Response letter to the 1st Referee Report for the article entitled as "Gendered Economic Policy Making: The Case of Public Expenditures on Family Allowances"

I am very grateful to the anonymous referee for reviewing my paper and I appreciate the insights and feedback received. The comments are really useful to make the paper clearer and to improve its quality. Please see the explanations below for the issues raised by the referee. The referee's comments are provided in italics.

Major Issues

1-The yearly time structure of the dataset strikes me as too high-frequency. The estimating equation implies an effect of female political representation on family allowance expenditure in the same year. If this is actually a causal effect, then when more females are elected into parliament, they need to influence the policies implemented and increase actual expenditures in that same year. That sounds a bit unrealistic. One instance where the share of females in parliament and family allowance expenditures increase in the same year would be after an election. The electorate votes for a party that has a pro-family policy agenda and many females on their electoral list. This situation would produce a positive point estimate, but the causal channel doesn't necessarily run from females in parliament to family allowance expenditures but could be a correlation of voter preferences.

Referee is certainly right to have doubts about the existence of women's influence on family allowances in the same year due to the yearly time structure of the datasets. It should be mentioned in details, while revising the paper that increasing number of year intervals leave results unchanged. Below, I present replications of all the tables using datasets at 3-year intervals. Although it is not presented below, the same also holds using datasets at 2-year intervals. However it is important to emphasize that increasing the number of intervals unfortunately reduce the number of observations in the datasets. Therefore, due to the insufficient number of observations, GMM and PCSE techniques can not be applied as in the case of one year interval. However, it can be seen on the following tables that main results remained unchanged once Pooled-OLS and Fixed-Effect analyses are applied using data sets at 3-year intervals. (Note: Regressions are also replicated considering another comment of referee on the normalization of demographic variables. More detailed explanation on this issue can be found for the 4th comment of referee in the "Minor Issues" section).

Table 2: The Percentage Share of Female Parliamentarians and Public Spending on Family Allowances across OECD Countries

	Panel-A		Panel-B		Panel-C	
	Pooled-OLS	FE	Pooled-OLS	FE	Pooled-OLS	FE
	(1)	(2)	(1)	(2)	(1)	(2)
P. of FP	0.0092***	0.0141	0.0149***	0.0199	0.0171*	0.0589
	(0.0029)	(0.0090)	(0.0036)	(0.0161)	(0.0087)	(0.0408)
R-Square	0.0376	0.7466	0.0870	0.6045	0.0195	0.5723
Number of Cases	190	190	135	135	130	130
	Panel-D		Panel-E		Panel-F	
	Pooled-OLS	FE	Pooled-OLS	FE	Pooled-OLS	FE
	(1)	(2)	(1)	(2)	(1)	(2)
P. of FP	0.0085**	0.0114	0.0094*	0.0192	0.0017	0.0577
	(0.0039)	(0.0101)	(0.0056)	(0.0163)	(0.0140)	(0.0408)
Population rate (under 15)	0.0932***	-0.0102	0.0000	0.0015	0.0001	0.0136
	(0.0174)	(0.0299)	(0.0002)	(0.0087)	(0.0004)	(0.0206)
Population rate (above 65)	0.0781***	-0.0785*	-0.0718***	-0.0240	-0.1625***	-0.0953
	(0.0270)	(0.0388)	(0.0225)	(0.0869)	(0.0568)	(0.1999)
Total Old-Age Benefits(%GDP)	0.0033	0.0370	0.0216	0.0139	-0.0232	0.0136
	(0.0174)	(0.0326)	(0.0219)	(0.0285)	(0.0478)	(0.0607)
Unemployment Rate	0.0127	0.0021	0.0176	-0.0034	0.0347	0.0026
	(0.0151)	(0.0127)	(0.0201)	(0.0172)	(0.0436)	(0.0295)
Log(GDP per capita)	1.3241***	-0.8793*	0.7551***	-0.1431	1.9880***	1.0580
	(0.1771)	(0.4974)	(0.1920)	(1.1940)	(0.4482)	(1.7147)
FLFP	-0.0031	0.0107	0.0044	-0.0145	0.0159	-0.0459
	(0.0046)	(0.0097)	(0.0077)	(0.0224)	(0.0176)	(0.0482)
Female Education	-0.0869***	0.1665	-0.1243***	0.3953	-0.3249***	0.4914
	(0.0321)	(0.3541)	(0.0423)	(0.4047)	(0.1044)	(0.9772)
R-Square	0.2549	0.7731	0.2545	0.6137	0.2534	0.5820
Number of Cases	190	190	135	135	130	130

The pooled cross-sectional OLS estimates are shown in columns (1). The fixed effects estimation results are represented in columns (2) with country dummies. Estimation frameworks in Panel A,B and C do not control any variable. Panel D,E and F add additional covariates such as real GDP per capita, unemployment rate, population rate of the citizens above 65 years old and below 15 years old, female labor force participation rate and female educational attainment for 15-44 year old women to take into account general economic, labor market situation, demographic and social development. Year dummies are included in all regressions. All regressions include country dummies and country specific time trends except the pooled-OLS estimations. The main independent variable (female parliamentary representation) is the percentage share of female seats in lower chambers across OECD parliaments. Panel A and D use a balanced panel dataset from 1980 to 2008 at 3-year intervals where the public spending on family allowances as a percentage of GDP is the main regressand. Panel B and E use the same data from 1995 to 2008 including other countries for which necesssary data is not available for the previous years. Panel C and F represent results using the third sample which consider public spending on family allowances as a percentage of total govenment spending as the main regressand. One, two and three * indicate significance at the 10, 5 and 1% level respectively. All standard errors are robust for the arbitrary heteroscedasticity. Total Old-Age Benefits (%GDP) refers to public and mandatory private spending on old-age benefits as a percentage of GDP. FLFP stands for Female Labor Force Participation Rate. P. of FP stands for percentage share of female parliamentarians.

Table 3: Female Political Representation over the 30% Female Critical Mass Threshold and Public Spending on Family Allowances

	Pooled-OLS	FE	FE	FE
	(1)	(2)	(3)	(4)
PANEL A				
Threshold-30	0.0794	0.2200***	0.2245***	0.2108**
	(0.0733)	(0.0681)	(0.0685)	(0.0733)
Population rate (under 15)			-0.0033	-0.0062
			(0.0241)	(0.0262)
Population rate (above 65)			-0.0543	-0.0592
			(0.0389)	(0.0383)
Total Old-Age Benefits (%GDP)			0.0384	0.0380
			(0.0297)	(0.0321)
Unemployment Rate			0.0046	0.0043
			(0.0120)	(0.0112)
Log(GDP per capita)			-0.7467*	-0.8051*
			(0.4229)	(0.4553)
FLFP				0.0037
				(0.0091)
Female education wedu1544				0.0919
				(0.3024)
R-Square	0.0139	0.7528	0.7794	0.7799
Number of Cases	190	190	190	190
	Pooled-OLS	FE	FE	FE
	(1)	(2)	(3)	(4)
PANEL B				
Threshold-30	0.1723**	0.1470***	0.1683***	0.2024**
	(0.0861)	(0.0393)	(0.0482)	(0.0735)
Population rate (under 15)			0.0039	0.0088
			(0.0069)	(0.0104)
Population rate (above 65)			0.0062	-0.0088
			(0.0681)	(0.0690)
Total Old-Age Benefits (%GDP)			0.0266	0.0227
			(0.0329)	(0.0314)
Unemployment Rate			-0.0102	-0.0035
			(0.0171)	(0.0181)
Log(GDP per capita)			-0.4139	-0.0258
			(0.9476)	(1.2093)
FLFP				-0.0267
				(0.0284)
Female education				0.3628
				(0.3732)
R-Square	0.0253	0.5762	0.5830	0.5949
Number of Cases	135	135	135	135
	Pooled-OLS	FE	FE	FE
	(1)	(2)	(3)	(4)
PANEL C				
Threshold-30	-0.0587	0.3558***	0.4403***	0.5359***
	(0.2024)	(0.1031)	(0.1090)	(0.1625)
Population rate (under 15)			0.0176	0.0327
			(0.0143)	(0.0244)
Population rate (above 65)			-0.0132	-0.0608
			(0.1361)	(0.1403)
Total Old-Age Benefits(%GDP)			0.0534	0.0410
			(0.0671)	(0.0616)
Unemployment Rate			-0.0180	0.0028
			(0.0335)	(0.0330)
Log(GDP per capita)			0.3239	1.4391
			(1.1071)	(1.8625)
FLFP				-0.0807
				(0.0665)
Female Education				0.3627
				(0.8968)
R-Square	0.0015	0.5126	0.5187	0.5390
Number of Cases	130	130	130	130

The pooled cross-sectional OLS estimates are shown in columns (1) of each panel. The fixed effects estimation results are shown in columns (2), (3), (4). Following the previous literature, columns (3) and columns (4) add additional covariates such as real GDP per capita, unemployment rate, population rate of the citizens above 65 years old and below 15 years old to take into account general economic development, labor market situation and demographic development. In addition to these covariates, columns (4) also adds female labor force participation rate and female educational attainment for 15-44 year old women to take into account social development. Year dummies are included in all regressions. Except the pooled cross-sectional OLS regression, all estimations include country dummies and country specific time trends. The main independent variable (Threshold-30) is a dummy variable which is the proxy for gender bargaining power. It takes a value equal to 1 when the share of female seats in national parliaments across OECD exceed 30%. Panel A uses a balanced panel data from 1980 to 2008 at 3-year intervals where the public spending on family allowances as a percentage of GDP is the main regressand. Panel B uses the same data from 1995 to 2008 including other countries for which the necesssary data is not available for the previous years. Panel C uses the same sample in Panel B where the public spending on family allowances as a percentage of total govenment spending is the main regressand. One, two and three * indicate significance at the 10, 5 and 1% level respectively. Total Old-Age Benefits (%GDP) refers to public and mandatory private spending on old-age benefits as a percentage of GDP. All standard errors are robust for the arbitrary heteroscedasticity. FLFP stands for Female Labor Force Participation Rate.

Table 4: Female Political Representation over the 15% Female Critical Mass Threshold and Public Spending on Family Allowances

	Pooled-OLS	FE	FE	FE
	(1)	(2)	(3)	(4)
PANEL A				
Threshold-15	0.2078***	0.0883	0.0472	0.0596
	(0.0785)	(0.0866)	(0.0918)	(0.0955)
Population rate (under 15			0.0079	-0.0034
			(0.0311)	(0.0324)
Population rate (above 65)			-0.0533	-0.0707*
			(0.0396)	(0.0377)
Total Old-Age Benefits(%GDP)			0.0379	0.0372
			(0.0307)	(0.0327)
Unemployment rate			-0.0001	0.0004
			(0.0134)	(0.0126)
Log(GDP per capita)			-0.7674	-0.9340*
			(0.5020)	(0.5152)
FLFP				0.0130
				(0.0098)
Female education				0.2262
				(0.3307)
R-Square	0.0381	0.7387	0.7622	0.7675
Number of Cases	190	190	190	190
	Pooled-OLS	FE	FE	FE
	(1)	(2)	(3)	(4)
PANEL B				
Threshold-15	0.3118***	0.1397	0.1333	0.1414
	(0.0964)	(0.1409)	(0.1479)	(0.1418)
Population rate (under 15)			-0.0035	-0.0010
			(0.0053)	(0.0074)
Population rate (above 65)			-0.0200	-0.0342
			(0.0801)	(0.0882)
Total Old-Age Benefits(%GDP)			0.0153	0.0122
			(0.0253)	(0.0253)
Unemployment Rate			-0.0001	0.0004
			(0.0134)	(0.0126)
Log(GDP per capita)			-0.7674	-0.9340*
			(0.5020)	(0.5152)
FLFP				0.0130
				(0.0098)
Female education				0.2262
				(0.3307)
R-Square	0.0381	0.7387	0.7622	0.7675
Number of Cases	135	135	135	135
	Pooled-OLS	FE	FE	FE
	(1)	(2)	(3)	(4)
PANEL C				
Threshold-15	0.5787**	0.4040	0.4172	0.4255
	(0.2344)	(0.3628)	(0.3746)	(0.3635)
Population rate (under 15)			-0.0021	0.0063
			(0.0110)	(0.0172)
Population rate (above 65)			-0.0871	-0.1316
			(0.1687)	(0.1919)
Total Old-Age Benefits(%GDP)			0.0185	0.0085
			(0.0493)	(0.0483)
Unemployment Rate			-0.0003	0.0168
			(0.0317)	(0.0346)
Log(GDP per capita)			0.9997	1.9205
			(1.4804)	(2.1173)
FLFP				-0.0614
				(0.0572)
Female education				0.7003
				(0.9637)
R-Square	0.0431	0.5379	0.5416	0.5549
Number of Cases	130	130	130	130

The pooled cross-sectional OLS estimates are shown in columns (1) of each panel. The fixed effects estimation results are shown in columns (2), (3), (4). Following the previous literature, columns (3) and columns (4) add additional covariates such as real GDP per capita, unemployment rate, population rate of the citizens above 65 years old and below 15 years old to take into account general economic development, labor market situation and demographic development. In addition to these covariates, columns (4) also adds female labor force participation rate and female educational attainment for 15-44 year old women to take into account social development. Year dummies are included in all regressions. Except the pooled cross-sectional OLS regression, all estimations include country dummies and country specific time trends. The main independent variable (Threshold-30) is a dummy variable which is the proxy for gender bargaining power. It takes a value equal to 1 when the share of female seats in national parliaments across OECD exceed 15%. Panel A uses a balanced panel data from 1980 to 2008 at 3-year intervals where the public spending on family allowances as a percentage of GDP is the main regressand. Panel B uses the same data from 1995 to 2008 including other countries for which the necesssary data is not available for the previous years. Panel C uses the same sample in Panel B where the public spending on family allowances as a percentage of total govenment spending is the main regressand. One, two and three * indicate significance at the 10, 5 and 1% level respectively. Total Old-Age Benefits (%GDP) refers to public and mandatory private spending on old-age benefits as a percentage of GDP. All standard errors are robust for the arbitrary heteroscedasticity. FLFP stands for Female Labor Force Participation Rate.

Table 5: Female Political Representation over the 20% Female Critical Mass Threshold and Public Spending on Family Allowances

	Pooled-OLS	FE	FE	FE
	(1)	(2)	(3)	(4)
PANEL A				
Threshold-20	0.2411***	0.1055	0.0771	0.0921
	(0.0761)	(0.1023)	(0.1072)	(0.1109)
Population rate(under 15)			0.0081	-0.0031
			(0.0311)	(0.0325)
Population rate (above 65)			-0.0543	-0.0714*
			(0.0399)	(0.0384)
Total Old-Age Benefits(%GDP)			0.0366	0.0350
			(0.0303)	(0.0332)
Unemployment Rate			0.0012	0.0018
			(0.0139)	(0.0132)
Log(GDP per capita)			-0.7479	-0.9132*
			(0.5041)	(0.5196)
FLFP				0.0127
				(0.0097)
Female education				0.2536
				(0.3413)
R-Square	0.0485	0.7387	0.7633	0.7689
Number of Cases	190	190	190	190
	Pooled-OLS	FE	FE	FE
	(1)	(2)	(3)	(4)
PANEL B				
Threshold-20	0.3969***	0.1276	0.1388	0.1278
	(0.0877)	(0.1562)	(0.1726)	(0.1650)
Population rate (under 15)			-0.0029	-0.0006
			(0.0060)	(0.0077)
Population rate (above 65)			-0.0375	-0.0473
			(0.0892)	(0.0958)
Total Old-Age Benefits(%GDP)			0.0072	0.0058
			(0.0296)	(0.0309)
Unemployment Rate			-0.0085	-0.0037
			(0.0176)	(0.0176)
Log(GDP per capita)			-0.5989	-0.3311
			(0.9532)	(1.1015)
FLFP				-0.0170
				(0.0229)
Female education				0.1942
				(0.2824)
R-Square	0.1342	0.5783	0.5849	0.5896
Number of Cases	135	135	135	135
	Pooled-OLS	FE	FE	FE
	(1)	(2)	(3)	(4)
PANEL C				
Threshold-20	0.7484***	0.2592	0.2850	0.2625
	(0.2181)	(0.4204)	(0.4590)	(0.4334)
Population rate (under 15)			0.0000	0.0081
			(0.0134)	(0.0189)
Population rate (above 65)			-0.1140	-0.1507
			(0.1854)	(0.2087)
Total Old-Age Benefits(%GDP)			0.0122	0.0051
			(0.0544)	(0.0571)
Unemployment Rate			-0.0127	0.0038
			(0.0362)	(0.0333)
Log(GDP per capita)			-0.0237	0.7907
			(1.0990)	(1.4124)
FLFP				-0.0568
				(0.0532)
Female education				-0.0173
				(0.7131)
R-Square	0.0831	0.5100	0.5135	0.5242
Number of Cases	130	130	130	130

The pooled cross-sectional OLS estimates are shown in columns (1) of each panel. The fixed effects estimation results are shown in columns (2), (3), (4). Following the previous literature, columns (3) and columns (4) add additional covariates such as real GDP per capita, unemployment rate, population rate of the citizens above 65 years old and below 15 years old to take into account general economic development, labor market situation and demographic development. In addition to these covariates, columns (4) also adds female labor force participation rate and female educational attainment for 15-44 year old women to take into account social development. Year dummies are included in all regressions. Except the pooled cross-sectional OLS regression, all estimations include country dummies and country specific time trends. The main independent variable (Threshold-30) is a dummy variable which is the proxy for gender bargaining power. It takes a value equal to 1 when the share of female seats in national parliaments across OECD exceed 20%. Panel A uses a balanced panel data from 1980 to 2008 at 3-year intervals where the public spending on family allowances as a percentage of GDP is the main regressand. Panel B uses the same data from 1995 to 2008 including other countries for which the necesssary data is not available for the previous years. Panel C uses the same sample in Panel B where the public spending on family allowances as a percentage of total govenment spending is the main regressand. One, two and three * indicate significance at the 10, 5 and 1% level respectively. Total Old-Age Benefits (%GDP) refers to public and mandatory private spending on old-age benefits as a percentage of GDP. All standard errors are robust for the arbitrary heteroscedasticity. FLFP stands for Female Labor Force Participation Rate.

Table 6. Female Political Representation over the 25% Female Critical Mass Threshold and Public Spending on Family Allowances

	Pooled-OLS	FE	FE	FE
	(1)	(2)	(3)	(4)
PANEL A				
Threshold-25	0.1278*	0.0380	0.0400	0.0309
	(0.0762)	(0.0714)	(0.0856)	(0.0752)
Population rate (under 15)			0.0070	-0.0036
			(0.0281)	(0.0314)
Population rate (above 65)			-0.0541	-0.0694*
			(0.0413)	(0.0395)
Total Old-Age Benefits (%GDP)			0.0426	0.0419
			(0.0310)	(0.0337)
Unemployment Rate			0.0002	0.0001
			(0.0131)	(0.0121)
Log(GDP per capita)			-0.7879*	-0.9571*
			(0.4516)	(0.4969)
FLFP				0.0112
				(0.0099)
Female education				0.2247
				(0.3196)
R-Square	0.0204	0.7345	0.7615	0.7659
Number of Cases	190	190	190	190
	Pooled-OLS	FE	FE	FE
	(1)	(2)	(3)	(4)
PANEL B				
Threshold-25	0.3220***	0.0336	0.0421	0.0227
	(0.0911)	(0.0990)	(0.1109)	(0.1012)
Population rate (under 15)			-0.0027	-0.0001
			(0.0064)	(0.0085)
Population rate(above 65)			-0.0114	-0.0251
			(0.0799)	(0.0842)
Total Old-Age Benefits (%GDP)			0.0269	0.0229
			(0.0368)	(0.0341)
Unemployment Rate			-0.0073	-0.0018
			(0.0174)	(0.0184)
Log(GDP per capita)			-0.3394	-0.0618
			(1.0017)	(1.2330)
FLFP				-0.0192
				(0.0249)
Female education				0.2932
				(0.2881)
R-Square	0.0848	0.5648	0.5716	0.5782
Number of Cases	135	135	135	135
	Pooled-OLS	FE	FE	FE
	(1)	(2)	(3)	(4)
PANEL C				
Threshold-25	0.4354*	0.2298	0.2634	0.2129
	(0.2271)	(0.2217)	(0.2536)	(0.2207)
Population rate (under 15)			0.0008	0.0087
			(0.0152)	(0.0210)
Population rate(above 65)			-0.0577	-0.0990
			(0.1718)	(0.1872)
Total Old-Age Benefits (%GDP)			0.0627	0.0503
			(0.0802)	(0.0721)
Unemployment Rate			-0.0118	0.0046
			(0.0342)	(0.0339)
Log(GDP per capita)			0.6226	1.3758
			(1.3297)	(1.9931)
FLFP				-0.0564
				(0.0581)
Female education				0.1304
				(0.7377)
R-Square	0.0274	0.5036	0.5083	0.5184
Number of Cases	130	130	130	130

The pooled cross-sectional OLS estimates are shown in columns (1) of each panel. The fixed effects estimation results are shown in columns (2), (3), (4). Following the previous literature, columns (3) and columns (4) add additional covariates such as real GDP per capita, unemployment rate, population rate of the citizens above 65 years old and below 15 years old to take into account general economic development, labor market situation and demographic development. In addition to these covariates, columns (4) also adds female labor force participation rate and female educational attainment for 15-44 year old women to take into account social development. Year dummies are included in all regressions. Except the pooled cross-sectional OLS regression, all estimations include country dummies and country specific time trends. The main independent variable (Threshold-30) is a dummy variable which is the proxy for gender bargaining power. It takes a value equal to 1 when the share of female seats in national parliaments across OECD exceed 25%. Panel A uses a balanced panel data from 1980 to 2008 at 3-year intervals where the public spending on family allowances as a percentage of GDP is the main regressand. Panel B uses the same data from 1995 to 2008 including other countries for which the necesssary data is not available for the previous years. Panel C uses the same sample in Panel B where the public spending on family allowances as a percentage of total govenment spending is the main regressand. One, two and three * indicate significance at the 10, 5 and 1% level respectively. Total Old-Age Benefits (%GDP) refers to public and mandatory private spending on old-age benefits as a percentage of GDP. All standard errors are robust for the arbitrary heteroscedasticity. FLFP stands for Female Labor Force Participation Rate.

Table 7. Robustness Checks: Female Political Representation over the 30% Female Critical Mass Threshold and Public Spending on Family Allowances

	SAMPLE 1		SAMPLE 2		SAMPLE 3	
	FE	FE	FE	FE	FE	FE
	(1)	(2)	(1)	(2)	(1)	(2)
Panel A: Without Control						
Threshold-30	0.2198***	0.2213***	0.1801***	0.1519***	0.4789***	0.3836***
	(0.0654)	(0.0668)	(0.0622)	(0.0392)	(0.1616)	(0.1016)
Electoral Fractionalization	-0.0039		0.0125		0.0431	
	(0.0056)		(0.0163)		(0.0425)	
Legislative Fractionalization		-0.0030		0.0027		0.0106
		(0.0029)		(0.0057)		(0.0139)
R-Square	0.7540	0.7541	0.5591	0.5469	0.5133	0.4864
Number of Cases	190	190	125	125	120	120
	SAMPLE 1		SAMPLE 2		SAMPLE 3	
	FE	FE	FE	FE	FE	FE
	(1)	(2)	(1)	(2)	(1)	(2)
Panel B: With Control						
Threshold-30	0.2103***	0.2123***	0.2493**	0.2102**	0.6901**	0.5650***
	(0.0725)	(0.0715)	(0.1131)	(0.0774)	(0.2785)	(0.1822)
Electoral Fractionalization	-0.0020		0.0151		0.0498	
	(0.0052)		(0.0173)		(0.0459)	
Legislative Fractionalization		-0.0037		0.0030		0.0124
		(0.0026)		(0.0066)		(0.0175)
R-Square	0.7802	0.7818	0.6009	0.5835	0.5546	0.5205
Number of Cases	190	190	125	125	120	120

Using three different samples, Table 7 represents robustness checks using electoral and legislative fractionalization. The main independent variable (Threshold-30) is a dummy variable which is the proxy for gender bargaining power. It takes a value equal to 1 when the share of female seats in national parliaments across OECD exceed 30%. Columns (1) of each sample in Panel A controls only for electoral fractionalization and Columns (2) in Panel A controls only for legislative fractionalization. To take into account economic, demographic and labor market situation and the general social development, each columns of Panel B add also other control variables such as real GDP per capita, unemployment rate, population rate of the citizens above 65 years old and below 15 years old, female labor force participation rate and female educational attainment for 15-44 year old women. The first sample is a balanced panel data at 3-year intervals that covers 19 countries from 1980 to 2008 where the public spending on family allowances as a percentage of GDP is the main regressand. The second sample which is also a balanced panel data at 3-year intervals that covers 25 countries from 1995 to 2008 where the public spending on family allowances as a percentage of GDP is the main regressand. Similarly, the third sample covers 24 countries from 1995 to 2008 at 3-year intervals where public spending on family allowances as a percentage of total government spending is the main regressand. Year dummies, country dummies and country specific time trends are included in all regressions. All standard errors are robust for the arbitrary heteroscedasticity and represented in parentheses. One, two and three * indicate significance at the 10, 5 and 1% level respectively.The focus on 25 and 24 countries is due to the missing value of electoral and legislative fractionalization variables for some countries in the second and third samples.

2-*The econometric panel data methods employed are quite theory driven and are not motivated by the problem at hand. For instance in the middle of page 9, the author discusses the estimation methods to estimate equation (1): Pooled OLS doesn't work if the strict exogeneity assumption isn't satisfied. Why should I believe this assumption is not satisfied? The section in the paper goes on for ten lines about correlations between the error term and covariates and the resulting problems, but does not relate this issue to the relationship between female representatives and family allowance expenditures*[1] *A short explanation (one sentence)is given in the next subsection on page 13, but that could be expanded and moved forward.*

Regarding referee's useful comment, I agree that explanations in the paragraph at page 9 could be clearer focusing on the paper's interest rather than giving explanations in a general econometric framework. I think that it is also the reason why it is not clear what I have mentioned with the word "individual" which is indicated in the first footnote of the referee report. As econometricians mostly prefer to use the general term individual for units such as persons, firms, countries etc., the term "individual" is used in this general econometric framework. For the next version of the paper, this paragraph at page 9 will be removed (since the similar explanation at page 13 exists as referee also noted) and explanations related to the topic on female political representation and family allowances will be expanded and moved forward. Therefore, I will also be careful using the word "country" rather than the word "individual" as well. In order to specifically relate this issue to the relationship between female representatives and family allowances, the following explanations can be mentioned in the revised version of the paper: "The major source of potential bias for the Pooled-OLS estimation in a regression of female political representation on family allowances may be historical, cultural and institutional factors which are unobservable, country-specific, time-invariant and influence both women's representation in politics and expenditures on family allowances. The inclusion of country fixed effects will remove this source of bias. One of the examples to these factors can be **"social capital for political activisim"** that can influence both women's representation in politics and allowances to families. For instance the practice of actions such as political movements, demonstrations and protests to achieve gender equality in politics can influence the position of women in the parliaments as these actions were successful for women suffrage in the past. Similarly, mass protests, political demonstrations can be effective on institutions, constituents to increase the budgetary allocations to social welfare policies (Zarate Tenorio, 2014)[2]. Particularly for family allowances, related literature suggests that women movements are especially required for women-friendly policies as they historically were successful for the emergence of British and French family allowance policies (Misra, 1998)[3].

The second example of an unobserved factor is **"religious features and ideas"** which can influence female position in politics due to its potential effect on gender role attitudes, where the men are bread-winners and women the home-makers (Vella[4], 1994; Fortin[5], 2005). On the other hand, due to the influence of religion on the idea of holding a family

[1] In fact, the section talks about individual specific effects when the unit of observation in the study is a country.

[2] Zarate Tenorio, Barbara, "Social Spending Responses to Organized Labor and Mass Protests in Latin America, 1970-2007", Comparative Political Studies, 47(14) :1945-1972, 2014.

[3] Misra, Joya. Mothers or Workers? The value of women's labor: women and the emergence of family allowance policy. Gender & Society, 12(4), 376-399, 1998

[4] Vella, Francis. "Gender roles and human capital investment: The relationship between traditional attitudes and female labour market performance." Economica, 61(242): 191-211, 1994.

[5] Fortin, Nicole M. Gender role attitudes and the labour-market outcomes of women across OECD countries. Oxford review of Economic

together can shape family policies and budgetary allocations to family benefits as well. An article based on 94 different studies about family and religion, indicates that religion have had a distinct positive influence in helping couples to avoid divorce and conserve family structure (Manohey et. al, 1999)[6]. However religious ideas and their reflection on people's attitudes and behaviors are difficult to be identified and difficult to be observed, especially in a cross-country setting. As a third example, **"tax-benefit system"** can shape both family allowances and female political representation as well. For instance, the collapse of socialism influenced governance in former socialist countries, in particular their tax benefits system after the collapsion. Even though Nordic countries are not ex-socialist but are interventionist similar to the socialist countries that they have a greater interest in state expansion with social welfare benefits. It can be expected from Nordic Countries to redistribute more on family related benefits in part because of their commitment to income equality, child health development etc. (La Porta et al, 1999)[7]. On the other hand, following the global recession in 1990s, Nordic countries were forced into making deep budget cuts in social welfare spending (e.g. replacement rates were cut, services were cut and qualifying conditions for benefits were increased) particularly in family-specific benefits. The degree of the reduction in social welfare spending was smaller in Norway (Esping-Andersen, 1996)[8] compared to Denmark, Finland and Sweden. Sweden made major cutbacks in family-specific benefits at that period (Ferrarini and Duvander[9], 2010), although it has historically been and still is one of the countries which spends more on family specific benefits than many other countries. However, as researchers, it is difficult to make observations about the level of budget cuts done, taxes levied or generosity in family allowances for each country at a specific point in time. Due this unobserved heterogeneity in country specific institutional or historical behaviors, it is necessary to use country fixed effects to remove the source of bias caused by these factors.

3-*The finding that a critical mass of female representatives need to exist to influence expenditure of family allowances is central to the paper. However, there is not much discussion as to why there should be a 30% threshold. As a reader, I would like to be convinced that this threshold exists. Simply showing a significant effect does not do that. It would be also interesting to see how many countries and at what point in time does the share of female representatives exceed the 30% threshold.*

I am thankful to referee for this important point that the need for much discussion on the 30% threshold issue is realized after I read the paper again. As it is explained at page 12, the existing literature about the critical mass threshold of women relies on the Kanter (1977)[10]'s pioneering study. Although the determination of a threshold is still problematic and undertheorized in the literature, threshold has been variously identified by different scholars at different levels such as 15,20,

Policy, 21.3: 416-438, 2005.

[6]Mahoney, A., Pargament, K. I., Jewell, T., Swank, A. B., Scott, E., Emery, E., & Rye, M. Marriage and the spiritual realm: The role of proximal and distal religious constructs in marital functioning. Journal of Family Psychology, 13(3): 321-338, 1999.

[7]Rafael La Porta, Florencio Lopez-de Silanes, Andrei Shleifer, and Robert Vishny. The quality of government. Journal of Law, Economics, and organization, 15(1) : 222-279, 1999.

[8]Gøsta Esping-Andersen. Welfare states in transition: national adaptationsin global economies. Sage Publications, 1996.

[9]Ferrarini, T. and Duvander, A.Z. (2010), Earner-carer model at the crossroads: Reforms and outcomes of Swedens family policy in comparative perspective, International Journal of Health Services, 40(3): 373398.

[10]Kanter. R. M. Some Effects of proportions on Group Life. American Journal of Sociology, 82(5), 965-990, 1977.

25 or 30 percent (Beckwith and Cowell-Meyers[11], 2007; Studlar and McAllister[12], 2002) but not more than 30. Moreover, inspired by Kanter's work, Dahlerup (1988)[13], the finder of the term "critcal mass", indicates that women should constitute about 30 per cent of an organization to significantly influence policies and be able to represent women and women's issues. This threshold was also set by the United Nations in 1995 as the necessary minimum of women parliamentarians to represent women citizens (Lovenduski, 2001)[14]. This paper simply aimed at testing Dahlerup (1988)'s theory and UN(1995)'s setting about the 30% threshold. Besides 30% threshold, I have also checked other thresholds(15%,20%, 25%) which are previously mentioned by other studies to be more precise in the comparision of relevant findings.

The under-representation of women in politics still persist even in the most advanced OECD countries and the average percentage of female seats was only 19.9% in 2009 which is the final year of the datasets used in the paper. Moreover, the percentage share of the female seats are still less than one-third in 23 out of 34 OECD countries. The findings presented in Table 2 are interesting to show that there is no positive association between female political participation and public family allowances using the datasets of countries where most of them have not passed the 30% threshold for years since the initial year of dataset. However, in the revised version of the paper, it will be shown on a table how many countries and at what point in time does the share of female representatives exceed the 30% threshold.

Minor Issues

1-The readability of the paper would greatly improve from a proper proof-reading.

The point is well taken and the paper will be thoroughly proof-read.

2-The regression tables are quite large. There are three different samples and three different estimation techniques. If pooled OLS is ruled out because it is biased, why include it in the first place? And how do three (not mutually exclusive) samples of countries add information here? Wouldn't it be better to get one large sample (even if the number of periods per country are different)

As referee mentions, Pooled-OLS estimations are ruled out and there is no need to include them to the tables.The reason that I presented them is to show the changes in significance after adding the country fixed effects. Some studies in economics establish a strong cross-country correlation between two variables but do not control for unobserved factors that simultaneously affect both variables. In addition to mention this issue by words, I also wanted to show how controlling for country fixed effects changes the statistical association between female political representation (or threshold levels) and family allowances. However, they will be removed from the tables and the results from pooled-OLS estimations can be mentioned inside the text.

However, in my opinion, the use of three different samples which aim to show the non-existence of cross-country hetero-

[11]Beckwith, K., and K. Cowell-Meyers (2007) Sheer Numbers: Critical Representation Thresholds and Womens Political Representation. Perspectives on Politics, 5(3), 553-565, 2007.

[12]Studlar D. T. and I. McAllister Does a Critical Mass Exist? A Comparative Analysis of Womens Legislative Representation since 1950. European Journal of Political Research, 41, 224-244, 2002.

[13]Dahlerup, D. From a Small to a Large Minority: Women in Scandinavian Politics. Scandinavian Political Studies, 11(4), 275-298, 1988.

[14]Lovenduski, J. (2001) Women and Politics: Minority Representation or Critical Mass? Parliamentary Affairs, 54, 743-758, 2001.

geneity, is necessary. There are traditional OECD Countries which are ranked at the top for long time, regarding the fraction of female parliamentarians (e.g. Norway, Finland, the Netherlands, Sweden). Since the majority of these countries have higher than 30 per cent of female seats, I found a positive relationship between female political representation and family allowances using a dataset that includes only these countries. As we can see at Panel A and D of Table 2, which presents estimation results using this sample, all estimations give significant results for a positive relationship. In order to show that this is not the case, new OECD countries, which recently joined to OECD and have lower percentage female political representation than traditional OECD countries,are included into the analysis. Using this new dataset, I wanted to show that traditional OECD countries may be driving the positive relationship between women's political representation and public spending on family allowances. That is the reason why the coefficient of female political representation is not significant at Panel B and E of Table 2 using this new dataset. The same applies using the third dataset which includes these new OECD countries as well. Although the third sample covers the same period and almost the same countries of the second sample (except Japan due to the absence of relevant data for this country), I wanted to see difference in results when spending on family allowances is taken into account in relative terms (as a percentage of total government spending) rather than absolute terms (as a percentage of GDP).

3-A single sentence on page 9 mentions that country-specifc time trends are included in the regressions. These seem quite important to me. However at the tables there is no hint if such trend-terms are added. If these terms are not included after all, it would be interesting to see how the overall results change.

The inclusion of country specific time trends could not be shown on a specific raw at each table due to the excessive size of tables and therefore because of limited space. However, this hint was supposed to take place in the footnotes of all tables as following : "Except the pooled cross-sectional OLS regression, all estimations include country dummies and country specific time trends." In fact, all tables except Table 2 have this information in the footnotes, but it is unfortunately forgotten to be mentioned under Table 2. This hint will be also added to the footnote of Table 2 while revising the paper.

4-Variables that measure shares should be normalized consistently between 0 and 1 or 0 and 100. In particular the demographic shares are measured differently here.

As referee indicates that only two demographic variables are normalized between 0 and 1. Other variables that measure shares are normalized between 0 and 100. As all variables are taken from their original sources as they are, I forgot to normalize all the variables in the same scale. I am thankful to referee for his warning about this point. Normalizing these variables between 0 and 100, I replicated all the analysis. As it was expected, main results remained unchanged and the only minor changes were occured for the coefficient and standard errors of the demographic variables which became 100 times smaller. This is because the original values are divided by 100. Although I will make the neccessary changes in all Tables (including summary statistics) for the revised version of the paper, the replications for Table 2 are presented below, as an example. Table 2* presents replicated estimates and can be comparable with the original Table 2 at page 21.

Table 2*: The Percentage Share of Female Parliamentarians and Public Spending on Family Allowances across OECD Countries

	Panel-A			Panel-B			Panel-C		
	Pooled-OLS	FE	GMM	Pooled-OLS	FE	GMM	Pooled-OLS	FE	GMM
	(1)	(2)	(3)	(1)	(2)	(3)	(1)	(2)	(3)
P. of FP	0.0089***	0.0127*	0.0062**	0.0147***	0.0127	0.0155	0.0176***	0.0351	0.0130
	(0.0017)	(0.0070)	(0.0031)	(0.0022)	(0.0093)	(0.0099)	(0.0054)	(0.0251)	(0.0207)
Lag(Family Allowances)			0.7110***			0.4023***			0.4886***
			(0.0534)			(0.0462)			(0.0704)
R-Square	0.0360	0.7666		0.0796	0.6183		0.0188	0.5710	
Number of Cases	551	551	494	378	378	297	364	364	286
	Panel-D			Panel-E			Panel-F		
	Pooled-OLS	FE	GMM	Pooled-OLS	FE	GMM	Pooled-OLS	FE	GMM
	(1)	(2)	(3)	(1)	(2)	(3)	(1)	(2)	(3)
P. of FP	0.0085***	0.0095	0.0056*	0.0090***	0.0113	0.0147	0.0023	0.0339	0.0180
	(0.0023)	(0.0074)	(0.0031)	(0.0035)	(0.0090)	(0.0094)	(0.0087)	(0.0242)	(0.0188)
Population rate (above 65)	0.0781***	-0.0557	-0.0316	-0.0782***	-0.0369	-0.0464	-0.1819***	-0.0987	-0.0152*
	(0.0157)	(0.0332)	(0.0198)	(0.0131)	(0.0514)	(0.0466)	(0.0340)	(0.1293)	(0.0841)
Population rate (under 15)	0.0950***	0.0040	-0.0069	0.0001	0.0000	-0.0023	0.0003	0.0053	0.0180
	(0.0101)	(0.0299)	(0.0131)	(0.0000)	(0.0059)	(0.0118)	(0.0002)	(0.0143)	(0.0207)
Total Old-Age Benefits(%GDP)	0.0011	0.0328	0.0349**	0.0242*	0.0126	0.0154	-0.0167	0.0403	0.0690**
	(0.0099)	(0.0283)	(0.0144)	(0.0129)	(0.0172)	(0.0176)	(0.0286)	(0.0323)	(0.0328)
Unemployment Rate	0.0130	0.0043	-0.0032	0.0185	0.0028	0.0180*	0.0361	0.0150	0.0279***
	(0.0087)	(0.0124)	(0.0069)	(0.0118)	(0.0106)	(0.0093)	(0.0260)	(0.0208)	(0.0106)
Log(GDP per capita)	1.3506***	-0.6713	-0.1025	0.8376***	0.1396	1.1538***	2.1949***	2.6899***	4.4270***
	(0.1006)	(0.4370)	(0.2009)	(0.1154)	(0.3627)	(0.4376)	(0.2757)	(0.8758)	(0.8784)
FLFP	-0.0029	0.0100	0.0029	0.0041	-0.0259*	-0.0217*	0.0148	-0.0664*	-0.0462**
	(0.0026)	(0.0107)	(0.0045)	(0.0047)	(0.0132)	(0.0131)	(0.0107)	(0.0343)	(0.0193)
Female Education	-0.0919***	0.2436	0.1206	-0.1381***	-0.1413	-0.0922	-0.3626***	-0.4736	0.1039
	(0.0184)	(0.2701)	(0.1486)	(0.0248)	(0.1359)	(0.1637)	(0.0618)	(0.4086)	(0.4403)
Lag(Family Allowances)			0.6773***			0.3827***			0.4434***
			(0.0499)			(0.0530)			(0.0655)
R-Square	0.2646	0.7899		0.2788	0.6344		0.2821	0.5985	
Number of Cases	551	551	494	378	378	297	364	364	286

The pooled cross-sectional OLS estimates are shown in columns 1. The fixed effects estimation results are represented in columns 2 with country dummies. Columns 3 use the GMM of Manuel Arellano and Stephen R. Bond (1991) with robust standard errors which instrument for the female parliamentary representation using a double lag. Estimation frameworks in Panel A,B and C do not control any variable. Panel D,E and F add additional covariates such as real GDP per capita, unemployment rate, population rate of the citizens above 65 years old and below 15 years old, female labor force participation rate and female educational attainment for 15-44 year old women to take into account general economic, labor market situation, demographic and social development. Year dummies are included in all regressions. All regressions include country dummies except the pooled cross-sectional OLS estimations. The main independent variable (female parliamentary representation) is the percentage share of female seats in lower chambers across OECD parliaments. Panel A and D use a yearly balanced panel dataset from 1980 to 2008 where the public spending on family allowances as a percentage of GDP is the main regressand. Panel B and E use the same annual data from 1995 to 2008 including other countries for which necesssary data is not available for the previous years. Panel C and F represent results using the third sample which consider public spending on family allowances as a percentage of total govenment spending as the main regressand. One, two and three * indicate significance at the 10, 5 and 1% level respectively. All standard errors are robust for the arbitrary heteroscedasticity. Total Old-Age Benefits (%GDP) refers to public and mandatory private spending on old-age benefits as a percentage of GDP. FLFP stands for Female Labor Force Participation Rate. P. of FP stands for percentage share of female parliamentarians.

5-The structure of Section 3 "Description, Econometric Model and Empirical Results" does not make it easy to follow. The section is split into the linear relationship (between female representatives and family allowance expenditures) and the threshold estimation. Both sections use basically the same estimating equations (changing one in-dependent variable), but the explanation of the econometric problems appear twice. A single subsection on the empirical strategy would make sense. In general there is a lot of repetition in these sections.

Following referee's suggestion these two sections will be combined in a proper way under a single subsection without changing the concept and avoiding repetition.

6-The paper is in general badly structured. For instance, there is a long paragraph in Section 2 "Background and Existing Studies" that talks about the panel data econometrics used in this paper and standard error correction - this doesn't seem to be the right place.

This paragraph in Section 2 explains the methods or techniques which are not used by the existing studies. The reason that I chose to integrate them in the section of "Existing Studies" was to show how this paper would contribute to the existing studies in an econometric point of view. However it will be removed to the Section 3 which discusses more about the econometrics used in the paper.