Analysis of Prenatal Depression and Anxiety during Covid-19*

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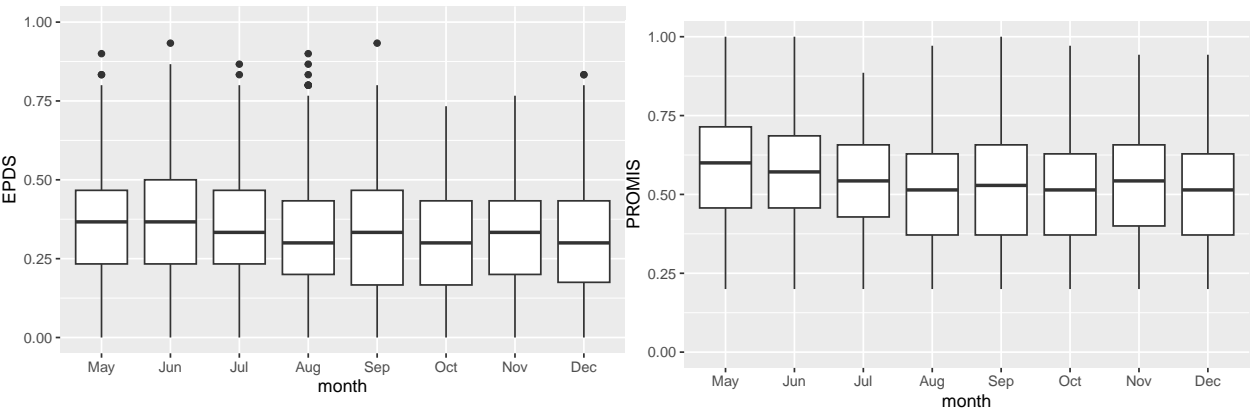
24 March 2024

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Figure 1: Distribution of Levels of Depression and Anxiety by Month

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*Code and data in this analysis is available at: https://github.com/Elaineyi1/Prenatal_Mental_Health
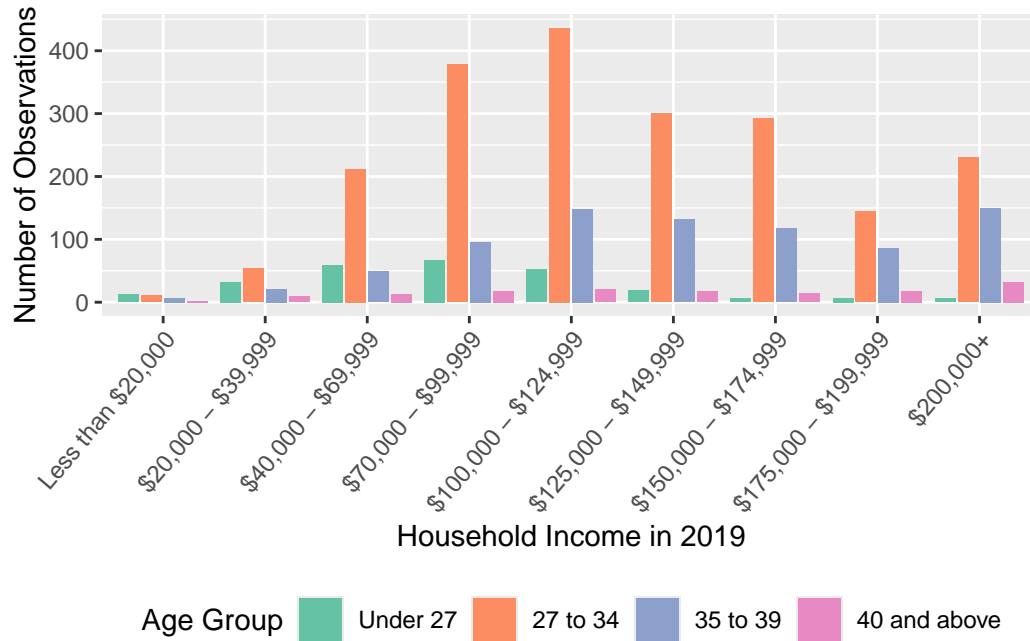
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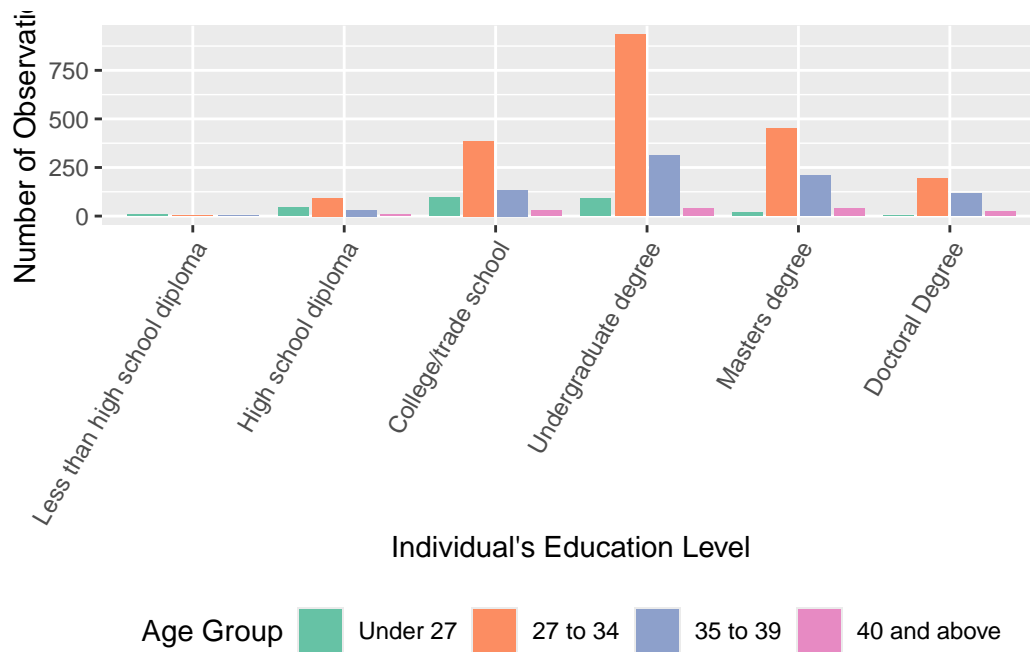

Figure 3: The Distribution of Age Groups and Level of Education for Pregnant Participants

Table 1: Levels of Depression and Anxiety Among Different Age Groups

Age Group	Survey Language	Average Level of Depression	Average Level of Anxiety
Under 27	English	0.4057530	0.5982596
Under 27	French	0.3243386	0.5260771
27 to 34	English	0.3343954	0.5393596
27 to 34	French	0.2850746	0.4836887
35 to 39	English	0.3236429	0.5212459
35 to 39	French	0.3063492	0.5065760
40 and above	English	0.3325758	0.5294372
40 and above	French	0.2727273	0.5324675

(a) Distribution of Levels of Depression by Education

(b) Distribution of Levels of Depression by Household Income

(c) Distribution of Levels of Anxiety by Education

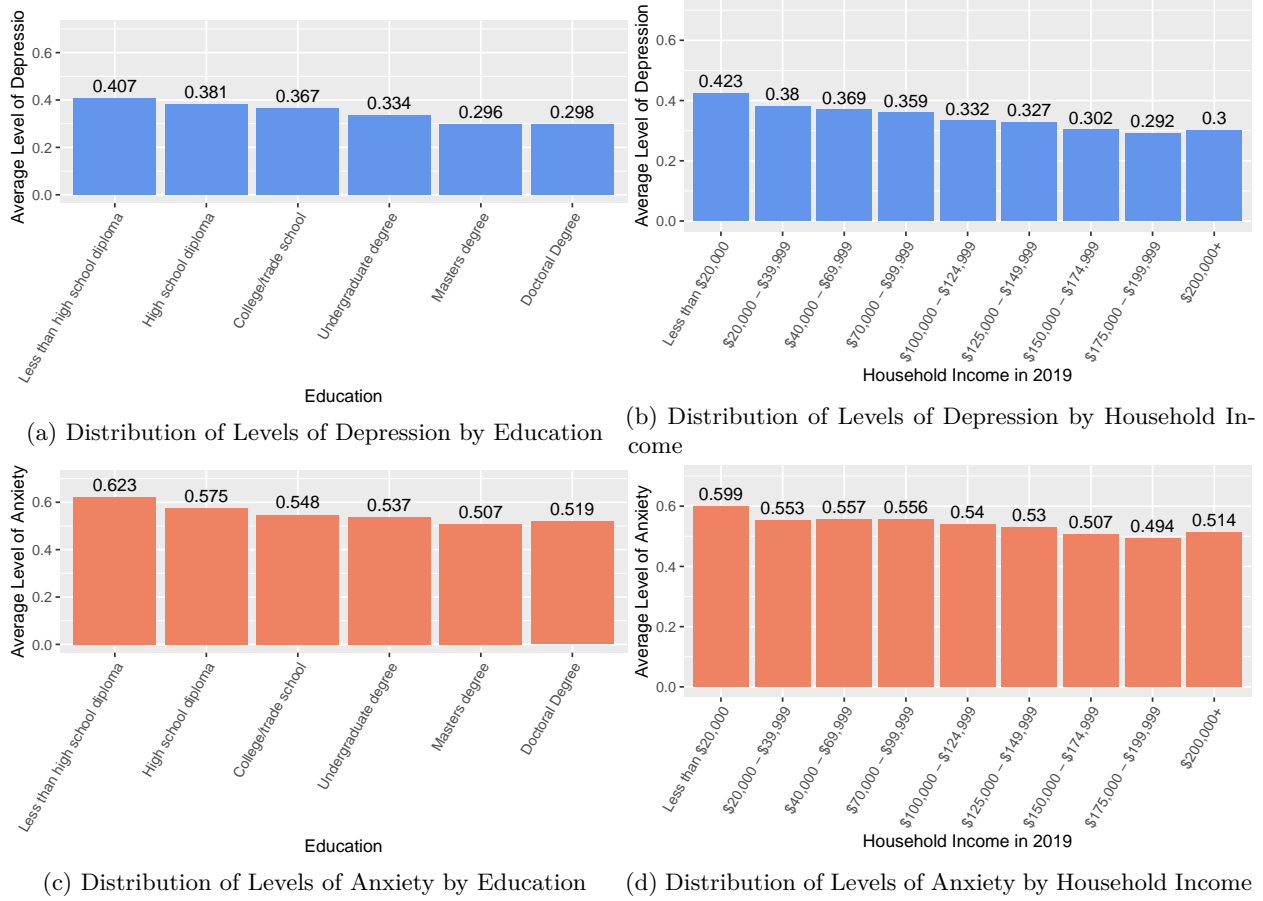(d) Distribution of Levels of Anxiety by Household Income

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(a) Relationship between Perceived Danger to Self and Depression

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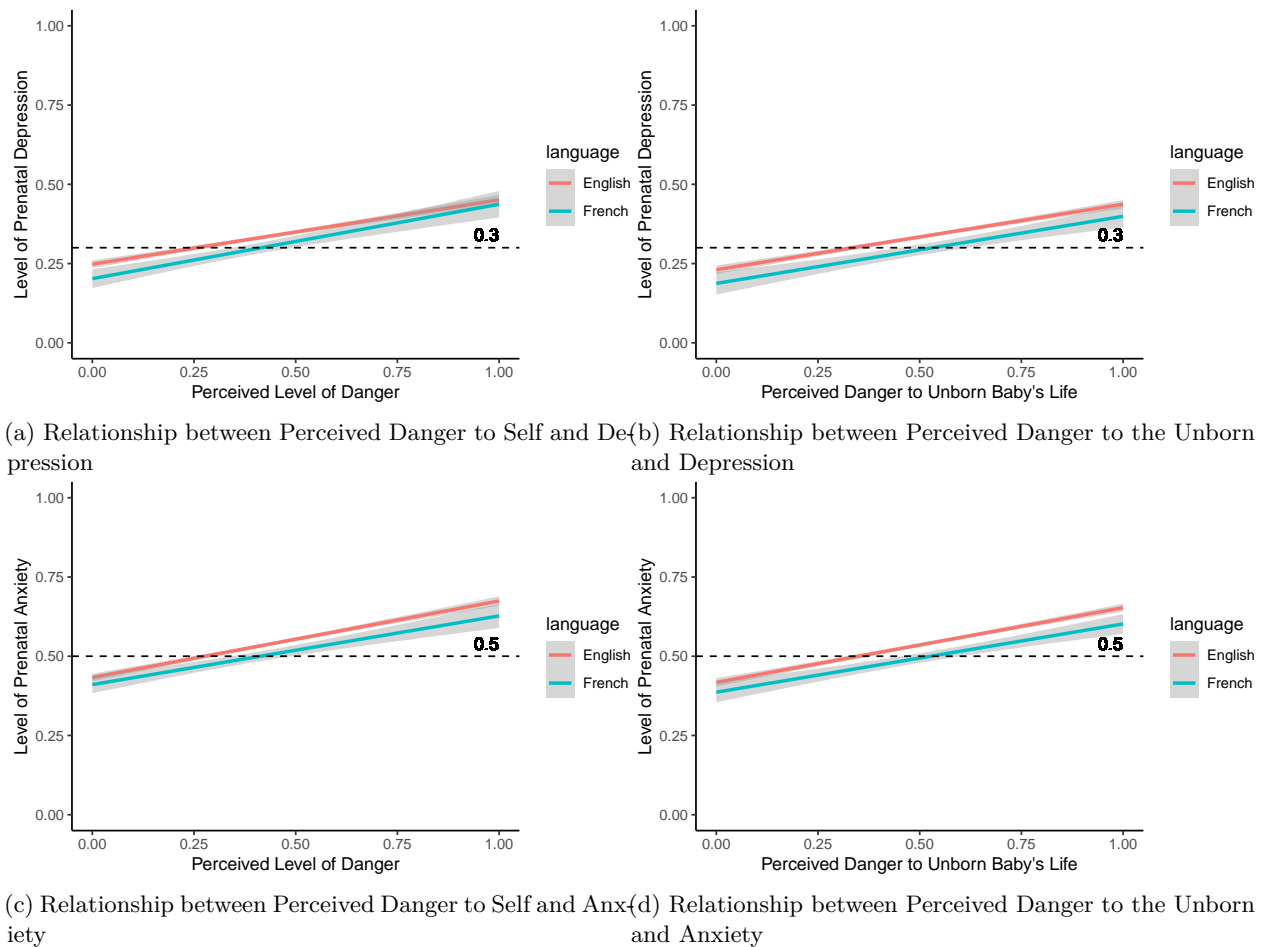(d) Relationship between Perceived Danger to the Unborn and Anxiety

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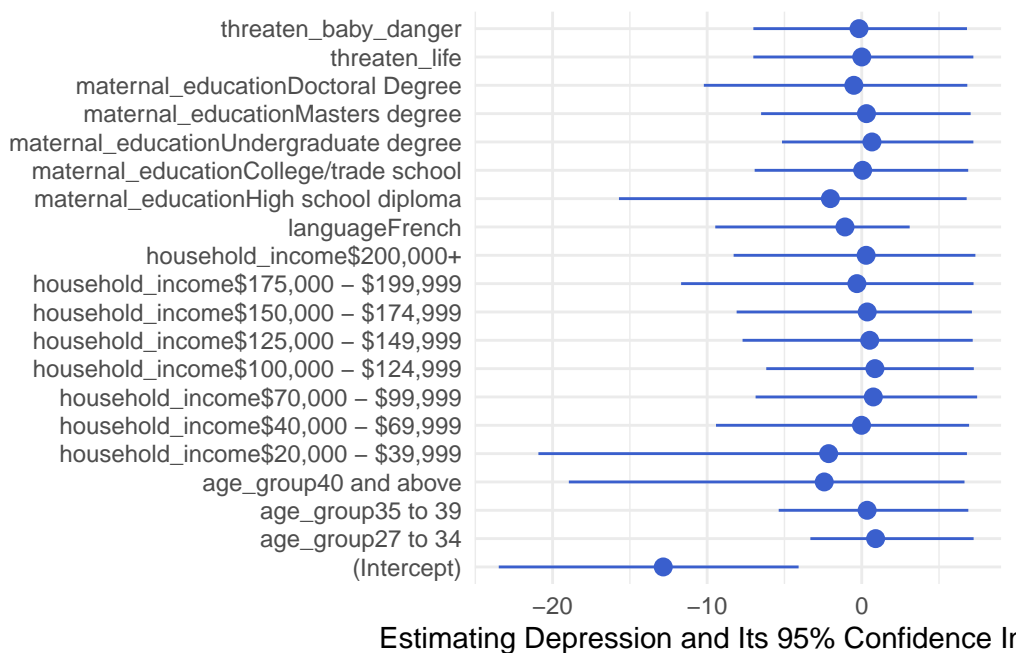

Figure 6: The Coefficients and Confidence Interval in the Depression Model

Table 2: Estimating Prenatal Depression given Age, Household Income, Education Level and Choice of Language

	Depression
(Intercept)	−12.841
age_group27 to 34	0.899
age_group35 to 39	0.349
age_group40 and above	−2.425
household_income$20,000 - $39,999	−2.139
household_income$40,000 - $69,999	−0.012
household_income$70,000 - $99,999	0.750
household_income$100,000 - $124,999	0.855
household_income$125,000 - $149,999	0.516
household_income$150,000 - $174,999	0.356
household_income$175,000 - $199,999	−0.312
household_income$200,000+	0.285
languageFrench	−1.082
maternal_educationHigh school diploma	−2.027
maternal_educationCollege/trade school	0.061
maternal_educationUndergraduate degree	0.662
maternal_educationMasters degree	0.307
maternal_educationDoctoral Degree	−0.510
threaten_life	0.004
threaten_baby_danger	−0.175

Table 3: Estimating Prenatal Anxiety given Age Group, Household Income, Education Level and Choice of Language.

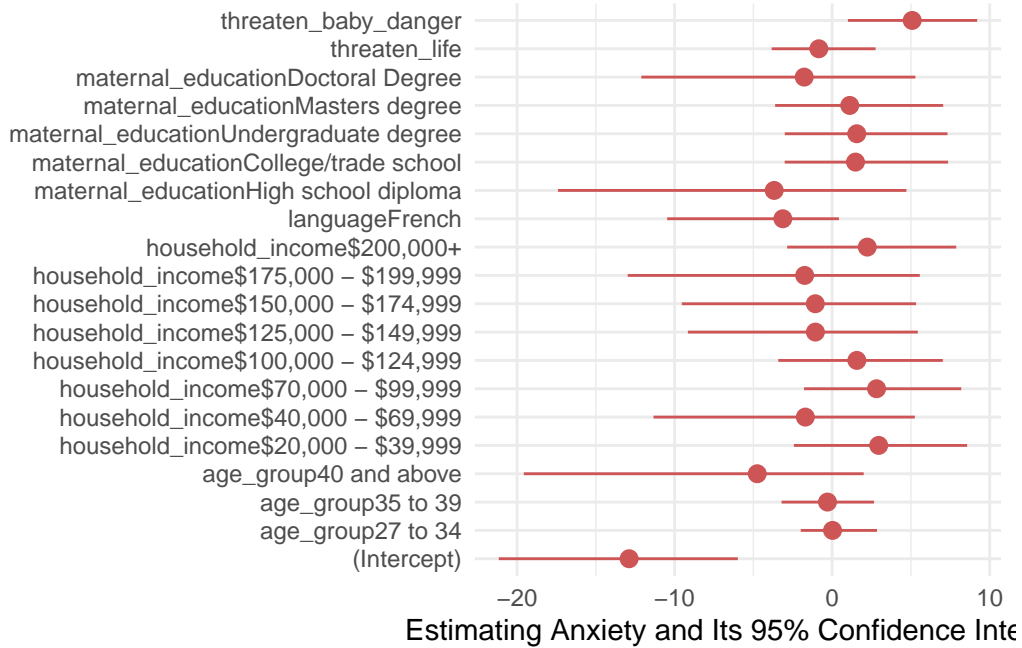|	Anxiety
(Intercept)	−12.887
age_group27 to 34	0.025
age_group35 to 39	−0.295
age_group40 and above	−4.756
household_income$20,000 - $39,999	2.955
household_income$40,000 - $69,999	−1.702
household_income$70,000 - $99,999	2.819
household_income$100,000 - $124,999	1.567
household_income$125,000 - $149,999	−1.063
household_income$150,000 - $174,999	−1.069
household_income$175,000 - $199,999	−1.745
household_income$200,000+	2.228
languageFrench	−3.129
maternal_educationHigh school diploma	−3.680
maternal_educationCollege/trade school	1.483
maternal_educationUndergraduate degree	1.562
maternal_educationMasters degree	1.116
maternal_educationDoctoral Degree	−1.774
threaten_life	−0.845
threaten_baby_danger	5.081

Figure 7: The Coefficients and Confidence Interval in the Anxiety Model

(a) Distribution of Birth Weight and Depression by Delivery Mode

(b) Distribution of Birth Weight and Anxiety by Delivery Mode

(c) Distribution of Birth Length and Depression by Delivery Mode
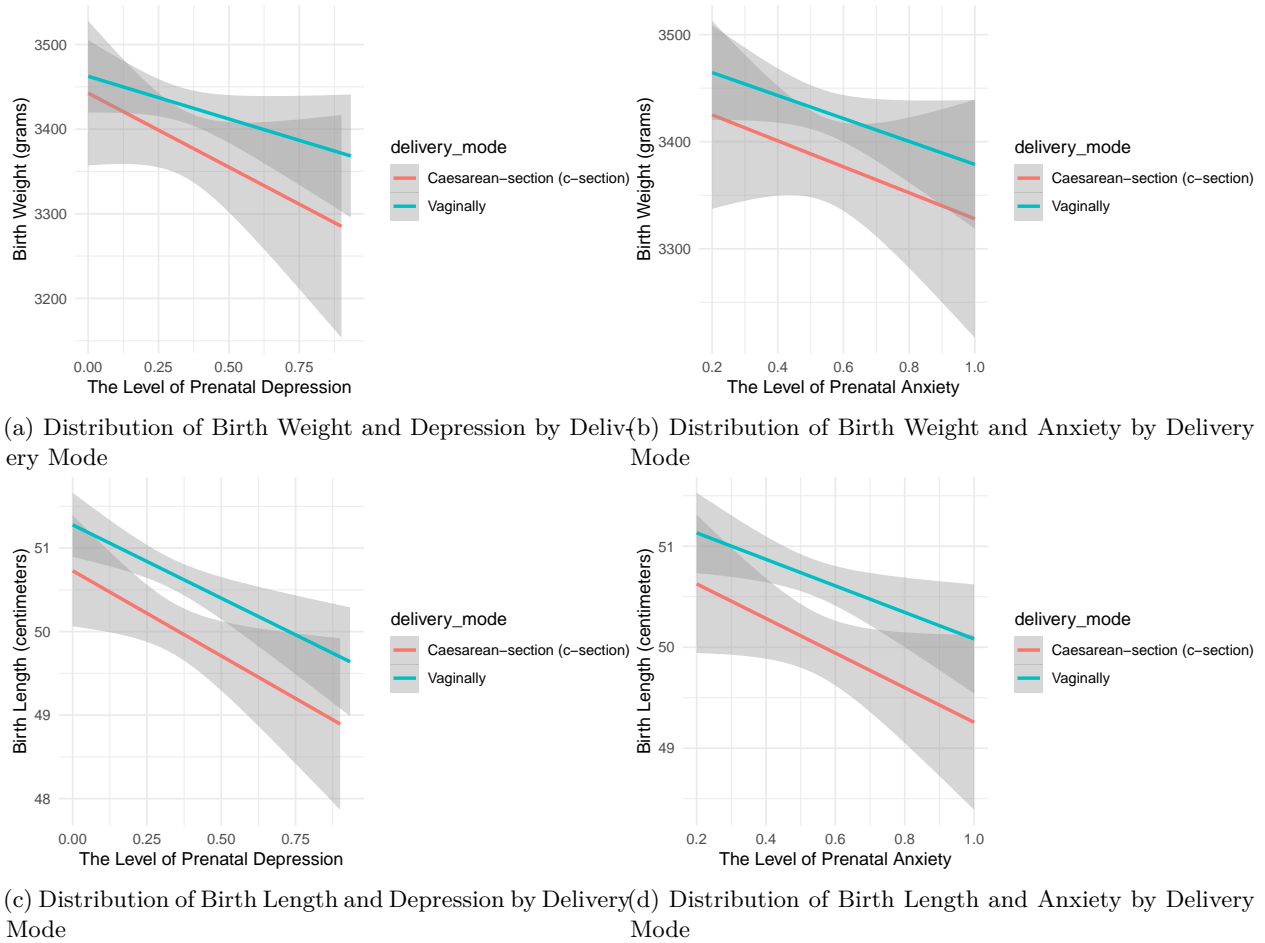

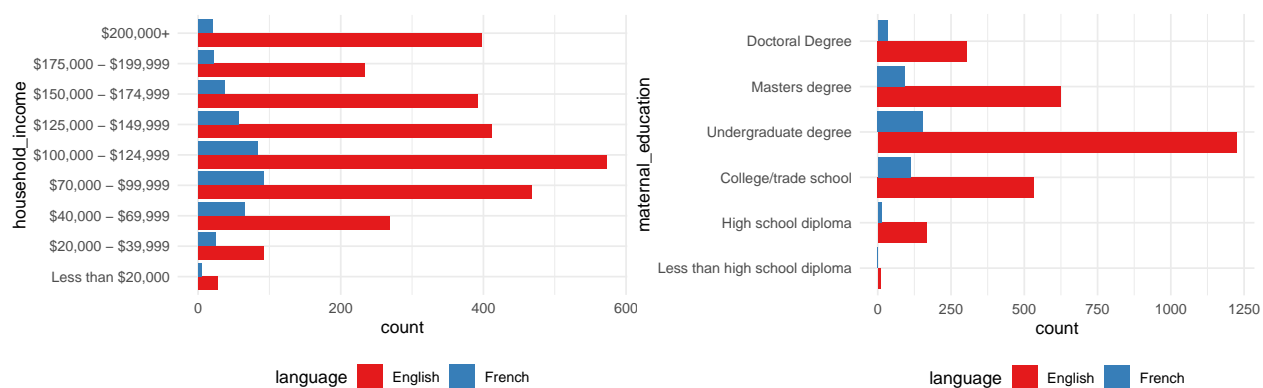(d) Distribution of Birth Length and Anxiety by Delivery Mode

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(a) Distribution of Income by Language

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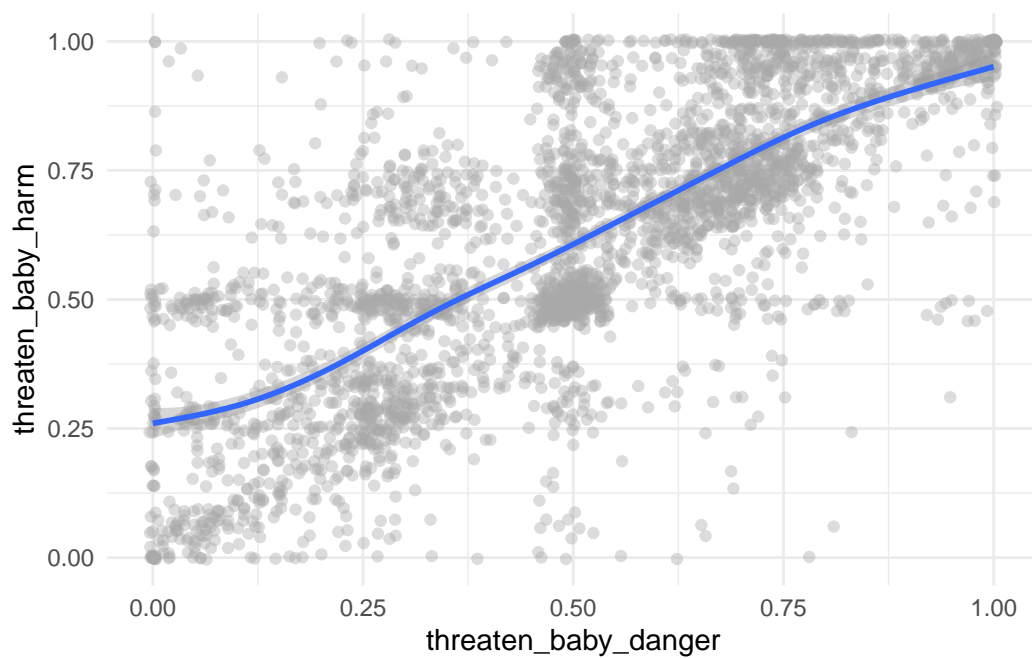

Figure 10: Distribution of the Preceived Danger to Baby and Preceived Potential Harm to Baby