

# ***Commuting Behavior and Gender Norms by Sexual Orientation***

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# *Motivation*

- Large literature and interest from policymaker on **gender commuting gap** and broader **gender inequality in labor market outcomes**
- Women choose jobs with a **shorter commute** and that they are willing to trade-off shorter commutes with wages (Barbanchon et al. 2021)
- Women move to **lower-paying jobs** closer to home after having children (Lundborg et al. 2017; Albanese et al. 2022)
- Married women exhibit a **lower labor force participation** in metropolitan areas with longer commutes (Black et al. 2014; Farré et al. 2020)
- **Child penalty** and specialization among **same-sex couples** is much lower than for different-sex couples (Andresen and Nix 2022; Evertsson et al. 2021)

# *Research question*

- Goal: to better understand the existing gender commuting gap and **labor market inequalities**
- How?
  - **Model** where households choose their commuting time, labor supply, and time allocated to the household sector, allowing for **gender-conforming social norms** to shape these decisions
  - Test model predictions by comparing same-sex and different-sex couples in the **American Community Survey**

# ***Model insights***

- Gender-conforming social norms affect trade-off between utility from **household public good** and utility from **career**
- In different-sex couples, these norms lead women to believe that utility from public good is relatively higher for them
  - Women settle for closer-to-home less-rewarding jobs in order to take up heavier responsibilities in the household, while male partners settle for farther, more-rewarding jobs
- Gender-conforming social norms **less binding** among **same-sex couples**
- Different commuting behavior and labor supply choices may arise also when men and women are **equally productive**, and among **childless couples**

# *Model predictions*

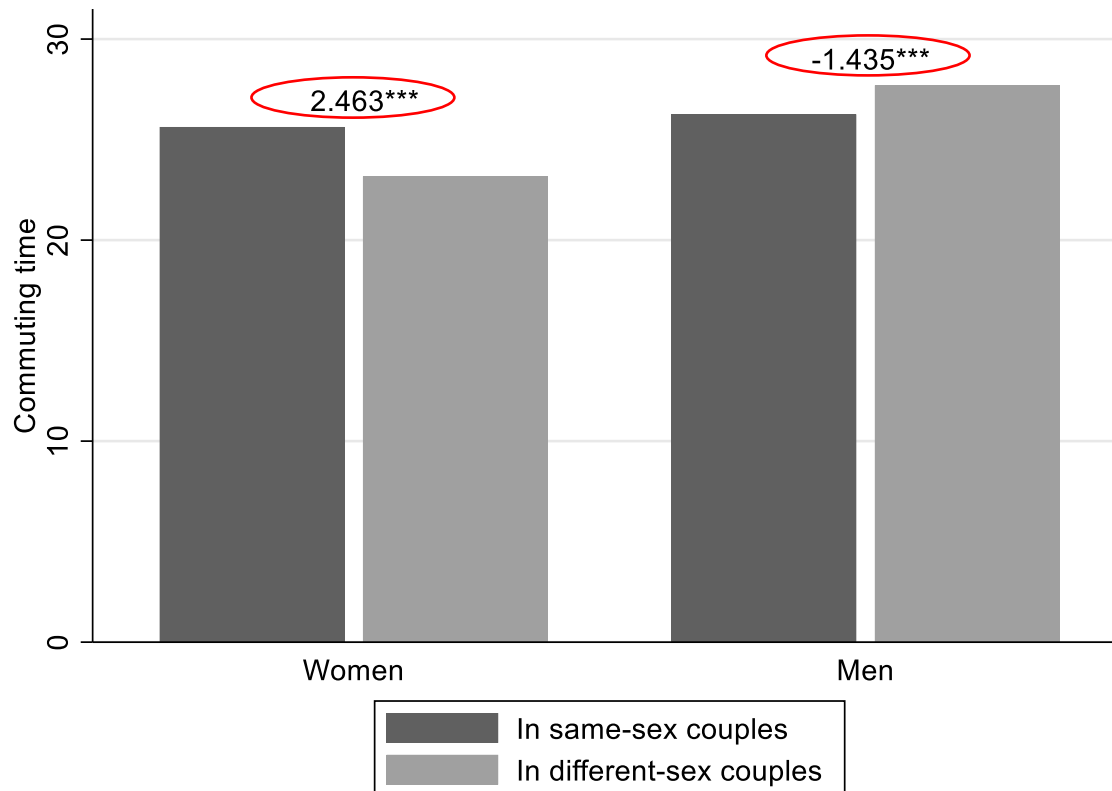
- **Women in DSC reduce their commuting time** to work and exhibit a more traditional division of labor than women in SSC
- **Among men in DSC**, lower marginal utility from consumption of public good leads them to **commute longer**
- **Women in SSC work more hours** than women in DSC
- **Men in SSC work fewer hours** than men in DSC
- **Work commute differences within DSC are larger** than the commuting gap within SSC
- Differences in commuting time and labor supply **magnified by the presence of children**

# *Data*

- **American Community Survey (ACS) 2008-2019**
- Annual survey containing demographic, economic, social, and housing information on random 1% sample of U.S. population
- **Same-sex couples (SSC):** household head and same-sex married spouse or unmarried partner
  - Roommates excluded
- Sample: working adults aged 18-64
- **Key variable:** total amount of time, in minutes, that it usually took the respondent to get from home to work
  - Commuting time of those working from home set to zero

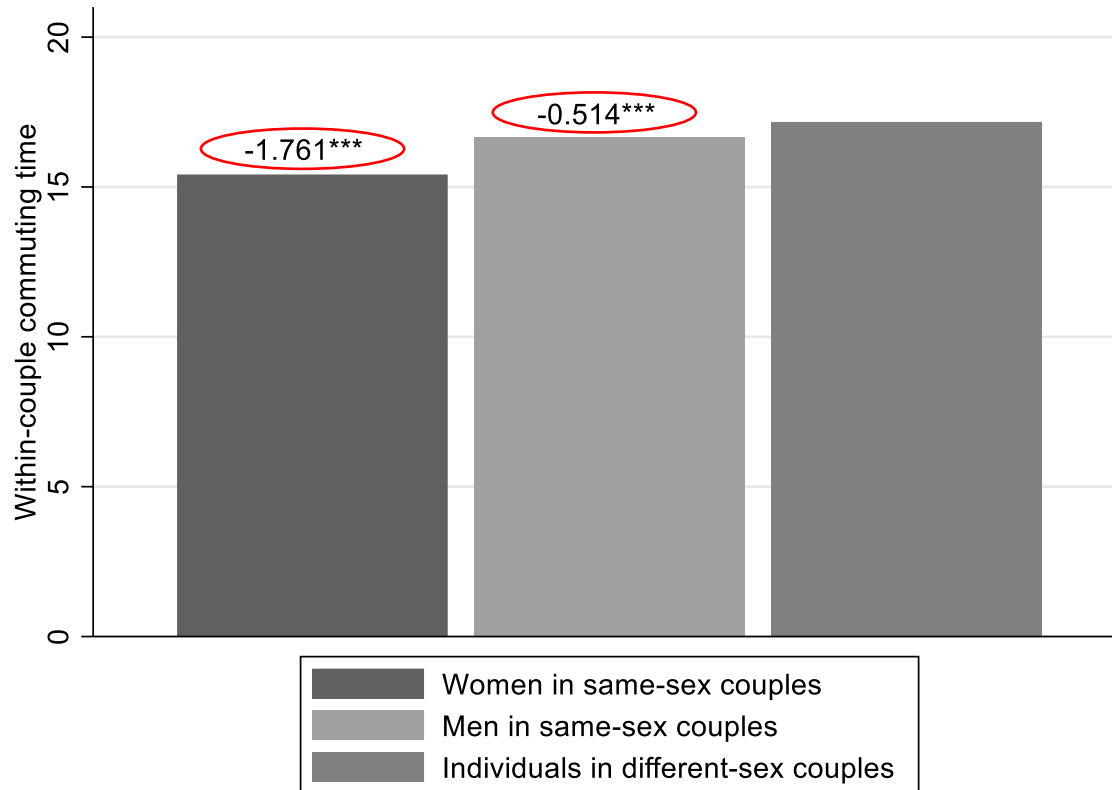
# *Commuting time*

- Men commute more than women
- Women in SSC have **longer commutes** than women in DSC
- Men in SSC have shorter commutes than men in DSC



# *Within-couple commuting gap*

- **Smaller gaps** in same-sex couples
- Consistent with idea that same-sex couples more egalitarian





# Multivariate analysis

- Women in SSC have **longer commutes** than women in DSC
- Men in SSC have shorter commutes than men in DSC

**Table: Commuting time. By sex and couple type.**

	(1)	(2)	(3)	(4)	(5)
<i>Panel A: Women in SSC and DSC</i>					
In a same-sex couple	2.463*** (0.113)	2.108*** (0.111)	2.046*** (0.111)	2.145*** (0.111)	1.761*** (0.114)
Observations	4,411,409	4,411,409	4,411,409	4,411,409	4,411,409
Mean of dependent variable	23.201	23.201	23.201	23.201	23.201
R <sup>2</sup>	0.000	0.020	0.025	0.026	0.027
<i>Panel B: Men in SSC and DSC</i>					
In a same-sex couple	-1.435*** (0.122)	-2.131*** (0.120)	-1.974*** (0.120)	-2.059*** (0.120)	-1.021*** (0.123)
Observations	5,210,836	5,210,836	5,210,836	5,210,836	5,210,836
Mean of dependent variable	27.675	27.675	27.675	27.675	27.675
R <sup>2</sup>	0.000	0.019	0.019	0.019	0.020
<i>Controls for:</i>					
State and year FE		✓	✓	✓	✓
Demographic controls			✓	✓	✓
Partner/spouse controls				✓	✓
Fertility and marital status					✓

# Magnitude

- Similar to **gender gap**
- Women in SSC vs DSC: 2.5 minutes => **25 minutes/week**

**Table: Commuting time. By sex and couple type.**

	(1)	(2)	(3)	(4)	(5)
<i>Panel A: Women in SSC and DSC</i>					
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In a same-sex couple	-1.435*** (0.122)	-2.131*** (0.120)	-1.974*** (0.120)	-2.059*** (0.120)	-1.021*** (0.123)
Observations	5,210,836	5,210,836	5,210,836	5,210,836	5,210,836
Mean of dependent variable	27.675	27.675	27.675	27.675	27.675
R <sup>2</sup>	0.000	0.019	0.019	0.019	0.020
<i>Controls for:</i>					
State and year FE		✓	✓	✓	✓
Demographic controls			✓	✓	✓
Partner/spouse controls				✓	✓
Fertility and marital status					✓

# Marriage and Children

- Largest gap among **married women with children**
- Gender-conforming social norm reinforced by parenthood

**Table: Commuting time. By marital status and fertility.**

	Married w/ children (1)	Married w/o children (2)	Unmarried w/ children (3)	Unmarried w/o children (4)
<i>Panel A: Women in SSC and DSC</i>				
In a same-sex couple	2.765*** (0.320)	1.771*** (0.245)	1.133*** (0.365)	0.553** (0.217)
Observations	1,518,968	1,049,278	144,190	227,662
Mean of dependent variable	23.406	23.560	23.738	24.319
R <sup>2</sup>	0.029	0.026	0.027	0.032
<i>Panel B: Men in SSC and DSC</i>				
In a same-sex couple	-1.662*** (0.498)	-1.284*** (0.246)	-2.020*** (0.767)	-0.933*** (0.199)
Observations	1,972,381	1,092,622	166,510	235,897
Mean of dependent variable	28.683	27.156	27.570	25.945
R <sup>2</sup>	0.022	0.018	0.015	0.020
<i>Controls for:</i>				
State and year FE	✓	✓	✓	✓
Demographic controls	✓	✓	✓	✓
Partner/spouse controls	✓	✓	✓	✓

# Household structure and location

- Larger gap among **secondary earners**
- Gaps still there among those living in **city center**

**Table: Commuting time. By position in the household and location.**

	Household head	Spouse or partner	Main earner	Second earner	City center	Not city center
	(1)	(2)	(3)	(4)	(5)	(6)
<i>Panel A: Women in SSC and DSC</i>						
In a same-sex couple	1.818*** (0.146)	1.669*** (0.146)	1.050*** (0.126)	2.235*** (0.218)	0.986*** (0.251)	2.376*** (0.202)
Observations	1,846,540	2,564,869	1,753,489	2,657,920	452,789	1,991,694
Mean of dependent variable	23.318	23.115	25.084	21.913	25.702	24.086
R <sup>2</sup>	0.028	0.026	0.028	0.026	0.094	0.030
<i>Panel B: Men in SSC and DSC</i>						
In a same-sex couple	-0.910*** (0.155)	-1.130*** (0.164)	-0.964*** (0.137)	-0.448* (0.230)	-1.208*** (0.220)	-0.323 (0.242)
Observations	3,173,588	2,037,248	4,004,896	1,205,940	547,612	2,336,237
Mean of dependent variable	27.422	28.053	28.044	26.427	28.066	29.228
R <sup>2</sup>	0.022	0.018	0.021	0.021	0.066	0.023
<i>Controls for:</i>						
State and year FE	✓	✓	✓	✓	✓	✓
Demographic controls	✓	✓	✓	✓	✓	✓
Partner/spouse controls	✓	✓	✓	✓	✓	✓
Fertility and marital status	✓	✓	✓	✓	✓	✓



# Within-couple commuting gap

- **Smaller within-couple commute gaps** in same-sex couples
- Conform less to gender norms

**Table: Within-couple commuting time gap. By sex and couple type.**

	(1)	(2)	(3)	(4)	(5)
<i>Panel A: Women in SSC and DSC</i>					
In a same-sex couple	-1.761***	-2.028***	-2.103***	-2.102***	-1.537***
	(0.143)	(0.142)	(0.142)	(0.142)	(0.145)
Observations	3,613,685	3,613,685	3,613,685	3,613,685	3,613,685
Mean of dependent variable	17.157	17.157	17.157	17.157	17.157
R <sup>2</sup>	0.000	0.011	0.011	0.011	0.012
<i>Panel B: Men in SSC and DSC</i>					
In a same-sex couple	-0.514***	-1.000***	-1.125***	-1.078***	-0.375**
	(0.157)	(0.156)	(0.156)	(0.156)	(0.158)
Observations	3,612,771	3,612,771	3,612,771	3,612,771	3,612,771
Mean of dependent variable	17.166	17.166	17.166	17.166	17.166
R <sup>2</sup>	0.000	0.011	0.011	0.011	0.012
<i>Controls for:</i>					
State and year FE		✓	✓	✓	✓
Demographic controls			✓	✓	✓
Partner/spouse controls				✓	✓
Fertility and marital status					✓

# Hours worked

- Women in SSC work more hours than women in DSC
- Men in SSC work fewer hours than men in DSC

**Table: Hours worked. By sex and couple type.**

	(1)	(2)	(3)	(4)	(5)	(6)
<i>Panel A: Women in SSC and DSC</i>						
In a same-sex couple	3.079*** (0.053)	2.941*** (0.053)	2.863*** (0.053)	2.144*** (0.054)	2.088*** (0.054)	2.448*** (0.051)
Commuting time			0.039*** (0.000)		0.038*** (0.000)	0.035*** (0.000)
Observations	4,411,409	4,411,409	4,411,409	4,411,409	4,411,409	4,411,409
Mean of dependent variable	37.766	37.766	37.766	37.766	37.766	37.766
R <sup>2</sup>	0.001	0.035	0.040	0.045	0.050	0.130
<i>Panel B: Men in SSC and DSC</i>						
In a same-sex couple	-1.831*** (0.056)	-2.082*** (0.055)	-2.050*** (0.055)	-0.955*** (0.057)	-0.936*** (0.057)	-1.332*** (0.053)
Commuting time			0.017*** (0.000)		0.016*** (0.000)	0.018*** (0.000)
Observations	5,210,836	5,210,836	5,210,836	5,210,836	5,210,836	5,210,836
Mean of dependent variable	44.199	44.199	44.199	44.199	44.199	44.199
R <sup>2</sup>	0.000	0.019	0.020	0.023	0.024	0.112
<i>Controls for:</i>						
Hourly wages		✓	✓	✓	✓	✓
State and year FE		✓	✓	✓	✓	✓
Demographic controls		✓	✓	✓	✓	✓
Partner/spouse controls		✓	✓	✓	✓	✓
Fertility and marital status				✓	✓	
Student and army status						✓
Occupation FE						✓

# *Key Takeaways*

- Women in SSC have longer commute than women in DSC
- Commute of men in SSC shorter than men in DSC
- Within-couple gaps in commuting time smaller in SSC
- Labor supply disparities mimic the commuting ones
- These differences interpreted as **gender-conforming social norms** leading women in DSC into jobs with shorter commute and fewer hours worked
- Household work decisions being shaped by gender-conforming social norms that shift the pressure of work-family balance on heterosexual women by increasing their **marginal utility of the household public good**
- Not consistent with **biological differences** because differences hold across household types within same gender



*Thank you!*

*Review LGBT literature on my website*



*@SansoneEcon*

# *Quick advertisement - ECQE*

- Following the example from the AEA, we have created the **European Committee for LGBTQ+ Economists**



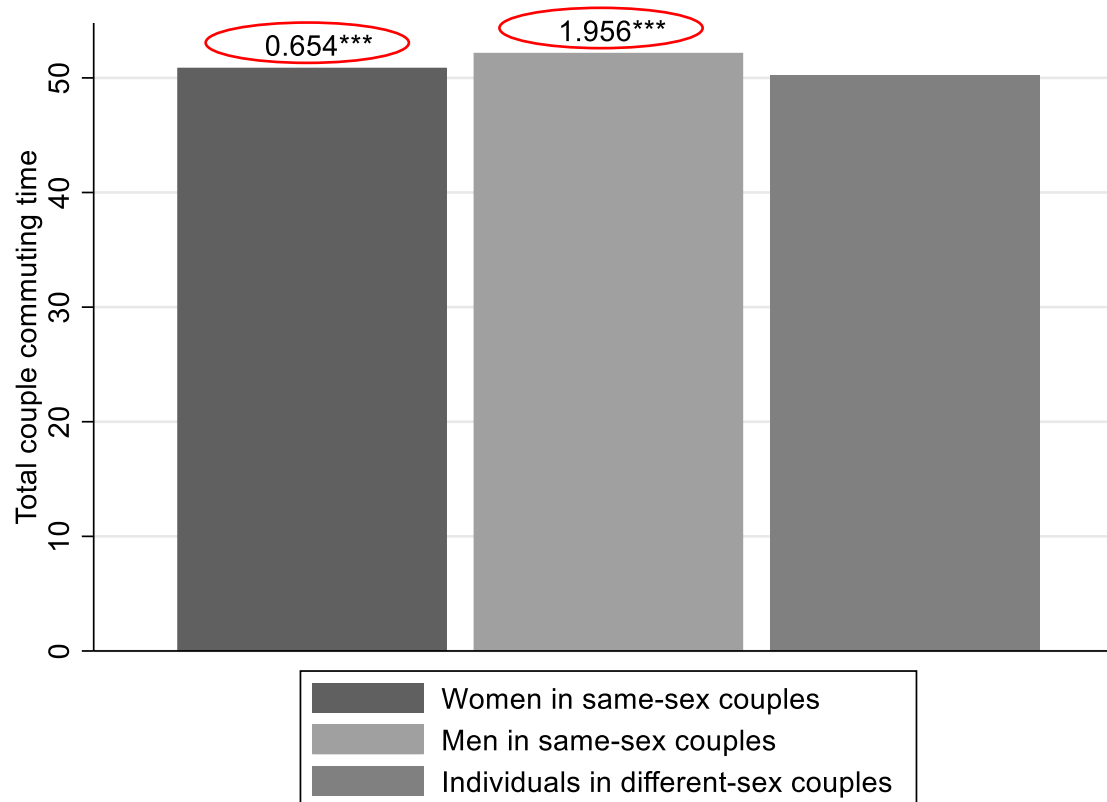
- Currently collaborating with EEA and RES
- Mentoring program for junior scholars and JMC
- Website: <https://sites.google.com/view/ecqe>
- Social events online and at conferences
- Newsletter on the webiste
- Follow us on Twitter [@ECQE6](https://twitter.com/ECQE6)
- Link to form to register to mailing list on Twitter



# *Appendix*

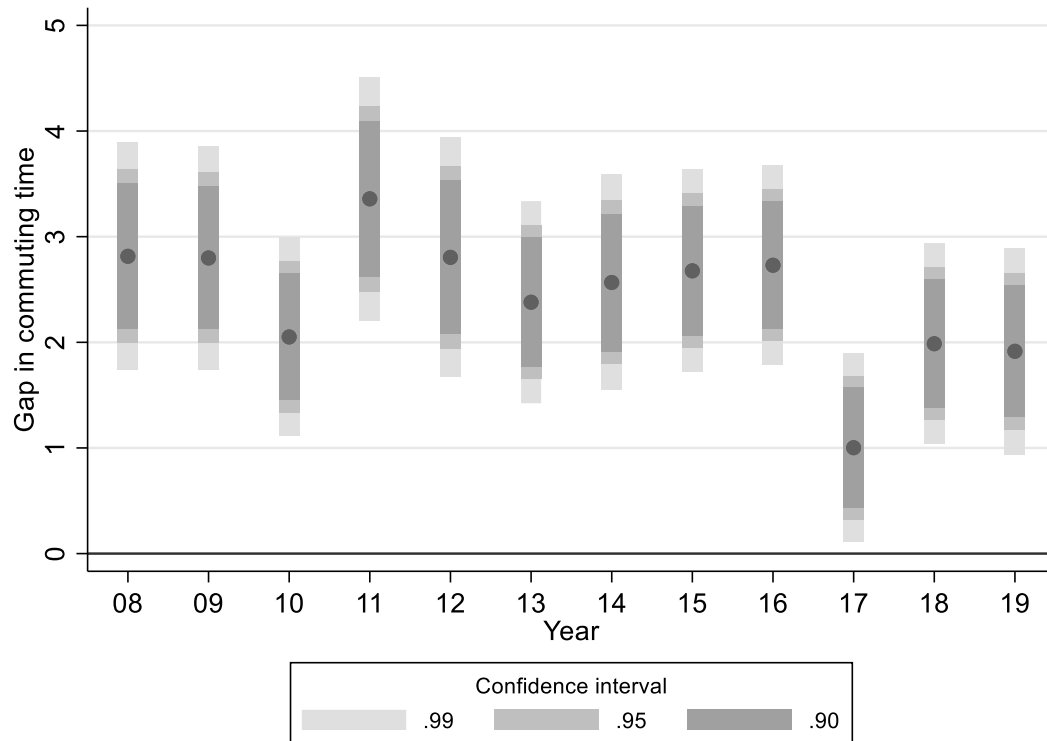
# *Total couple commuting time*

- Couples with **two men** have **highest** overall commuting time
- **Different-sex couples** have **lowest** overall commuting time



# *Raw gaps in commuting time over time*

- Stable over time for women



# *Heterogeneity by age*

- Dep variable: commuting time

	18-40	41-64	25-64
	(1)	(2)	(3)
<i>Panel A: Women in SSC and DSC</i>			
In a same-sex couple	0.791*** (0.163)	2.183*** (0.154)	1.726*** (0.118)
Observations	1,646,346	2,765,063	4,258,026
Mean of dependent variable	23.512	22.985	23.305
R <sup>2</sup>	0.032	0.026	0.027
<i>Panel B: Men in SSC and DSC</i>			
In a same-sex couple	-1.407*** (0.192)	-1.313*** (0.158)	-1.155*** (0.126)
Observations	1,852,711	3,358,125	5,090,197
Mean of dependent variable	27.237	27.956	27.793
R <sup>2</sup>	0.022	0.020	0.020
<i>Controls for:</i>			
State and year FE	✓	✓	✓
Demographic controls	✓	✓	✓
Partner/spouse controls	✓	✓	✓
Fertility and marital status	✓	✓	✓

# *Heterogeneity by race and ethnicity*

- Dep variable: commuting time

	White (1)	Black (2)	Asian (3)	Hispanic (4)
<i>Panel A: Women in SSC and DSC</i>				
In a same-sex couple	1.940*** (0.120)	0.756 (0.474)	0.029 (0.630)	1.319*** (0.310)
Observations	3,650,782	268,726	261,460	469,924
Mean of dependent variable	22.425	26.983	27.131	24.119
R <sup>2</sup>	0.018	0.057	0.042	0.036
<i>Panel B: Men in SSC and DSC</i>				
In a same-sex couple	-0.991*** (0.132)	-1.044** (0.530)	0.092 (0.550)	-1.805*** (0.357)
Observations	4,313,957	310,190	281,674	649,412
Mean of dependent variable	27.231	29.067	30.236	28.954
R <sup>2</sup>	0.017	0.039	0.049	0.019
<i>Controls for:</i>				
State and year FE	✓	✓	✓	✓
Demographic controls	✓	✓	✓	✓
Partner/spouse controls	✓	✓	✓	✓
Fertility and marital status	✓	✓	✓	✓

# *Additional restrictions*

- Dep variable: commuting time

	No students (1)	No army (2)	2012- 2019 (3)	Robust SE (4)	No weights (5)
<i>Panel A: Women in SSC and DSC</i>					
In a same-sex couple	1.770*** (0.119)	1.762*** (0.114)	1.641*** (0.134)	1.761*** (0.103)	1.829*** (0.099)
Observations	4,139,712	4,404,566	2,940,098	4,411,409	4,411,409
Mean of dependent variable	23.166	23.197	23.552	23.201	23.201
R <sup>2</sup>	0.027	0.027	0.027	0.027	0.023
<i>Panel B: Men in SSC and DSC</i>					
In a same-sex couple	-1.017*** (0.128)	-1.010*** (0.123)	-1.263*** (0.143)	-1.021*** (0.113)	-1.156*** (0.105)
Observations	5,007,438	5,154,713	3,467,410	5,210,836	5,210,836
Mean of dependent variable	27.721	27.703	27.976	27.675	27.675
R <sup>2</sup>	0.020	0.020	0.021	0.020	0.018
<i>Controls for:</i>					
State and year FE	✓	✓	✓	✓	✓
Demographic controls	✓	✓	✓	✓	✓
Partner/spouse controls	✓	✓	✓	✓	✓
Fertility and marital status	✓	✓	✓	✓	✓



# ***Both working***

- Dep variable: commuting time

	(1)	(2)	(3)	(4)	(5)
<i>Panel A: Women in SSC and DSC</i>					
In a same-sex couple	2.419*** (0.124)	2.054*** (0.122)	1.983*** (0.122)	2.045*** (0.122)	1.600*** (0.125)
Observations	3,702,772	3,702,772	3,702,772	3,702,772	3,702,772
Mean of dependent variable	23.051	23.051	23.051	23.051	23.051
R <sup>2</sup>	0.000	0.020	0.026	0.027	0.028
<i>Panel B: Men in SSC and DSC</i>					
In a same-sex couple	-1.102*** (0.134)	-1.858*** (0.132)	-1.734*** (0.132)	-1.819*** (0.132)	-0.886*** (0.136)
Observations	3,613,617	3,613,617	3,613,617	3,613,617	3,613,617
Mean of dependent variable	27.218	27.218	27.218	27.218	27.218
R <sup>2</sup>	0.000	0.020	0.020	0.020	0.021
<i>Controls for:</i>					
State and year FE		✓	✓	✓	✓
Demographic controls			✓	✓	✓
Partner/spouse controls				✓	✓
Fertility and marital status					✓

# *Exclude those working from home*

- Dep variable: commuting time

	(1)	(2)	(3)	(4)	(5)
<i>Panel A: Women in SSC and DSC</i>					
In a same-sex couple	2.491*** (0.116)	2.048*** (0.113)	1.968*** (0.113)	2.025*** (0.113)	1.873*** (0.115)
Observations	4,151,189	4,151,189	4,151,189	4,151,189	4,151,189
Mean of dependent variable	24.619	24.619	24.619	24.619	24.619
R <sup>2</sup>	0.000	0.023	0.030	0.030	0.031
<i>Panel B: Men in SSC and DSC</i>					
In a same-sex couple	-0.874*** (0.125)	-1.665*** (0.123)	-1.632*** (0.123)	-1.740*** (0.123)	-0.633*** (0.126)
Observations	4,967,002	4,967,002	4,967,002	4,967,002	4,967,002
Mean of dependent variable	29.032	29.032	29.032	29.032	29.032
R <sup>2</sup>	0.000	0.021	0.022	0.022	0.023
<i>Controls for:</i>					
State and year FE		✓	✓	✓	✓
Demographic controls			✓	✓	✓
Partner/spouse controls				✓	✓
Fertility and marital status					✓

# Heterogeneity by education

- Dep variable: commuting time

	High-educ w/ high-educ partner	High-educ w/ low-educ partner	Low-educ w/ high-educ partner	Low-educ w/ low-educ partner
	(1)	(2)	(3)	(4)
<i>Panel A: Women in SSC and DSC</i>				
In a same-sex couple	2.220*** (0.193)	0.598** (0.278)	2.128*** (0.292)	1.405*** (0.183)
Observations	1,155,948	670,662	425,499	2,159,300
Mean of dependent variable	24.088	25.091	21.984	22.403
R <sup>2</sup>	0.042	0.025	0.026	0.018
<i>Panel B: Men in SSC and DSC</i>				
In a same-sex couple	-0.572*** (0.212)	-0.538** (0.267)	-1.313*** (0.290)	-1.752*** (0.220)
Observations	1,385,856	571,011	671,106	2,582,863
Mean of dependent variable	27.684	27.771	27.670	27.652
R <sup>2</sup>	0.043	0.028	0.020	0.014
<i>Controls for:</i>				
State and year FE	✓	✓	✓	✓
Demographic controls	✓	✓	✓	✓
Partner/spouse controls	✓	✓	✓	✓
Fertility and marital status	✓	✓	✓	✓

# *Withing-couple commuting gap/2*

- Dep variable: different in commuting time within couple

	Married w/ children	Married w/o children	Unmarried w/ children	Unmarried w/o children
	(1)	(2)	(3)	(4)
<i>Panel A: Women in SSC and DSC</i>				
In a same-sex couple	-1.221*** (0.407)	-0.860*** (0.331)	-3.163*** (0.462)	-2.349*** (0.257)
Observations	1,330,012	789,268	115,552	183,147
Mean of dependent variable	17.965	16.938	17.051	16.132
R <sup>2</sup>	0.013	0.012	0.010	0.014
<i>Panel B: Men in SSC and DSC</i>				
In a same-sex couple	-0.121 (0.662)	-0.815*** (0.287)	-1.534 (0.967)	-0.670*** (0.256)
Observations	1,328,182	790,295	113,574	185,504
Mean of dependent variable	17.967	16.941	17.100	16.215
R <sup>2</sup>	0.013	0.012	0.010	0.013
<i>Controls for:</i>				
State and year FE	✓	✓	✓	✓
Demographic controls	✓	✓	✓	✓
Partner/spouse controls	✓	✓	✓	✓

# *Hours worked /2*

- Dep variable: number of hours worked per week

	Married w/ children	Married w/o children	Unmarried w/ children	Unmarried w/o children
	(1)	(2)	(3)	(4)
<i>Panel A: Women in SSC and DSC</i>				
In a same-sex couple	3.523*** (0.150)	1.812*** (0.110)	1.771*** (0.175)	0.993*** (0.104)
Commuting time	0.043*** (0.001)	0.032*** (0.001)	0.024*** (0.002)	0.020*** (0.001)
Observations	1,518,968	1,049,278	144,190	227,662
Mean of dependent variable	37.263	38.693	37.643	39.168
R <sup>2</sup>	0.048	0.045	0.050	0.052
<i>Panel B: Men in SSC and DSC</i>				
In a same-sex couple	-2.256*** (0.203)	-1.494*** (0.115)	-1.343*** (0.326)	-1.029*** (0.094)
Commuting time	0.016*** (0.000)	0.018*** (0.001)	0.022*** (0.002)	0.024*** (0.001)
Observations	1,972,381	1,092,622	166,510	235,897
Mean of dependent variable	44.678	43.949	42.682	42.748
R <sup>2</sup>	0.024	0.014	0.024	0.020
<i>Controls for:</i>				
Hourly wages	✓	✓	✓	✓
State and year FE	✓	✓	✓	✓
Demographic controls	✓	✓	✓	✓
Partner/spouse controls	✓	✓	✓	✓

