

**Compassion & planning:
empirical analysis of gender background of a planning tribunal on its
decisions**

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Planning appeal; gender; compassion; probit modelling; development control

ABSTRACT

This is an original and first statistical inquiry into the potential effect of compassion on the pattern of decisions made by a statutory planning appeal board (PAB). As a contribution to the empirical research on development control using disaggregate data, it seeks to statistically evaluate by probit modelling the decision-making factors behind Hong Kong's PAB decisions under the *Town Planning Ordinance* from 1990 to 2018. It found no evidence to support compassion of the PAB members had played any role in shaping their decisions upon planning appeal hearings. Incidentally, it was established that planning appeal decisions were affected by the gender mix of PAB such that the probability of a planning appeal case being dismissed increased with female presence on a PAB panel. This empirical finding deserves further in-depth analysis as this should open up new arrays of research with important policy and practical implications.

1. INTRODUCTION

Using a statistical evaluation of the factors behind Appeal Board decision-making from 1990 to 2018 under the *Town Planning (Amendment) Ordinance* of 1990, this empirical study aims to find out if compassion has influenced the chances of success in planning appeals for the development of houses and workshops in Hong Kong. It is hoped that this project would kindle an interest in the social and sex or gender dimensions of development control based on empirical evidence, apart from enriching the scope of empirical inquiry in development control, traditionally confined to impact on real estate pricing and efficiency, to social and gender dimensions.

The method used is to examine the publicly available written decisions of the panels of Planning Appeal Board (PAB) from 1990 to 2018, to identify decision making criteria and use a probit regression model to test three empirical hypotheses as to what influence compassion may have had on the outcome of the decisions over house and workshop development in that requires planning approval. The three hypotheses are specified and explained in the section Methodology.

This is a positive empirical project¹ that sets out to examine a subject on an aspect of a major well-established research arena known as “development control,” which is an institutionalised means to ensure that the provisions of forward planning are followed. The typical development procedures in common law societies provide a mechanism (say, a planning board) for handling planning applications made by developers and also a quasi-judicial way to hear appeals by a tribunal from parties aggrieved by decisions on planning applications. The research interest in the aspect of planning appeal is predicated on the fact, established by a careful keyword search of research papers on planning, that the usefulness and strength of quantitative analysis has not been appreciated. Most works on development control by planning researchers in the past 20 years were qualitative and value-laden.

The use of statistics mainly occurred in case studies such as Montis’ (2014) study of Europe. Of the few quantitative works done on development control in the past 20 years, most concentrated on planning applications, while few focused on planning appeals. This is amazing, even though public access to data on development controls has

¹ The idea was formalized first in 2016 in a GRF proposal (RGC Ref No. 17603517) “Planning by compassion: a probit analysis of the decision-making variables of the Planning Appeal Board.” The idea and statistical tests here were sharpened, where valid and appropriate, by the comments of 5 reviewers.

improved over the years. Studies of two common law jurisdictions are exceptional in this regard.

One jurisdiction, Hong Kong, is a unique urban area and international financial centre where the prices of property units and land are known to be extremely high by world standards². Therefore, quantitative studies of its development control landscape have useful implications for rising land markets. The published works (for instance, Tang and Choy 2000; Tang et al. 2000; Lai and Ho 2001a, 2001b, 2001c, 2001d, 2002a, 2002b, 2002c; Chau and Lai 2004; Tang et al. 2005; Lai et al. 2008; Lai et al. 2011; Yung 2011; Lai et al. 2016; Yu and Hui 2018) on Hong Kong were mainly the efforts of a handful of researchers from two of Hong Kong's government-funded universities who exploited the non-aggregate planning data of Town Planning Board decisions.

The other common law planning jurisdiction is Melbourne, the capital of the Australian state of Victoria with a far smaller population than Hong Kong and the research works (Taylor 2013, 2014, Taylor et al. 2016) on

² Hong Kong has been ranked as the world's most unaffordable city by Demographia ever since it has been included in the survey in 2010 (<http://www.demographia.com/db-dhi-index.htm>). In 2018, the Median Multiple (Median house price to median household income) for Hong Kong was 20.9 (Demographia, 2019). According to Demographia, a Median Multiple larger than 5.1 is classified as severely unaffordable.

which were written by no more than two scholars. Taylor's 2013 and 2014 papers both examined statistical planning appeals.

The apparent aversion to statistical inquiry in development control as a key link to urban or town planning stands in sharp contrast to jurimetrics, which are quantitative studies of judicial or quasi-judicial decisions initiated by Loevinger (1949, 1963). This school of thought has strongly influenced legal research in Brazil. Therefore, this work, with a test condition gender, would contribute not only to further and better research on planning appeals as a matter of development control – but also, as to be revealed, connect to the research on jurimetrics, in which gender is featured.

2. THEORETICAL CONTEXT

Human beings are, by nature, rational and compassionate (Snow 1991). In social ethics, it is said that “compassion is a virtue we cannot neglect in a world in which the human suffering of so many of our brothers and sisters is needlessly increased by oppression, deprivation and underdevelopment – by poverty, hunger and disease.” (John Paul II 2014: p. 64) It is the antidote to terrorism.

The idea that “compassion is rational” (Nussbaum 1996) is contested (Cannon 2005) in connection with gender issues. This paper does not dwell on this debate, but takes note of medical practitioners who have urged that the treatment of patients be “rational and compassionate” (Gourlay and Heit 2009). The position is that in decision-making that affects human well-being, rationality should not exclude compassion. Rather, the rationality of any decision should be informed by a compassionate understanding of the social contexts of those effected by the outcomes of the decision. This is a commonplace in the practice of medicine.

However, in planning “compassion” has not generally been a formally explicit operational concept. Unlike medical practitioners, planners seldom encounter “compassion” as an operational concept in the layman’s sense. However, Gordon Stephenson used the term “compassionate planning” in a 1994 pamphlet. His focus, as explained well by Alexander and Greive (1997), was the institutional preference for equity in social planning and his notion has been applied to landscape appreciation by Curthoys and Cuthbertson (2002). The connection between this concern for equity and the influence of feminism in planning (see for instance Greed 1996, 2011) is a fertile area for research.

Note that the expression “compassionate planning” has been loosely used in architecture (see for instance Latimmer 2013) and landscape planning (Curthoys and Cuthbertson 2002). Recently, a paper by Lyles et al. (2018) bearing the words, “compassionate planning,” appeared. This term has a long history and can be traced to the pamphlet, *Compassionate Planning*, by Stephenson (1994), as reported by Alexander and Grieve (1997). Such planning was not about “compassion” or “empathy,” as discussed above, but institutionalised social justice (i.e., democratic socialism). The way Lyles et al. (2018) handled “compassionate planning” did not articulate with that of Stephenson (1994), but it attempted to treat compassion as a variable. Yet the work has no statistical application.

Jurists differ over whether the law should or does consider “compassion.” Bandes (2017), who supported compassion, did not define it, but held that:

...compassion’s importance lies in its ability to aid decision-makers in understanding what is at stake for the litigant. In this sense, compassion is closely tied to humility: both are reminders of human fallibility and of the limits of individual understanding (p.184).

Compassion has been considered a part of justice. Cameron’s (2005) work recorded Judge Dickson’s statement that:

...[f]or the rule of law to be just it must reflect compassion,” and that “[f] or a judge to reach decisions which comport with justice and fairness, he or she must be guided by an ever-present awareness and concern for the *plight of others* and the *human condition*... (p.105).

On the other hand, Glass (1997) defined compassion as “feelings” that “call for an 'imaginative dwelling' on the particular circumstances of another.” He argued that since the law requires treatment of all as equals according to general legal principles, compassion should not matter. Fennan (2017: p.137) concluded that compassion “is largely absent from law and, unsurprisingly, law generally not only does not seek to protect against suffering, but can inflict suffering....Yet, some laws in some jurisdictions around the world refer to compassion, either explicitly implicitly.”

In empirical planning inquiry, most studies have concentrated on the rational aspects, while neglecting the element of compassion (or sympathy), although planning boards sometimes have to deal with emotional scenes such as protests by residents and/or property owners. It is safe to assert that compassionate considerations should be and are often taken into account by decision makers in the cases of the poor and socially underprivileged (many of whom are women in traditional

societies). Similarly, in decision-making where the interests of some or all of the general public are at stake, it is believed by many (stereotyping), often by feminists themselves, that female decision makers are more compassionate (McCormick and Job 1993, Cousineau and Roth 2012).

More particularly as far as this enquiry is concerned, whether or not the wealth or social status of a planning applicant/appellant and the gender of a decision maker have a bearing on a planning decision is an interesting theoretical and policy concern. It is held that while compassion has a passion or an emotional dimension, its manifestation and effects should be observable and can therefore be evaluated in development control as it is part of a rational quasi-judicial process. Written decisions of a development control authority in the public domain are accordingly the source of information in this inquiry.

3. INSTITUTIONAL BACKGROUND

Obtaining planning approvals by the Town Planning Board (TPB) under the *Town Planning Ordinance* is an important link in the development control system in Hong Kong (Lai, Ho and Leung 2017). This system has been cryptically described as “planning by demand” (Bristow 1981) stressing its responsiveness to the development market; “planning by edict” which overrides “planning by contract” based on the leasehold

land system, thus attenuating private property (Lai 1998a, 2005, 2010). The statutory planning system as such has been characterised as a “black box” (Tang and Choy 2000), and it has been noted that decision time in arriving at a planning decision by the TPB has been observed to be extremely short: a matter of minutes (Lai et al. 2009).

A study (Lai et al. 2016) has found the system being manipulated by large developers by repeated applications, which marginally varied approved schemes for major development projects. The extant analysis has focused on the rationality of the planning practice (for instance Friedmann 1995, Alexander 2016). Few have paid attention to small developers or small development schemes from the stance of compassion for applicants as revealed by their social conditions (which we may call “proxies for compassion”), though researchers have found preference for small-scale housing (Lai and Ho 2001a).

“Planning without compassion” is an attempt to explore this under-researched area in statutory planning control as a social or communicative reality (for instance Fischler 1995, Innes 1995) as supervised by a tribunal that hears appeals against the TPB.

In Hong Kong, an applicant for a planning application aggrieved by the decision of the TPB under s.16 of the *Town Planning Ordinance* has a statutory right to a review under s.17 (a) before the same Board. If s/he is still aggrieved, s/he is entitled to make a statutory appeal to an Appeal Board under s.17B (Planning Appeal Board (PAB)) (Lai, Ho, and Leung 2017). The PAB may allow an appeal (i.e., it approves the planning application, overriding TPB's original decision), dismiss it (i.e., it rejects the planning application), or remit the appeal to the TPB the respondent in the appeal. All decisions of the PAB are public documents, though the hearing is not open. In case an appellant or the respondent was aggrieved by the appeal decision, either may take the PAB to court by way of judicial appeal to the High Court (now the Court of First Instance). Most judicial reviews have been applied by appellants though in an application by a major local developer Henderson, the judicial reviews initiated by the TPB went all the way up to the Privy Council before 1997 and the Court of Final Appeal afterwards.

The TPB was established in 1939 and its present system of application and review has been in place since 1976. The PAB was introduced in 1990 to replace direct recourse to the High Court by way of judicial review. The decisions of the TPB and PAB are open to the public and can be accessed electronically using the website of the Hong Kong Special

Administrative Region Government. While the TPB's decisions have attracted a lot of empirical research (Chau and Lai 2004; Lai and Ho 2001a, 2001b, 2001c, 2001d, 2002a, 2002b, 2002c, 2003; Tang and Choy 2000; Tang, Choy and Wat 2000; Tang, Wong and Lee 2005), there has yet to be a rigorous statistical analysis of appeal decisions (Lai 1998b, 1999, 2003). Given that over 28 years have passed since the PAB was instituted, this study is timely.

Note that unlike a deliberation by TPB members over a planning application, which may only take a few minutes, an appeal board hearing is like a court proceeding and members of the Appeal Panel often discuss at length evidence and submissions before the chairperson, who tends to be a senior counsel (Queen's Counsel before 1 July 1997) and produces a draft of the judgements for members' comments and agreement (if any). Dissenting opinions of Appeal Board members are not unknown. Thus, an in-depth study of the Appeal Board's decisions may reveal more than any by the average researcher on those of the TPB.

This study seeks to determine the decision-making factors behind the Appeal Board under the Town Planning Ordinance (Planning Appeal Board) from 1990 to 2016, identify decision-making criteria, and use a probit regression model to test if the proxies for compassion have

influenced the outcomes of the decisions for housing and small workshop developments in some zones. Three hypotheses were tested.

Housing and workshop is a common “Column 2 use” (i.e., one that needs planning approval unless it is an existing use) for some specific zones. For housing developments, neither the size of a house nor its location has a minimum or maximum ceiling, while both aforementioned zones are generally not for major urban development. When the house applied for is a “small house” under the sexually discriminatory New Territories Exempted House policy, only an adult male villager of a recognised indigenous village (Lai 2000; Lai and Lorne 2014) may apply. However, this policy does not prohibit a woman from being an applicant in the shoes of her husband should he be unable to look after himself, or from representing or accompanying the male applicant in an appeal. Similar consideration could also be applied small workshops which are normally the source of income for ordinary individuals or small businesses. It is not unreasonable to assume that they can also be attached to some small scale housing developments.

It should be noted that the data used in this study are in the public domain and electronically accessible by anyone.

Many researchers such as Chau and Lai (2004); Lai and Ho (2001a, 2001b, 2001c, 2001d, 2002a, 2002b, 2002c, 2003); Tang and Choy (2000); Tang, Choy, and Wat (2000); Lai et al. (2008; 2016), in a research context mentioned in section 1, have made much use of probit/logit analysis of non-aggregate planning statistics. Yet, no prior attempt has been made to apply the method to planning appeals, although non-statistical studies on planning appeals decisions can be found in Lai (1998b, 1999, 2003), while Lai, Ho, and Leung (2011) have focused on town planning in Hong Kong.

The objectives of our statistical test are to find out, *ceteris paribus*, whether:

- (a) the PAB panel members were more sympathetic towards poorer appellants or
- (b) the PAB panel members were more sympathetic towards female, rather than male, appellants who applied for housing developments.

4. HYPOTHESES AND RESEARCH DESIGN

In this study, “compassion” is postulated to be related to the PAB members favouring appellants who were: (a) more disadvantaged in terms of financial capability and (b) female, rather than male, appellants who applied for housing developments.

Both attributes were predicated on the assumption that a compassionate person is more likely to grant preferential appeal decisions to apparently more disadvantaged appellants. Since Attribute (a) is not directly observable, the authors used the scale of the development measured in terms of built area or gross floor area (GFA) of the proposed development as a proxy. In addition, since wealthier appellants can afford to hire professional representatives (planning consultants and/or legal representatives), the authors also used company appellants as a proxy for the financial ability of the appellants. PAB members were considered compassionate in their decisions if they were more likely to decide in favour of smaller-scale projects or appellants who were not represented by consulting firms or lawyers, other things being equal. The basis of using smallness as a proxy for compassion is that there is “widespread sympathy for small firms”, according to Tendler (2004) has been a general government policy (in the UK) and small business projects are given special support by the US Government under the Small Business Administration (SBA).

Since female indigenous villagers have been discriminated against in the New Territories under the so-called “small house policy” (Lai 2000), which provides that only *male adult descendants* of recognised indigenous village clans in the New Territories have the right to apply to build small houses (“ting uks”) on private (or, in some special cases, government land) unless a woman is approved by her village head under special circumstances. Furthermore, sociologists found that “women are typically rated more favorably than men on helpfulness, as well as on kindness, compassion, and the ability to devote one's efforts completely to other” (Beutel and Marini 1995: p.437). Therefore, compassionate PAB members should be more sympathetic towards female appellants who apply for housing developments.

Besides these two appellant attributes that might have affected the PAB's decisions, the authors also needed to control for: (1) the complexity of the case and (2) female members in the PAB.

Since the decisions being studied are planning appeals, many factors had already been considered by the TPB as the respondent. Unless the TPB made obvious mistakes, which was unlikely, simple and straight cases were easily dismissed by the PAB. The authors proxied the complexity

of a case by the time the PAB needed to make a decision, which is the duration between: (a) the date of the first hearing and (b) the date on which panel chairpersons and members signed the decision. (This is called the “decision duration”.) The authors expected that the probability of a successful appeal being positively correlated *negatively* with decision duration, although the relationship may not be linear.

Of the 57 relevant individual planning appeal decisions, 38 panels (>50%) had female members. *A textual analysis* of the decisions made by those *panels with female members* was conducted and found that seven expressed a degree of understanding or at least some concern over the fact that the appellants in four of the appeals were female. Such understanding or concern was expressed with words such as “sympathetic” (Appeal No.16/95), “hardship” (No.26/95), “unfortunate” (No.4/97) (female appellant), “(there is no) humanitarian reasons” (No.10/03) (female appellant), “full appreciation” (No.24/05) (female appellant), “appreciation for the appellant's request” (No.01/09) (female appellant), and “the Appeal Board has also taken note of those letters of recommendation issued by the Heung Yee Kuk” (Nos.09 and 10/2014). Therefore, it is possible that appeal decisions may be affected by female representation in the PAB. This potential factor needs to be controlled in any empirical analysis.

Following the modelling approach in previous studies on planning decisions (such as those by Butsic, Lewis and Ludwig 2011; Chau and Lai 2004; Ferris and Newburn 2013; Lai and Ho 2001a, 2001b, 2001c, 2001d, 2002a, 2002b, 2002c, 2003; Tang and Choy 2000; Tang, Choy and Wat 2000; Tang, Wong and Lee 2005), the authors estimated a probit model using planning appeal cases in Hong Kong to test the following hypotheses:

Hypothesis 1: Planning appeals cases involving smaller-scaled development, either measured by gross floor area (GFA) or site area (SA), were more likely to be successful, other things being equal.

Hypothesis 2: The PAB was more likely to dismiss cases in which consulting firms were hired to represent the appellant, other things being equal.

Hypothesis 3: Female appellants who applied for housing developments were more likely to be successful in planning appeals, other things being equal.

Model specification

The authors modeled the planning appeal outcome using a dichotomous dependent variable, *OUTCOME*, which equaled 1 if the appeal was successful and zero if otherwise. They assumed that the probability of success $P(\text{OUTCOME}=1)$, *Prob*, is a function of a number of factors X_i , such that:

$$p(x_{\alpha 1}, x_{\alpha 2}, \dots, x_{\alpha j}) = \mathbf{F}(\beta_0 + \beta_1 x_{\alpha 1} + \dots + \beta_j x_{\alpha j}) = \frac{1}{\sqrt{2\pi}} \int_{-\infty}^{\beta_0 + \beta_1 x_{\alpha 1} + \dots + \beta_j x_{\alpha j}} \exp\left(\frac{-t^2}{2}\right) dt \quad (1)$$

or equivalently:

$$\mathbf{Prob} = \beta_0 + \beta_1 x_{\alpha 1} + \dots + \beta_j x_{\alpha j} \quad (2)$$

Where $\mathbf{Prob} = \mathbf{F}^{-1} [p(x_{\alpha 1}, x_{\alpha 2}, \dots, x_{\alpha j})]$

Based on the above analysis, the authors estimated the following empirical model with planning appeal case data from Hong Kong:

$$\mathbf{Prob} = \beta_0 + \beta_1 \text{SCALE} + \beta_1 \text{COM} + \beta_1 \text{FeA} + \beta_1 \text{FeBM} + \beta_1 \text{FeBC} + \beta_1 \text{DD} + \beta_1 \text{DD}^2 + \beta_1 \text{HOUSE} + \varepsilon \quad (3)$$

Where:

Prob is the probability that the appeal case was successful and 0 if otherwise.

SCALE is the scale of the development, which was measured either by the GFA or SA.

COM is a dummy variable that equaled 1 if the appellant was represented by a consulting company and zero if otherwise.

FeA is a dummy variable that equaled 1 if the appellant was a woman who applied for a housing development and zero if otherwise.

FeBM is the number of female appeal board members.

FeBC is a dummy variable that equaled 1 if the chairperson of the Appeal Board was a woman and zero if otherwise.

DD is the decision duration, which is the number of days between a hearing and the decision date on an appeal case.

HOUSE is a dummy variable that equaled 1 if the appeal case involved building residential units and zero if otherwise

The authors included the squared term of ***DD*** to cater for the possibility of a non-linear relationship. Similarly, ***HOUSE*** was included to control for the possibility that the probability of success was related to whether the

development involved building residential units. The expected signs of the coefficients are shown in **Table 1**.

Table 1: Expected signs of coefficients

| Coefficients | Expected Sign | Remark |
|-----------------------|----------------------|------------------|
| <i>SCALE</i> | -ve | Hypothesis 1 |
| <i>COM</i> | -ve | Hypothesis 2 |
| <i>FeA</i> | +ve | Hypothesis 3 |
| <i>FeBM</i> | +ve | Control variable |
| <i>FeBC</i> | +ve | Control variable |
| <i>DD</i> | +ve | Control variable |
| <i>DD²</i> | ? | Control variable |
| <i>HOUSE</i> | ? | Control variable |

Data Collection

This section discusses the disaggregate data utilized to develop an econometric model of planning applications in Hong Kong.

Data used in the empirical estimation was extracted from the disaggregate data for all planning appeal hearings for application in Green Belt and Agriculture zones for the years 1990-2018 collected from the website of the Appeal Board. These planning records cover the

characteristics of planning appeal applications, such as locations, gross SA, existing GFA, proposed GFA, lot number, the dates of application and meeting, etc.

Specifically, our data set will include the followings:

- (a) The number of appeals involving house and workshop applications in all relevant zones by year from 1990 to 2018.
- (b) The incidence of appeals allowed involving house and workshop applications in Green Belt zones by year from 1990 to 2018.
- (c) The number of female Appeal Board panel members in the appeals allowed/dismissed.
- (d) The number of appeals involving house and workshop applications in Green Belt and Agriculture zones (vis-à-vis other zones) by year from 1990 to 2018.
- (e) The incidence of appeals allowed involving house applications in Green Belt and Agriculture zones (vis-à-vis other zones) by year from 1990 to 2018.
- (f) The number of female representatives of the appellants in the appeals allowed/dismissed in Green Belt and Agriculture zones (vis-à-vis other zones).

5. EMPIRICAL RESULTS AND INTERPRETATION

The empirical results are presented in **Table 2**. Column 1 and 2 show that results of the full sample.

Table 2: Empirical results of probit regression

| | Col1 | Col2 | Col3 | Col4 |
|-----------------------|------------------------|------------------------|------------------------|------------------------|
| <i>Constant</i> | -3.7267 ** (1.5480) | -3.5667 ** (1.3994) | -3.6336 ** (1.5513) | -3.4948 ** (1.4060) |
| <i>GFA</i> | 0.1219 (0.1825) | | 0.1133 (0.1816) | |
| <i>SA</i> | | 0.0427 (0.1476) | | 0.0418 (0.1464) |
| <i>COM</i> | -0.0552 (0.8096) | -0.1864 (0.9291) | -0.1295 (0.8195) | -0.2755 (0.9391) |
| <i>FeA</i> | 1.7634 * (1.0589) | 1.6771 (1.0414) | 1.7161 (1.0847) | 1.6377 (1.0733) |
| <i>FeBM</i> | -0.7536 ** (0.3651) | -0.7374 ** (0.3585) | -0.6678 * (0.3862) | -0.6383 * (0.3783) |
| <i>DD</i> | 2.6243 ** (1.2045) | 2.5434 ** (1.1336) | 2.5099 ** (1.2300) | 2.4293 ** (1.1560) |
| <i>DD²</i> | -0.4008 ** (0.1996) | -0.3818 ** (0.1847) | -0.3745 ** (0.2076) | -0.3539 * (0.1916) |
| <i>HOUSE</i> | -0.363 (0.7189) | -0.4001 (0.7062) | -0.3948 (0.7234) | -0.4289 (0.7094) |

| | | | | |
|----------------------------|-------|-------|-------|-------|
| <i>No. of observations</i> | 56 | 55 | 51 | 50 |
| <i>McFadden R-squared</i> | 0.273 | 0.276 | 0.259 | 0.265 |

* Significant at the 10 % level, ** Significant at the 5 % level

The effect of the size of a development on its planning appeal success is statistically insignificant. When it comes to appeals, unlike planning reviews, small is not necessarily beautiful as it did not win more compassion. The authors tested both the floor area that would be built (GFA) (Col 1 in **Table 2**) and the area of the land on which the building (SA) (Col 2 in **Table 2**) stood. Both factors were found to have no effect on the probability of planning appeal success. This suggests that the scale of development, unlike the case of planning applications under s.16 (Lai and Ho 2001a), had no effect on the probability of success in planning appeals under s.17B. Therefore, the empirical evidence does not support Hypothesis 1.

The same applied to a case with an appellant represented by a professional consultant (COM in **Table 2**) (Hypothesis 2). The coefficient of COM is insignificant, indicating there was no significant difference in the chance of appeal success whether or not the appellant hires a

professional consultant to represent him/her. The result suggests that the PAB did not discriminate against richer appellants nor did they show more sympathy towards appellants who could not afford to hire professional consultants. This result does not support Hypothesis 2.

The coefficient of FeA (female appellant apply for house development) is positive and significant at the 10% level when scale of the project is measured by GFA but becomes insignificant when SA was used as a measure of scale. The *slightly higher* chance of success for a female appellant shows some support for hypothesis 3. However, the evidence is too weak to conclude that the PAB was more sympathetic towards a female appellant who applied to TPB for house development.

When we included FeBC (female PAB chair) as a control variable, no conclusive result could be estimated. Further examination of the data reveals that all appeal cases were rejected whenever a PAB panel was chaired by a lady, thus FeBC *is perfectly collinear with the probability of planning appeal success*. Since there are not many cases with female PAB chairpersons, we excluded these cases and re-estimated the probit model again. The results are shown in Col 3 and Col 4 of **Table 2**. The results are similar to those of the full sample – there is no evidence to support either Hypothesis 1 or 2. The coefficient of FeA is also

insignificant implying that the PAB panels did not show compassion toward female appellants as covered by Hypothesis 3. In other words, we can confidently conclude that the empirical results do not support Hypothesis 1 or 2 and only lend some weak support for Hypothesis 3.

From the above results, one can argue that there was no statistical evidence of readiness to rule in favour of an appeal on the grounds of compassion due to the relatively smaller size or lower wealth of the appellant. It did not matter whether the lot size was large or small. Nor was the size or number of houses applied for significant in influencing an appeal decision.

It is worth noting that “house” use under appeal in most cases In Hong Kong, specifically in the places where the appeal cases were situated, were New Territories Exempted Houses (NTEH) or the so-called “small houses” (Lai 2000), which were of standard size and height. Normally, an eligible applicant is a male descendent of villagers in a “recognised village” who has reached 18 and has not built one small house can only build on private land within a “village environ,” (within 300 feet perimeter measured from the outmost corners of the outermost houses of the village as in 1972). In this case there is no government gift of land or infrastructural support (notably sewerage). In an unusual case, he

may build on free government land and enjoy a subsidy in kind, but this subsidy would disappear once the applicant sells the house, as he would then have to pay a premium. In either case, there is sexual discrimination against female villagers.

Furthermore, there is little evidence to suggest that it being of the female sex in a male-dominated planning appeal system gave the appellant any advantage in winning an appeal; female appellants were found in this study treated equally as male appellants. In the 37 appeal cases in which there was at least a woman appellant, there was no statistical evidence that the presence of a woman on the Appeal Board panel gave the appellant any advantage over the TPB.

Of the 57 appeal cases, 42 had at least one woman serving as a member, if not the chair, of the Appeal Board panel. This somehow evened out most cases and prevented one from concluding that women in such a position were more compassionate in making decisions on planning matters.

The control variable DD, which measures decision duration, was found positive and significant as expected. The coefficient of DD^2 is negative and significant, indicating that the relationship was not linear. The

positive impact of DD on the probability of planning appeal success diminished as this variable increased.

Contrary to intuition based on our preliminary textual analysis of the appeal decisions, which used more sympathetic words where there was one or more female PAB members, the coefficient of FeBM was found to be both *negative and significant*, meaning that the probability of planning appeal success decreased as the number of female PAB member increased. This result, to our surprise, is not consistent with the use of more sympathetic words in appeal decisions when there was at least one female PAB member but consistent with the observation that all appeals were dismissed when the PAB was chaired by a woman. *The empirical results provides strong evidence that the gender mix of PAB did affect the outcome of the planning appeal decision in a way that contradicts intuition.* It is noteworthy the results in this study lend support to the empirical findings about US federal appellate court decisions involving female judges (Peresie 2004). That gender mix of the PAB affected planning appeal decisions is something that deserves more attention. More empirical research is needed to validate the results and, if validated, further scientific studies in search of a plausible theoretical explanation are worth doing.

6. CONCLUSION

This paper is the first statistical attempt to examine the influence of compassion on decisions made by tribunals regarding the granting of development permissions. The numerical findings, which used publicly available data extracted from Hong Kong planning appeal decisions and focused on the proxies of compassion based on the gender and wealth of the applicants, did not establish a strong presence of these factors, as Eisenberg et al. (2012) discovered. Eisenberg et al. (2012) was a study that found that in Israel Supreme Court, the female justice coefficients were “consistently jointly statistically significant” in affecting decisions. Wei and Xiong (2019) found no such effect for People’s Republic of Chinese district courts in 2 provinces on ground that the courts allowed no discretion.

Whether the notion of a gender-neutral “public interest” paradigm (Sandercock and Kliger 1998) still applied to Hong Kong’s planning appeal system remains to be examined pending the availability of further and better publicly available data.

Suffice it to say that a textual analysis of the decisions involved pointed to the significant “personal” factors in affecting decisions – notably the *gender of the chairperson* in a tribunal. These observations on decisions

on *morally or ethically neutral land use matters*, should contribute to research on jurimetrics, which has been largely driven by *morally or ethical sensitive issues*, as the decision-making process of the appeal panels as tribunals is quasi-judicial. Jurimetrics have generally focused on: (a) factors that affect the gender-specific empathy (as a dimension of compassion) of judges (as in the study of Glynn and Sen 2015) or (b) whether gender affects judicial or jury decisions (McCormick and Job 1993, Songer and Crews-Meyer 2000, Knight and Latreille 2001, Peresie 2005, Miller and Maier 2008, Chew 2010, Eisenberg et al. 2012, Weinberg and Nielsen 2012, Negowetti 2014, Lim et al. 2016, Grönlund et al. 2017, Harris and Sen 2019, Wei and Xiong 2019). This paper falls within the general ambit of decision making science that underlies (b).

This work should advance our understanding of development control in a common law jurisdiction where land prices are known to be extremely high by world standards. It is hoped that this work will kindle greater interest in quantitative analysis of decision making in development control, if not serving as a bridgehead for empirical planning studies that cross over to gender studies.

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REFERENCES

1. Alexander, E.R. (2016), "There is No Planning: Only Planning Practices: Notes for Spatial Planning Theories," Planning Theory, Vol.15, No.1, pp.91-103.
2. Alexander, I., and Greive, S. (1997), "Modernist Town Planning and Metropolitan Planning: Reflections from Gordon Stephenson," Urban Policy and Research, Vol.15, No.3, pp.225-233.
3. Bandes, S. A. (2017), "Compassion and the Rule of Law," International Journal of Law in Context, Vol. 13. No. 2, pp. 184-196.
4. Beutel, A. M., and Marini, M. M. (1995), "Gender and Values," American Sociological Review, Vol. 60, no.3, pp. 436-448.
5. Bristow, R.M. (1981), "Planning by Demand: A Possible Hypothesis about Town Planning in Hong Kong." Hong Kong Journal of Public Administration, Vol.3, No.2, pp.199-223.
6. Butsic, V., Lewis, D.J., and Ludwig, L. (2011), "An Econometric Analysis of Land Development with Endogenous Zoning," Land Economics, Vol.87, No.3, pp.412-432.

7. Cameron, J. (2005), Review on Brian Dickson's A Judge's Journey by Robert J. Sharpe, Kent Roach, University of Toronto Law Journal, Vol. 55, No. 1, pp. 93-127
8. Cannon, L. (2005), "A Rebuttal of Nussbaum," Feminist Interventions in Ethics and Politics: Feminist Ethics and Social Theory, in Andrew, B.S.,
9. Chau, K.W. and Lai, L.W.C. (2004), "Planned Conversion of Rural Land: a Case Study of Planning Applications for Housing and Open Storage Uses in Agriculture Zones," Environment and Planning B: Planning and Design, Vol.31, No.6, pp.863-878.
10. Chew, P. K. (2010), "Judges' Gender and Employment Discrimination Cases: Emerging Evidence-Based Empirical Conclusions," Journal of Gender Race and Justice, Vol. 14, 359-374.
11. Cousineau, L., & Roth, J. (2012), "Pervasive Patriarchal Leadership Ideology in Seasonal Residential Summer Camp Staff," Leadership, Vol. 8, No.4, pp. 421-440.
12. Curthoys, L.P., and Cuthbertson, B. (2002), "Listening to the Landscape: Interpretive Planning for Ecological Literacy," Canadian Journal of Environmental Education, Vol.7, No.2, pp.224-240.
13. Demographia (2019), 15th Annual Demographia International Housing Affordability Survey.
<http://www.demographia.com/dhi.pdf>

14. De Montis, A. (2014), "Impacts of the European Landscape Convention on National Planning Systems: A Comparative Investigation of Six Case Studies," Landscape and Urban Planning, Vol. 124, pp. 53-65.
15. Eisenberg, T., Fisher, T., and Rosen-Zvi, I. (2012), "Does the Judge Matter? Exploiting Random Assignment on a Court of Last Resort to Assess Judge and Case Selection Effects," Journal of Empirical Legal Studies, Vol. 9, No.2, pp. 246-290.
16. Feenan, D. (2017), "Law and Compassion," International Journal of Law in Context, Vol. 13, No.2, pp.121-142.
17. Ferris, J., and Newburn, D. (2013), "Does Zoning Cause Sprawl?" In 2013 Annual Meeting, August 4-6, 2013, Washington, DC (No.150252). Agricultural and Applied Economics Association.
18. Friedmann, J. (1995), "Teaching Planning Theory," Journal of Planning Education and Research, Vol.14, pp.156-162.
19. Fischler, R. (1995), "Planning Theory as Culture and Experience," Journal of Planning Education and Research, Vol.14, pp.173-178.
20. Glass, A. (1997), "The Compassionate Decision-Maker," Law Text Culture, 3, 162-175.
21. Glynn, A., & Sen, M. (2015), "Identifying Judicial Empathy: Does Having Daughters Cause Judges to Rule for Women's Issues?" American Journal of Political Science, Vol. 59, No. 1, pp. 37-54.

22. Goodstadt, L. (2006), "Government without Statistics: Policy-making in Hong Kong 1925-85, with Special Reference to Economic and Financial Management." IDEAS Working Paper Series from RePEc, 2006.
23. Griffith, R., & Harmgart, H. (2012), "Supermarkets Competition in England and Planning Regulation," International Review of Retail, Distribution and Consumer Research, Vol. 22, No.1, pp 1-25.
24. Gourlay, D.L., and Heit, H.A. (2009), "Universal Precautions Revisited: Managing the Inherited Pain Patient." Pain Medicine, 10.S2: S115-S123.
25. Greed, C. (1996), Introducing Town Planning, 2nd ed., Harlow, Addison Wesley, Chapter 12.
26. Greed, C. (2011), "A Feminist Critique of the Post-secular City: God and Gender," In Justin Beaumont, Christopher Baker (eds.) Post-Secular Cities: Space, Theory and Practice, London, Continuum, pp.104-119.
27. Grönlund, K., Herne, K. and Setälä, M. (2017), "Empathy in a Citizen Deliberation Experiment," Scandinavian Political Studies, Vol. 40, No. 4, pp. 457-480.
28. Harris, A. P., and Sen, M. (2019), "Bias and Judging," Annual Review of Political Science, Vol. 22, pp. 241-259.

29. Innes, J.E. (1995), "Planning Theory's Emerging Paradigm: Communicative Action and Interactive Practice," Journal of Planning Education and Research, Vol.14, pp.183-189.
30. John Paul II (2014), Be Not Afraid, Boston, Pauline Books and Media.
31. Keller, J., and Schwartzman, L.H. (2005 eds.), Feminist Interventions in Ethics and Politics: Feminist Ethics and Social Theory, Rowman and Littlefield Publishers, pp.97-110.
32. Knight, K. G., and Latreille, P. L. (2001), "Gender Effects in British Unfair Dismissal Tribunal Hearings," Industrial and Labor Relations Review, Vol. 54, No. 4, pp. 816-834.
33. Lai, L.W.C. (1998a), "The Leasehold System as a Means of Planning by Contract: the Hong Kong Case," Town Planning Review, Vol.69, No.3, 1998, pp.245-271.
34. Lai, L.W.C. (1998b), "Hong Kong Planning Appeal Rules: A Synoptic Account," Planning and Development, 1998, Vol.14, No.2, pp.38-60.
35. Lai, L.W.C. (1999), Town Planning in Hong Kong: a Review of Planning Appeal Decisions. Hong Kong: Hong Kong University Press.
36. Lai, L.W.C. (2000), "Housing 'Indigenous Villagers' in a Modern Society: an Examination of the Hong Kong 'Small House' Policy," Third World Planning Review, Vol.22, No.2 (May), pp.207-230.

37. Lai, L.W.C. (2003), Town Planning in Hong Kong: a Review of Planning Appeal Decisions 1997-2001. Hong Kong: Hong Kong University Press.
38. Lai, L.W.C. (2005), "Planning by Contract in Hong Kong: the Leasehold Foundation of a Comprehensively Planned Capitalist Land Market," Economic Affairs, Vol.25, No.4 (December), pp.16-18.
39. Lai, L.W.C. (2010), "A Model of Planning by Contract: Integrating Comprehensive State Planning, Freedom of Contract, Public Participation, and Fidelity," Town Planning Review, Vol.81, No.6, pp.647-673.
40. Lai, L.W.C. and Chan, P.Y.L. (2004), "The Formation of Owners' Corporations in Hong Kong's Private Housing Estates: a Probit Analysis of Mancur Olson's Group Theory," Property Management, Vol.22, No.1, pp.55-68.
41. Lai, L.W.C. and Ho, W.K.O. (2001a), "Small is Beautiful: a Probit Analysis of Planning Applications for Small Houses in Hong Kong," Environment and Planning B: Planning and Design, Vol.28, No.4 (2001), pp.611-622.
42. Lai, L.W.C. and Ho, W.K.O. (2001b), "A Probit Analysis of Development Control: a Hong Kong Case Study on Residential Zones," Urban Studies, Vol.38, No.13 (December), pp.2425-2437.

43. Lai, L.W.C. and Ho, W.K.O. (2001c), "Zone Separation: A Probit Analysis of Hong Kong Planning Application Statistics," Environment and Planning B: Planning and Design, Vol.28, No.6, pp.923-932.
44. Lai, L.W.C. and Ho, W.K.O (2001d), "Low-Rise Residential Developments in Green Belts: A Hong Kong Empirical Study of Planning Applications," Planning Practice and Research, Vol.16, Nos.3/4, pp.321-335.
45. Lai, L.W.C. and Ho, W.K.O. (2002a), "Planning for Open Storage of Containers in a Major International Container Trade Centre: a Quantitative Analysis of Hong Kong Development Control Statistics," Environment and Planning B: Planning and Design, Vol.29, No.4, pp.571-587.
46. Lai, L.W.C. and Ho, W.K.O. (2002b), "An Econometric Study of the Decisions of a Town Planning Authority: Complementary and Substitute Uses of Industrial Activities in Hong Kong," Managerial and Decision Economics, Vol.23, No.3, pp.121-135.
47. Lai, L.W.C. and Ho, W.K.O. (2002c), "Using Probit Models in Planning Theory: an Illustration," Planning Theory, Vol.1, No.2, pp.146-162.
48. Lai, L.W.C. and Ho, W.K.O. (2003), "Modeling Development Control of Residential Development: A Probit Analysis of Rent Seeking and Policy Autonomy in Town Planning in Hong Kong in Columbus, Frank ed. Politics and Economics of Asia, Vol.7, Asian Economic and

- Political Issues Vol.9, Nova Science Publishers (ISBN: 1-59033-764-6), 2003, Ch.4, pp.155-176.
49. Lai, L.W.C. and Lorne, F.T. (2014), "Ambiguous Property Rights: a Taxonomic and an Exploratory Account of Post-Colonial Rural Housing in Chinese Hong Kong," Urban Studies, Vol.51, No.10 (August), pp.2052-2067.
50. Lai, L.W.C., Ho, D.C.W., Leung, H.F. (2017), Change in Use of Land: a Practical Guide to Development in Hong Kong. 3rd Edition, Hong Kong: Hong Kong University Press.
51. Lai, L.W.C., Wong, S.K., Ho, E.C.K. and Chau, K.W. (2008), "Time is of the Essence? An Empirical Application of the Corollary of the Coase Theorem," Review of Urban and Regional Development Studies, Vol.20, No.1, pp.34-51.
52. Lai, L.W.C., Lam, G. C., Chau, K.W., Hung, C.W.Y., Wong, S.K. and Li, R.Y.M. (2009), "Statutory Zoning and the Environment: a Hong Kong Empirical Analysis of the Direct Effect of Zoning on the Environment and the Potential Contribution of Planning Conditions to Sustainable Development," Property Management, Vol.27, No.4, pp.242-266.
53. Lai, L.W.C., Wong, S.K. and Chau, K.W. (2011), "Are Engineering Reasons Zoning Neutral? An Empirical Inquiry into Development Proposals in Green Belts and Agriculture Zones," Environment and Planning B: Planning and Design, Vol. 38, No. 2, pp.

54. Lai, L.W.C., Ho, D.C.W., Chau, K.W., Chua, M.H., and Yu, R.K.K. (2016), "Repeated Planning Applications by Developers under Statutory Zoning: a Technical Note on Delays in Private Residential Development Process," Land Use Policy, Vol.57, pp.709-718.
55. Lattimer, C J. "The Architecture of Spies." July 9, 2013. <https://www.e-ir.info/2013/07/09/the-architecture-of-spies/>
56. Leshinsky, R. (2016), "Social Impact Assessment: Strategic Litigation Tool for Planning Law Decision-Makers," in R. Leshinsky and C. Legacy (eds.) Instruments of Planning: Tensions and Challenges for More Equitable and Sustainable Cities, Routledge, New York, United States, pp. 92-104.
57. Lim, C. S., Silveira, B. S., and Snyder, J. M. (2016), "Do Judges' Characteristics Matter? Ethnicity, Gender, and Partisanship in Texas State Trial Courts," American Law and Economics Review, Vol. 18, No. 2, pp. 302-357.
58. Loevinger, L. (1949), "Jurimetrics-The Next Step Forward," Minnesota Law Review, Vol.33, pp.405-408.
59. Loevinger, L. (1963), "Jurimetrics: The Methodology of Legal Inquiry," Law and Contemporary Problems, Vol. 28, pp. 5-35.
60. Lyles, W., White, S. S., & Lavelle, B. D. (2018), "The prospect of compassionate planning." Journal of Planning Literature, Vol.33, No.3, 247-266.

61. McCormick, P., & Job, T. (1993), "Do Women Judges Make a Difference? An Analysis by Appeal Court Data," Canadian Journal of Law & Society/La Revue Canadienne Droit et Société, Vol. 8, No. 1, pp. 135-148.
62. Miller, S., & Maier, S. (2008), "Moving beyond Numbers: What Female Judges Say about Different Judicial Voices. Journal of Women," Politics & Policy, Vol. 29, No. 4, pp. 527-559.
63. Murray, M., Houston, D., Keaveney, K., McKay, S. and Murtagh, B. (2009), "Regulatory Planning for Economic Development in the Countryside," Town Planning Review, Vol. 80, No. 2, pp. 201-226.
64. Negowetti, N. E. (2014), "Judicial Decisionmaking, Empathy, and Limits of Perception." Akron Law Review, Vol. 47, pp. 693-1071.
65. Nussbaum, M. (1996) "Compassion: The Basic Social Emotion." Social Philosophy and Policy, Vol.13, pp.27-58.
66. Peresie, J. L. (2004), "Female Judges Matter: Gender and Collegial Decisionmaking in the Federal Appellate Courts," Yale Law Journal, Vol. 114, No. 7, pp. 1759-1790.
67. Sandercock, L., and Kliger, B. (1998), "Multiculturalism and the Planning System: Part Two," Australian Planner, Vol. 35, No 4, pp. 223-227.
68. Snow, N.E. (1991), "Compassion," American Philosophical Quarterly, Vol.28, pp.195-205.

69. Songer, D. R., and Crews-Meyer, K. A. (2000), "Does Judge Gender Matter? Decision Making in State Supreme Courts," Social Science Quarterly, Vol. 81, No.3, pp. 750-762.
70. Stephenson, G. (1994), Compassionate Town Planning. Liverpool University Press.
71. Tang Bo-sin and Choy, Lennon Hung-Tat (2000), "Modelling Planning Control Decisions: a Logistic Regression Analysis on Office Development Applications in Urban Kowloon, Hong Kong," Cities, Vol.17, No.3, pp.219-225.
72. Tang, B., Choy, L.H.T. and Wat, J.K.F. (2000), "Certainty and Discretion in Planning Control: a Case Study of Office Decentralisation," Urban Studies, Vol.37, No.13, pp.2465-2493.
73. Tang, B T., Wong, S.W., and Lee, A.K.W. (2005), "Green Belt, Countryside Conservation and Local Politics: a Hong Kong Case Study," Review of Urban and Regional Development Studies, Vol.17, No.3, pp.230-247.
74. Taylor, E. J. (2013), "Do House Values Influence Resistance to Development? A Spatial Analysis of Planning Objection and Appeals in Melbourne," Urban Policy and Research, Vol. 31, No. 1, pp. 5-26.
75. Taylor, E. J. (2014), "Fight the Towers! Or Kiss Your Car Park Goodbye": How Often Do Residents Assert Car Parking Rights in

- Melbourne Planning Appeals?” Planning Theory & Practice, Vol. 15, No. 3, pp. 1-21.
76. Taylor, E. J., Cook, N., & Hurley, J. (2016), “Do Objections Count? Estimating the Influence of Residents on Housing Development Assessment in Melbourne,” Urban Policy and Research, Vol. 34, No. 3, 1-15.
77. Tendler, J. (2004), “Why Social Policy is Condemned to a Residual Category of Safety Nets and What to Do about it,” In Thandika Mkandawire ed. Social Policy in a Development Context. Palgrave Macmillan, London, pp. 119-142.
78. Wei, S., and Xiong, M. (2019), “Judges’ Gender and Sentencing in China: An Empirical Inquiry,” Feminist Criminology, DOI: 10.1177/1557085119842660.
79. Weinberg, J.D. and Nielsen, L.B. (2012), “Examining Empathy: Discrimination, Experience, and Judicial decisionmaking,” Southern California Law Review, Vol. 85, pp. 313-352.
80. Yu, K.H. and Hui, E. C. M. (2018), “Colonial History, Indigenous Villagers’ Rights, and Rural Land Use: An Empirical Study of Planning Control Decisions on Small House Applications in Hong Kong,” Land Use Policy, Vol. 72, pp. 341-353.

81. Yung, P. (2011), "Contractual Enforcement of Planning Conditions: A Hong Kong Case Study," Environment and Planning B: Planning and Design, Vol. 38, No. 1, pp. 163-174.