Son Preference: An Empirical Study of Estate Distribution in Wills[†]

Yun-chien Chang, Sieh-Chuen Huang & Su-Li Her[††]

Despite a plethora of normative discussions on gender equality as well as empirical studies on gender discrimination and gender effects in various settings, there is a paucity of large-scale empirical studies on son preference by ordinary people in asset distribution. Using an idiosyncratic data set on more than 1800 notarized or authenticated wills in Taiwan, this Article investigates whether testators show son preference in distributing estates in wills, and if so, what the driving factors are. It finds that son preferences exist in no more than 29% of the studied wills. Moreover, no matter whether son preference is broadly or narrowly defined, and no matter whether the sample is limited to land distribution or not, the pattern is consistent. Aboriginal people exhibit less son preference, as a few ethnic groups are matrilineal. Female testators do not tend to favor sons. In wills distributing more valuable estate and those distributing land, son preference is more pronounced. Notarized wills tend to contain son-preferring provisions, likely because notarized wills, due to their formal validity, have usually been upheld if disputes arise, despite son-preferring provisions often violating the mandatory share law. Thus, when preparing a will that favors their sons, testators elect to notarize their wills. Finally, the strategic bequest theory explains the testator decisions in some wills, while the altruism theory has little explanatory power.

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†† Chang is Jack G. Clarke Professor in East Asian Law & Director of Clarke Program in East Asian Law and Culture, Cornell Law School. Email: ycchang@cornell.edu. Huang is Professor of Law & Vice Dean, National Taiwan University College of Law. schhuang@ntu.edu.tw. Her is a notary public. notaryher@gmail.com.

Introduction

Male preference in Asia is not news.[1] Nobel laureate in economics Amartya Sen said that there are more than 100 million missing women in Asia.[2] Follow-up studies show that only a tiny portion of the missing women can be attributed to biological reasons.[3] These women are missing, in short, because of gender selection.[4] Gender equality, despite decades of social movements, is still a goal, not a mission accomplished, in many Asian societies. Nonetheless, while society may give men more power, and parents prefer boys to girls (even) at the embryo stage, parents, at the last stage of their lives, do not necessarily exhibit strong son preference in distributing their estates—the focus of this Article. A person's living children are, in part, the outcome of gender selection decades ago (especially in the case of children born after the mid-1980s, when ultrasonic technology became available). Still, culture, among other things, may shape or constrain a person's estate distribution decision. Empirical studies, thus, are called for to ascertain whether and to what extent people prefer to leave assets to sons rather than to daughters.

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1. In most cases, sons are male, and daughters are female, and yet this Article consciously distinguishes the use of the terms son preference and male preference. Our own empirical study, i.e., after the Part III of this Article, explicitly examines whether sons were preferred over daughters. In the prior works (Part I.D., *infra*) and in the administrative data we used (Part I.C., *infra*), however, the data sets only reveal whether real estate owners are male or female, and it is unknown whether they acquired land because they are widows/widowers, sons/daughters, or nephews/nieces. In these situations, we can at most claim to find a phenomenon of male preference, not son preference. What most observers have in mind is, however, son preference, not male preference. One key contribution of this empirical work is to pin down testators' asset-distribution preferences between sons and daughters. We explain the design further in Part III, *infra*.

2. *See* Amartya Sen, *More Than 100 Million Women Are Missing*, 37 The N.Y. Rev. of Books 61 (1990). *See also, e.g.,* Monica Das Gupta, *Family Systems, Political Systems and Asia's 'Missing Girls': The Construction of Son Preference and Its Unravelling*, 6 Asian Population Stud. 123 (2010); Monica Das Gupta et al., *Why Is Son Preference So Persistent in East and South Asia? A Cross-Country Study of China, India and the Republic of Korea*, 40 J. Dev. Stud. 153 (2003).

3. *See, e.g.,* Ming-Jen Lin & Ming-Ching Luoh, *Can Hepatitis B Mothers Account for the Number of Missing Women? Evidence from Three Million Newborns in Taiwan*, 98 Am. Econ. Rev. 2259 (2008).

4. *See, e.g.,* Fred Arnold & Liu Zhaoxiang, *Sex Preference, Fertility, and Family Planning in China*, 12 Population & Dev. Rev. 221 (1986).

Empirical studies in estate distribution inform normative policy decisions. Against the background of the perception of gender inequality, Prof. Shelley Kreiczer Levy and Prof. Meital Pinto argued that "the law should not protect gender-biased bequests, as they are contrary to public policy."[5] On the other hand, Prof. Ezra Hasson, based on interviews, observed that:

> *longer female life expectancy means that women often make the final decision regarding the disposal of relational assets. Inheritance is thus identified as a rare opportunity for them to enjoy power and control over family wealth […] when couples seek will-making advice together, that process is largely dominated and driven by women.*[6]

More prevalent gender-biased bequests better motivate and justify political actions. If the inheritance practice is based on the fact that wives die later than husbands and gender equality in estate distribution is thus achieved through wives and mothers' more egalitarian decisions, a legal reform that mandates gender equality may backfire and induce presumably more male-preferring husbands/fathers to distribute assets *inter-vivos*.

This Article is the first large-scale, quantitative study of wills in Asia. The number of wills included in this empirical study (N=1,808) surpasses all the prior empirical studies of wills.[7] Collaborating with notaries who coded the contents of the wills, we empirically analyze the wills to inquire into one specific question: **whether testators exhibit son preference in allocating estates in their wills, and, if so, what the potential causes are**. While the wills in our data set are not representative (no prior studies of wills are, and it is unlikely any ever will be), our data have one advantage over prior studies, which almost always rely on surveys on people's attitudes—our data record a prudential real-world decision that often has millions of dollars at stake. Namely, while the prior surveys may record aspirations, wishful thinking, or politically correct answers, our data chronicle legal actions taken in front of a legal expert (notary public) with strict procedural requirements.

The rest of the Article is structured as follows: Part I reviews the relevant literature, including our previous work. Part II elaborates our unique data set. Part III explains how we define son preference based on the answers provided by notaries in our online survey. Part IV reports the results and demonstrates factors that drive male-preferring decisions.

I. Prior Literature

Vast quantities of ink have been spilt on gender equality. Here we cannot possibly review even a small part of the normative and positive studies on this issue. Rather, Section A concentrates on male preference in asset distribution,

5. *See* Shelly Kreiczer Levy & Meital Pinto, *Property and Belongingness: Rethinking Gender-Based Disinheritance*, 21 Tex. J. Women & L. 119 (2011).

6. Ezra Hasson, *'Where There's a Will There's a Woman': Exploring the Gendered Nature of Will-Making*, 21 Feminist Legal Stud. 21 (2013).

7. In a previous paper in Chinese, we collected 1,793 notarized or authenticated wills in Taiwan from November 2018 to October 2020. After that, we revised our survey questionnaire and collected another set of 1,808 wills from November 2020 to December 2022, which are analyzed in this Article.

with a focus on East Asia. Section B summarizes the two competing social science theories regarding why parents favor a certain child and how parents determine estate distribution. Section C uses aggregate data made available by the Taiwan government to present a big, albeit potentially inaccurate, picture. Section D summarizes our previous findings using the first batch of our data. We have since updated the survey questionnaire so as to more precisely identify son preference. Hence, the first batch of our data will not be included in the ensuing analysis.

A. Studies in East Asia and Beyond

Unlike in Asia, in the U.S., gender equality between sons and daughters in terms of estate distribution does not appear to be a big issue. At the very least, it is not a hot research topic. Even in their recent, nationally representative survey of 9,000 Americans on their preferences for estate distribution, Prof. Yair Listokin and Prof. John Morley did not ask those surveyed whether they gave more of their estate to sons than daughters.[8]

Prof. Tadashi Yagi's internet survey of 3,013 Japanese who had made up their mind regarding an estate plan showed that more than half of the surveyees (53%) planned to distribute their estates equally to their heirs,[9] while one quarter would not leave any estate, and 15% will bequest the caregiver. Only about 2.7% of the surveyed would opt for the traditional way: *primogeniture*[10] (leaving the entire estate to the eldest son), whereas 0.6% gave the entire estate to the eldest daughter.

In South Korea, Prof. Dahye Kim, using data from 293 surveyees who received inheritance,[11] and, in a separate study alongside her coauthors, using data from 277 surveyees leaving estates to their 1,124 children, both in regression frameworks, found that sons (particularly eldest sons) are still preferred over daughters in estate distribution, though care-giving daughters receive a greater portion of estates than their *pro rata* shares.[12] Using fertility surveys conducted in 1991 and 2003, Prof. Woojin Chung and Prof. Monica Das Gupta found a decline in son preference.[13]

A survey by Prof. Agnes Quisumbing on five rice-growing villages in the Philippines revealed that "daughters are weakly disadvantaged in education and receive significantly less land and total inheritance. They may be partially compensated with non-land assets."[14] Prof. Jonna Estudillo used two surveys on inheritance decisions across three generations in five rice-growing villages in the Philippines and found that, in the younger generation, sons were

8. *See* Yair Listokin & John Morley, *A Survey of Preferences for Estate Distribution at Death Part 2: Children and Other Beneficiaries* (Yale L. & Econ. Rsch. Paper, forthcoming 2023).

9. *See* Tadashi Yagi, *Bequest Motives and Suitability of Inheritance Tax*, 59 Doshisha U. Econ. Rev. 303 (2007).

10. *See generally* C. Y. Cyrus Chu, *Primogeniture*, 99 J. Pol. Econ. 78 (1991) (an analysis of primogeniture).

11. *See* Dahye Kim, *An Equal Right to Inherit? Inheritance Rights and Gendered Intergenerational Transfers in South Korea, 1971–2010*, 79 (2-3) Population, English Edition 8 (2024).

12. *See* Dahye Kim et al., *Between-Sibling Inequality in Inheritances: The Role of Long-Term Intergenerational Exchanges and Patrilineality in South Korea*, 86 J. Marriage & Family 30 (2023).

13. *See* Woojin Chung & Monica Das Gupta, *The Decline of Son Preference in South Korea: The Roles of Development and Public Policy*, 33 Population & Dev. Rev. 757 (2007).

14. Agnes R. Quisumbing, *Intergenerational Transfers in Philippine Rice Villages: Gender Differences in Traditional Inheritance Customs*, 43 J. Dev. Econ. 167, 191 (1994).

preferred with respect to land inheritance, while daughters were treated more favorably in terms of schooling investment.[15]

In the case of Taiwan, using survey data on childbearing attitudes conducted in 1992, 1998, and 2002, Dr. Tinchi Lin found that the preference for sons has attenuated over the period; in particular, relatively highly educated parents and younger cohorts exhibit less son preference.[16] Prof. Cyrus Chu and Prof. Ruoh-Rong Yu, using survey data around 2000, studied 3,065 families in Taiwan and Southeast China and found that less than 12% of the families in Taiwan and less than 7% of the families in China transfer *inter-vivos* parental assets to sons and daughters equally.[17] In addition, more than 65% of the surveyed families in Taiwan and 83% of those in China transferred *inter-vivos* to sons only, with 8% and 5% in Taiwan and China, respectively, strongly favoring sons, while daughters received only a small fraction from their parents. Prof. Chu and other co-authors, using administrative data on the wealthiest families in Taiwan, found that the annual rate of return on land investment for male landowners was higher than that of female landowners (while the annual rate of return on stock investment has the opposite pattern), and attributed the reason to wealthy parents helping sons acquire more lucrative land.[18] They noted that the difference in annual rate of returns disappears if the landowner's father was born in Taipei, the largest city in Taiwan.[19]

With a broader scope, Prof. Daphna Hacker reviewed gendered dimensions of inheritance in Western countries.[20] Prof. Carmen Diana Deere and Prof. Cheryl Doss reviewed the distribution of wealth by gender.[21] Besides these examples cited, other scholars have offered empirical assessments of the gender equality legal reform in India and found that strong bias against daughters still exists.[22]

B. Social Scientific Theories and Their Empirical Examinations

The social science literature has two main competing theories of estate distribution. The intergenerational exchange (or strategic bequest) theory[23]

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15. *See* Jonna P. Estudillo, Agnes R. Quisumbing & Keijiro Otsuka, *Gender Differences in Land Inheritance and Schooling Investment in the Rural Philippines*, 77 Land Econ. 130 (2001).

16. *See* Tinchi Lin, *The Decline of Son Preference and Rise of Gender Indifference in Taiwan Since 1990*, 20 Demographic Rsch. 337 (2009).

17. *See* C. Y. Cyrus Chu & Ruoh-Rong Yu, Understanding Chinese Families: A Comparative Study of Taiwan and Southeast China 142 (2009).

18. *See* C. Y. Cyrus Chu et al., *The Gender Gap in the Ownership of Promising Land*, 120 (24) Proceedings of the National Academy of Sciences e2300189120, at https://doi.org/10.1073/pnas.2300189120 [https://perma.cc/EL8H-X23W].

19. *See id.* Similarly, Prof. Deere finds that male preference in inheritance has led to unequal land ownership in Latin America. *See* Carmen Diana Deere & Magdalena Leon, *The Gender Asset Gap: Land in Latin America*, 31 World Dev. 925 (2003).

20. *See generally* Daphna Hacker, *The Gendered Dimensions of Inheritance: Empirical Food for Legal Thought*, 7 J. Empirical Legal Stud. 322 (2010).

21. *See generally* Carmen Diana Deere & Cheryl Doss, *The Gender Asset Gap: What Do We Know and Why Does It Matter?*, 12 Feminist Econ. 1 (2006).

22. *See, e.g.,* Klaus Deininger et al., *Women's Inheritance Rights and Intergenerational Transmission of Resources in India*, 48 J. Hum. Resources 114 (2013); Sanchari Roy, *Empowering Women? Inheritance Rights, Female Education and Dowry Payments in India*, 114 J. Dev. Econ. 233 (2015); Sonia Bhalotra et al., *Women's Inheritance Rights Reform and the Preference for Sons in India*, 146 J. Dev. Econ. 1 (2020).

23. *See* B. Douglas Bernheim et al., *The Strategic Bequest Motive*, 93 J. Pol. Econ. 1045 (1985).

posits that parents allocate estates according to how much care they received from children and that children are thus more motivated to take care of their elderly parents.[24] The second theory is the wealth theory (alternatively called altruism theory), which was first developed by Nobel Prize in Economics winner Gary Becker and his co-author Nigel Tomes.[25] This theory predicts that parents would use bequests to make up for the difference in children's endowments.

Both theories have been tested with data from various jurisdictions. Both altruism and strategic bequest theories have been found to explain care-giving behaviors in Japan and the U.S.[26] Scholars also found evidence consistent with strategic bequest in Sweden and South Korea.[27]

We consider the two aforementioned theories as a "rational" explanation of testators' decisions. If a testator favors a son or a daughter in his or her will, we do not consider it *(per se)* as demonstrating son (or daughter) preference. Put differently, son preference is conceptualized as an "irrational" decision. Prof. Schwartz has described wills as being shaped by three forces: the individualist concern, such as expressing one's original personality, the legalist concern, such as reducing the inheritance tax, and the family-community effect.[28] At least in East Asia, son preference falls into the last category, as the traditional social norms and kinship structures both point to favoring sons (especially the eldest son).[29] This study assesses how often contemporary Taiwanese testators leave "irrational" estate distribution plans that are consistent with the embedded social norm of son preference.

C. Government Statistics from Taiwan

Government statistics published by the Taiwan government suggest that estate value received by male successors is higher than that bequeathed to female successors. In 2015–2019, the Ministry of Finance in Taiwan, which oversees levying estate taxes, reported that the net taxable value of estates owned by female successors is 20%–28% of the total net taxable value. That is, female successors, while making up 50%–55% of all successors, received only 1/5 to 1/4 of the estate value. These numbers are, however, aggregate statistics. If the extremely wealthy in Taiwan happen to have more sons than

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24. *See* Donald Cox & Mark R. Rank, *Inter-Vivos Transfers and Intergenerational Exchange*, 74 Rev. Econ. & Stat. 305 (1992).

25. *See* Gary S. Becker & Nigel Tomes, *Child Endowments and the Quantity and Quality of Children*, 84 J. Pol. Econ. S143, S152–55 (1976). *See also* Jere R. Behrman & Mark R. Rosenzweig, *Parental Allocations to Children: New Evidence on Bequest Differences among Siblings*, 86 Rev. Econ. & Stat. 637, 637 (2004).

26. *See* Charles Yuji Horioka et al., *Why Do Children Take Care of Their Elderly Parents? Are the Japanese Any Different?*, 59 Int'l Econ. Rev. 113 (2018); Audrey Light & Kathleen Mcgarry, *Why Parents Play Favorites: Explanations for Unequal Bequests*, 94 Am. Econ. Rev. 1669 (2004). *But see* Behrman & Rosenzweig, *supra* note 25 (finding no evidence in support of either altruism or strategic bequest in the U.S.).

27. *See* Oscar Erixson & Henry Ohlsson, *Estate Division: Equal Sharing, Exchange Motives, and Cinderella Effects*, 32 J. Population Econ. 1437 (2019); Kim et al., *supra* note 12.

28. *See* T.P. Schwartz, *Testamentary Behavior: Issues and Evidence About Individuality, Altruism and Social Influences*, 34 Socio. Q. 337 (1993).

29. Favoring sons is not individualistic or original, nor does it create any tax benefits.

daughters, even if every testator equally divides his or her estate, the net taxable value of estates owned by female successors would be below 50%. Further, if only the super-rich have a son inheritance preference, but "average Joes" do not have a son preference, the net taxable value of estates owned by female successors would be below 50%. Thus, one cannot infer from the lopsided distribution of net taxable value that male preference in estate distribution is prevalent.

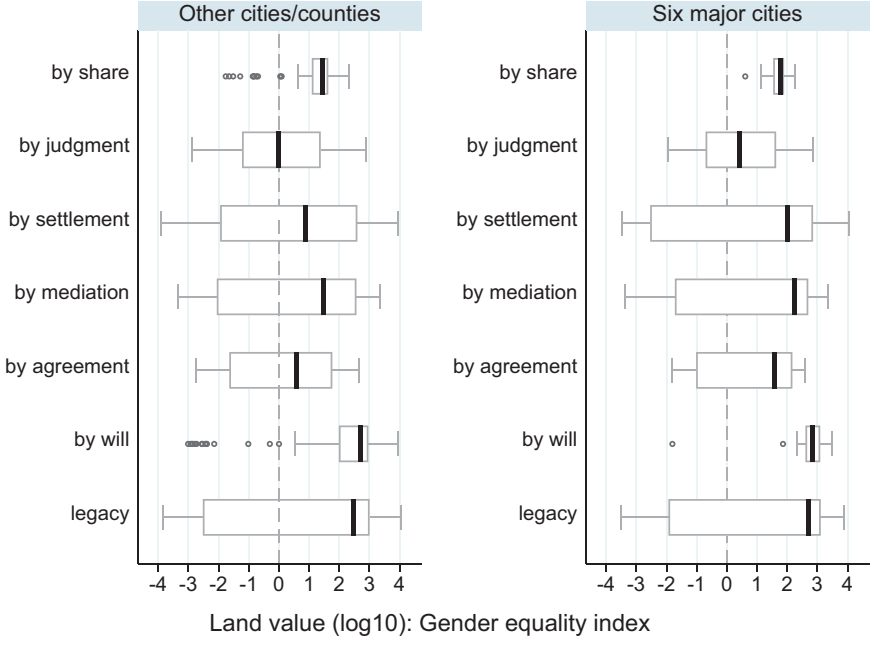
The land administration agency in Taiwan has published additional data (hereinafter, land registry data) that also shed light on son preference in distributing real property.[30] The land registry data include the following registration entries in all twenty-two cities and counties but one in Taiwan in every year between 2016 and 2020, including the number of male and female landowners, the official taxable value (ACLV) of land owned by males and females, the number of male and female building owners, and the building areas owned by males and females. Taiwan adopts the Torrens—registration-of-right—system for land, and registration is constitutive of transfers in property rights. Hence, land transactions must undergo registration. By contrast, while Taiwan adopts the Torrens system for buildings, buildings are not subject to mandatory registration. While a property owner needs to register her buildings before legally transferring ownership, it is not uncommon for people to keep their buildings off the registration. To standardize real property registration, the land registries in Taiwan developed hundreds of standard entries that applicants can choose from. Relevant to the Article here are seven entries that note the different causes for including a new person as a holder of real property right: inheritance by intestate share, inheritance by court judgment, inheritance by settlement in court among successors, inheritance by successful mediations accepted by successors, inheritance by successors' joint agreement, inheritance by will, and receiving estate as a legatee.

We utilized the land registry data to create a gender equality index for each city or county each year for the seven types of inheritance-related conveyances. Regarding land, the gender equality index equals log10 of [(the official taxable value of land owned by males / the number of male landowners) – (the official taxable value of land owned by females / the number of female landowners)]. If, in every instance of inheritance, male and female successors always take equal shares of land, the gender equality index would be close to 0. It will not be strictly zero, because some deceased persons only have male descendants while others only have female descendants, and these deceased persons may have different levels of wealth. We expect the distribution of the gender equality index to be narrowest and its mean closest to 0 when it comes to inheritance by share, because every child of the decedent is entitled to the same intestate share under the Taiwan Civil Code. On the other hand, if many Taiwanese have a son preference in assigning estates, it will be most clearly reflected in inheritance by will and receiving estate as a legatee, as testators' discretion is only limited by the mandatory shares. Finally, to examine whether the male

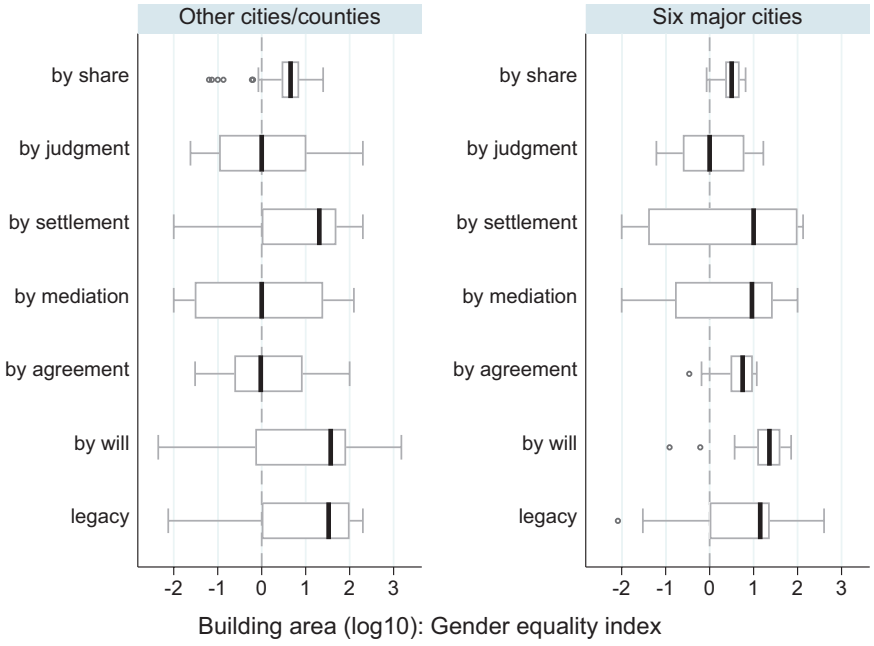
30. The original data are publicly available at the land registry data website (https://www.land.nat.gov.tw/About/PriceInfoEN1 / [https://perma.cc/3X66-2QLT]) maintained by the Department of Land Administration, Ministry of the Interior, Taiwan.

preference is different in rural areas from urban areas, we divide our data into two groups: six major cities and other cities/counties.

Overall, the tables show that in a majority of jurisdiction-years, male successors received more valuable land and larger building areas. More specifically, the mean of inheritance by court judgment is closest to 0, which is not surprising, as the court must follow the rules set out by the Civil Code to distribute estates equally among children of the decedent. In contrast, the mean of inheritance by will or legacy has the largest value, which indicates that decedents in Taiwan may be more inclined to bequest estates to male successors, although the difference in value is not huge (the median difference is less than 33,000 USD). Moreover, while inheritance by intestate share does have the narrowest distribution, its median—indeed, almost all observations—is above zero. Still, the aggregate data provided by the land registries do not enable us to ascertain how prevalent male preference in distributing estates is.



Notes: N=701. Some cities/counties have missing values because no male or female inherited any land under a given inheritance channel in a year. 1 on the X-axis means 10,000 NTD (about 330 USD), 3 means 1 million NTD (about 33,000 USD), and so on. 1 means the average land value acquired by men is 10,000 NTD higher than that received by women, whereas -1 means the average land value acquired is 10,000 NTD higher for women than for men. This figure contains 7*2=14 box-and-whisker plots. Thick vertical lines within boxes are medians. Boxes show 25th and 75th percentiles. The two whiskers show the upper and lower adjacent values. The upper adjacent value is the value of the 75th percentile + 1.5*(the differences between the 75th and 25th percentiles). The lower adjacent value is the value of the 25th percentile – 1.5*(the differences between the 75th and 25th percentiles). Circles show outliers beyond adjacent values.



Notes: N=619. Some cities/counties have missing values because no male or female inherited any building under a given inheritance channel in a year. 1 on the X-axis means 1 square meter (about 10.8 square inches), 3 means 100 square meters (about 1,080 square inches), and so on. 1 means the average building area is 1 square meter larger for men than for women, whereas -1 means the average building area is 1 square meter higher for women than for men. This figure contains 7*2=14 box-and-whisker plots. Thick vertical lines within boxes are medians. Boxes show 25 and 75 percentiles. The two whiskers show the upper and lower adjacent values. The upper adjacent value is the value of the 75th percentile + 1.5*(the differences between the 75th and 25th percentiles). The lower adjacent value is the value of the 25th percentile – 1.5*(the differences between the 75th and 25th percentiles). Circles show outliers beyond adjacent values.

D. Our Previous Study

In our earlier work in Chinese, we used the previous version of our survey questionnaire and the 1,793 wills we collected to analyze whether Taiwanese testators exhibit a preference for males. We defined a "benefited party" as someone who is named in a will to receive part of the estate and an "excluded party" as someone who is identified in a will to receive nothing. A female benefited or excluded party would be one of the following types: daughters, granddaughters from sons, granddaughters from daughters, daughters-in-law, or nieces. A male benefited or excluded party would be one of the following types: sons, grandsons from sons, grandsons from daughters, sons-in-law, and nephews. An "other" benefited or excluded party would be any relative or non-relative not included above. A will benefits "female(s) only" if all the benefited parties are female rather than male, disregarding the "other" types of benefited or excluded parties whose coding is gender-neutral, such as one's realtor or lawyer.

We did not find extraordinarily compelling evidence of male preference. As shown in Table 1, 23 of the 1,793 wills (1.2%) clearly exhibit a male preference, as only males benefited from the wills and only females were excluded from the wills. By contrast, 19 of the 1,793 wills (1.1%), by the same criterion, clearly exhibit a female preference. In the analysis stage, we realized that our criterion was under-inclusive, as some testators are silent on the excluded parties in the wills, reasoning that the heirs would realize, upon reading the will after the testator dies, what their lack of presence in the will suggests. Indeed, the Taiwan Civil Code adopts a mandatory share regime, which can save an heir from extraordinary unequal treatments. Hence, a testator may say that heir A will not get anything, but unless further justification is included, heir A would still be entitled to her mandatory share, which is 50% of the intestate share. Put differently, legally speaking, a testator could choose to leave up to half, but no more, to, say, charity or people who are not heirs; however, the other half must be distributed among heirs according to a certain formula. Similarly, those not named as beneficiaries in a will are still entitled to receive their mandatory share.

One way to address the under-inclusion problem would be to broaden the definition of male/female preference, i.e., considering all the "male benefited party only" cases as showing a male preference and all the "female benefited party only" cases as evidence of a female preference. This way, male preference rises to 33.0% of the studied wills, whereas female preference rises to 11.5%. However, the problem with this approach is over-inclusion. For instance, in a "male benefited party only" will, perhaps the testator only has sons, so no daughter exists to be a potential beneficiary. That said, a majority of the testators in this data set were born between 1930 and 1960. The fertility rate and child survival rate of this generation are both high. It is unlikely that a third of the testators had only surviving sons at the time of will-making. Therefore, a conservative way to state our finding would be that male preference in distributing estates is shown in 1.2%–33% of the wills whereas female preference is shown in 1.1%–11.5% of the wills.

Realizing the deficiency of the first version of our survey questionnaire, we designed a second version and report the analytical results of the second version in this work.

Table 1 Benefited and Excluded Parties in Wills

Benefited party types	Excluded party types				
	Neither excluded	Only female	Only male	Other	Total
Neither	106	1	1	2	110
Only female	169	6	**19**	13	**207**
Only male	540	**23**	10	18	**591**
Other	822	17	22	24	885
Total	1,637	47	52	57	1,793

Source: Authors' earlier work.

II. Data

Our online wills survey (the English translation of which is included in Appendix A) records the following variables: the date a will is made; the testator's birth year, ethnic group, gender, education level, and marital status; the types of assets disposed of in a will; whether only male descendants receive assets in a will (and if so, why); whether a will excludes certain persons from inheriting estates; the filial relationship of the offspring who receive estates in a will; the number and age of sons and daughters the testator has and whether the sons and daughters receive equal shares in the estate (and if not, why); other than descendants, who receive portions of the estate from a will; the location of the notary office; and the estimated value of the total estate.

We posted this updated version of the survey online on November 1, 2020, and collected wills until December 31, 2022. Public notaries from most cities and counties in Taiwan participated in the survey. They were asked to fill in a questionnaire as they notarized a will. Due to privacy and ethical concerns, only the public notaries who handled the wills had access to the original documents and they personally keyed in the surveys. Researchers in this Article do not know the identity of the testators.

During the 26-month research period, we collected 1,808 wills in our data set, of which 1,160 meet the criteria for inclusion for further analysis. Wills are excluded if one of the following conditions are met: (1) wills do not distribute any assets (some wills express testators' wishes to use a certain religious funeral); (2) none of the beneficiaries in the wills are children; (3) testators do not have any sons; or (4) testators do not have any daughters. In other words, the testators must have both sons and daughters, so that we can observe whether sons are preferred over daughters. The assets distributed in wills enable us to observe actions by testators that favor sons.

No prior empirical studies on wills can claim representativeness of the data. Our data is no exception. We were not able to force public notaries to participate in the survey, though many did. From government sources that tallied the number of notarized wills in 2020 and 2021, we estimate that our data includes approximately 10% of all notarized and authenticated wills in the research period.[31] Still, wills are not required to be notarized in Taiwan. That is, a testator can hand-write and sign a holographic will at home and the will is legally effective. In this case, no one other than close relatives would know of the existence of a will. It is unknown how many Taiwanese have made a holographic will (no randomized nationwide survey seems to have asked this question).[32] Our data, thus, have no external validity, and it is impossible to give weights as well.

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31. According to government statistics provided to us, in 2020, there were 3,309 notarized wills and 4,864 authenticated wills (8,173 total), whereas in 2021 there were 3,415 notarized wills and 4,989 authenticated wills (8,404 total). Our data set contains 792 and 870 wills in 2020 and 2021, respectively. The percentages of coded wills are thus 9.7% and 10.3% of the above totals in 2021 and 2021, respectively.

32. By way of comparison, a survey conducted in the 2010s in the U.S. shows that about 57% of Americans have a will. *See* Thomas W. Mitchell, *The Uniform Partition of Heirs Property Act: Advancing Social and Racial Justice through Historic Property Law Reform*, *in*

That said, to our knowledge, this is the largest data set on wills in the world. Public notaries' filling out the questionnaire makes the data we collected more reliable than if we had interviewed or surveyed testators, who may have reasons to be selective in telling us their stories and the content of their wills. Hence, while we collected our data through surveys, our data are not ordinary survey data, as the acquired information chronicles decisions and actions taken by testators, rather than what they claim to have done. In addition, several prior works have studied wills in the context of probate procedure in the U.S.[33] While this approach may give the advantage of seeing the full text of the wills, probated wills are subject to an additional layer of selection bias—as Uniform Probate Code § 3-912 authorizes private agreement among successors to alter wills, these wills are not probated[34] and thus evade scholarly observations. Our data are subject to selection bias as well, as people who turn to public notaries for wills are certainly not a representative sample of all testators. Nonetheless, we were at least able to observe wills as they are made, regardless of whether they are chosen to be suppressed or litigated, ameliorating the severity of selection bias. Moreover, because the entire inheritance process in a Taiwanese court is much speedier and simpler than that in the U.S.—and it is *de facto* optional[35]—Taiwanese people do not actively move assets to bypass the probate procedure,[36] nor do they remain intestate to avoid the probate procedure.

A final caveat is in order. Son preference in distributing *assets* could be realized in multiple ways, and distributing an *estate* by will is only one way. No matter what we find in this study, it does not answer the larger question of whether son preference in distributing family assets is still prevalent. Researchers would have to know how the aging generation sets up trusts, gives *inter vivos* gifts, provides educational opportunities when resources are scarce, etc. Such a large-scale and detailed data set is not available anywhere, to our knowledge. Hence, our research is a valuable first step, but conclusions and policy implications should be cautiously drawn from our empirical

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Heirs' Property and the Uniform Partition of Heirs Property Act: Challenges, Solutions, and Historical Reform 3, 5 (Thomas W. Mitchell & Eric Levine Powers eds., 2022). Another survey (nationally represented) conducted in the 2020s in the U.S. shows that about 30% of Americans have a will. *See* Listokin & Morley, *supra* note 8.

33. *See, e.g.*, David Horton, *In Partial Defense of Probate: Evidence from Alameda County, California*, 103 Geo. L.J. 605 (2015); Reid Kress Weisbord & David Horton, *Boilerplate No Contest Clauses*, 82 L. & Contemp. Probs. 69 (2019); David Horton & Reid Kress Weisbord, *Boilerplate and Default Rules in Wills Law: An Empirical Analysis*, 103 Iowa L. Rev. 663 (2018); David Horton, *Partial Harmless Error for Wills: Evidence from California*, 103 Iowa L. Rev. 2027 (2017).

34. *See* Thomas P. Gallanis, Family Property Law: Cases and Materials on Wills, Trusts, and Estates 255 (6 ed. 2014).

35. One of us find that only 1.6% of successors went through the court procedure as (seemingly) required by the Taiwan Civil Code. *See* Yun-chien Chang & Sieh-Chuen Huang, *Reconceptualizing Estate and Protecting Creditors: Theory and Reform Proposals*, Nat'l Taipei U. L. J. 171, 203 (2019).

36. That is, there has been no "nonprobate revolution" in Taiwan. *See* John H. Langbein, *The Nonprobate Revolution and the Future of the Law of Succession*, 97 Harv. L. Rev. 1108 (1984) (explaining the nonprobate revolution in the U.S.).

findings. That said, it is noteworthy that the tax regime in Taiwan creates a strong tax-saving incentive to delay distribution of assets until one passes away. The extent of *inter vivos* transfers is thus constrained. At the very least, this legal observation justifies our motivation to study testamentary transfers.

III. Research Design

Given the complexity and nuances of son preference, we produce three different definitions of the phenomenon to examine. Section A focuses on distribution of real property in wills. Section B uses a broader definition. Section C adopts a conservative approach and labels a will as son-preferring only when the evidence is convincingly strong. Put differently, a will shows son preference *broadly* defined when the estate is distributed unequally among sons and daughters and daughters receive less than pro rata because they are female, whereas a will shows son preference *narrowly* defined when additional information that shows gender bias is chronicled.

As discussed in footnote 1, our research design aims to enable us to answer the question of whether sons have been preferred to daughters in estate distribution. This is a more focused inquiry than asking about preferences for males to females. A man who leaves money to his surviving wife or mother may give the rest of the estate to his sons only while giving daughters nothing. Our approach ignores the distribution of assets to the surviving spouse and parents and focuses on decisions regarding sons and daughters. To do so, starting from Q14, the survey questionnaire attempts to understand the identities of the will beneficiaries vis-à-vis the pool of all descendants. Q14, on the identity of will beneficiaries, focuses on descendants and excludes spouses, parents, etc., because it is more meaningful to talk about son preference among children. Q14a and Q14b record the numbers of sons and daughters of the testator. Sons and daughters who predeceased the testator at the time of the will-making will be included in the tally if they have descendants (grandchildren of the testator), who are entitled to inherit *per stirpes* pursuant to the Taiwan Civil Code. We include a will in our analysis if and only if a testator has one or more sons (as revealed in Q14a) AND one or more daughters (as revealed in Q14b). Still, following the definition here and below, some of the beneficiaries in the son-preferring wills are actually grandsons on the sons' side (but we have made sure that no such wills only prefer grandsons on the daughters' side). Hence, the son preference we identified could mean the preference for sons and paternal grandsons, but for brevity's sake, this article uses the term son preferences.

A. Real Property Distribution

First, based on anecdotes and the prior literature, we conjecture that son preference in estate distribution may be exhibited mainly in the distribution of real estate. In Q12, we simplified the types of disposed assets and directed notaries to fill out a set of questions directly related to son preference: Q12a and Q12b. We define a will as showing son preference if

(1) only male heirs acquire real property (Q12a=2), and

(2) the reason is either

(a) the real property is ancestral property (Q12b=3) or some language to the same effect (Q12b=4);

(b) one or more male heirs is responsible for ancestor worship (Q12b=1) or some language to the same effect (Q12b=4); or

(c) real property would only be passed on to male but not female heirs (Q12b=7) or some language to the same effect (Q12b=4).

Note that notaries can select all that apply in Q12b, and as long as it is considered partly preferring male heirs, the entire will is labeled as exhibiting son preference in the following analysis. In one case in which a maternal grandson receives all the real estate, we made the judgment call of coding it as not showing son preference. The regression results are qualitatively the same if it is coded otherwise.

A potentially controversial decision we made is to treat giving estates to "male successors who took or will take care of the testator" (the second options in Q12b and a few other questions) as not male preferring, as it is considered rewards for the duty or task shouldered by male successors. Here, following the strategic bequest theory, we do not consider giving estates to sons taking care of parents as evidence of son preference, just as giving estates to daughters taking care of parents is not evidence of daughter preference. Put differently, we aim to identify testators who "irrationally" favor sons, and the decisions to give estates to caregivers are "economically rational." Nonetheless, we recognize that in Taiwan at least, the traditional norm is that a son has both the right to inherit and the duty to take care of elderly parents. Therefore, the fact that sons taking care of parents receive the lion's share of estates could be consistent with both the strategic bequest theory and son preference (in the narrow, traditional meaning). It is impossible to tease out the confounding effect. That said, even if the strategic bequests are counted as preferring males, there will only be twenty-seven more male-preferring wills than the alternative number under the narrow definition. Hence, the coding decision here creates only minor differences.

B. Broadly Defined

From Q14c on, we designed the questionnaire to inquire into whether the estate is equally divided and, if not, why. If the estate is equally split among descendants (no matter whether there are other types of benefited parties and how much these parties acquire), the will is recorded as not showing son preference. Conversely, in this case, we count a will as exhibiting the preference for sons if a descendant receives less than equal shares because she is female (Q14e=1).[37]

37. As we strongly believe that no testators preferred a certain child simply because she is female (as corroborated by the first round of our will research), our questionnaire is designed to reveal son preferences. That is, we cannot similarly define how many wills reveal the preference for daughters.

C. Narrowly Defined

Alternatively, to use a conservative approach, we count a will as exhibiting the preference for sons, narrowly defined, if a descendant receives less than equal shares because she is female (Q14e=1), and one of the following conditions hold:

1) From Q14d, we know that the eldest, youngest, or other sons get more than equal shares because of duties related to ancestral worship (Q14d=A);

2) From Q14d, we know that the eldest, youngest, or other sons get more than equal shares because the testator intentionally decreased some female descendants' shares (Q14d=G); or

3) From Q14d, we know that the eldest, youngest, or other sons get more than equal shares because of other reasons (given in text boxes) that we identify as preferring sons (Q14d=N). Examples of these other reasons include "the tradition of male inheritance," "portion reserved for the eldest grandson", "one is the eldest son," etc.

4) In two cases, despite having both sons and daughters, the estate is given disproportionately to one daughter and the son(s) appear to receive nothing in the will. We made the judgment call of coding them as not showing son preference. The regression results are qualitatively the same if they are coded otherwise.

In short, as long as a will bequeaths a son more than a daughter simply due to the latter's being female, it is counted as a will demonstrating son preference under our broad definition. By contrast, under the narrow definition, an additional reason, such as the duty of ancestral worship, must be noted by the notary public to be counted as exhibiting son preference.

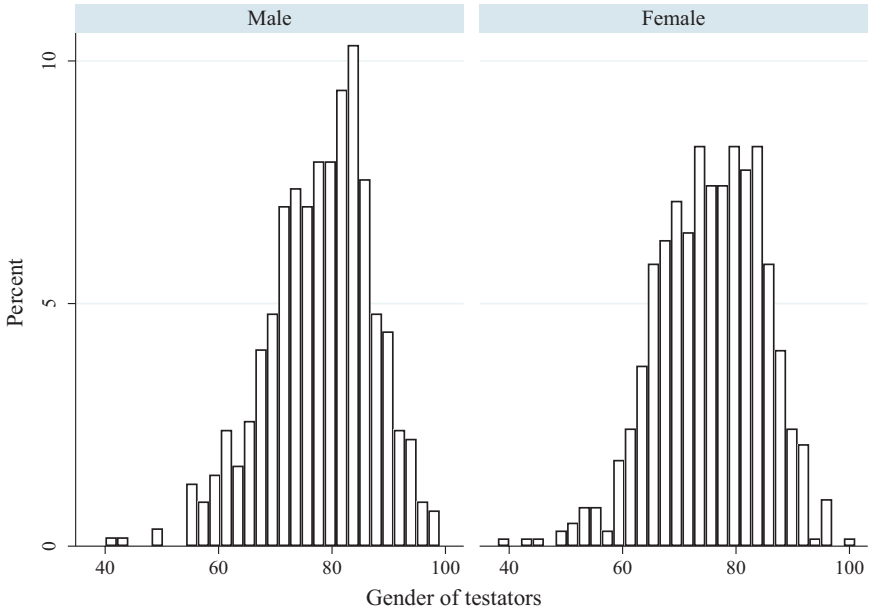
Following these steps, we labeled a will as exhibiting "son preference" or not. We then produced summary statistics and ran regressions to tease out the drivers of son preference.

IV. Findings and Discussion

In total, 1,160 wills meet our criteria for further research. As shown in Figure 3, the median and mean ages of male and female testators are above 75. In 978 wills (84%), the ages of the youngest and oldest children of the testators are known. 92% of the oldest children are above 40 years old and 74% of the youngest children are above 40 years old. The testators in these wills on average have 1.8 sons (standard deviation = 0.90) and 2.0 daughters (standard deviation = 1.17).[38] Having slightly more surviving daughters than sons is consistent with the overall demographic pattern in Taiwan.[39] In the following, Section A describes the percentage of son-preferring wills under the three definitions; Section B reports regression results that show factors correlating with son preferences; and Section C engages with the two social science theories of estate distribution.

38. The median numbers are two sons and two daughters. Recall that we include only testators who have at least one son and one daughter in the analysis.

39. According to government statistics, in age cohorts above 40 years old, females make up 50%-60% of the entire population. *See* Dep't of Household Registration, Ministry of the Interior, Taiwan, *Statistics on Population Structure*, https://www.ris.gov.tw/app/portal/346 [https://perma.cc/TA8W-A4ZQ] (last visited May 17, 2024).



Notes: Male testators=54; female testators=618.

A. Less Than 30% of Wills Demonstrate Son preference

Among the 1,160 wills, 331 (29%) are considered to favor sons if broadly defined, while 191 (16%) are considered to favor sons if narrowly defined. Of the 1,119 wills that dispose of real estate, 283 (25%) are considered to favor sons. Not all wills that favor sons in distributing real properties are counted as such when broadly defined. Some of them were coded by notaries as equal distribution of estates—in some wills, daughters were compensated with other types of assets (typically, cash or a dowry); in others, testators did not offer gender-related explanations for their decisions (more on this below). Overall, less than 30% of the wills demonstrate son preference.

To further put in context the wills that favor sons in real property distribution, note that 575 of the 1,119 wills (51%) distributing real property give all real property to only sons. Among the 575 wills, 283 (49%) were coded as favoring sons. The other 292 wills, while distributing real property to sons only, are not counted as having son preference because the testators explained that one or more reasons in the following reasons apply: (1) Sons took care of the testators (109 wills); (2) daughters had received other assets previously (89 wills); (3) other miscellaneous reasons (184 wills), such as having lost contact with daughters for years, daughters being rich, daughters receiving a dowry, sons being in debt or with disability, mortgage of real properties paid for by sons, etc.

Similarly, as mentioned above, 191 wills, under our definition, favor sons if narrowly defined. In another set of 142 wills, daughters received less than equal shares because they are female, but these wills were not coded as exhibiting son preference, as testators have given one or more of the following reasons and have *not* used ancestral worship and gender as the explanations: (1) sons

taking care of the old parents (consistent with the strategic bequest theory); (2) sons lacking earning capacity (consistent with the altruism theory); (3) sons having outstanding achievements that honor the family; (4) sons having been the main breadwinner of the family; (5) testators being nominees for the sons; (6) daughters having received family assets from other channels; and (7) other miscellaneous, non-discriminating reasons.

The studied wills, of course, are not a representative sample of all wills. While it is nearly impossible to know how many Taiwanese have left a holographic will, the official statistics on notarized and authenticated wills show that only a small fraction of the Taiwanese population has gone through the more formal procedure to leave these types of wills.[40] It stands to reason that people with more debts than assets, people with few assets, and people who prefer to distribute their estate in an egalitarian fashion are less likely to leave wills. This suggests that even 30% is an overestimate of the son preference among Taiwanese people in distributing estates.

On the other hand, people with son preference do not have to wait until the waning hours of their lives to favor sons over daughters. As the prior literature points out, son preference may appear in the way children are educated, and assets can be distributed unevenly over the course of many years. Son preference, thus, may be a view held by more than 30% of the Taiwanese population.

While the foregoing analysis appears to suggest that no firm conclusion can be drawn from the studied wills regarding the entire population, the small percentage of wills that demonstrate son preference surprises us and the colleagues we have consulted. The next section unpacks son preference by utilizing a regression framework.

B. Factors Driving Son Preference

This section discusses the findings from the regression analysis. For lack of an identification strategy, we cannot do causal inference. The statistical significance of certain variables should be a flag for future causal research, rather than the final stop in the inquiry. The dependent variable of our regressions is a binary variable that equals 1 if the wills are coded as demonstrating son preference and 0 if otherwise. As discussed above, we developed three ways to define son preference, so we run three sets of regressions. Each set contains two regressions, one using the linear probability model (LPM) and the other using the logistic regression model. There is an ongoing dispute between empiricists over whether LPM is a better way to model binary outcomes. We report both types of models and find that they do not make any difference.

The independent variables of our regressions include factors that in theory would affect son preference. The several ethnic groups in Taiwan are said to have different attitudes toward male inheritance. Aboriginal societies, in particular, are maternalistic and are expected to demonstrate less, if any, son preference in distributing estates. Female testators are expected to be more sympathetic to daughters and less inclined to favor sons as compared to male testators. We

40. For example, in 2019, 176,296 Taiwanese died while the number of notarized and authenticated wills made in that year is 8,163. 8163/176296=0.046.

do not expect the type of will to matter. By contrast, age and educational background may matter. As shown in Table 2, most of the testators in our data set were born in the 1960s or before. The older the generation, and the less education received, the more likely it is that testators will stick to the tradition of male dominance. In a related vein, a dummy variable that captures the major cities is included because city residents are more likely to be exposed to more progressive or egalitarian ideas. Another dummy variable on whether a will disposes of real property is included because Taiwanese traditionalism treats land as the most important ancestral and family asset, and thus such wills are more likely to demonstrate son preference. The value of the estate matters because we expect son preference to be more pronounced when more assets are at stake. Finally, a dummy variable on the generation of the oldest heir is included, based on the conjecture that the generation of children may affect parents' decisions. More specifically, if children are raised in a period with a more egalitarian spirit, they may influence their parents by communicating this egalitarian spirit to them. We report robust standard errors clustered by the notaries who coded the wills.

Table 3 shows the regression results. As expected, the aboriginal and female testators tend not to prefer male heirs. (Note that not all aboriginal ethnic groups in Taiwan are matrilineal. The Amis ethnic group and Puyuma ethnic group, whose combined population is approximately 40% of the aboriginal people, are clearly matrilineal, while other ethnic groups are less so, but perhaps still less patrilineal than the non-aboriginal people in Taiwan.) Estates with assets worth more than 5 million Taiwan Dollars (30 Taiwan Dollars = 1 USD) are more male-preferring than those with less valuable assets. Educational background, location, and ages of testators and the oldest heir, however, do not have a consistent effect. 96% of the studied wills include disposal of real estate, and when the dependent variable is son preference broadly defined, the real property dummy has a positive sign and is statistically significant.

We were initially surprised that notarized wills, as compared to authenticated holographic wills, are more likely to demonstrate son preference. On second thought, our conjecture is that it is a result of strategic behavior. As mentioned earlier, senior Taiwanese citizens who leave wills are not representative of their cohorts, and those who had the knowledge and took the time (and spent the cost) to find a notary public to leave a formal, notarized will must be driven by certain concerns. One plausible concern is the validity of their wills. Taiwan's Civil Code still requires mandatory shares for successors. For instance, if a widow has four children, by default, after her death, each child receives 25% of the estate, and his/her mandatory share is 12.5% of the estate (25%/2=12.5%). In other words, a testator has the freedom to dispose of up to 50% of his/her estate, while the rest half of the estate must go to the legal heir, when the children of the deceased come to inherit. Thus, testators whose wills infringe on the mandatory shares of certain children could be challenged by them postmortem. An easy channel to challenge would be to question the validity of the wills, and in particular, the mental capacity of testators at the time of will-making. As a notary public in Taiwan is required to ensure the mental capacity of testators, and notarized wills are *de facto* presumed to be (formally speaking) valid, testators who made these substantively controversial wills (and the male heir they prefer) have an incentive to go to a notary public to get a notarized will.

Table 2 Summary Statistics of Variables

Panel A: Binary Variables

Variable name	N	% of observations=1
Son preference in distribution of real property	1,119	25
Son preference, broadly defined	1,160	29
Son preference, narrowly defined	1,160	16
Female testator	1,160	53
Estate includes real property	1,160	96
Major cities	1,160	7
Oldest heir is less than 40 years old	1,160	8

Panel B: Categorical Variables

Variable name	N	% of observations in categories
Ethnic Group	1,160	
Hoklo	638	55
Mainlander	44	4
Hakka	43	4
Aborigine	55	5
Ethnic group unknown	380	33
Will Type	1,160	
Holographic	350	30
Dictated	79	7
Notarized	731	63
Education Level	1,160	
High school graduation or below	309	27
College or above	148	13
Unknown	701	60
Age Level	1,160	
<65 years old	115	10
≥65 years old, but <80 years old	562	48
≥80 years old	483	42
Value of Estate	1,160	
<5 million NTD	398	34
≥million NTD, but <10 million NTD	225	19
≥10 million NTD	534	46

Table 3 Regression Results

Dependent variable: Favoring male descendant =1; does not favor male descendant=0						
	(1) broadly defined; Logit	(2) broadly defined; LPM	(3) narrowly defined; Logit	(4) narrowly defined; LPM	(5) real estate; Logit	(6) real estate; LPM
Ethnic group (Hoklo Taiwanese as baseline)						
=1 if mainlander	-0.459	-0.100	-0.721+	-0.079	-2.277**	-0.174*
	(0.555)	(0.097)	(0.413)	(0.059)	(0.756)	(0.068)
=1 if Hakka	0.410	0.027	0.443	0.021	0.252	0.025
	(0.329)	(0.073)	(0.321)	(0.050)	(0.412)	(0.064)
=1 if aborigine	-1.012***	-0.159*	-0.746*	-0.084+	-1.395+	-0.144***
	(0.253)	(0.056)	(0.357)	(0.044)	(0.721)	(0.027)
=1 if unknown ethnic group	-2.126***	-0.330*	-2.034***	-0.205*	-0.691***	-0.122*
	(0.455)	(0.113)	(0.309)	(0.074)	(0.188)	(0.046)
=1 if female testator	-0.462**	-0.072*	-0.426***	-0.048**	-0.652***	-0.111***
	(0.168)	(0.032)	(0.053)	(0.014)	(0.058)	(0.012)
Will type (holographic will as baseline)						
=1 if dictated will	0.541	0.071	-0.859*	-0.083+	-0.087	-0.037
	(0.340)	(0.052)	(0.344)	(0.043)	(0.288)	(0.044)
=1 if notarized will	0.748**	0.104*	0.863***	0.085**	0.775**	0.107*
	(0.235)	(0.035)	(0.195)	(0.021)	(0.275)	(0.039)
Educational background (did not finish high school as baseline)						
=1 if finished high school	0.318	0.054	0.083	0.013	-0.086	0.000

	(0.364)	(0.038)	(0.394)	(0.030)	(0.448)	(0.051)
=1 if education experience unknown	1.128**	0.195**	0.759+	0.098*	0.481*	0.094*
	(0.423)	(0.063)	(0.388)	(0.045)	(0.200)	(0.040)
Age (<65 years old as baseline)						
=1 if testator >=65 years old, but <80 years old	0.303	0.029	-0.225+	-0.020**	1.187***	0.131***
	(0.301)	(0.035)	(0.128)	(0.006)	(0.182)	(0.029)
=1 if testator >=80 years old	0.278	0.020	-0.420+	-0.048**	1.188***	0.133**
	(0.361)	(0.049)	(0.239)	(0.015)	(0.169)	(0.043)
=1 if 6 major cities plus Hsinchu	-0.276	-0.047	-0.346	-0.043	-0.969	-0.124
	(0.958)	(0.134)	(1.019)	(0.096)	(0.797)	(0.076)
=1 if will disposes of real estate	1.125***	0.103***	0.699	0.043		
	(0.168)	(0.024)	(0.657)	(0.029)		
Estate value bequeathed in wills (<5m as baseline)						
=1 if value 5–10m	0.376*	0.070**	0.714***	0.082***	0.661***	0.117**
	(0.148)	(0.017)	(0.133)	(0.010)	(0.073)	(0.033)
=1 if value >=10m	0.383**	0.070***	0.585***	0.066***	0.227***	0.032*
	(0.124)	(0.013)	(0.063)	(0.010)	(0.051)	(0.011)
=1 if oldest heir <40 years old	0.142	-0.004	-0.524*	-0.061***	-0.048	-0.019
	(0.332)	(0.043)	(0.259)	(0.012)	(0.372)	(0.042)
Constant	-3.105***	0.084	-2.891***	0.105	-2.669***	0.093*
	(0.391)	(0.067)	(0.836)	(0.075)	(0.293)	(0.034)
Observations	1160	1160	1160	1160	1119	1119
(Pseudo) R^2	0.208	0.218	0.180	0.141	0.133	0.132

Robust standard errors clustered by notary in parentheses.
+ $p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

C. Supporting the Strategic Bequest Theory

The prediction by the strategic bequest theory is borne out not infrequently. In 134 wills (12%), the eldest son received more than equal shares because he has taken care of the testator.[41] In 44 wills (4%), the youngest son got more than a *pro rata* fraction for doing so. In 28 wills (2%), it is the oldest care-giving daughter. Finally, in 78 wills (7%), children of other ranking or grandchildren took care of the testators and thus were rewarded with a larger share of the estate. These findings illustrate how caregiving can influence testamentary dispositions, aligning with the predictions of the strategic bequest theory.

By contrast, the altruism theory does not reflect the thinking of Taiwanese testators. In only two wills did the testators indicate that a child received more than the statutorily presumed equal share because the child has been unable to make a living.[42] In four wills, the testators gave unmarried daughters more, which may provide a weak support for the altruism theory. Moreover, in two wills, the testators did the opposite of what the altruism theory predicts: giving a certain child less than an equal share because he/she is mentally challenged.

Conclusion

As the first large-scale empirical study on son preference in estate distribution through the study of wills, this Article fills in a big gap in understanding law and culture. Wills are a legal instrument and gender equality is a constitutional value also clearly specified in the civil code. Yet, as long as there is testamentary freedom, and the culture still prefers male descendants, testators can use a legal instrument to achieve what the law dislikes—favoring sons (and grandsons). This empirical study finds that people who left wills almost always (90%; 1,046 out of the 1,160 wills) deviate from the equality baseline, but the reason is not always related to the gender of the successors. We adopted one narrow and one broad definition of son preference, but even the latter reveals that fewer than 30% of the studied wills prefer sons over daughters. Nevertheless, we are hesitant to declare that gender equality has been achieved, as there are multiple channels other than wills through which parents may favor sons rather than daughters. Our surveys also reveal that among the two competing social science theories of estate distribution, the strategic bequest account was more often used as the justification for favoring certain children than the altruistic account, though neither is comparable to the preference for sons in driving the estate distribution decision.

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41. That is, the option B "Responsibility to take care of the testator" is selected for Q14d in the questionnaire shown in the Appendix.

42. That is, the option C "Inability to earn a living" is selected for Q14d in the questionnaire shown in the Appendix.

As the preference revealed by the wills we studied is not representative of that of all Taiwanese, it is even harder to claim that our findings are generalizable to other countries. This is a topic where a society-by-society study is warranted. A nationally representative sample of wills is extremely difficult to gather but worthy of trying to shed light on how prevalent the preference for sons is in today's world. This Article has taken a critical first step. Research on son preference in wills in other East Asian countries and beyond is sorely needed.

Appendix: English Translation of the Will Questionnaire

Q1 Case ID

_____

Q2 Date of the will

_____

Q3 Date of birth of the testator

_____

Q4 Has the testator made other wills?
(1) No
(2) Yes
Q5 Check all that apply if the testator is a (optional)
(1) Veteran
(2) Foreign spouse
(3) Foreigner
(4) Indigenous person
(5) Hoklo Taiwanese
(6) Hakka Taiwanese
(7) Immigrant from China arriving around 1949
(8) Person with disabilities
Q6 Gender of the testator
(1) Male
(2) Female
Q7 Marital status of the testator
(1) Never married
(2) Married and not widowed (excluding re-married)
(3) Divorced
(4) Widowed
(5) Remarried
(6) Unknown
Q8 Form of the will (Article 1189 of Taiwan Civil Code)
(1) Holographic will
(2) Dictated will
(3) Notarized will
(4) Sealed will
Skip To: Q10 If Q8 = 1
Skip To: Q10 If Q8 = 3
Skip To: Q10 If Q8 = 4
Q9 Witnesses in a dictated will (select all that apply)
(1) Land administration agent
(2) Relatives of the testator
(3) Attorney
(4) Caregiver
(5) Friends of the testator
(6) Certified public accountant
(9) Other
(20) Unknown
Q10 Did the testator understand Chinese characters?

(1) No
(2) Yes
(4) A little bit
Q10a Education level of the testator
(1) Under senior high school
(2) Senior high school or bachelor's degree
(3) Master's Degree/ Doctoral Degree
(20) Unknown
Q11a Did the testator make the will on their sickbed or in a similar place?
(1) No
(2) Yes
Q12 What the will disposed of (select all that apply)
(1) Real estate
(2) Personal property (including jewelry, cash, shares, bank deposits, cars, claims, etc.)
(8) Debts
(12) None
(9) Other or unknown _____
Skip To: Q13 If Q12 != 1
Skip To: Q17 If Q12 = 12
Q12a Was real property only transferred to male successors?
(1) No
(2) Yes
Skip To: Q13 If Q12a = 1
Q12b The reason real property was only transferred to male successors (select all that apply)
(1) Male successors have the responsibility of ancestral worship
(2) Male successors took or will take care of the testator
(3) The real property is ancestral property
(4) Other reasons _____
Q13 Dispositions specified in the will (select all that apply)
(3) Trust
(4) Funeral ritual
(5) Worship ritual
(6) Prohibition against partitioning the estate
(7) Appointment of will executors
(8) Depriving particular heirs of inheritance rights
(9) Appointment of a guardian
(10) Other or unknown _____
Q14 Descendent beneficiary of the will (select all that apply)
(2) Son
(3) Daughter
(4) Child (whose sex is unknown)
(5) Grandson from son
(6) Granddaughter from son
(7) Grandchild (whose sex is unknown) from son
(8) Grandson from daughter

(9) Granddaughter from daughter
(10) Grandchild (whose sex is unknown) from daughter
(11) Grandchild (whose sex and parents are unknown)
(20) None of the above
Skip To: Q15 If Q14 = 20

Q14a The number of sons of the testator (including the living sons and the deceased sons who have descendants who are entitled to succeed *per stirpes*) _____

Q14b The number of daughters of the testator (including the living daughters and the deceased daughters who have descendants who are entitled to succeed *per stirpes*) _____

Q14c Do descendants have equal shares of the estate? (1) No
(2) Yes
Skip To: Q15 If Q14c = 2

Q14d Do some descendants receive more than others, and if so, why?

Fill in the following letters if applicable. A=More responsibility regarding family matters such as ancestral worship; B=Responsibility to take care of the testator; C=Inability to earn a living; D=Outstanding performance and brings honor to the family; E=Supporting the family; G= The testator intentionally decreases some *female* descendants' shares; H= The testator intentionally decreases some *male* descendants' shares; N= Other reasons (please explain)

(1) The eldest son gets more, because of _____
(2) The youngest son gets more, because of _____
(3) The eldest daughter gets more, because of _____
(9) Another person who is not the eldest son, the youngest son, or the eldest daughter gets more, because of _____

Q14e The reason some descendants get less than an equal share (select all that apply)
(1) Female
(2) Unfilial
(3) Received gifts under Article 1173 of the Civil Code (dowry, for instance)
(4) Has been out of contact for a long time
(5) Volunteered to receive less of the estate
(6) The same reason as Q14d
(9) Other reason_____

Q14f The age of the oldest descendants
(1) under 20
(2) 20–30
(3) 31–40
(4) 41–50
(5) 51–60
(6) above 60
(20) unknown
Skip To: Q15 If Q14f = 1

Q14g The age of the youngest descendant
(1) under 20

(2) 20–30
(3) 31–40
(4) 41–50
(5) 51–60
(6) above 60
(20) unknown
Q15 Other beneficiaries in the will (select all that apply)
(1) Father or mother
(30) Spouse
(2) Brothers or sisters
(3) Son-in-law
(4) Daughter-in-law
(5) Nephew
(6) Niece
(7) Heterosexual partner (boyfriend, girlfriend, etc.)
(8) Friends/comrades
(9) Caregivers
(10) Charities
(11) Relatives in China
(12) Executor who is not an heir
(13) Godchild
(14) Same-sex partner
(15) Others or unknown
(20) None
Skip To: Q16a If Q15 != 5
Q15a The reason for giving legacy to a nephew (select all that apply)
(1) Ancestral worship
(2) Caregiving
(3) The testator owed their parent
(9) Other reason _____
Q16a Did the testator deprive anyone of his/her inheritance rights according to Article 1145 of the Civil Code? (Select all that apply)
(1) Spouse
(2) Son
(3) Daughter
(4) Child (whose sex is unknown)
(5) Grandson from son
(6) Granddaughter from son
(7) Grandchild (whose sex is unknown) from son
(8) Grandson from daughter
(9) Granddaughter from daughter
(10) Grandchild (whose sex is unknown) from daughter
(11) Grandchild (whose sex and parents are unknown)
(20) Father
(21) Mother
(22) Brothers
(23) Sisters

(30) None

Q17 Postal code of your notary office

_____

Q18 The executor is (select all that apply)

(1) The testator did not designate an executor

(2) Statutory heir

(3) Land administration agent

(4) Attorney

(5) Legatee

(6) Relatives of the testator

(20) Others _____

Q21a Value of the properties disposed of in the will. 30 NTD≒1 USD.

(1) below 200,000 NTD

(2) 200,001–500,000 NTD

(3) 500,001–1,000,000 NTD

(4) 1,000,001–2,000,000 NTD

(5) 2,000,001–5,000,000 NTD

(6) 5,000,001–10,000,000 NTD

(7) 10,000,001–20,000,000 NTD

(8) 20,000,001–30,000,000 NTD

(9) 30,000,001–40,000,000 NTD

(10) 40,000,001–50,000,000 NTD

(11) 50,000,001–60,000,000 NTD

(12) 60,000,001–70,000,000 NTD

(13) 70,000,001–80,000,000 NTD

(14) 80,000,001–90,000,000 NTD

(15) 90,000,001–100,000,000 NTD

(16) 100,000,000–150,000,000 NTD

(17) 150,000,000–200,000,000 NTD

(18) over 200,000,000 NTD

(30) unknown

Q21b The criterion used for calculating the notary fee in this case, if real property is disposed of

(1) Market value

(2) Assessed present value (an official value used to calculate land transaction taxes)

(3) Announced or declared land values (an official value used to calculate property taxes)

(9) Other _____

Q22 Anything else that should be noted (optional)

_____