

Data Report

1 Project Summary

Childcare has significant implications for current and future economic outcomes. In recent years, the availability and costs of childcare has become a major burden for parents across the country. This research proposal seeks to evaluate how the burden of childcare impacts labor force participation, poverty status, and occupation, especially along gender lines.

1.1 Literature Review Draft

Add to bibliography

Childcare makes up a large portion of many families income. @grundy2024 finds that the cost of childcare can range from 8% to 19% of median family income, while the number of childcare employees dropped by nearly 14% from 2020 to 2021. High costs combined with decreasing availability of services indicates a need for greater provisioning of childcare services.

Women experience earning declines associated with childbirth at high rates than men, but public childcare provisioning programs have been shown to decrease the disparity (Karademir and Staubli 2024). Lucy and Ferguson (2024) finds that Mothers with children under six have significantly lower labor force participation rates than other parents. Cultural norms associated with childrearing may bear some responsibility for this disparity. “Taking care of the home and family” remains the leading reason why mothers do not participate in the labor force (Fry 2024).

Bassok and Loeb (2012) finds that publicly funded or run childcare services are associated with increased availability and lower costs. Materson and Zacharias (n.d.) finds that expansion of early childhood education services reduces the “time poverty” rates for mothers. Public provisioning of childcare may reduce childcare burden on families, helping reduce the inequalities exacerbated by the uneven distribution of the cost of childcare.

With
Exacerbated

2 Progress Update

1. Processed and cleaned data, including the creation of new variables for the purposes of initial analysis.
2. Produced tables and visualizations to begin to examine trends in data.
3. Drafted literature review.
4. Began to develop model specifications for regression analysis.

3 Challenges Faced

1. Being a parent may bias an individual towards higher levels of income and a greater likelihood of employment.
 - Solution: Control for variables associated with higher affluence levels (education, region, occupation).
2. High childcare costs may be associated with higher income.
 - Solution: Examine the impacts of high childcare costs for different levels of income. In addition, break down impacts between various variables (labor force participation, income, hours worked per week, etc.)
Portion *Household or individual?*
3. A small portion of the sample consists of parents, and an even smaller portion has any childcare costs at all. This is likely because only parents of young children will have childcare expenses.
 - Solution: We have dropped all individuals between the ages of 18 and 64 to examine only individuals who could be the parents or grandparents of young children and participate in the laborforce. In addition, we will examine relevant subsections of the population to examine parent (and parent of young children) specific effects. We have created ordinal variables to examine these various subsections of the population.

4 Next Steps

1. Develop and test regression models
2. Tidy and refine tables and graphs
3. Incorporate control variables into analysis
4. Extend literature review

*I think you mean
the opposite?*

*Drop everyone not b/w
18-64?*

5 Summary Statistics

Variable	Mean	Std Dev	Min	Max
Childcare Cost	358.60	1845.825	0	23804
Age	42.61	13.50	18	64
Usual Hours Worked	31.04	19.44	0	99
Adjusted Gross Income	46960.04	77519.82	-10800	2100000
Number of Children	.75	1.116018	0	8

5.1 Demographics

Is this after dropping age range? Data source?

The sample consists of over 3.5 million individuals. 48% of the sample is male and 77% of the sample is white. Approximately 18% of the sample is Gen Z, 31% are millennials, 38% are Gen X, and 12% are baby boomers. More than half the sample has completed some level of college, with 43% completing at least high school. 77% of the sample participates in the labor force, while 73% is employed.

We can see that the average age of the sample is 43. The average monthly cost of childcare is \$358, but the standard deviation is 1846, indicating a high variability of childcare costs between individuals in the sample. The average gross income is around \$46000, with a standard deviation of over \$77000. *47,000\$ / individual* *This is high! vs median is \$37.6K* The average individual in the sample has just under 1 child. Over half the sample has no children, while slightly over 30% has between one and two children (Figure 1). *Avg age of child?*

I + may be important to disambiguate cost from spending - does your data include the price of childcare or is it the estimated family expenditures? This is an important difference & may change conclusions

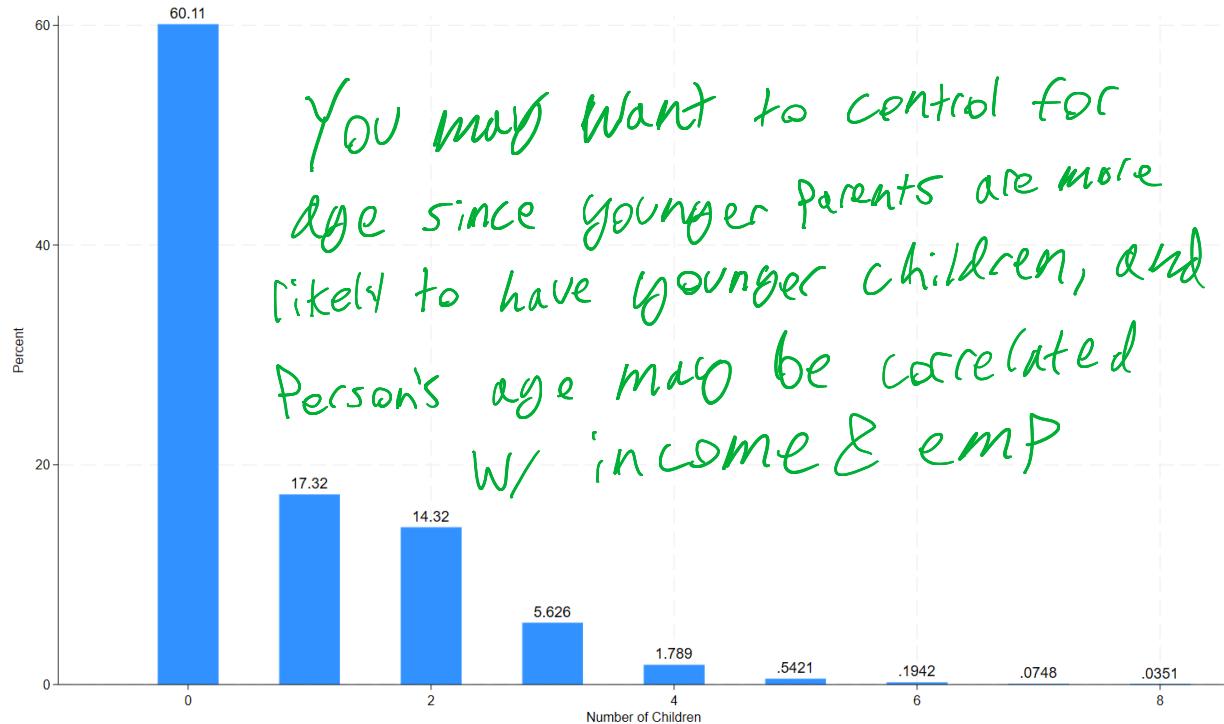


Figure 1

5.2 Childcare *does this correlate w/ age of child?*

Of parents, 84% [have no childcare costs at all]. Those with no childcare costs are more likely to be in poverty compared to those with childcare costs. Similarly, parents are less likely to be in poverty than non-parents.

Women in the laborforce are less likely to be unemployed, but women experience a lower rate of laborforce participation (28% not in the laborforce compared to 17% of men). As number of children goes past 3, individuals employment rates fall significantly.

Women with children are less likely to participate in the laborforce. Having one or two children is associated with relatively higher laborforce participation, but three or more children results in a lower rate of laborforce participation. Parents have a higher rate of laborforce participation than non-parents, but this does not hold true when looking only at mothers.

For mothers [higher childcare costs are associated with higher laborforce participation rates]. One hypothesis explaining this result is that people are less likely to have children if they do not have a job and prioritize keeping stable jobs if they do have children. [does this reduce income compared to less risk-averse people?]

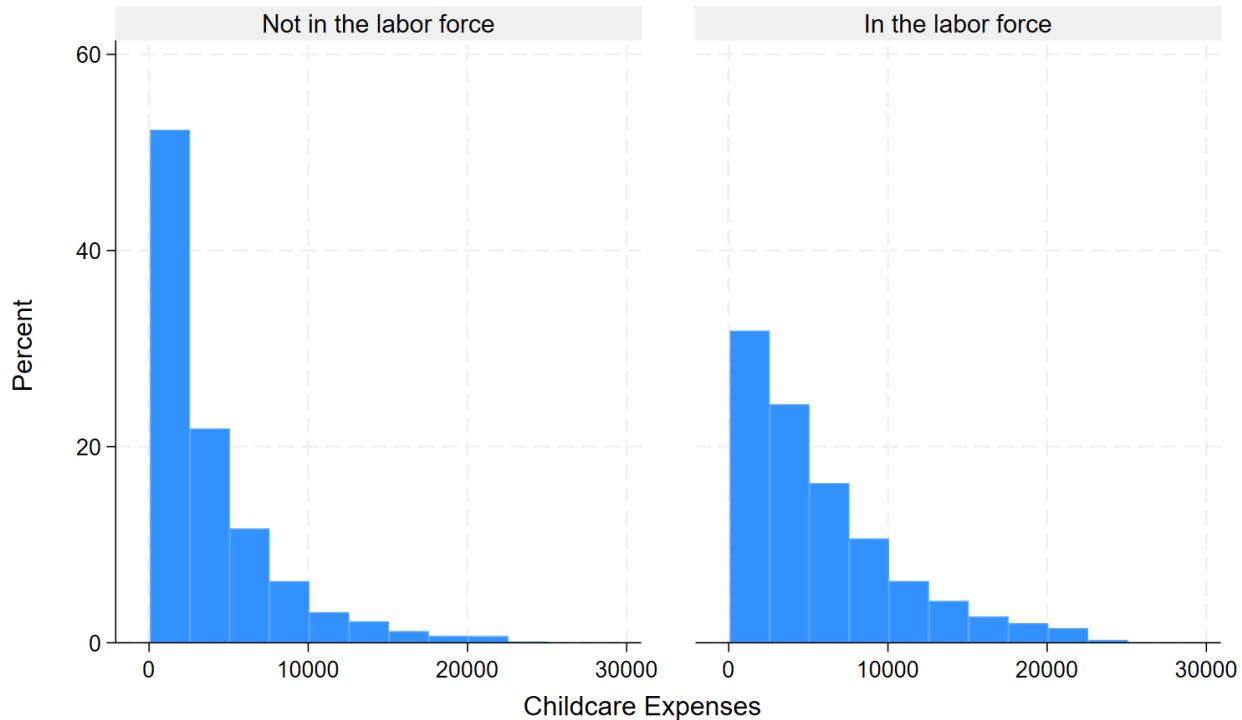


Figure 2

As shown in Figure 3, High childcare costs are associated with lower laborforce participation rates for those with low income levels (89%) when compared to those with medium (96%) and high (98%) income levels. Women with medium income and below paritipate in the labor force at a lower rate than their male counterparts when childcare costs are high.

How are income levels defined?

Does this mean childcare spending is associated w/
lower female emp? Why?

If a family spends more on childcare, doesn't that increasingly obviate the necessity of a parent performing childcare?

In some cases, a high income family may have high childcare expenses below/no income parent not in labor force due to luxury, not necessity

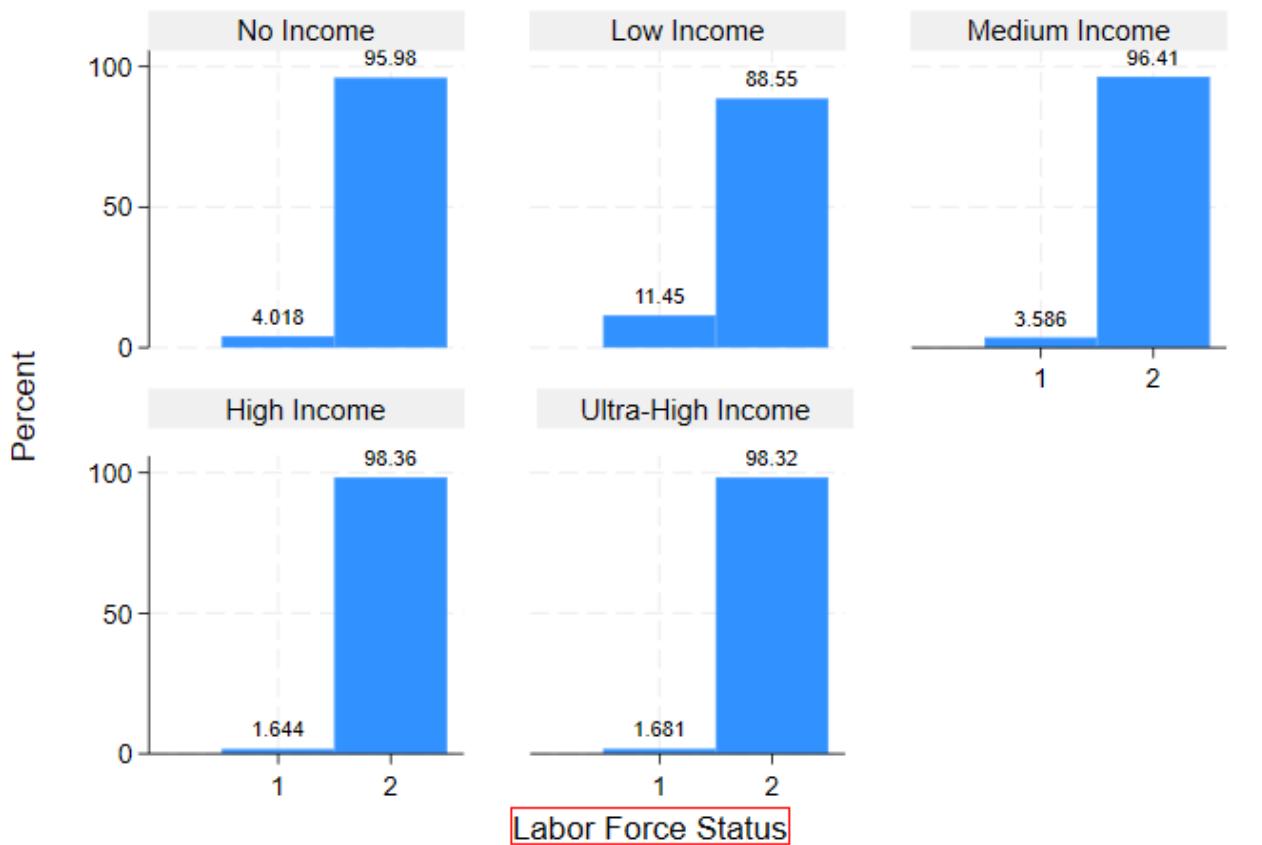


Figure 3

Is this household
or individual
income?

6 Methodology

Moving forward, we will use regression analysis to isolate relationships between childcare expenses, income, sex, poverty, and employment.

check if you can control urban vs. rural

or avg income in their area

To analyze these relationships we will perform regressions between childcare costs and labor force status for various subsections of the population. We anticipate that for higher income groups, higher childcare costs will be associated with higher labor force participation rates, especially for women. For lower income groups, higher childcare costs will be associated with relatively lower labor force participation rates, especially for women.] This result would align with findings in our exploratory data analysis.

We will examine if these relationships hold true for multiple subgroups of the sample, examining how education level, race, number of children, and other variables shift the results. By conducting these analyses, we will reveal which qualities are associated with higher childcare burdens.]

is high child care spending a burden or luxury?

References

- Bassok, Fitzpatrick, Daphna, and Susanna Loeb. 2012. "Does State Preschool Crowd-Out Private Provision? The Impact of Universal Preschool on the Childcare Sector in Oklahoma and Georgia." *National Bureau of Economic Research*.
- Fry, Richard. 2024. "Almost 1 in 5 Stay-at-Home Parents in the u.s. Are Dads." *Pew Research*. <https://www.pewresearch.org/short-reads/2023/08/03/almost-1-in-5-stay-at-home-parents-in-the-us-are-dads/>.
- Karademir, Laliberté, Sencer, and Stefan Staubli. 2024. "The Multigenerational Impact of Children and Childcare Policies." *National Bureau of Economic Research*.
- Lucy, Isabella, and Stephanie Ferguson. 2024. "Data Deep Dive: Women in the Workforce." *U.S Chamber of Commerce*. <https://www.uschamber.com/workforce/data-deep-dive-a-decline-of-women-in-the-workforce>.
- Materson, Antonopoulos, Thomas, and Ajit Zacharias. n.d. "Assessing the Impact of Childcare Expansion in Mexico." *Levy Economics Institute*.

I'm not sure if you have a variable for price of childcare, which seems important to support your hypothesis. Maybe you can find a proxy such as by looking at areas with subsidized childcare or see if results change based on area e.g. by population density - maybe child care is cheaper in cities?

Additionally, clarify whether you're looking household or only individual metrics as it may be useful to use household or head-of-household incomes. A "no income" woman may be married to a man in higher income group, thus the results could support your hypothesis but not for the reason you specify