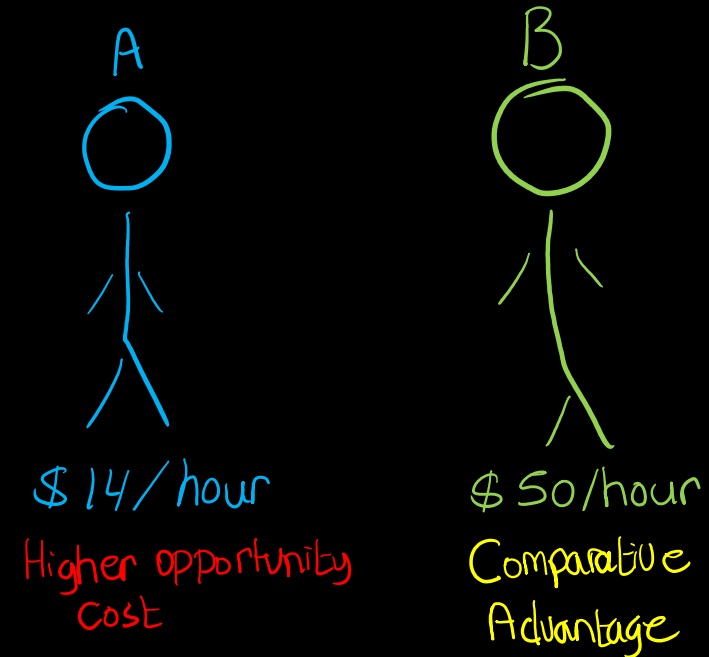# The Effect of Sexual Orientation on the Demand for Children
Jude Bashto

Framework:

➢ Family composed of person A and person B
➢ Person A: $14/ hour
  Person B: $50/hour

➢ Minimum $5,000 to live

➢ Person A: 357 hours of work to live
  Person B: 100 hours of work to live

➢ Person A: Higher opportunity cost
  Person B: Comparative Advantage in producing
        Income

- **Research question:**

What is the impact of sexual orientation on the demand for children?

- **Expected answer(s) to research question:**

1. For every income level, same-sex couples will have a lower quantity demanded for children than opposite-sex couples.

   why?

   >This is due to biological constraints as well as additional adoption financial constraints

   > Children are more 'expensive' to same-sex couples.

2. The differentials in number of children between same sex and opposite sex couples will:

   a) Increase as the income of the higher income spouse increases

   why?

   > Assuming children are a normal good, an increase in their income means that both couples can afford more children. However, children are more expensive for same-sex couples. So the marginal increase in children is less for same-sex couples.
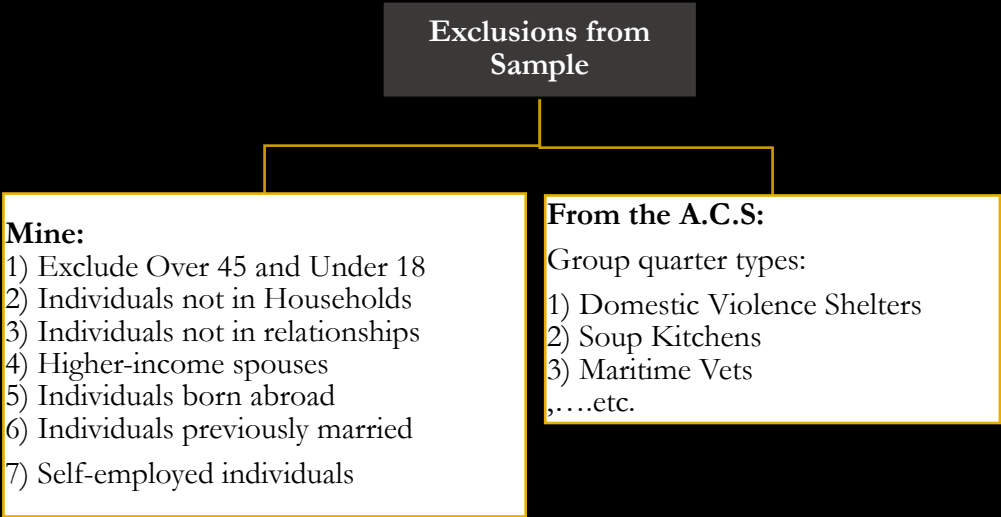

   b) Decrease as the income of the lower income spouse increases

   why?

   >Assuming that the homemaker has a choice between market income and children, and that opposite sex couples are more efficient in producing children (but not income), differentials decrease as homemakers substitute away from children into income.

Data and Exclusions

- Data Source: American Community Survey (2015-2019) inflation adjusted and pooled.

Exclusions from Sample

Mine:
1) Exclude Over 45 and Under 18
2) Individuals not in Households
3) Individuals not in relationships
4) Higher-income spouses
5) Individuals born abroad
6) Individuals previously married
7) Self-employed individuals

From the A.C.S:

Group quarter types:
1) Domestic Violence Shelters
2) Soup Kitchens
3) Maritime Vets
,....etc.

- Pseudo-random sampling from sample:
  200,000 respondents from opposite sex couples
  All respondents from same-sex couples
- Total sample: 215,144
  Same sex: 15,444
  Opposite sex: 200,000
- Same-sex over-represented

Percentage of Respondents by Number of Children

Opposite-sex couples

Same-sex couples

🟩 0 children present	🟧 1 child present
🟦 2	🟫 3
🟩 4	🟫 5
🟧 6	🟪 7
🟦 8	🟥 9+
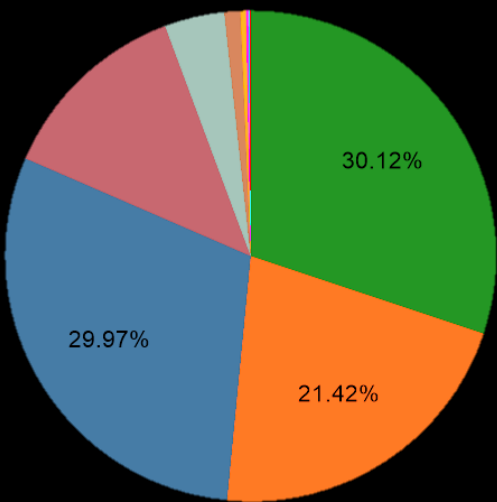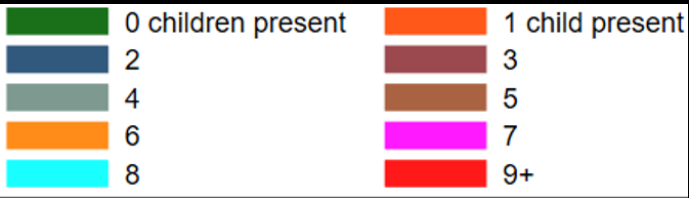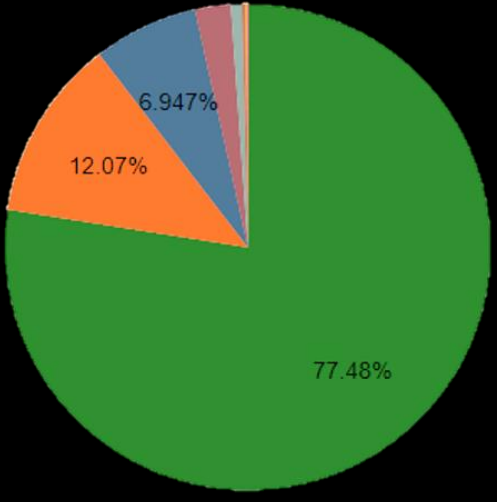
Opposite- Sex Couples:

Variable	Obs	Mean	Std. Dev.
logincwage	200,000	7.750707	4.389099

Same- Sex Couples:

Variable	Obs	Mean	Std. Dev.
logincwage	15,144	8.641859	3.733095

Empirical Model

- Maximum likelihood estimation

- Tobit Model

  why?
  > Lower bound dependent variable

Number of Children at Each Income Level

$NChildren_i =$
$\beta_0 + \beta_1 logIncW_i + \beta_2 logIncInv_i + \beta_3 logIncWelf_i + \beta_4 logIncSP_i + \beta_5 SO_i + \beta_6 (SO \times logIncW)_i + \beta_7 (SO \times logIncInv)_i$
$+ \beta_8 (SO \times logIncWelf) + \beta_9 (SO \times logIncSP)_i + \boldsymbol{\beta}_k \mathbf{X}_i + e_i$

logIncW: logged respondent income from labour (wage)

logIncInv: logged respondent income from investment

logIncWelf: logged respondent income from welfare

logIncSP: logged spousal income from labour

SO: sexual orientation dummy, =1 if same-sex.

What am i expecting?
1. Negative value for β_5
2. Positive value for β_4
3. Value for β_9 such that the predicted censored number of children for SO=0 and SO=1 diverges with increases spousal income.
4. Value for β_6 such that the predicted censored number of children for SO=0 and SO=1 diverges with increased respondent income.

X: vector of control variables: Age, age squared, spouse age, spouse age squared, years of education, spouse years of education, sample year, marital status, race of respondent, hispanic ethnicity, health insurance, birthplace (state), spouse birthplace (state), state of residence, sex, highest degree attained.
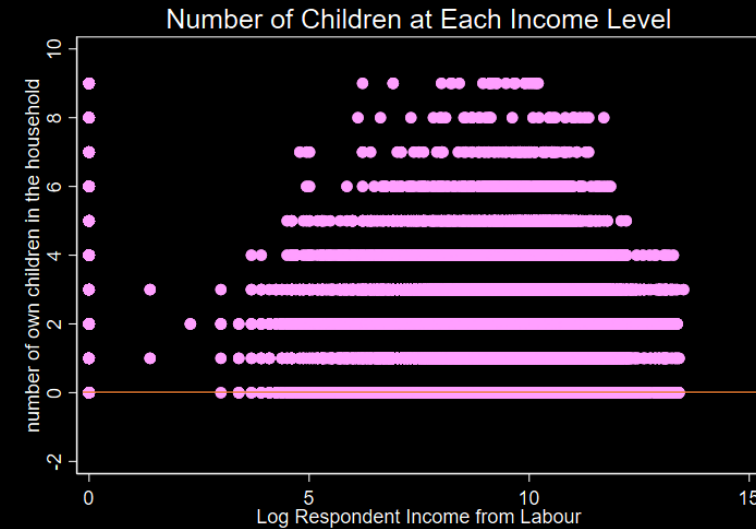
Key Regression Results:

$$\widehat{\text{NChildren}}_i$$
$$= -8.448 - 0.078\text{logIncW}_i + 0.021\text{logIncInv}_i + 0.067\text{logIncWelf} + 0.040\text{logIncSP} - 0.164\text{SO}_i$$
$$+ 0.012(\text{SO} \times \text{logIncW})_i - 0.0.098(\text{SO} \times \text{logIncInv}) + 0.012(\text{SO} \times \text{logIncWelf}) - 0.0.051(\text{SO} \times \text{logIncSP}) + \widehat{\boldsymbol{\beta}}_k\mathbf{X}_i$$

Variable	Marginal Effect of a 1% increase in the variable on Number of Children	
	For Same-Sex Couples	For Opposite-Sex Couples
Respondent Wage Income *	−0.00066**	-0.00078***
Income from Investment	−0.00077	0.00021
Welfare Income	0.00079	0.00067***
Spouse Wage Income ***	−0.00011***	0.00040***

p>=0.05,* p<0.05, ** p<0.01, *** p<0.001

X: vector of control variables: Age, age squared, spouse age, spouse age squared, years of education, spouse years of education, sample year, marital status, race of respondent, hispanic ethnicity, health insurance, birthplace (state), spouse birthplace (state), state of residence, sex, highest degree attained.

$$\text{NChildren}_i =$$
$$\beta_0 + \beta_1 \text{logIncW}_i + \beta_2 \text{logIncInv}_i + \beta_3 \text{logIncWelf}_i + \beta_4 \text{logIncSP}_i$$
$$+ \beta_5 \text{SO}_i + \beta_6 (\text{SO} \times \text{logIncW})_i + \beta_7 (\text{SO} \times \text{logIncInv})_i$$
$$+ \beta_8 (\text{SO} \times \text{logIncWelf}) + \beta_9 (\text{SO} \times \text{logIncSP})_i + \boldsymbol{\beta}_k \mathbf{X}_i + e_i$$

What am i expecting?
1. Negative value for β_5
2. Positive value for β_4
3. Value for β_9 such that the predicted censored number of children for SO=0 and SO=1 diverges with increases spousal income.
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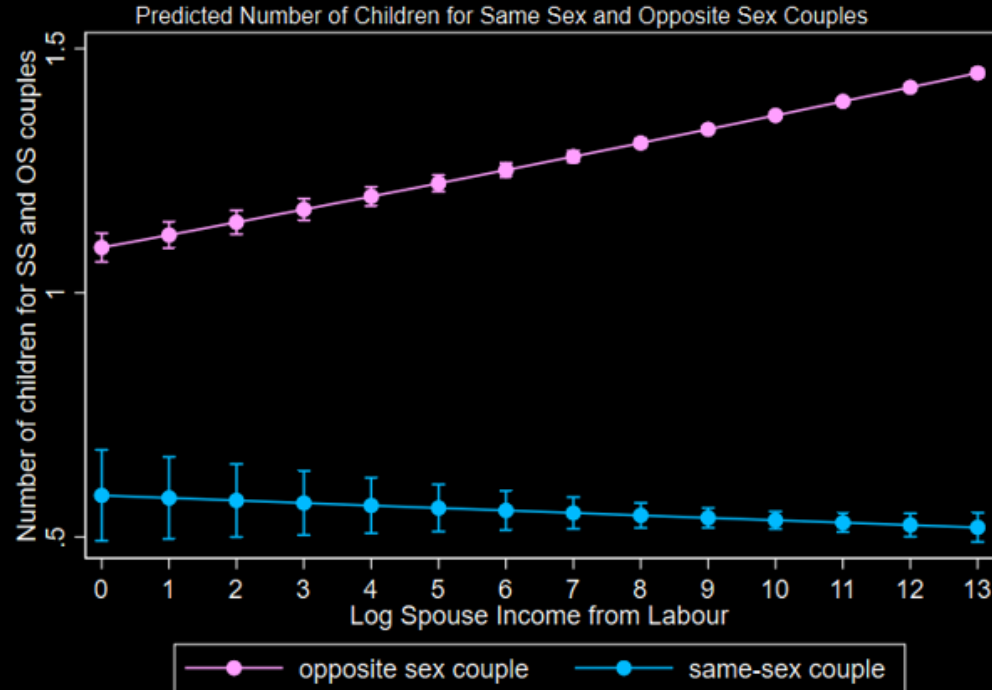

Figure 10A: Predicted number of children for same sex and opposite sex couples for different levels of logged spouse income.
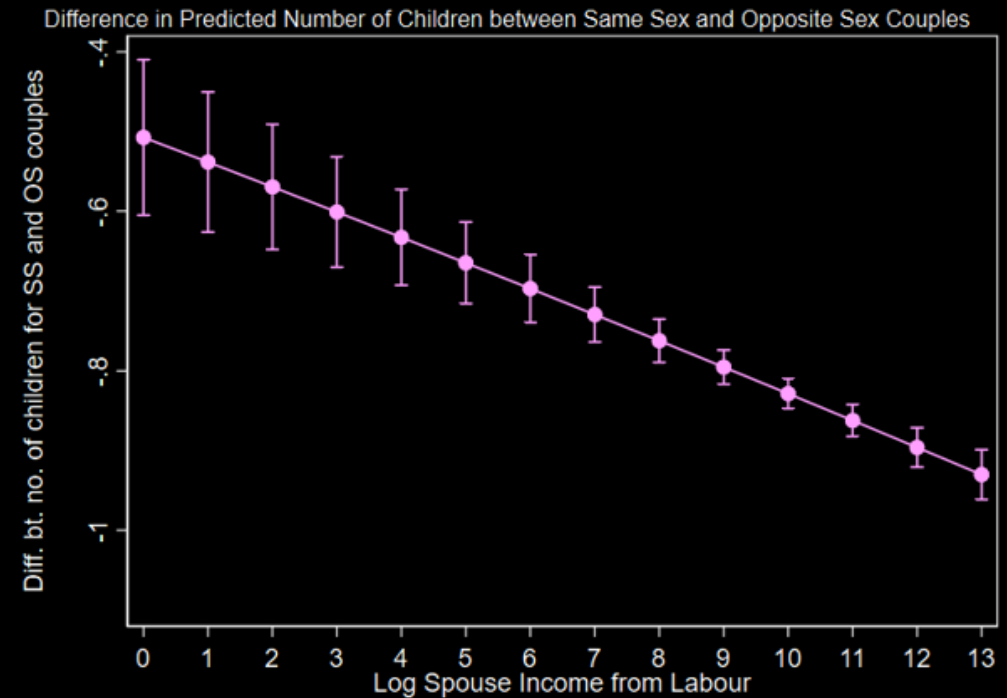
Figure 10B: Difference in predicted number of children between same sex and opposite sex couple by logged spouse income from labour.

$$\text{NChildren}_i =$$
$$\beta_0 + \beta_1 \text{logIncW}_i + \beta_2 \text{logIncInv}_i + \beta_3 \text{logIncWelf}_i + \beta_4 \text{logIncSP}_i$$
$$+ \beta_5 \text{SO}_i + \beta_6 (\text{SO} \times \text{logIncW})_i + \beta_7 (\text{SO} \times \text{logIncInv})_i$$
$$+ \beta_8 (\text{SO} \times \text{logIncWelf}) + \beta_9 (\text{SO} \times \text{logIncSP})_i + \beta_k \mathbf{X}_i + e_i$$

What am i expecting?
1. Negative value for β_5
2. Positive value for β_4
3. Value for β_9 such that the predicted censored number of children for SO=0 and SO=1 diverges with increases spousal income.
4. Value for β_6 such that the predicted censored number of children for SO=0 and SO=1 diverges with increased respondent income.
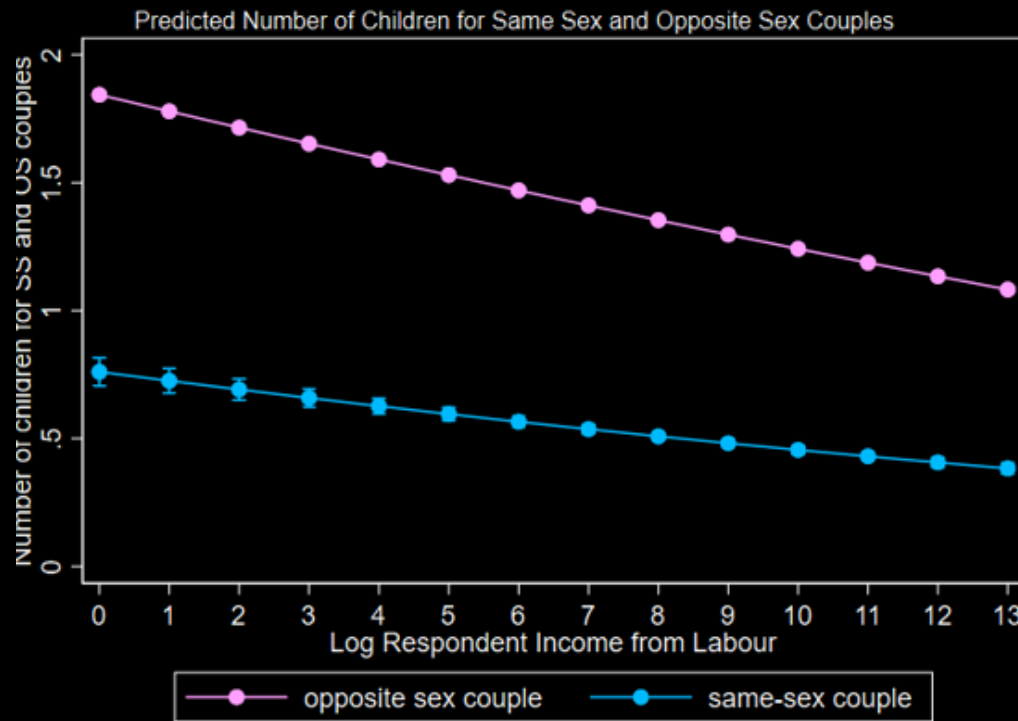

Figure 9A: Predicted number of children for same sex and opposite sex couples.
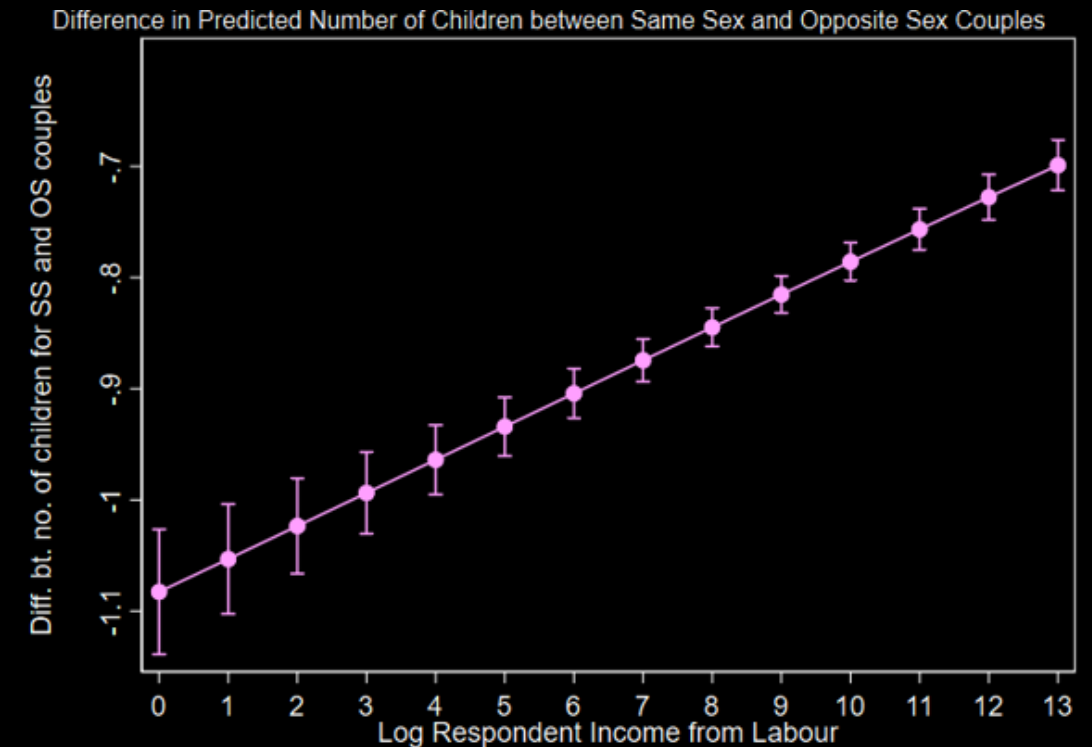

Figure 9B: Difference in predicted number of children between same sex and opposite sex couple by logged respondent income from labour.

Thank you for listening.