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Employer-provided childcare across the 50 United States: the normative importance of public childcare and female leadership

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Abstract

Employer family policy tends to be conceived as employers' response to economic pressures, with the relevance of normative factors given comparatively little weight. This study questions this status quo, examining the normative relevance of public childcare and female leadership to employer childcare. Logistic regression analyses are performed on data from the 2016 National Study of Employers (NSE), a representative study of private sector employers in the United States. The findings show that public childcare is relevant for those forms of employer childcare more plausibly explained as the result of employers' normative as opposed to economic considerations. The findings further suggest that female leaders are highly relevant for employer childcare, but that this significance differs depending on whether the form of employer childcare is more likely of economic versus normative importance to employers. The study provides an empirical contribution in that it is the first to use representative data of the United States to examine the relevance of state-level public childcare and female leadership. Its theoretical contribution is to show that normative explanations for employer childcare provision are likely underestimated in U.S. employer family policy research.

Keywords: family policy; childcare; female leadership; women managers; occupational welfare; United States

Introduction

As difficulty reconciling work and family has become a more visible social issue over the last half-century (Chung & van der Horst, 2018; Lewis, 2009; Pettit & Hook, 2005; Ruppanner & Huffman, 2014), so social policy research has investigated patterns and drivers of institutional support for work-family reconciliation (Bettio & Plantenga, 2004; Daly, 2010; Gornick & Meyers, 2008; Hook, 2015; Pettit & Hook, 2009). Although more research examines public provision (Baum, 2006; Daly & Ferragina, 2018; Hank & Steinbach, 2019), employer-provided family policy is also

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a major source of institutional support for employees (Glass & Fodor, 2018; Ooms, 2019).¹

Public family policy research tends to interpret patterns of provision as shaped by economic as well as normative considerations (Bergqvist & Saxonberg, 2017; Ferragina & Seeleib-Kaiser, 2015; Sarna et al., 2013). Yet research into occupational welfare is skewed in favour of economic explanations (Budd & Mumford, 2004, 2006; Fleckenstein & Seeleib-Kaiser, 2011; Seeleib-Kaiser & Fleckenstein, 2009). This is particularly true of research on employer family policy in the United States (Glass & Fujimoto, 1995; Morgan & Milliken, 1992; Osterman, 1995).

This paper challenges this status quo, showing that for public childcare and female executives, normative explanations are better able to account for certain patterns of employer–childcare provision. The impetus to question the primacy of economic explanations comes from two fields of research. First, studies of occupational welfare in Europe suggest that generous public family policy is associated with more generous public family policy, a mechanism called 'crowding-in' (Wiß and Greve, 2020). This tends to be explained through neoinstitutionalist theory (DiMaggio & Powell, 1983, 1991), where public provision legitimates employees' demands for employer support on normative rather than economic grounds.

Second, literature on the changing role of women leaders suggests that they can alter what is considered an appropriate level of employer support (Lewis & Smithson, 2001; Powell, 1991). These insights are particularly relevant in the United States, the Organization for Economic Cooperation and Development (OECD) country with the highest percentage of women in managerial positions (at 41%; ILO, 2020; OECD, 2023). Yet the significance of female leadership for employer family policy has rarely, and in the case of employer-childcare never, been investigated in a representative study of employers in the United States.

However, it is difficult to determine whether and when female leaders are more fruitfully understood as exerting economic or normative pressure, as the predicted employer response stays the same: more employer family policy. To overcome this predicament, this study exploits the landscape of employer-provided childcare in the United States. Two forms of employer childcare are differentiated: The first type, flexible spending accounts (FSAs), are geared towards high–skill, high–income employees and can be provided at a low cost to employers (Kelly, 2003). Here, it can be argued that they are a cost–effective policy that is provided for economic reasons. The second form of employer childcare (non-FSAs) encompasses other forms of childcare support, such as in-house childcare centres or vouchers. Such childcare is used more by employees with lower skills or income (Hipp et al., 2017; Morrissey & Warner, 2009), while at the same time being costlier than FSAs (Ratnasingam et al., 2012; Ruddy, 2020). Provision of non–FSA childcare is less plausible on economic grounds alone, but likely motivated more by normative considerations.

Thus, this paper questions the notion that normative considerations are negligible in employers' motivation to provide childcare in the United States. It poses three questions regarding employer childcare in the United States: is public childcare relevant? How important is the prevalence of female leadership? And what do these patterns of provision tell us about the relevance of normative considerations?

To preview, the results show that public childcare is relevant for non-FSA childcare, suggesting that public policy can increase normative pressure on employers to provide childcare. Second, female leadership is highly significant for FSAs and non-FSA childcare alike. By examining the public-policy context, the paper differentiates when economic versus normative explanations of female leaders' relevance to employer childcare are more plausible. The papers' main contribution is to show that, in context of public childcare and female leadership, normative factors are likely underappreciated in studies of U.S. employer family policy.

Occupational welfare: economic and normative explanations

The occupational welfare literature tends to explain employer provision as economically motivated, i.e., as the result of profit-maximising cost-benefit analyses (Greve, 2007, 2018; Farnsworth, 2013; Sinfield, 2013). This perspective can be summarised as a rational–choice theoretical approach (DeMenezes & Kelliher, 2011; Estévez-Abe et al., 2001; Hart, 2010). In this view, employers provide occupational welfare to increase profits by improving hiring efficiency or retention of highly skilled employees (Naczyk, 2018; Riva & Rizza, 2021), increasing productivity (Beauregard & Henry, 2009; Konrad & Mangel, 2000), or preventing costly confrontations with organised labour (Seeleib-Kaiser, 2008; Trampusch, 2013). Rational–choice theory is the dominant theoretical approach in studies of occupational welfare by sector or industry (Den Dulk & Groeneveld, 2012; Wiß, 2015), employee skills and shortages (Berg et al., 2004; Mares, 2001), number of employees (Farnsworth, 2018; Osterman, 1995), degree of unionisation (Budd & Mumford, 2006; Jacobi, 2023) and share of female employees (Kelly et al., 2011; Seyler et al., 1995).

Of special interest to social policy scholars is the relationship between the pillars in the social division of welfare (Mann, 2009; Titmuss, 1956). However, particularly in explaining the relationship between social and occupational welfare, rational-choice theoretical explanations are increasingly insufficient. These predict that employers provide little support in polities with generous social provision, as this is not an efficient use of employer resources, and because public provision decreases economic pressure on employers vis-à-vis their employees. This mechanism – greater public provision in conjunction with less occupational welfare – is referred to as 'crowding-out' (Etzioni, 1995; Wiß & Greve, 2020). However, the empirical evidence increasingly suggests that generous social welfare is often associated with widespread occupational welfare (Natali et al., 2018), a dynamic termed 'crowding-in' (Chung, 2019; Wiß & Greve, 2020). This is especially true in studies examining the relationship between public and employer family policies (Den Dulk et al., 2012, 2013; Mun & Jung, 2018). Here, neoinstitutionalist explanations of employer behaviour are becoming increasingly relevant.

Neoinstitutionalism explains employer-family policy as the organisational response to normative pressures, such as changing perceptions of what is an appropriate level of support employees can expect from their employers (Lewis & Smithson, 2001; Powell, 1991). The theoretical premise is that the availability of

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generous public family policies legitimises employees' claims for support (Scott, 1991; Tomaskovic-Devey & Avent-Holt, 2019). This creates normative pressure for employers to offer family policies to gain normative legitimacy from their environment (DiMaggio & Powell, 1983, 1991). Neoinstitutionalist perspectives better explain the evidence suggesting that public family policy crowds-in employer family policy in Europe (Chung, 2019; Den Dulk et al., 2012; Wiß & Greve, 2019).

The relevance of the crowding-in dynamic has so far rarely been applied to analyses of the United States (for an exception, see Daiger von Gleichen, 2022), most likely because public family policy is far less generous than in Europe (Daiger von Gleichen & Seeleib-Kaiser, 2018; O'Connor et al., 1999). Yet there has been considerable growth in U.S. public family policy at the sub-federal level, especially in the realm of childcare (Cohen-Vogel et al., 2020; Daiger von Gleichen & Parolin, 2020; Friedman-Krause et al., 2022). This suggests that in the United States, where rational-choice explanations for occupational welfare dominate (Hacker, 2002, 2006; Lynch, 2014), normative explanations might be underappreciated. Moreover, a burgeoning literature suggests that female leaders – who are particularly prevalent in the United States – are increasingly driving normative change in organisations.

Female leaders: from cogs in the machine to change agents

In this journal, Kowalewska (2020) argued that analyses of the gendered character of welfare states should include considerations of women's representation in corporate leadership. This argument was born out of a shift in how the sociological literature views the role of women leaders in organisations. Female leaders have been 'cogs in the machine', i.e. displaying masculine traits (Miliopoulou & Kapareliotis, 2021), bias in favour of men (Dutton, 2018), or lacking power to affect gender-positive change (Kanter, 1977).

Increasingly, however, research suggests that women leaders can be effective 'change agents' (Fuwa, 2021; Kelan & Wratil, 2018), i.e. willing and able to weaken gender-biased aspects of organisational culture and procedures (Gould et al., 2018; Jouber, 2022; Khushk et al., 2023). This is evidenced when female leaders are not anomalies (Miliopoulou & Kapareliotis, 2021) but part of a critical mass of women leaders (Kowalewska, 2020, 2021). While acknowledging the economic power they wield, the research stresses female leaders' ability to apply normative pressure for change (Gould et al., 2018; van Mensvoort et al., 2021).

The role of change agents is an important aspect of neoinstitutionalism, which posits that claims-makers within organisations leverage normative legitimacy bestowed by generous public policy (Sauer et al., 2021; Tomaskovic-Devey & Avent-Holt, 2019). In this view, employer policy is the result of normative, not economic pressure. Studies of female leadership and employer family policy (Flüter-Hoffman & Seyda, 2006; Heywood & Jirjahn, 2009) explain the generally positive associations as a response to both economic and normative pressures (Ingram & Simons, 1995; Pasamar & Alegre, 2015; Wiß, 2017).

The acknowledgement that both pressures are at play is the theoretical frontier of female leadership and employer family policy. This is likely because the predicted effects of both forms of pressure are the same: both normative and economic

pressure make employers more likely to offer family policy. The contribution of this study is to show a case when the association between female leadership and employer provision is better explained by normative versus economic pressures. To do so, the study exploits the landscape of public sub-federal and employer childrage in the United States.

Public and employer childcare in the U.S., and hypotheses

Public family policy in the United States is liberal in terms of targeting low-income families (Gornick & Meyers, 2003; O'Connor et al., 1999), and financial assistance to families is ungenerous in comparison to Western European countries (Daiger von Gleichen & Seeleib-Kaiser, 2018; Woods, 2012). Moreover, the United States is the only OECD country that does not have paid maternity leave at the national level (Engeman, 2020). The United States has thus been labelled a 'laggard' in public family policy expansion (Daiger von Gleichen & Seeleib-Kaiser, 2018).

Nevertheless, several dimensions of public U.S. family policy have expanded in recent decades. The most prominent has been paid leave, currently offered in eleven states (Engeman, 2020). But state-level public childcare expansion has also been extensive. As of 2020, seventeen states had so-called 'universal' pre-kindergarten programs in which age and residency were the only requirements for eligibility (Stanford, 2023). An additional thirty-four states offer programs with eligibility tied to an income cap (Friedman-Krause et al., 2022). This leads to the first hypothesis:

H₁:. Employers in states with more generous public childcare are more likely to provide employer childcare. This is based on neoinstitutionalist theory, which posits that more generous public family policy increases normative pressure on employers to provide employer policies.

Furthermore, there are two categories of employer childcare in the United States that differ by how they can be conceptualised as responses to economic versus normative pressures. FSAs are economically efficient in that they are both low-cost (Galinsky et al., 2008; Kelly, 2003) and targeted towards high–skill, high-income employees (Hipp et al., 2017). They enable employees to annually devote up to \$5,000 pre-tax dollars, administered by their employer, to childcare expenses. Yet setting up an FSA requires that the full sum for the whole year be paid up front, which deters low-income employees from participation (Hipp et al., 2017). The low cost to employers and greater take-up by high–income employees suggests that FSAs are likely a response to economic pressure.

In contrast, other forms of employer support for and provision of childcare tend to be both highly expensive for employers (Ratnasingam et al., 2012; Ruddy, 2020) without being especially attractive to high-skill employees (Feldman & Schultz, 2001; Morrissey & Warner, 2009). For example, childcare centres have high fixed costs (Feierabend & Staffelbach, 2016), and take-up is stronger among lower-income employees (Hipp et al., 2017; Morissey & Warner, 2009). Childcare subsidies are furthermore tied to specific childcare providers, limiting parental choice (Sosinsky, 2012), a criterion more determinate of high- as compared to

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low-income families' use (Shlay et al., 2005). Such non-FSA forms of childcare are thus less likely a response to economic, but rather to normative pressure on employers. This leads to the following hypothesis pair:

H₂:. Employers reliant on high-general skills are more likely to provide employer childcare in the form of flexible spending accounts, but no more likely to provide other forms of childcare. This is based on rational-choice theory, suggesting that employers under economic pressure are more likely to provide the most cost-efficient policy.

H₃:. Employers with a higher share of female leadership are more likely to provide flexible spending accounts as well as other forms of employer childcare. The first association is based on rational-choice theory, suggesting that female leaders exert economic pressure on employers to provide cost-effective employer policy. The second association is based on neoinstitutionalism, suggesting that female executives exert normative pressure on employers to provide childcare, even if doing so is not cost efficient.

Data, measures, and method

The data stems from the 2016 National Study of Employers (NSE), a nationally representative employer survey conducted by the Families and Work Institute (Matos et al., 2017), covering private sector employers with at least fifty employees. Employers were selected using a stratified random sampling procedure. The respondents were human resource directors, generally members of organisational leadership.² The study had a 38% response rate, with the total sample containing 919 observations. Following listwise deletion of incomplete observations, the analysed samples consist of 880 and 878 observations for FSA and non-FSA childcare, respectively.³

Data regarding public childcare stems from the National Institute of Early Education (NIEER) 2016 State of Preschool Yearbook (Barnett et al., 2017). The employers' industry skill-profile was determined by analysing the skill composition of industries in the United States using the 2016 American Community Survey (U.S. Census Bureau, 2017). Data on state GDP per capita and regional price parities by state were drawn from the U.S. Department of Commerce (Bureau of Economic Analysis, 2016a, 2016b). State female labour force participation rates were drawn from the U.S. Department of Labor (Women's Bureau, 2018). Data on what percentage of the state population prefers a male–breadwinner model come from the 2016 Pew Research Center's paid parental, family, and medical leave survey (Horowitz et al., 2017).

Measures

Dependent variables

The NSE queried respondents about seven forms of employer childcare: information to help locate childcare, childcare vouchers or subsidies not funded

	FS	iAs	Non-	-FSAs
	Freq.	Perc.	Freq.	Perc.
Not provided	344	39%	751	86%
Provided	536	61%	127	14%
Total	880	100%	878	100%

Table 1. Descriptive statistics of dependent variables

Note: Unweighted data. Data weighted for employer size suggest that FSAs are provided by 56%, non-FSAs by 13% of employers in the United States.

by payroll taxes but by the employer directly, childcare at or near the work site, childcare during school vacations, back-up when regular childcare fails, childcare for sick children, and FSAs that pay for childcare with employees' pre-tax income matched by employer subsidies from payroll tax deductions. Of these seven forms of childcare, six were included in the analysis. Information to help locate childcare was excluded because this sets a very low bar for employer involvement, including for example a simple internet search or mentioning the existence of a nearby crèche. This low cost to employers combined with uncertainty as to how valuable such information is to employees (who can likely obtain it themselves) made it theoretically ambiguous, which is why it was excluded.

From the remaining six categories, I created two binary dependent variables, operationalised as 'not provided/provided': FSAs and childcare other than FSAs ('non-FSAs'). The variable FSAs captures whether employers provide flexible spending accounts, while the variable non-FSAs captures whether the employer provides any of the other five forms of childcare. Thus, the dependent variables capture overlapping samples: employers providing FSAs may or may not additionally provide non-FSA forms of childcare, and vice versa. Correlation between the two forms of childcare is not significant. The distributions are shown in Table 1.

Independent variables

The explanatory variables are state-level public childcare, the prevalence of female employees, and industry skill profile. State-level public childcare is binary, indicating whether the state in which the employer is located offers public pre-kindergarten not subject to a family income cap, but accessible to children with the appropriate age and residency requirements independent of family income. This operationalisation ensures that public pre-kindergarten represents an option for employees irrespective of income. The prevalence of female leaders is coded as an ordinal variable, the only one provided by the NSE. The categories are 'no female executives,' 'women on some executive levels,' and 'women on all executive levels.' The skill–profile variable is binary, categorising employers' industry as 'high-general skills or 'not high-general skills,' the latter combining low–general and mixed-skills industries.⁴

	FSAs		Non	-FSAs
Public childcare				
No program or program with income cap	563	64%	561	64%
Program without income cap	317	36%	317	36%
Industry skill-profile				
Not high-general skills	436	50%	438	50%
High-general skills	444	50%	440	50%
Prevalence of female executives				
No female executives	158	18%	158	18%
Women on some executive levels	625	71%	624	71%
Women on all executive levels	97	11%	96	11%
N	880	100%	878	100%

Table 2. Descriptive statistics of explanatory variables for each model

At the organisational level, the models control for the number of employees, difficulty filling vacancies, share of female employees, and presence of unionised employees. To capture additional state-level distinctions, the models control for state GDP per capita, state-level female labour force participation, and an attitudinal variable capturing the percentage of people per state who prefer a male breadwinner model. Table 2 shows the distributions of the explanatory variables, and those for the control variables are given in Table A3 of the appendix.

Method

Answering the questions necessitates determining the relationship between state-level public childcare, prevalence of female executives in the organisation, and employer childcare provision. Significant associations between independent and dependent variables are important indicators for this relationship, which is why regression analysis is employed. Specifically, given the binary dependent variables, simple logistic regression was used. For the main analysis, two simple logistic regressions were conducted, one for each dependent variable. In order to accurately interpret and compare the models, the findings are presented as average marginal effects (Mood, 2010).

Findings

The findings displayed in Table 3 show repeatedly that patterns of FSA and non-FSA provision are governed by different logics. Public childcare without an income cap is associated with a 5% greater likelihood that an employer will provide non-FSA childcare but is insignificant for FSAs. This confirms H₁ regarding non-FSAs, but not FSAs. Similarly, employers dependent on high-general skills (HGS) are 13%

	FSA:	s	Non-FS	SAs
Public childcare witout income cap (ref: cap or no program)				(0.02)
High-general skills industry (ref: non-HGS industry)	-0.13***	(0.03)	-0.02***	(0.03)
Prevalence of female executives (ref: no female executives)				
Women on some executive levels	-0.12***	(0.05)	-0.06***	(0.03)
Women on all executive levels	-0.16***	(0.07)	-0.19***	(0.05)
Pseudo R ²	-0.06		-0.06***	
N	880		878	

Table 3. Average marginal effects based on logistic regression models

Note: Original calculations. Models control for number of employees, presence of unionised employees; as well as state-level gdp per capita, female labour force participation and gendered breadwinner/carer preferences. Full models presented in Table A6 of the appendix. *p < 0.05, **p < 0.01, ***p < 0.001.

more likely to provide FSAs, whereas HGS are not predictive of non-FSA provision (confirming H_2). Meanwhile, female executives are positively associated with both forms of employer childcare (confirming H_3), but the effect size differs by policy depending on the prevalence of female leaders across executive levels. Specifically, employers with women on some executive levels are 12% more likely to offer FSAs and 6% more likely to offer non-FSA childcare than employers lacking female executives. In comparison to employers lacking female executives, those with women on all executive levels are 16% more likely to offer FSAs and 19% more likely to offer non-FSAs.

Discussion

What do these findings mean for our three research questions? The first question asked whether public childcare is relevant to employer childcare provision in the United States. As employers in states with more generous public childcare are 5% more likely to provide childcare other than flexible spending accounts (non-FSAs), the results suggest that public childcare is relevant for non-FSA childcare in the United States. Why might this be the case? As FSA childcare is more likely provided by HGS employers, while no such association is found for costlier non-FSA childcare, we can interpret this difference in provision patterns as reflecting different types of pressures exerted on employers: FSAs are more likely a response to economic, non-FSA to normative pressures. And while costly childcare might feasibly be offered to attract low-skilled workers for economic reasons when these workers are in short supply, Table A6 of the appendix shows that difficulty filling entry-level or hourly positions does not increase the likelihood that employers provide non-FSA childcare.

Distinguishing FSA from non-FSA childcare in this way, we can better answer the second research question, which concerned the relevance of female leaders. We find that female executives are highly significant for both forms of childcare, suggesting they exert both economic and normative pressure on employers to

provide childcare. Furthermore, the critical mass effect (operationalised as female leaders on all levels) is seen for both policies, and slightly more strongly for non-FSA childcare provision. Employers are 12% more likely to provide FSAs once they have women on some executive levels, while employers with a similar prevalence of women leaders are only 6% more likely to provide non-FSAs. Yet once employers have women on all executive levels, they are 19% more likely to provide non-FSAs, a greater likelihood than providing FSAs (16%). This suggests that the critical mass argument for female leaders as change agents is particularly relevant to normative change.

This is the first study to examine the relevance of female leadership to employer childcare in a representative study of U.S. employers. Nevertheless, the variable presents a limitation in that it could be more precise. NSE respondents were not queried about the percentage of female leaders, nor their exact position in the organizational hierarchy. The low number of observations is a further limitation. While samples below 1,000 are common for employer surveys (see: Davis & Kalleberg, 2006; Osterman, 1995; Seeleib-Kaiser & Fleckenstein, 2009), this reduces statistical power, limiting analytical options.

Also, the main argument rests on the ideas that profit-maximisation is an insufficient explanation for non-FSAs provision, and that normative explanations are extraneous in explaining FSA provision. Yet employers driven by normative considerations may also offer FSA childcare, even if this is cost–effective and feasible for high-skilled employees. It is a limitation of the paper that it does not parse the plausibility of normative motivations for FSA provision more precisely, and it is likely that both normative and economic considerations factor into employer behaviour. Yet the notion that normative explanations may be overlooked in FSA provision bolsters the broader finding that normative explanations for employer behaviour remain underestimated. Generally, the cross-sectional nature of the data precludes inferences about causality, and explanations of employer behaviour based on such data remain interpretive.

Yet despite these limitations, and in response to the third research question, this analysis suggests that normative considerations are likely highly relevant to employer decisions to provide childcare in the United States. The findings are in support of neoinstitutionalist explanations of employer provision and are the first to arrive at this conclusion through an analysis of state-level policy comparison, employer childcare policy differentiation, and female leadership.

Conclusion

What do these findings and their interpretation mean for our understanding of occupational welfare? Evidence suggesting that normative considerations are playing an important and often overlooked role in employers' considerations exist for other areas of occupational welfare (e.g. Senatori, 2017) but remain sidelined as economic explanations remain dominant. Future research on occupational welfare would be well advised to give more consideration to normative explanations and develop research designs which enable a differentiation between policies more and less likely explained by normative versus economic approaches.

Making this distinction has important policy consequences: if, in a given area, profit maximisation is not an employers' primary concern, subsidies won't change employer behaviour. Similarly, public policy communication may be counterproductive if it doubles down on the economic importance of occupational welfare, sidelining the importance of norms to employers' consideration. Indeed, the primary ethical implication of this study is the need to recognise the potential power of social policy to shape norms, which in turn can shape employer behaviour. A policy implication is to let this recognition shape policy design and messaging. Doing so has the potential to increase access to employer welfare, especially for employees who lack the ability to impose economic pressures.

While this study was conducted in the United States, which is exceptional for its comparatively ungenerous public childcare policy and high level of women in leadership positions, there is reason to believe that the patterns observed here and the explanations for them will be illuminating in other countries. Regarding public policy, while the cross-sectional nature of the evidence precludes claims of causality, the evidence suggests that normative considerations are an important component of the relationship between public and employer childcare. And while this relationship specifically has yet to be studied in Europe, there is no reason to assume that the relevance of normative explanations is restricted to the United States. Similarly, the role of women leaders as change agents in employer family policy, or occupational welfare in general, is likely not limited to the United Staates. While the share of organisational leaders who are female is particularly high in the United States, critical masses of female leaders are also reached in individual organisations in countries where fewer women achieve leadership positions overall. Considering the critical mass effect evidenced in this study may sharpen the analysis of the relevance of female leaders in other countries.

In sum, this study challenged the prevailing stance in most research on employer family policy in the United States that employers' decisions are primarily, if not solely, guided by rational choice and are aimed at improving their financial performance. The evidence suggests that public childcare is a relevant factor for employer-provided childcare in the United States, particularly for forms of employer childcare that are more easily explained as the result of normative as opposed to economic considerations. The findings further suggest that a high prevalence of female leaders is also highly relevant for employer childcare provision in the United States, likely exerting both economic and normative pressure on employers to provide forms of childcare that are cost-effective and ones that are less so. Taken together, these findings suggest that normative considerations play an important role in employer decisions to provide employer childcare in the United States, and likely beyond.

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Competing interests. The author declares none.

Notes

- 1 Unlike with public family policy, all employer family policy is work-family reconciliation policy in the sense that it claims to enable caregivers' ability to enter, return to or remain in employment (Mahon, 2006).
- 2 Other than a generalised job title, respondents' personal data was not contained in the survey data file. This means no ethical implications arose from handling personal data. However, the interpretation of the findings creates ethical implications, and the conclusion suggests ways to address these through public policy.
- 3 The difference between the number of observations in the final sample sizes are due to two more observations in the dataset having incomplete information for FSA childcare as compared to non-FSA childcare.
- 4 See appendix Table A1 for Fleckenstein et al.'s (2011) categorisation, and appendix Table A2 for the distribution of skill-profiles across industries.
- 5 The two binary dependent variables could have been operationalised as one polytomous dependent variable for finer distinctions between employers who provide none, both or only one of the two policies. However, this would have reduced statistical power due to the relatively modest sample size, common in employer surveys. As the research questions didn't require multinomial regression, logistic regression was used to maintain statistical power. Still, multinomial logistic regression was performed as a check, with results in Tables A4 and A5.
- 6 Here the simple and multinomial regression analyses differ in substance. The multinomial regression (Table A5 in the appendix) suggests that female leadership is only associated with a greater likelihood of more employer childcare amongst employers who offer neither or both policies. While these results are a caveat to the presented interpretations, they are based on fewer observations per outcome category and are thus less robust. Comparisons of simple and multinomial analyses where the number of observations suffices for both are important avenues for future research.

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Appendix

Table A1. Skills classification according to Fleckenstein et al. (2011)

Occupation	Skills
Legislators, senior officials, and managers	High-general
Professionals	High-general
Technicians and associate professionals	High-general
Clerks	Low-general
Service workers and shop and market sales workers	Low-general
Craft and related workers	Specific
Plant and machine operators and assemblers	Specific
Elementary occupations	Low-general

Table A2. Skill profiles by industry in the United States

Industry (NAICS 2017 classification)	N/A	Low general	High general	Specific	Total	Industry skill profile
Agriculture, forestry, fishing, and hunting	8%	7%	35%	50%	100%	Specific
Mining, quarrying, and oil and gas extraction	0%	7%	49%	44%	100%	Mixed
Utilities	0%	18%	57%	25%	100%	High-General
Construction	0%	23%	28%	48%	100%	Mixed
Manufacturing	0%	13%	42%	45%	100%	Mixed
Wholesale trade	0%	22%	59%	19%	100%	High-General
Retail trade	0%	76%	15%	9%	100%	Low-General
Transportation and warehousing	0%	34%	19%	47%	100%	Mixed
Information	0%	20%	70%	11%	100%	High-General
Finance and insurance	0%	24%	76%	1%	100%	High-General
Real estate and rental and leasing	0%	22%	70%	7%	100%	High-General
Professional, scientific, and technical services	0%	8%	89%	2%	100%	High-General
Management of companies and enterprises	0%	14%	83%	3%	100%	High-General
Waste management and remediation	2%	55%	32%	11%	100%	Low-General

(Continued)

Table A2. (Continued)

Industry (NAICS 2017 classification)	N/A	Low general	High general	Specific	Total	Industry skill profile
Educational services	0%	21%	76%	3%	100%	High-General
Health care and social assistance	0%	34%	64%	2%	100%	High-General
Arts, entertainment, and recreation	0%	41%	50%	9%	100%	High-General
Accommodation and food services	0%	76%	21%	4%	100%	Low-General
Other services (except Public Administration)	0%	48%	33%	19%	100%	Mixed

Note: Data from the 2016 American Community Survey. Any industry lacking at least 50% in one skill category is classified as mixed.

Table A3. Descriptive statistics of control variables for each model

		FSAs	No	on-FSAs
Difficulty filling vacancies				
No difficulty filling vacancies	156	18%	156	18%
Difficulty: entry-level/hourly positions	43	5%	42	5%
Difficulty: highly skilled positions	403	46%	402	46%
Difficulty: both types of positions	278	32%	287	32%
Percent of female employees in 10% increments				
Mean		4.64%		4.63%
SD		2.39%		2.39%
Min		0.10%		0.10%
Max		9.90%		9.90%
Size by number of employees				
50–249 employees	577	66%	576	66%
250+ employees	303	34%	302	34%
Percent of unionised employees				
less than 1 %	707	80%	704	80%
At least 1 %	173	20%	174	20%
State GDP: Per state per capita in 2016 USD				
Mean		54,771		54,776
SD		11,040		11,049
Min		33,684		33,684
Max		1,74,150		1,74,150

(Continued)

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Table A3. (Continued)

	FSAs	FSAs No	
Female labour force participation: R	Rate by state		
Mean	73%		73%
SD	4%		4%
Min	62%		63%
Max	81%		81%
Percent of people in state who pref	er male breadwinner/female caregiver		
Mean	31%		31%
SD	8%		8%
Min	0%		0%
Max	57%		57%
N	880 100%	878	100%

Table A4. Descriptive statistics of polytomous dependent variable

	Freq.	Perc.
Neither	302	34%
Only FSA childcare	447	51%
Only non-FSA childcare	42	5%
Both	85	10%
Total	876	100%

Table A5. Average marginal effects based on multinomial logistic regression model

	Neith	er	Only F	SAs	Only Nor	n-FSAs	Bot	h
Public childcare without income cap		, ,		, ,			-0.02***	, ,
Prevalence of female execut								
Women on some executive levels	-0.13***	(0.04)	-0.06***	(0.05)	-0.00***	(0.02)	-0.07***	(.02)
Women on all executive levels	-0.23***	(0.06)	-0.03***	(0.07)	-0.07***	(0.04)	-0.12***	(.04)
High-general skills industry	-0.11***	(0.03)	-0.09***	(0.04)	-0.01***	(0.02)	-0.03***	(0.02)
Pseudo $R^2 = 0.08$								
N = 876								

Note: Original calculations. The table shows associations with different outcome values of a single dependent variable. Model controls for number of employees, presence of unionised employees; as well as state-level gdp per capita, female labour force participation and gendered breadwinner/carer preferences. Full model available upon request. *p < 0.05, *p < 0.01, **p < 0.001.

Table A6. Average marginal effects based on logistic regression (full models)

	FSA	FSAs		SAs			
Public childcare witout income cap	-0.02***	(0.03)	-0.05***	(0.02)			
High-general skills industry	-0.13***	(0.03)	-0.02***	(0.03)			
Prevalence of female executives (ref: no female executives)							
Women on some executive levels	-0.12***	(0.05)	-0.06***	(0.03)			
Women on all executive levels	-0.16***	(0.07)	-0.19***	(0.05)			
Percent of female employees	-0.01***	(0.01)	-0.01***	(0.01)			
Difficulty filling vacancies (ref: no difficulty	filling vacancies)					
Difficulty: entry-level/hourly positions	-0.20***	(0.08)	-0.02***	(0.05)			
Difficulty: highly skilled positions	-0.09***	-00.04	-0.02***	(0.03)			
Difficulty: both types of positions	-0.05***	(0.05)	-0.04***	(0.03)			
Employer size	-0.09***	(0.04)	-0.02***	(0.03)			
Unionised employees	-0.07***	(0.04)	-0.07***	(0.03)			
GDP per state	-0.00***	(0.00)	-0.00***	(0.00)			
female labour force participation	-0.01***	(0.01)	-0.00***	(0.00)			
State population prefering MBFC model	-0.01***	(0.00)	-0.00***	(0.00)			
Pseudo R ²	-0.06		-0.06***				
N	880		878				

Note: Original calculations. *p < 0.05, **p < 0.01, ***p < 0.001.

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