**What evidence is there about the impact of district magnitude of electoral areas on women’s representation? Is there evidence to suggest there is a minimum district magnitude to (a) achieve proportionality and (b) achieve equal representation of men and women?**

As early work by Matland (1993) explains, ‘contests in single member districts are by definition zerosum games. Multimember districts, while fixed-sum games, are not zero-sum games, and this can affect party officials, candidates, and voters’. The implication here is that larger, multimember districts provide greater opportunities to adapt selection and recruitment strategies in order to address women’s under-representation. The first years of the NAfW support this in-as-much that the National Assembly’s regional seats have provided opportunities for strategic interventions such as zipping to advance women’s representation. That said, this needs to be weighed against the gains potential arising from smaller, single member constituencies and alternative arrangements – such as quotas and twinning. It should be noted that wider issues such as (but not limited to) political and social culture and party choice are also important.

There is mixed evidence in the academic literature on the impact of district magnitude of electoral areas on women’s representation. Rule’s study (1987) comparing 23 advanced industrialized democracies found a strong positive relationship between district magnitude and percent of women legislators in party list PR countries. In a broadly similar vein, Engstrom’s (1987) work on female representation in the Irish Dail found districts with four or five seats were more likely to have female representatives than districts with only three seats. However, Karen Beckwith’s (1990) work on the two parties in the Italian Chamber of Deputies found no relationship between district magnitude and proportion of the delegation which is female. Furthermore, other UK and US research by Welch and Studlar (1990) and Studlar and Welch (1991) found no significant relationship between district magnitude and female representation.

In the case of Japan, Iwanaga (2008, p.113) found mixed results - concluding: ‘district magnitude appears to make a difference with respect to the likelihood of women getting elected to Parliament, but only up to a certain point'. This work also addressed the point as to where there evidence to suggest there is a minimum district magnitude. It concluded: ‘generally, women performed better in large districts than in small ones. Women frequently did not gain representation when the district magnitude was below 13 [members] and women did best in the largest district magnitude, which was a thirty-three member district’.

More recent work by Johnson Myers (2017, p.11) is unequivocal in underlining the potentially positive impact of district magnitude on women’s representation: ‘the ability of a PR electoral system to effectively and fairly translate the votes cast in an election into seats in the legislative assembly depends to a large extent on whether there is a large district and party magnitude; whether it uses a List PR (closed or open list) system; how candidates are nominated and selected; or whether it facilitates strategies aimed at including more women in the legislative assembly’. A key point emerging from the literature is that distinct magnitude needs to be seen in the context of other institutional factors (Eto, 2010) – inter alia - the type of electoral system (e.g. presence of/ mode of PR), number and type of constituency and presence of other arrangements (formal and informal) such as twinning and quotas.

**What evidence is there on the impact of electoral gender quotas? How does this interact with district magnitude?**There’s broad literature outlining the positive impact of electoral gender quotas on women’s representation (see for example Bacchi, 1996; Krook, 2004, 2009; Dahlerup and Freidenvall, 2005). In their review of this literature Krook and Zetterberg (2014, p.6) underline (sometimes overlooked) issues of intersectionality and the potentially positive link between quotas and district magnitude: ‘the ethnic quota has in fact generated growth in women’s political representation in Singapore over time… the need to implement the ethnic quota led to an increase in district magnitude, enhancing party gatekeepers’ willingness to place women in electable slots in multi-member constituencies – providing a mechanism as to why proportional representation electoral systems may benefit women’s chances of being elected, even if gender quotas are not present’.

On the specific issue of district magnitude and quotas Christensen and Bardell’s work (2016) suggests that quotas may work effectively with smaller single-member districts (SMDs). They conclude: ‘conventional knowledge on the effectiveness of gender quotas for enhancing women's political participation has, to date, been unanimous on the superiority of quotas in proportional representation (PR) systems. Yet this view overlooks the many possible alternatives to implementing gender quotas in single-member district (SMD) systems… Drawing on case examples from Uganda, France, India and elsewhere, we refute the myth of the incompatibility of quotas in SMDs. Our research investigates and presents multiple ways in which quotas can be successfully implemented in SMDs’. These authors conclude: ‘In many contexts, these quota systems may be considered equally effective as those options available in [multi-member districts] MMDs. Indeed, all of the reserved seat options (with the exception of rotating districts and alternate thresholds with no added parliamentary seats) result in de facto multi-member districts. In practical terms, it may be more expedient in most contexts to implement a quota within an existing SMD system, rather than implementing wholesale systemic change’ (Christensen and Bardell, 2014, p.25).