

Supplemental Appendix

What Is the Value of the Child and Dependent Care Credit?

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Analysis Sample and Assumptions in Simulating Households' CDCC Eligibility and Benefits

The analysis sample includes tax units with children younger than six years old in which the child has a parent, foster parent, or grandparent present in the household. I assume that (foster) parents claim coresident children younger than 18 years old as dependents (unless they have their own children) and that effects of any other dependents on tax liabilities are negligible. If no parent is present in the household, I assume that grandparents also claim coresident grandchildren as dependents.

I do not include taxpayers who are married, living separately in the analyses. Taxpayers who use the married, filing separately filing status generally are ineligible for the CDCC. I do not observe income and other characteristics for both spouses among taxpayers who are living separately but who use the married, filing jointly filing status. I also do not include households in which a child has two coresident unmarried parents in the analyses, as I cannot identify which parent claims the child as a dependent. Finally, I do not include households in which at least two children share a coresident parent and each has a different second coresident parent.

The final analysis sample is representative of 88 percent of children younger than six years old in the United States. I split the analysis sample into AGI quintiles based on real AGI levels across all years in the analysis period.

In the CPS ASEC, I observe some household characteristics, including marital status, number of children, and child age, as of March of a given year. I therefore proxy for certain characteristics of tax units with children aged 0–12 as of December 31st of a given year using the sample of tax units with children aged 0–12 from March of the following year.

In simulating taxpayers' CDCC eligibility and benefits, I assume that married taxpayers file as

married, filing jointly and that single taxpayers file as head of household. I also assume that capital gains or losses, real estate taxes paid, certain types of property income, some tax deductions, and dependents' income have negligible impacts on tax liabilities. Additionally, I confirmed a bug in the current version of TAXSIM that could lead to overestimates of CDCC benefits for less than 0.5 percent of eligible households that are married and have self-employment income.

Regarding qualifying child care expenditures, I assume that, up to the qualifying expenditure cap, all work-related child care spending is allocated toward the care of children younger than six years old. Among households with two or more children, I also assume that, up to the qualifying expenditure cap, all work-related child care expenditures are claimed for the CDCC. This assumption could lead to overestimates of benefits if child care expenditures are disproportionately allocated toward a particular child. For example, if a household with two children younger than six spent \$4,000 on care for one child and \$2,000 on care for the other child during 2023, I would overestimate their CDCC benefits. For households with three or more children younger than six, I assume that all possible qualifying expenditures are allocated toward two of the children. This could lead to overestimates of benefits for the one percent of households in the analysis sample that have child care expenditures and three or more young children.

Tables and Figures

Table A.1: Summary Statistics

	Single	Married
One child < 6	0.80 (0.402)	0.68 (0.466)
Two or more children < 6	0.20 (0.402)	0.32 (0.466)
White	0.39 (0.487)	0.61 (0.487)
Black	0.32 (0.465)	0.07 (0.253)
Hispanic	0.20 (0.403)	0.19 (0.389)
Asian or Pacific Islander	0.02 (0.137)	0.09 (0.289)
Other race	0.07 (0.262)	0.04 (0.194)
Bachelor's degree or more	0.14 (0.343)	0.48 (0.500)
Any mother or single father earnings	0.75 (0.434)	0.66 (0.474)
Conditional mother or single father earnings (\$)	37,978 (57,309)	60,489 (71,902)
Any father earnings		0.94 (0.229)
Conditional father earnings (\$)		92,996 (106,052)
Any child care expenditures	0.29 (0.453)	0.33 (0.469)
Conditional child care expenditures (\$)	6,047 (6,550)	10,807 (15,634)
Adjusted gross income (\$)	29,322 (53,066)	131,804 (137,168)
Observations	32,675	110,131

Notes: Characteristics of households with children younger than six years old from 2009–2023. Race and educational attainment are for the mother or single or same-sex father. If no parent is present in the household, results are based on the race and educational attainment of the first person in the following list who appears in the household: female foster parent, male foster parent, grandmother, grandfather. “White” is defined as white alone, non-Hispanic; “Black” is defined as Black alone, non-Hispanic; “Hispanic” is defined as white alone, Hispanic; and “AAPT” is defined as Asian or Pacific Islander alone, non-Hispanic. “Other race” captures all other racial groups. Earnings, child care expenditures, and AGI are in 2023 dollars.

Source: Author’s calculations using 2010–2024 CPS ASEC with household weights.

Table A.2: Share of Households in AGI Quintile 1 by CDCC Eligibility Status

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Eligible	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.03	0.03	0.02	0.10	0.03	0.02
Ineligible	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.98	0.97	0.97	0.98	0.90	0.97	0.98
No CC	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.34	0.00	0.00
No earnings	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00
No tax liability	0.10	0.13	0.12	0.13	0.13	0.15	0.14	0.13	0.13	0.11	0.11	0.07	0.00	0.09	0.08
No CC, no earnings	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.53	0.00	0.00
No CC, no tax liability	0.31	0.27	0.30	0.31	0.32	0.30	0.33	0.31	0.30	0.33	0.33	0.33	0.00	0.32	0.33
No earnings, no tax liability	0.03	0.03	0.03	0.03	0.02	0.04	0.03	0.04	0.04	0.04	0.04	0.04	0.00	0.04	0.04
No CC, no earnings, no tax liability	0.56	0.56	0.54	0.51	0.52	0.50	0.49	0.51	0.51	0.49	0.49	0.54	0.00	0.52	0.53
High income	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Observations	2,642	2,612	2,531	2,482	2,312	2,243	1,981	1,856	1,613	1,509	1,134	1,367	1,087	973	907

Notes: Share of households with children younger than six years old in AGI quintile 1 from 2009–2023, by eligibility status for the CDCC. “No CC” indicates that the household is ineligible because they do not have any child care expenditures, “no tax liability” indicates that the household is ineligible because they do not have tax liability after deductions and tax credits, “no earnings” indicates that the household is ineligible because at least one parent does not have strictly positive annual earnings, and “high income” indicates that the household is ineligible because their AGI exceeds the income limit.

Source: Author’s calculations using 2010–2024 CPS ASEC with household weights and TAXSIM.

Table A.3: Share of Households in AGI Quintile 2 by CDCC Eligibility Status

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Eligible	0.16	0.18	0.18	0.21	0.18	0.16	0.18	0.19	0.16	0.20	0.20	0.16	0.17	0.16	0.15
Ineligible	0.84	0.82	0.82	0.79	0.82	0.84	0.82	0.81	0.84	0.80	0.80	0.84	0.83	0.84	0.85
No CC	0.01	0.02	0.04	0.04	0.04	0.03	0.04	0.06	0.06	0.02	0.03	0.00	0.42	0.05	0.06
No earnings	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.00
No tax liability	0.03	0.03	0.03	0.03	0.04	0.03	0.03	0.03	0.02	0.00	0.00	0.00	0.00	0.00	0.00
No CC, no earnings	0.00	0.00	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.37	0.02	0.02
No CC, no tax liability	0.37	0.32	0.31	0.29	0.31	0.33	0.32	0.32	0.32	0.34	0.37	0.46	0.00	0.39	0.36
No earnings, no tax liability	0.02	0.04	0.03	0.03	0.03	0.03	0.04	0.04	0.04	0.05	0.05	0.06	0.00	0.05	0.05
No CC, no earnings, no tax liability	0.40	0.41	0.39	0.38	0.37	0.40	0.37	0.35	0.38	0.38	0.34	0.33	0.00	0.33	0.37
High income	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Observations	2,417	2,482	2,394	2,340	2,245	2,254	2,081	1,901	1,886	1,763	1,444	1,424	1,364	1,206	1,150

Notes: Share of households with children younger than six years old in AGI quintile 2 from 2009–2023, by eligibility status for the CDCC. “No CC” indicates that the household is ineligible because they do not have any child care expenditures, “no tax liability” indicates that the household is ineligible because they do not have tax liability after deductions and tax credits, “no earnings” indicates that the household is ineligible because at least one parent does not have strictly positive annual earnings, and “high income” indicates that the household is ineligible because their AGI exceeds the income limit.

Source: Author’s calculations using 2010–2024 CPS ASEC with household weights and TAXSIM.

Table A.4: Share of Households in AGI Quintile 3 by CDCC Eligibility Status

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Eligible	0.24	0.27	0.27	0.30	0.27	0.28	0.27	0.27	0.24	0.24	0.23	0.21	0.21	0.22	0.22
Ineligible	0.76	0.73	0.73	0.70	0.73	0.72	0.73	0.73	0.76	0.76	0.77	0.79	0.79	0.78	0.78
No CC	0.29	0.26	0.32	0.30	0.33	0.34	0.32	0.31	0.34	0.27	0.26	0.02	0.42	0.34	0.33
No earnings	0.01	0.02	0.02	0.03	0.02	0.02	0.03	0.03	0.03	0.02	0.03	0.00	0.04	0.03	0.03
No tax liability	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
No CC, no earnings	0.15	0.18	0.22	0.22	0.21	0.22	0.21	0.22	0.24	0.13	0.15	0.00	0.33	0.20	0.20
No CC, no tax liability	0.14	0.12	0.07	0.06	0.07	0.06	0.07	0.07	0.06	0.16	0.15	0.42	0.00	0.08	0.09
No earnings, no tax liability	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.03	0.02	0.04	0.00	0.03	0.02
No CC, no earnings, no tax liability	0.16	0.13	0.08	0.08	0.09	0.08	0.09	0.08	0.09	0.16	0.15	0.31	0.00	0.10	0.11
High income	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Observations	2,603	2,435	2,341	2,258	2,211	2,144	1,949	2,060	1,887	1,998	1,680	1,610	1,449	1,442	1,295

Notes: Share of households with children younger than six years old in AGI quintile 3 from 2009–2023, by eligibility status for the CDCC. “No CC” indicates that the household is ineligible because they do not have any child care expenditures, “no tax liability” indicates that the household is ineligible because they do not have tax liability after deductions and tax credits, “no earnings” indicates that the household is ineligible because at least one parent does not have strictly positive annual earnings, and “high income” indicates that the household is ineligible because their AGI exceeds the income limit.

Source: Author’s calculations using 2010–2024 CPS ASEC with household weights and TAXSIM.

Table A.5: Share of Households in AGI Quintile 4 by CDCC Eligibility Status

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Eligible	0.34	0.40	0.38	0.40	0.39	0.38	0.38	0.38	0.36	0.37	0.39	0.35	0.34	0.34	0.35
Ineligible	0.66	0.60	0.62	0.60	0.61	0.62	0.62	0.62	0.64	0.63	0.61	0.65	0.66	0.66	0.65
No CC	0.43	0.37	0.38	0.36	0.36	0.39	0.37	0.38	0.40	0.38	0.40	0.25	0.45	0.44	0.41
No earnings	0.02	0.03	0.03	0.02	0.03	0.03	0.02	0.04	0.03	0.04	0.03	0.02	0.05	0.03	0.04
No tax liability	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
No CC, no earnings	0.21	0.20	0.21	0.21	0.22	0.20	0.22	0.20	0.21	0.21	0.18	0.09	0.16	0.18	0.20
No CC, no tax liability	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.17	0.00	0.00	0.00
No earnings, no tax liability	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00
No CC, no earnings, no tax liability	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.11	0.00	0.00	0.00
High income	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Observations	2,578	2,473	2,283	2,313	2,231	2,136	2,048	1,997	1,937	1,960	1,687	1,627	1,594	1,517	1,480

Notes: Share of households with children younger than six years old in AGI quintile 4 from 2009–2023, by eligibility status for the CDCC. “No CC” indicates that the household is ineligible because they do not have any child care expenditures, “no tax liability” indicates that the household is ineligible because they do not have tax liability after deductions and tax credits, “no earnings” indicates that the household is ineligible because at least one parent does not have strictly positive annual earnings, and “high income” indicates that the household is ineligible because their AGI exceeds the income limit.

Source: Author’s calculations using 2010–2024 CPS ASEC with household weights and TAXSIM.

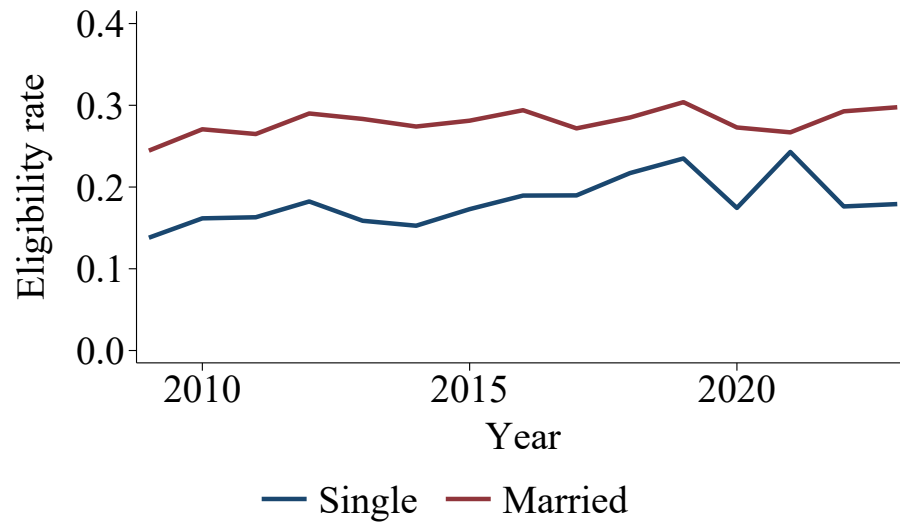
Table A.6: Share of Households in AGI Quintile 5 by CDCC Eligibility Status

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Eligible	0.43	0.46	0.47	0.49	0.50	0.47	0.47	0.49	0.45	0.46	0.48	0.43	0.41	0.47	0.48
Ineligible	0.57	0.54	0.53	0.51	0.50	0.53	0.53	0.51	0.55	0.54	0.52	0.57	0.59	0.53	0.52
No CC	0.36	0.33	0.33	0.31	0.32	0.34	0.36	0.31	0.35	0.37	0.36	0.40	0.40	0.40	0.41
No earnings	0.02	0.03	0.03	0.03	0.02	0.02	0.03	0.04	0.04	0.04	0.04	0.03	0.03	0.03	0.02
No tax liability	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
No CC, no earnings	0.19	0.18	0.17	0.17	0.16	0.17	0.14	0.16	0.16	0.13	0.13	0.14	0.12	0.09	0.09
No CC, no tax liability	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
No earnings, no tax liability	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
No CC, no earnings, no tax liability	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
High income	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Observations	2,015	1,888	1,909	1,807	1,882	1,852	1,822	1,921	1,942	1,943	1,961	1,949	1,856	1,602	1,634

Notes: Share of households with children younger than six years old in AGI quintile 5 from 2009–2023, by eligibility status for the CDCC. “No CC” indicates that the household is ineligible because they do not have any child care expenditures, “no tax liability” indicates that the household is ineligible because they do not have tax liability after deductions and tax credits, “no earnings” indicates that the household is ineligible because at least one parent does not have strictly positive annual earnings, and “high income” indicates that the household is ineligible because their AGI exceeds the income limit.

Source: Author’s calculations using 2010–2024 CPS ASEC with household weights and TAXSIM.

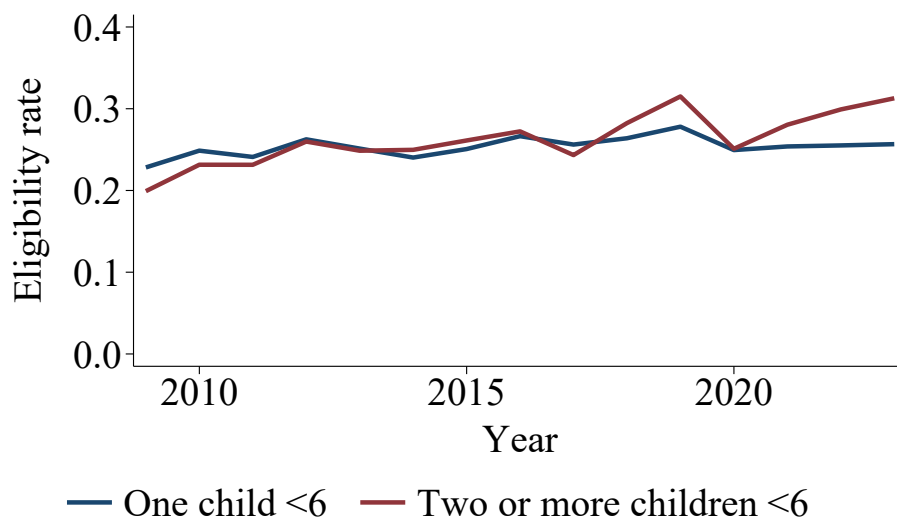
Figure A.1: CDCC Eligibility Rates by Marital Status



Notes: CDCC eligibility rates among households with children younger than six years old from 2009–2023, by marital status.

Source: Author's calculations using 2010–2024 CPS ASEC with household weights and TAXSIM.

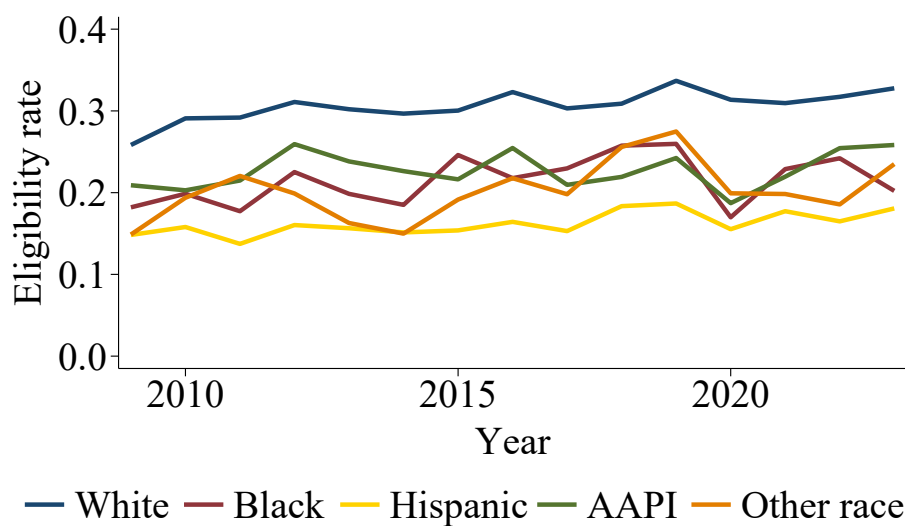
Figure A.2: CDCC Eligibility Rates by Number of Young Children



Notes: CDCC eligibility rates among households with children younger than six years old from 2009–2023, by whether the household has one or two or more children younger than six years old.

Source: Author’s calculations using 2010–2024 CPS ASEC with household weights and TAXSIM.

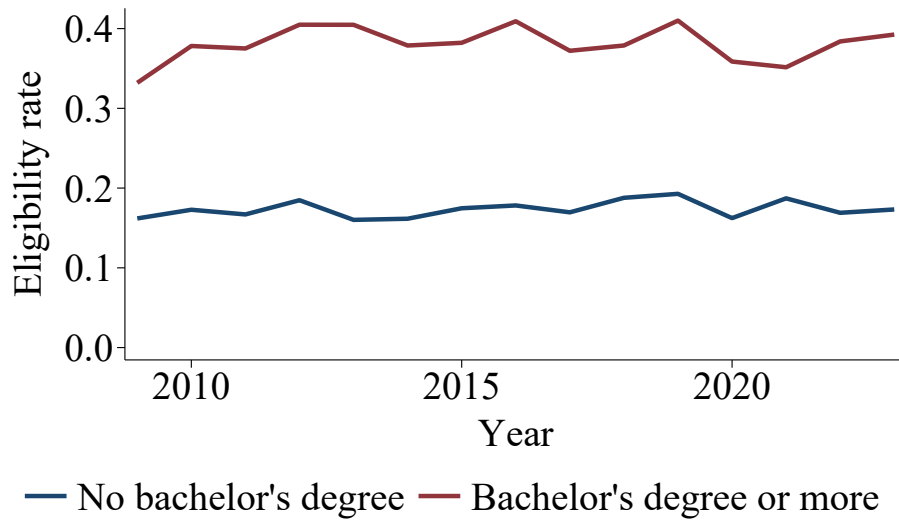
Figure A.3: CDCC Eligibility Rates by Race



Notes: CDCC eligibility rates among households with children younger than six years old from 2009–2023, by the mother or single or same-sex father’s race. If no parent is present in the household, results are based on the race of the first person in the following list who appears in the household: female foster parent, male foster parent, grandmother, grandfather. “White” is defined as white alone, non-Hispanic; “Black” is defined as Black alone, non-Hispanic; “Hispanic” is defined as white alone, Hispanic; and “AAPI” is defined as Asian or Pacific Islander alone, non-Hispanic. “Other race” captures all other racial groups.

Source: Author’s calculations using 2010–2024 CPS ASEC with household weights and TAXSIM.

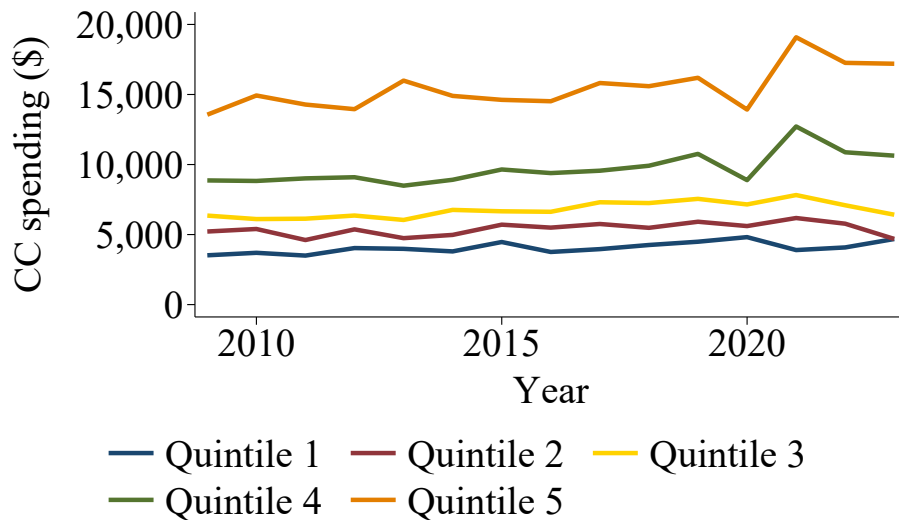
Figure A.4: CDCC Eligibility Rates by Educational Attainment



Notes: CDCC eligibility rates among households with children younger than six years old from 2009–2023, by whether the mother or single or same-sex father holds a bachelor's degree or more. If no parent is present in the household, results are based on the educational attainment of the first person in the following list who appears in the household: female foster parent, male foster parent, grandmother, grandfather.

Source: Author's calculations using 2010–2024 CPS ASEC with household weights and TAXSIM.

Figure A.5: Conditional Child Care Expenditures by AGI Quintile



Notes: Child care expenditures among households with strictly positive child care spending and children younger than six years old from 2009–2023, by AGI quintile, in 2023 dollars.

Source: Author's calculations using 2010–2024 CPS ASEC with household weights.