dummy variables. u_{in} represents the error term. The empirical model was estimated using Probit analysis since Lay judge is a dummy variable that takes 1 if an individual is willing to serve as a lay judge, otherwise it is 0.

I now turn to the key variables considered as proxies for a social network. *Spouse dummy* was 1 if a male had a spouse, otherwise it is 0. As shown in Figure 1(a), a willingness to serve as a lay judge depended on whether an individual had a spouse. Relation between husband and wife seems a basic ingredient of a social network. *Spouse dummy* was expected to take a negative sign. *Long residents* become 1 if an individual resides at the current address for longer than 20 years, otherwise it is 0. *Homeowners* become 1 if an individual owns a home, otherwise it is 0. As argued in earlier research (DiPasquale and Glaeser 1999; Hilber 2007), long term residents and homeowners are more likely to belong to a social network. *Long term residents* and *Homeowners* are anticipated to take negative signs.

With respect to other individual characteristics, *Female* is a gender dummy which takes 1 if an individual is female, otherwise 0. *Schooling years* and *Age* are individual's schooling years and ages, respectively. Furthermore, household income level is captured by dummy variables. Those who have an annual household income lower than 2 million

yen are defaulted. *Household income 2~4* takes 1 if an individual has a household income 2~4 million yen, otherwise 0. *Household income 4~6* takes 1 if an individual has a household income 4~6 million yen, otherwise 0. *Household income 6~8* takes 1 if an individual has a household income 6~8 million yen, otherwise 0. *Household income 8~* takes 1 if an individual has a household income higher than 8 million yen, otherwise 0. Coefficient values of household income dummies can be interpreted as measuring the degree of difference from the lowest household income group.

Social networks seem to decline with economic development (Greif 1994, 2002). I deduce from this that suburban people would have closer social networks than urban dwellers. This is because with economic development, urban areas such as the 15 metropolitan cities are more likely to develop than other types of areas. Table 2 shows basic statistics of the variables used for estimations and compares the values of mega-cities (15 metropolitan cities) with those of other areas. Looking at the first row shows that 28.5 % of mega-city dwellers show a willingness to serve as a lay judge, while 24.9% of other areas do. This might be partly because social networks within mega cities are less intimate so that any negative externality coming from a social network is smaller. It is noteworthy that the human capital accumulated through education seems larger in urban areas¹⁸. Therefore urban people with basic knowledge about the law might feel at ease serving as a lay judge¹⁹. With respect to proxies for a social network, rates of having a spouse, long-term residents and homeowners in mega-cities are distinctly lower than in other areas. In particular, the long-term resident rate for mega-cities (9.0%) is remarkably lower than for other areas (20.7). It follows from this that social networks in urban areas are smaller and more fragile than in other areas, which is consistent with my hypothesis. I see from schooling years that urban people are more educated than those in other areas, which supports the conjecture that human capital enhances people's involvement.

As discussed earlier, the opportunity cost for *self-employed* people and *managers* is higher than for others, leading to these people being reluctant to serve as a lay judge. For the purpose of examining how opportunity cost influences attitudes about the lay

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¹⁸ In Japan, knowledge about the law is usually obtained at a university so that the effect of education on legally orientated participation is an increasing return to scale. ¹⁹ Numbers of lawyers in urban areas are far larger than in other areas (Yamamura 2008). There are greatly disproportionate numbers of cases of litigation between urban and other areas (Ginsburg and Hoetker 2006). This inevitably gives rise to differences of experience of trials between urban and other areas. It will be necessary to investigate how the experience of trials affects the attitudes of people toward the lay judge system. Nonetheless, because of a lack of data, such an investigation cannot be conducted at this time.

judge system, self-employed and managerial dummies are incorporated as independent variable. The signs of self-employed and managerial dummies are expected to be negative.

It seems important to take politics into account when a person's attitude about the lay judge system is considered. The legal reform was mainly promoted under the Koizumi Administration during the 2001 - 2006 period. In other words, the Koizumi Administration took the initiative regarding this legal reform. A person's political position seems to be reflected in their attitude about the lay judge system. The questionnaire used included the question: "Do you support the Koizumi Administration?" The responses available were "Yes, I strongly support", "Yes, I support", "No, I do not support", and "No. I do not support at al". I define the Koizumi supporter dummy which takes 1 when response's are "Yes, I strongly support" or "Yes, I support", otherwise 0. To capture the political position, a Koizumi supporter dummy is incorporated as an independent variable.

That observed in Table 2 shows that socio-economic conditions vary according to city size. I divide the sample into residents in mega-cities (urban areas) and other places (other areas) and then conduct Probit estimation to investigate how and to what extent socio-economic circumstances influence people's attitudes.

4. Results and Discussion

4.1. Results

Table 3 sets out the results, using all samples, regarding willingness to serve as a lay judge. The results of using all independent variables are seen in column (3). Long-term residents seem to be homeowners, resulting in correlation between the groups. Thus, to alleviate colinearity, alternative estimations omitting the homeowner dummy or the long-term resident dummy, are conducted. The results are reported in columns (1) and (2). As anticipated previously, the Spouse, Long-term residents and Homeowner dummies produced negative signs in all estimations, while most are also statistically significant. This implies that social networks reduce the incentive for people to serve as lay judges. The Female dummy takes a negative sign and is statistically significant at the 1 % level in all estimations. My interpretation is that people without a job can allocate time to form social networks, which are considered to be a positive externality caused by the labor market. In Japan, females are less likely to have a full time job and so are more likely to belong to social networks (Yamamura, 2009b). As a consequence, females are expected to incur larger psychological costs from serving as lay judges than males. In other words, the negative externality from a social

network is larger for females than males.

With respect to schooling years, signs of the coefficient become positive, implying that people with larger human capital are more inclined to participate in the lay judge system. In terms of the effects of opportunity costs, Self-employed and manager dummies are not statistically significant, implying that opportunity cost is not reflected in a person's attitude. This is inconsistent with the anticipation. A plausible explanation is that this function also includes household income dummies, thereby capturing the effects of opportunity cost. As for political position, the Koizumi supporter dummy yields the predicted positive sign and is statistically significant at the 1 % level. This tells us that a person's political position is associated with their attitude about the lay judge system. Dummies of household income produced positive signs in all cases. Also, the larger both coefficient and t-values become, the higher household income levels are. This tells me that people with higher household incomes are more willing to serve as lay judges. This fact would be consistent with the declining marginal value of money.

For a closer examination, I turn to Table 4, which shows the results of using samples divided into residents in mega-cities and in other places. From here I can examine how socio-economic circumstances such as the labor or housing markets influence people's attitudes concerning the lay judge system. As proxies for the social network, the Spouse dummy produced positive signs in columns (1)-(3) despite being statistically insignificant, whereas it produced significant negative signs in columns (4)-(6). My interpretation is that the wage level in urban areas is higher than other areas, causing urban people to allocate more time to work than to being with a spouse. Consequently, the relationship between husband and wife is less intimate in urban areas than others so that in urban areas having a spouse does not influence willingness to serve as a lay judge. Consistent with the expectation, the Long-term resident dummy yields negative signs in mega-cities and other places while being statistically significant only in other places. The Homeowner dummy produces the anticipated negative signs in all estimations. This is statistically significant at the 1 % level in urban areas but is not significant in other areas. Furthermore, it is interesting to observe that absolute coefficient values in urban areas are approximately 0.25, which is distinctly larger than the 0.04 and 0.01 found in other areas. It follows from that observed about the Homeowner dummy that the homeowner effect is larger on the willingness to serve as a lay judge in urban areas than in other areas. According to Hilber (2007), in more built-up neighborhoods, homeowners are largely protected from inflows of newcomers that dilute the net benefit from social networks. Areas with little developable land are less apt to decrease the benefit from social networks and provide higher incentives to

invest in social networks. In Japan, urban areas are considered to be built-up ones with little developable land and therefore have greater social networks. Therefore, urban homeowners are more likely to enjoy not only social network benefits, but also incur higher psychological costs if serving as lay judges. Homeowners in urban areas will thus be more reluctant to serve as a lay judge than homeowners in other areas.

The Female dummy produces negative signs in all estimations. This is statistically significant at the 1 % level in non-urban areas but not significant in urban ones. It seems surprising that t absolute coefficient values for non-urban areas are over 0.10, which is about three times larger than in urban areas. Hence, there is a remarkable difference between genders about willingness to serve as lay judges in non-urban areas but there is no difference in urban ones. As argued by Jacobs, an urban area is characterized by a concentration of diverse industries (Jacobs 1969). Hence, a large number of different companies are located in urban areas and so the demand for labor is larger and has more variety than in other areas. Hence, females in urban areas have more opportunity to have a full-time job. Therefore, the market conditions females confront in urban areas does not differ from that of males, so that a female's attitude towards the lay judge system will not differ from a male's one. As a result of the larger labor supply and demand in urban areas, the labor market is thought to be more competitive and more functional. Hence, people in urban areas will have a greater chance to get a new job even if dismissed from one. As a consequence, labor is more mobile in urban areas. Under this labor market condition, job status is less likely to influence willingness to serve as a lay judge. Consistent with this anticipation, in urban areas, self-employed and manager dummies produce positive signs, despite being statistically insignificant. Furthermore, household income dummies yield both positive and negative signs and are not statistically significant. On the other hand, I see from the results of other areas, that self-employed and manager dummies yield the negative signs. What is more, moving from the lowest to the highest income group, the estimated coefficients and t-values increase monotonically, which is similar to those shown in Table 3. This is presumably because of the immobility of labor in other areas.

Concerning political position, the signs of Koizumi Supporter dummies are positive as expected, and are statistically significant in all estimations. The magnitudes of the coefficients in urban areas are approximately two times larger than those in other areas. This implies that Koizumi supporters are more aggressive about being involved with socio-political issues in urban areas and hence are more likely to serve as a lay judge.

Summing the various estimated results I have presented so far, I arrive at the conclusion that taken together, the estimation results examined in this section are

consistent with, and supported reasonably well, each of the Hypotheses put forward in the preceding section. Furthermore, the social network effect on people's willingness to serve as lay judges varies according to socio-economic circumstances, which differ between urban and other areas.

4.2. Discussion

Referring to historical the aspect of involvement in legal decision making, "Early English historical accounts demonstrate the important role played by community members without any particular training or specialization in law "(Hans 2003, p.84). Therefore, involvement of citizens in trials appears to be profoundly rooted in UK communities. Community is considered to play critical roles in alleviating both market and government failures, leading to economic development (Hayami 2001). Primarily, social capital accumulated through civic involvement within a local community leads people to further participate in various activities (Putnam 2000). Hence, community is considered to be important in creating an effective and well function lay judge system as it enhances the participation of people in the system. According to JSRC, "...various reforms assume as a basic premise peoples' transformation from governed objects to governing subjects, and at the same time seek to promote such transformation. This is a transformation in which the people will break out of viewing the government as the ruler (the authority) and instead will take a greater responsibility for governance ..." (JSRC 2001, Chapter I Part1). Contrary to the premise, the severe secrecy requirement inhibits those participating in the lay judge from openly discussing trials with family or community members, even after the end of a trial.

Besides wanting to realizing better justice and promote democracy, it seems also critical to educate the public about trials from an economics viewpoint. This is because accumulation of human capital is expected to improve the efficiency of trials. Learning from others such as family and neighbors appears to play a crucial role in accumulating human capital through social networks²⁰. The strong requirements such as that of life time secrecy, seem to impede such mechanisms, resulting in a loss of efficiency. This loss is anticipated to become especially large when social networks exist and many people belong to such networks. It is thus appropriately argued that the obligation and its penalty on lay judges should be eased to improve operational efficiency.

As mentioned earlier in the Section II, the secrecy requirement has been revised in response to criticism. Although the revisions are expected to make a contribution to

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²⁰ Local spillovers such as learning from others play an important role in economic development (Goolsbee and Klenow 2002; Yamamura 2008c).

enhancing peoples' participation, they are insufficient. Minimizing the negative externality caused by any breach of confidentiality, and maximizing the positive externality of information spillover are significantly important goals. They lead to increasing the net benefit of the lay judge system. In respect to information with privacy issues, it seems appropriately argued that the positive externality of the leakage of private information is small since such information fails to make a contribution to the accumulation of human capital. On the other hand, its negative externality is large since a fundamental human right is trampled on²¹. Furthermore, an individual will incur large psychological costs if his/her private information is leaked. Hence, it is appropriate to ensure such confidentiality. On the other hand, with respect to the "deliberation process", such information is anticipated to make a great contribution to the education of members of the public concerning trials²². After the end of a trial, revealing the "deliberation process" is less likely to cause any negative effect since the results of the trail are not influenced. As a consequence, leakages regarding the "deliberation process" should not be punished if several years have passed after the end of the trial.

5. Conclusions

The introduction of a lay judge system was designed to bring benefits to modern Japanese society by enhancing public trust in the justice system (JSRC 2001). However, various surveys indicate that over half of those eligible to participate show no willingness to serve as a lay judge, although the Ministry of Justice has made efforts to encourage people to participate. To increase the benefits of the system, it will be necessary to consider the design of the lay judge system, as this has an influence on the people's incentive to participate. This research paid attention to the secrecy requirement, which is thought to raise the psychological cost to serve as a lay judge. Socio-economic factors also appear to influence people's perception and are associated with the effects of the secrecy requirement, leading to negative attitudes about the lay judge system. Hence, this work set out to investigate how and why incentives to serve as a lay judge decrease by considering interactions between the secrecy requirement and social networks. I found through regression analyses that those who belong to a social network are less likely to be willing to serve as a lay judge.

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²¹ The basic human right is based on the article 13 of the constitutional law.

 $^{^{22}}$ In the "Jury system" of U,S., a jury can discuss freely "the deliberation process" after the trial(Jones 2008, p112.).

The closer the relationships within a family or among neighbors, the higher the psychological costs to adhere to the secrecy requirement. Therefore, not only as a result of this feature of the system and socio-economic conditions, but also from their interaction, incentives to serve as a lay judge decrease. Strong networks of interpersonal ties are thus shown to discourage people from serving as lay judges. Because of the life time secrecy obligation and the penalties faced by those who break it, people with close interpersonal ties are under great pressure and strain, leading to large psychological costs. From this situation I derive the argument that the obligation and its penalties should be eased to improve the attitude of people' toward the lay judge system. Furthermore, to educate the public about trials and to have their view reflected in the administration of the courts, it seems useful and productive for people who have participated in the system to talk over aspects of the trial with family and colleagues (Jones 2008). Information spillover from participants appears to be able to make a great contribution to the "establishment of a popular base", which is one of the three main aims of the Justice System Reform (JSRC 2001). Considering a revision of the secrecy requirement more closely, information about the "deliberation process" appears useful and important when learning about trials, leading to benefits in the long run. On the other hand, this information is less likely to cause any negative externality as time will have passed. These leads me to suggest that the lifetime secrecy obligation in respect to the "deliberation process" should be abolished and that information should be able to be divulged if several years have passed since the end of the trial.

This study does not directly examine interactions between the secrecy requirement and social networks since the effects of the secrecy requirement cannot be captured by the sample used here. Hence, the results coming out of this study depend on the possibly debatable assumption that social networks are negatively related to people's attitudes, mainly as a result of the secrecy requirement. In accord with the argument of Putnam (2000), social networks would enhance people's involvement without such a secrecy requirement. It is also possible that the detrimental effect of social networks could be explained in other ways. Hence, it will be necessary to directly investigate how the secrecy requirement and social networks are associated regarding their influence on people's attitudes about the lay judge system. To this end, further research is called for to explore the effects of social networks if the secrecy requirement were to be revised after the introduction of the lay judge system. This is an issue remaining to be addressed in future research.

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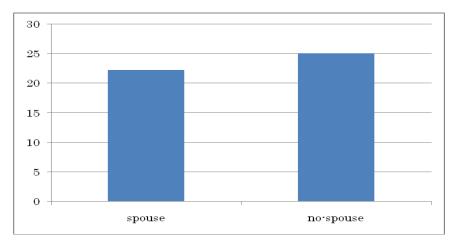
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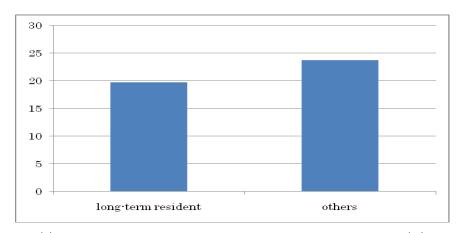
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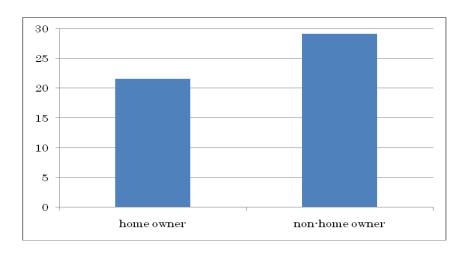
 $\label{eq:Figure 1} Figure \ 1$ Rate of respondents showing willingness to serve as a lay judge.



(a) Comparison between those with or without spouse (%)



(b) Comparison between long-term residents and others (%)



(c)Comparison between homeowner and non-homeowner (%)

Table 1
Sample construction (Sample numbers)

Description	
Original Sample	1397
Responds to a question about serving as a lay judge.	1200
Characteristics (various variables appear in Table 2 and household income dummies).	774 (Used for Tables 2,3 and 4)
Respondents reside in mega-cities	133
	(Used for Tables 2,3 and 4)
Respondents reside in other cities, towns or villages.	641 (Used for Tables 2,3 and 4)
	(Used for Tables 2,5 and 4)

 $\label{eq:Table 2} \ensuremath{\text{Comparisons between residents in mega-cities and others.}}$

Variables	Mega-cities	Others	ALL
Respondents showing willingness to serve as a lay judge. (%)	28.5	24.9	25.5
Have spouse (%)	72.1	81.7	80.1
Long-residents (%)	9.0	20.7	18.7
Home-owner (%)	67.6	81.5	79.1
Females (%)	39.0	48.5	46.8
Years of schooling	13.2	12.4	12.6
Age	56.6	54.6	55.0
Self-employed(%)	15.7	13.5	13.9
Manager(%)	6.7	4.9	5.2
Koizumi supporter(%)	66.9	60.8	61.8
Household Income ~2 million yen (%)	10.5	9.6	9.8
Household Income 2~4 million yen (%)	32.3	30.5	30.8
Household Income 4~6 million yen (%)	26.3	24.0	24.4
Household Income 6~8 million yen (%)	9.7	17.3	16.0
Household Income 8~ million yen (%)	21.0	18.4	18.8

Table 3

Determinants of willingness to serve as a lay judge (Probit Model Estimation)

Variables	(1)	(2)	(3)	
Spouse dummy	-0.08*	-0.06	-0.07*	
	(-1.82)	(-1.47)	(-1.67)	
Long residents dummy	-0.12**		-0.10**	
,	(-3.15)		(-2.76)	
Homeowner dummy.		-0.10**	-0.07*	
·		(-2.36)	(-1.79)	
Female dummy.	-0.12**	-0.10**	-0.12**	
•	(-3.90)	(-3.08)	(-3.60)	
Years of Schooling	0.02**	0.02**	0.02**	
, and the second	(3.97)	(4.25)	(4.09)	
Age	-0.001*	-0.0008	-0.001	
	(-1.66)	(-0.69)	(-1.00)	
Self-employed	-0.003	-0.01	-0.001	
1 1	(-0.08)	(-0.25)	(-0.02)	
Manager	0.006	0.01	0.004	
į.	(0.11)	(0.27)	(0.07)	
Koizumi supporter	0.11**	0.12**	0.11**	
• •	(3.55)	(3.74)	(3.70)	
Household Income	0.0003	0.01	0.004	
2~4 million yen dummy.	(0.01)	(0.23)	(0.07)	
Household Income	0.05	0.07	0.06	
4~6 million yen dummy.	(0.77)	(1.14)	(0.99)	
Household Income	0.10	0.12*	0.12	
6~8 million yen dummy.	(1.34)	(1.66)	(1.56)	
Household Income	0.19**	0.23**	0.22**	
8~ million yen dummy.	(2.52)	(2.89)	(2.79)	
Obs	774	774	774	
Pseudo R-square	0.11	0.11	0.10	

Note. The dummy variable, which takes 1 if respondent shows willingness to serve as a lay judge, was the dependent variable. Values show marginal effect of each variable. Values in parentheses are z-statistics calculated by robust standard errors. * and ** denote significance at the 5% and 1% levels, respectively. In all estimations, constant and city-size dummies are included, but not reported to save space. Concerning household income dummies, group of household income less than 200 million yen is default.

Table 4 Determinants of willingness to serve as a lay judge (Probit Model Estimation)

Variables	(1)	(2)	(3)	(4)	(5)	(6)
	Residents in mega-cities. (Urban areas)			Residents in other places.		
Spouse dummy	0.07	0.06	0.06	-0.13**	-0.11*	-0.12**
-	(0.79)	(0.69)	(0.74)	(-2.55)	(-2.27)	(-2.49)
Long residents dummy	-0.18		-0.14	-0.11**		-0.11**
	(-1.27)		(-0.98)	(-2.89)		(-2.74)
Homeowner dummy.		-0.26**	-0.24**		-0.05	-0.02
V		(-2.73)	(-2.47)		(-1.13)	(-0.57)
Female dummy.	-0.07	-0.0007	-0.01	-0.13**	-0.11**	-0.13**
	(-0.85)	(-0.01)	(-0.14)	(-3.86)	(-3.21)	(-3.75)
Years of schooling	0.02	0.02	0.02*	0.02**	0.03**	0.02**
	(1.63)	(1.43)	(1.73)	(3.88)	(4.21)	(3.92)
Age	-0.003	-0.0006	-0.0007	-0.01	-0.0007	-0.001
5	(-1.29)	(-0.22)	(-0.25)	(-1.07)	(-0.52)	(-0.84)
Self-employed	0.08	0.07	0.10	-0.02	-0.03	-0.02
	(0.69)	(0.62)	(0.81)	(-0.55)	(-0.70)	(-0.54)
Manager	0.27	0.26	0.26	-0.04	-0.02	-0.04
	(1.56)	(1.56)	(1.62)	(-0.60)	(-0.38)	(-0.61)
Koizumi supporter	0.18*	0.19**	0.19*	0.10**	0.10**	0.10**
	(2.08)	(2.34)	(2.24)	(2.96)	(3.05)	(3.02)
Household Income	-0.11	-0.09	-0.08	0.02	0.04	0.02
2~4 million yen dummy.	(-0.83)	(-0.67)	(-0.60)	(0.31)	(0.54)	(0.33)
Household Income	-0.06	-0.01	-0.001	0.07	0.09	0.08
4~6 million yen dummy.	(-0.44)	(-0.08)	(-0.01)	(0.97)	(1.25)	(1.03)
Household Income	-0.16	-0.07	-0.09	0.14*	0.16*	0.14*
6~8 million yen dummy.	(-1.09)	(-0.44)	(-0.58)	(1.66)	(1.83)	(1.72)
Household Income	0.07	0.16	0.15	0.21**	0.23**	0.22**
8~ million yen dummy.	(0.42)	(0.87)	(0.86)	(2.41)	(2.60)	(2.48)
Obs	133	133	133	641	641	641
Pseudo R-square	0.15	0.17	0.18	0.11	0.11	0.12

Note. The dummy variable, which takes 1 if respondent shows willingness to serve as a lay judge, was the dependent variable. Values show marginal effect of each variable. Values in parentheses are z-statistics calculated by robust standard errors. * and ** denote significance at the 5% and 1% levels, respectively. In all estimations, constant and city-size dummies are included, but not reported to save space. Concerning household income dummies, group of household Income less than 2 million yen is default.