RACE, INCOME AND WEALTH, AND PARENTAL SPENDING ON CHILDREN'S EDUCATION AND CARE

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OVERVIEW OF TALK

- Background
  - Inequality in Parental Investments in Children
  - The Intersection of Racial/Ethnic and Economic Disadvantage in Childhood
- Data and Methods
- Results
  - Incl. supplemental results for early childhood only
- Discussion

BACKGROUND: INEQUALITY IN PARENTAL INVESTMENTS IN CHILDREN

- A key mechanism by which parents facilitate their children's development is with investments in education and child care (Becker & Tomes, 1986; Hao & Yeung, 2015; Kaushal et al., 2011; Kornrich, 2016; Kornrich & Furstenberg, 2013; Schneider et al., 2018).

- *Theorized to facilitate:*
  - Higher-quality care and education
  - More developmentally supportive home environments

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- *Theorized to facilitate:*

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  - More developmentally supportive home environments

- Limited empirical evidence of this link (Kornrich, 2016).

- *What we know:*

  - Higher parental income is positively associated with use of center-based childcare, early childhood education, private schooling, and other educational activities (Buchmann et al., 2010; Magnuson & Waldfogel, 2016; Murnane & Reardon, 2018)

  - The above are consistently and positively associated with both school achievement and behavioral outcomes (Danziger & Waldfogel, 2005; Kalil & DeLeire, 2004; Kaushal et al., 2011)

BACKGROUND: INEQUALITY IN PARENTAL INVESTMENTS IN CHILDREN

- Since 1970s, parental investments in children have increased, and starting in 1990s, shifted away from adolescent years toward a) early childhood and b) transition to adulthood (Kornrich, 2016; Kornrich & Furstenberg, 2013).

  - More than increase in spending overall → households redirecting resources towards children's education and care

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  - More than increase in spending overall → households redirecting resources towards children's education and care

- Inequalities in these investments between high- versus low-income families have also increased (Kornrich & Furstenberg, 2013; Schneider et al., 2018)

Total spending on children

Total spending as share of household income

Top vs. bottom income decile spending gaps (in 2008 $):

1972-3: approx. $5K

2006-7: approx. $10K

Source: Kornrich and Furstenberg 2013

BACKGROUND: INEQUALITY IN PARENTAL INVESTMENTS IN CHILDREN

- Why? Structural changes in economy and cultural changes in parenting and child development
  - Economy
    - Income inequality has grown, predicts greater inequality in spending on children (Schneider et al., 2018)
    - Rise in women's labor force participation → higher need for fee-based non-parental care, particularly among more highly-educated married couples (Hofferth & Phillips, 1987; Macunovich, 2010).

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  - Culture

    - Spending on children is part of a set of strategies that advantaged parents use to build children's human, social, and cultural capital, e.g., "concerted cultivation" (Cheadle & Amato, 2011; Lareau, 2003; Sherman & Harris, 2012)

      - Associated with White middle and upper income families; high resource demands (time and money) (Cheadle & Amato, 2011; Kalil et al., 2016)

BACKGROUND: THE INTERSECTION OF RACIAL/ETHNIC AND ECONOMIC DISADVANTAGE IN CHILDHOOD

- Much less is known about racial/ ethnic differences in parental spending on children and how racial/ethnic and economic (dis)advantages may have interactive effects on spending

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- Possibility of no differences

  - Parental attitudes and beliefs about education do not vary by race (Harris, 2008; Stevenson et al., 1990), suggesting spending may not either within same-income families

  - Lareau (2003) found no differences in concerted cultivation between White and Black families within her class types

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- Possible differences

  - Theory and recent empirical evidence- economic (dis)advantage is experienced differently in the US depending on racial/ethnic identity (e.g. Chetty et al., 2020; Cole, 2009; García Coll et al., 1996; Henry et al., 2019; Reardon et al., 2015)

    - Garcia Coll's (1996) integrative model of development for children of color: class position is mediated through racism-segregated neighborhoods and schools shape parenting practices and children's development

RACIAL/ ETHNIC DIFFERENCES BETWEEN SAME-INCOME HOUSEHOLDS THAT MAY EXPLAIN DIFFERENCES IN SPENDING ON CHILDREN

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- Other socioeconomic status characteristics- same-income Black and White households have comparable levels of *educational attainment*, but Hispanic households at disadvantage (Conwell, in press; Simms et al., 2009)

  - Black and Hispanic households less likely than same-income White and Asian households to translate income into *neighborhood quality* (Pattillo-McCoy 1999; Reardon et al., 2015)

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- **Wealth-** large Black-White and Hispanic-White wealth gaps between same-income households (McIntosh et al., 2020; Meschede et al., 2017); Black-White wealth gaps are larger among households with children than other households (Percheski and Gibson-Davis 2020)
    - *Wealth and spending on children:* Liquid assets can be used like income; debt may place credit constraints on families; assets and debts may affect parents' subjective sense of financial stability in ways that affect spending decisions (Gibson-Davis & Hill, unpublished manuscript; Williams Shanks, 2007).

RELEVANT PRIOR RESEARCH: HAO AND YEUNG (2015)

- Black-White differences in spending on children aged 5-18, net of SES

- Data: Panel Study of Income Dynamics

- Method: conditional quantile regression

- Spending outcomes: included school-related (e.g., tuition, supplies), social-cultural (e.g., lessons, cultural activities), status-signaling (e.g., clothes/ shoes, car-related for children 16 and older), other (e.g., food, childcare), and a measure totaling all of these

- Key findings: Black-White differences in total spending of 20-30% across conditional spending distribution

RELEVANT PRIOR RESEARCH: HAO AND YEUNG (2015)

- Our contributions

  1. Racial/ ethnic differences in spending at different points in unconditional household income distribution- households that are low, middle, or high income, in line with previous research on inequality between them

  2. Include Blacks, Hispanics, Asians, and Whites → more in line with contemporary demographic reality of children in U.S.

  3. Include early childhood

RESEARCH QUESTIONS

1. Do same-income White, Black, Hispanic, and Asian households with children aged 0-18 report different spending on education and care for children:

   A. Probabilities of spending

   B. Amount of spending, among those spending at least $1

2. To what extent are Black-White, Hispanic-White, or Asian-White differences in probability or spending or amount spent explained by racial/ethnic differences in a) household characteristics, b) highest education in the household, and c) household wealth?

DATA AND SAMPLE

- **Data:** Consumer Expenditure Survey (CE; U.S. Census Bureau and Dept. of Labor's Bureau of Labor Statistics)

  - Expenditures, income, and demographic characteristics of a nationally representative sample of consumer units (CUs) in the United States
    - A consumer unit comprises either: (1) all members of a particular household who are related by blood, marriage, adoption, or other legal arrangements; (2) a person living alone or sharing a household with others or living as a roomer in a private home or lodging house or in permanent living quarters in a hotel or motel, but who is financially independent; or

      (3) two or more persons living together who use their income to make joint expenditure decisions.

  - Interview Survey- major and/ or recurring purchases; collected quarterly

  - *Observation period:* Quarter 2 of 2011- Quarter 4 of 2017 (end of Great Recession through most recently available data)

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- Sample: CU must have at least on child <18, at least one parent >24

  - 38,003 CU quarters/ 14,831 unique CUs

  - Analysis accounts for clustering

OUTCOME: PARENTAL SPENDING ON CHILDREN'S EDUCATION AND CARE

- **Sum of three primary forms of parent investments collected in the survey:** (1) lessons – fees for recreational lessons and other instruction, (2) schooling – student room and board; school meals; books, supplies, and equipment for school; tuition; and any other pre-K through 12th-grade school-related expenses, (3) childcare – all costs for babysitting, nannies, daycare centers, and nursery schools

- Follows previous research using CE (see also Hao & Yeung, 2015; Kornrich & Furstenberg, 2013; Schneider et al., 2018)

- Adjusted to 2017 dollars using Consumer Price Index

- This outcome is zero-inflated. We estimate:
  - Binary probabilities of spending at least $1
  - Continuous differences in spending among those spending at least $1

KEY EXPLANATORY VARIABLES: RACE AND INCOME

- Race/ ethnicity of reference person (the one who "owns or rents" the home)

  - White, non-Hispanic; Black, non-Hispanic; Asian, non-Hispanic; and Hispanic

  - Native American, non-Hispanic or multi-race, non-Hispanic were excluded due to small sample sizes

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- CU's total pretax income in past 12 months

  - CE imputed income data, which includes salary income, self-employment income, Social Security and Railroad Retirement income, Supplemental Security Income, income received from retirement, survivor, or disability pensions, income received from interest and dividends, royalty income or income from estates and trusts, income received from net rental income or loss, income from public assistance or welfare, and any other forms of income

  - Adjusted to 2017 dollars using CPI

  - Analyze income as percentiles

EXPLANATORY VARIABLES

- **Household characteristics:** family structure, whether there are two or more earners in household, household size, whether household contains at least one nonparent person over age 64

  - Age (all under 6, oldest 6-11 and at least one under 6, all 6-11, oldest 12-17 and at least one under 12, all 12-17, oldest over 17 and at least one under 17) and gender composition (only girls, only boys, mixed gender) of children in the household

- **Highest education in the household:** high school graduate or less, some college or associate degree, bachelor's degree or higher)

- **Household wealth**

  - Proxied by property value of household's primary residence; renters included as $0 (see Pfeffer, 2018)

  - Adjusted to 2017 dollars with CPI and converted to percentiles

- **Controls:** region and year

ANALYTIC STRATEGY

- Organize data into CU-quarter structure

- Results from model that regresses parental spending on children's education and care on interaction of race and income percentile

$$\text{Outcome}_{iq} = \beta_0 + \mathbf{RE_i\beta_1} + \beta_2\text{IncPct}_{iq} + (\mathbf{RE_i * IncPct_{iq}})\boldsymbol{\beta_3} + \mathbf{X_{iq}\beta_X} + \varepsilon_{iq}$$

- Three-stage analysis

  1. Predict probability and amount of spending, by race, at the 10th, 50th, and 90th income percentiles

  2. Predict explanatory variables, by race, at the 10th, 50th, and 90th income percentiles

  3. *To what extent does 2 account for 1?* Linear probability models for probability of spending and linear regressions of spending among those who spent at least \$1, focus on race-income interaction terms net of explanatory variables ($\mathbf{X_{iq}\beta_X}$)

RESULTS

1. Probability and amount of spending on children's care and education, by race and income

   ▪ All households with children

   ▪ Early child households (all under 6 or oldest 6-11 and at least 1 under 6)

2. (Selected) descriptive statistics: explanatory variables, by race, for median income households

3. Accounting for racial/ ethnic differences in probability of spending between same-income households
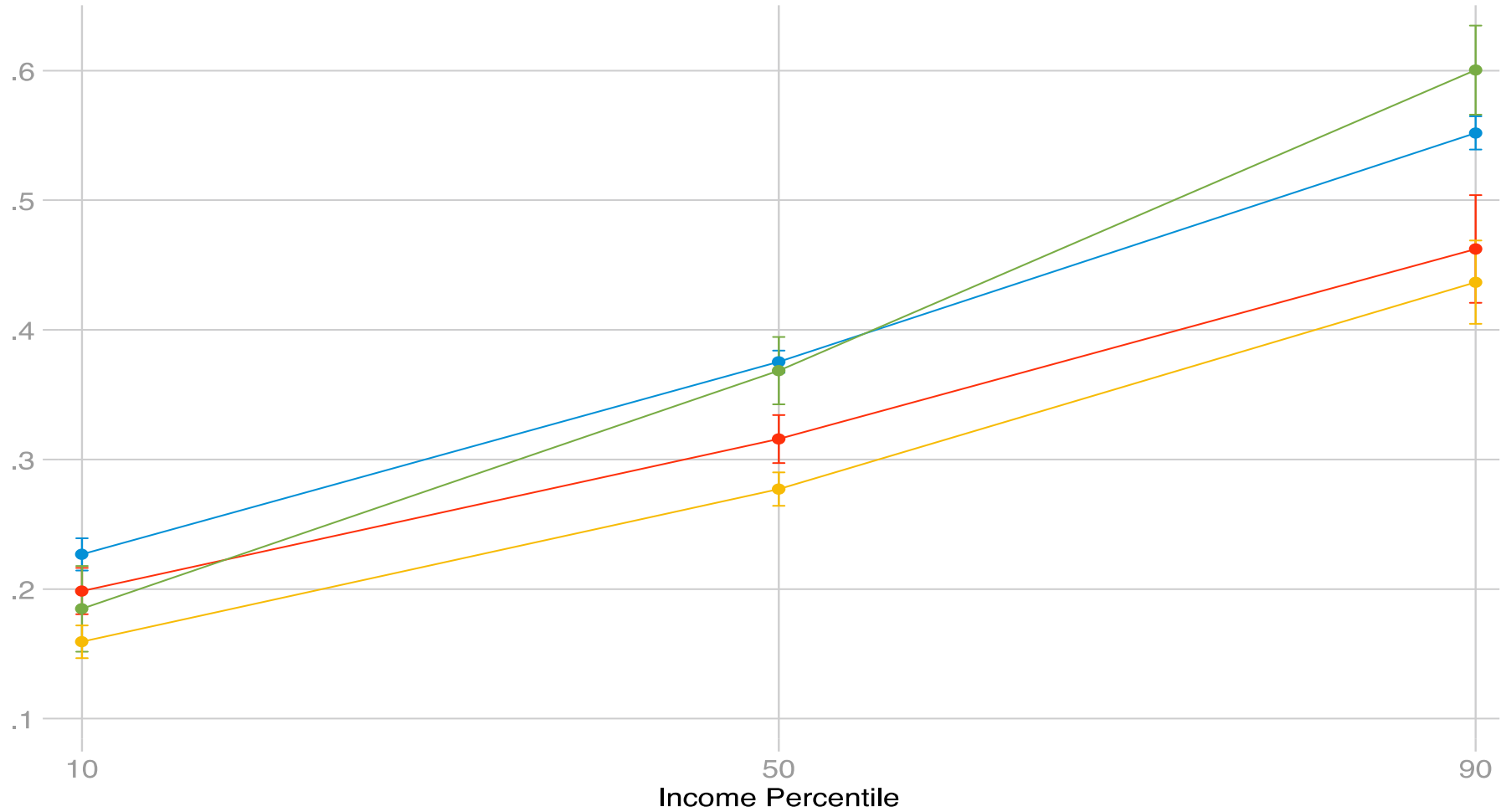
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Probability of Spending at Least $1 on Children's Care and Education, by Race and Income Percentile

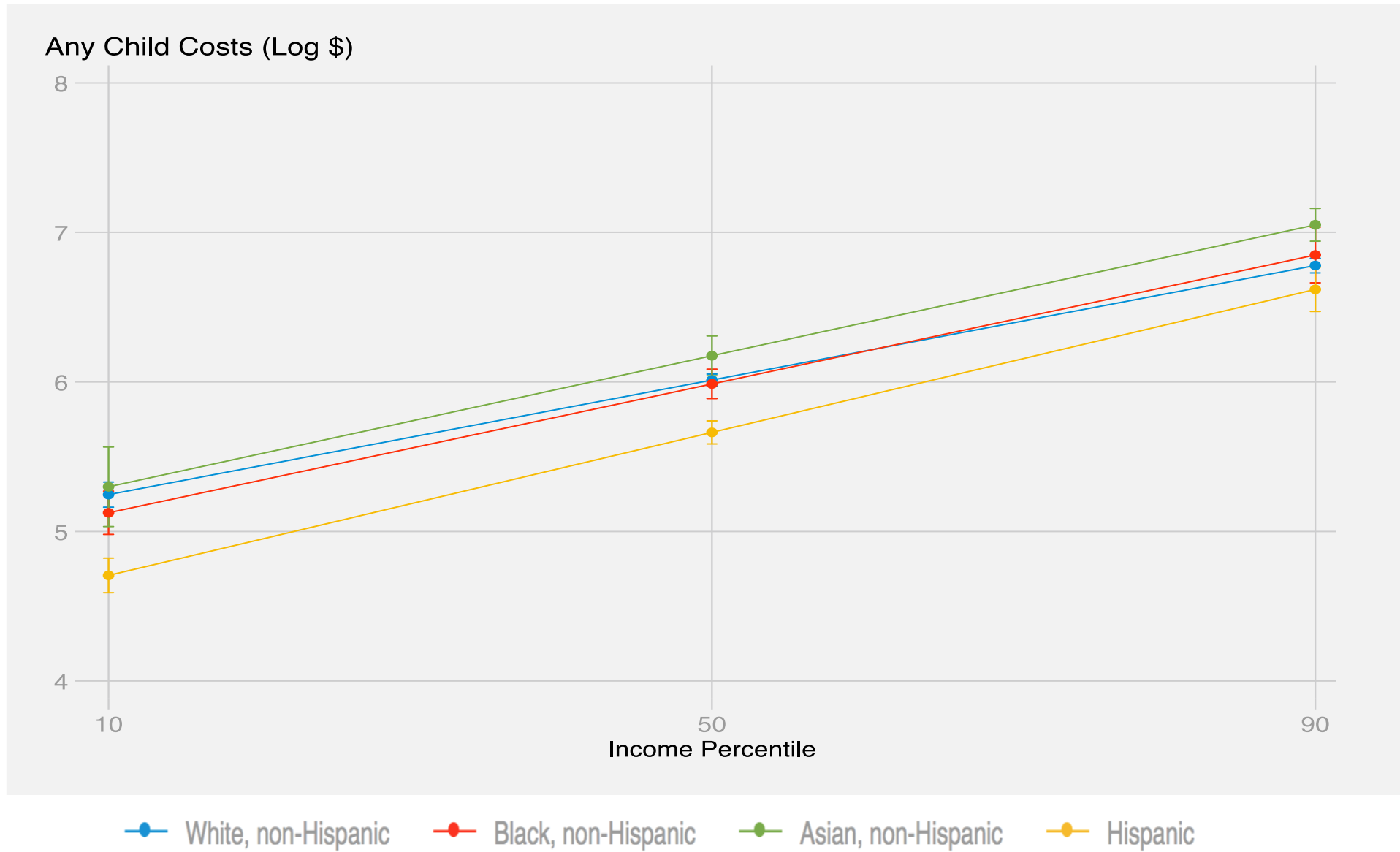## Racial/ Ethnic Differences (Relative to White, Non-Hispanic) in Probability of Reporting at Least $1 of Spending on Children's Education and Care, by Income Percentile

	10th Income Percentile		50th Income Percentile		90th Income Percentile	
	B	*p*	*B*	*p*	*B*	*p*
All Households (N = 46,555)						
White, Non-Hispanic	0.22		0.38		0.55	
Black, Non-Hispanic	-0.02		-0.06	***	-0.10	***
Asian, Non-Hispanic	-0.05	*	0.00		0.05	*
Hispanic	-0.06	***	-0.10	***	-0.13	***
All Children Under 6 or Oldest 6-11 and One Under 6 (N = 16,101)						
White, Non-Hispanic	0.24		0.45		0.66	
Black, Non-Hispanic	-0.03		-0.04	*	-0.06	
Asian, Non-Hispanic	-0.09	*	-0.06	**	-0.04	
Hispanic	-0.09	***	-0.11	***	-0.12	***

Log of Amount Spent on Children's Care and Education Among Those Spending at Least $1, by Race and Income Percentile

Racial/ Ethnic Differences (Relative to White, Non-Hispanic) in Log of Spending on Children's Care and Education, Among Those Reporting at Least $1 of Spending, by Income Percentile

	10th Income Percentile		50th Income Percentile		90th Income Percentile	
	B	p	B	p	B	p
All Households (N = 16,835)						
White, Non-Hispanic	5.25		6.01		6.78	
exp(White)	*189.86*		*408.38*		*878.40*	
Black, Non-Hispanic	-0.12		-0.03		0.07	
Asian, Non-Hispanic	0.05		0.16*		0.27***	
Hispanic	-0.54***		-0.35***		-0.16*	
All Children Under 6 or Oldest 6-11 and One Under 6 (N = 6,804)						
White, Non-Hispanic	5.51		6.38		7.25	
exp(White)	*246.07*		*589.28*		*1411.16*	
Black, Non-Hispanic	0.22		0.30***		0.38**	
Asian, Non-Hispanic	-0.11		0.02		0.14	
Hispanic	-0.52***		-0.20**		0.11	

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Means and Proportions of Selected **Family Characteristics**, by Race, for Median Income Household

	White, Non-Hispanic	Black, Non-Hispanic		Asian, Non-Hispanic		Hispanic	
	b	*b*	*p*	*b*	*p*	*b*	*p*
Family Structure = Married	0.72	0.55	***	0.84	***	0.77	***
Two or More Income Earners in Household	0.60	0.59		0.55	***	0.68	***
Family Size	3.91	3.90		4.07	***	4.45	***
At Least One Nonparent Person over Age 64	0.02	0.03	***	0.07	***	0.04	***
All Children Under 6	0.22	0.16	***	0.27	***	0.17	***
Maximum Number of Households	10,546	2,314		1,226		3,931	
Maximum Number of Quarters	27,694	5,561		3,299		10,101	

Proportions of **Highest Educational Attainment in Household**, by Race, for Median Income Household

	White, Non-Hispanic	Black, Non-Hispanic		Asian, Non-Hispanic		Hispanic	
	b	*b*	*p*	*b*	*p*	*b*	*p*
High School Graduate or Less	0.20	0.20		0.17		0.38	***
Some College or Associate's Degree	0.34	0.35		0.19	***	0.33	
Bachelor's Degree or Higher	0.47	0.44	*	0.64	***	0.29	***
Maximum Number of Households	10,546	2,314		1,226		3,931	
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Means of Property Value (Wealth Proxy) Percentile, by Race, for Median Income Household

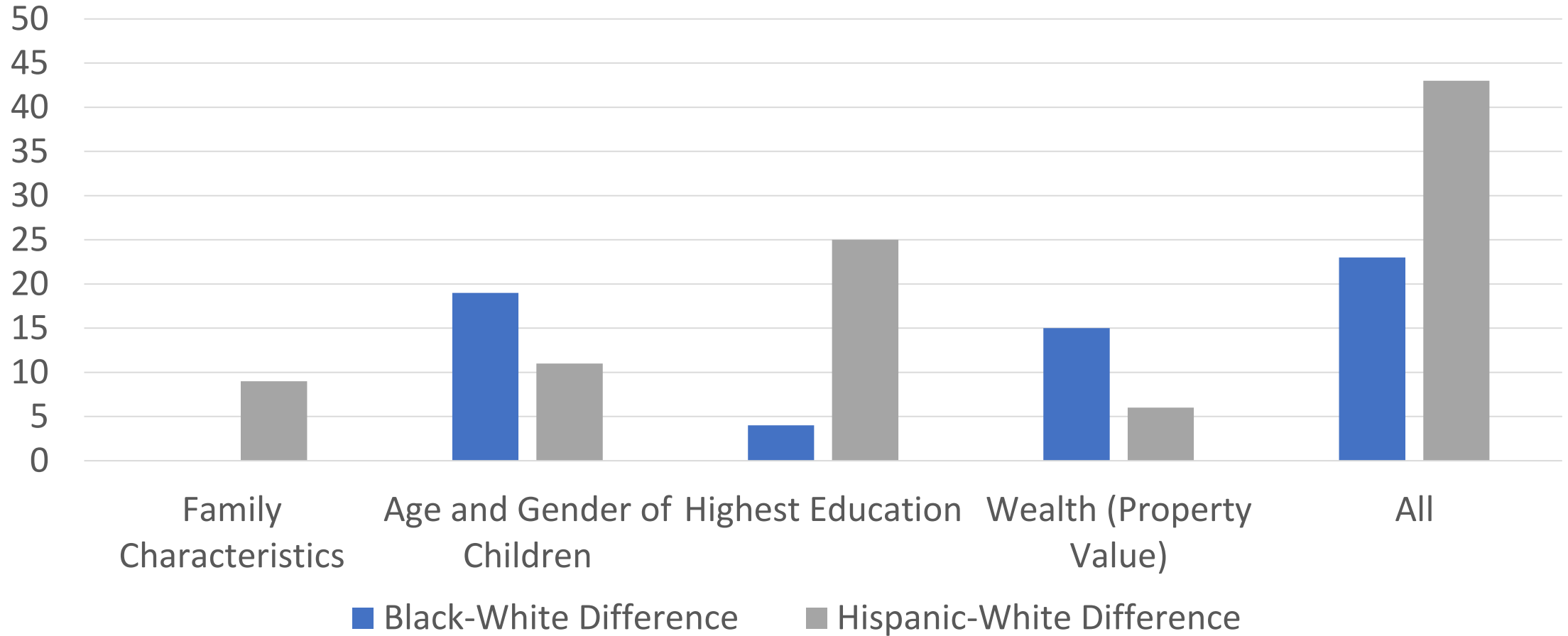|	White, Non-Hispanic	Black, Non-Hispanic		Asian, Non-Hispanic		Hispanic	
	b	*b*	*p*	*b*	*p*	*b*	*p*
Property Value (Wealth Proxy) Percentile	46.97	31.58	***	45.31		36.12	***
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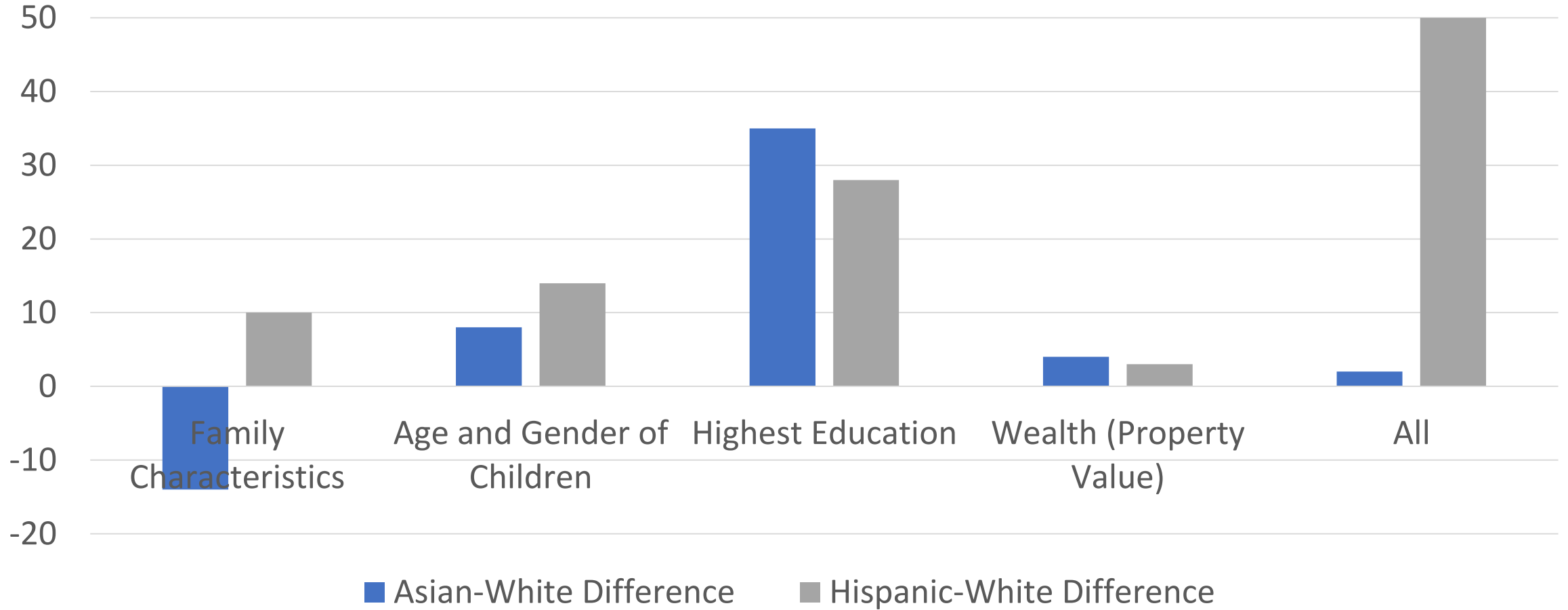|	10th Income Percentile		50th Income Percentile		90th Income Percentile	
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Percentage of Difference in Probability of Spending at Least $1 on Children's Care and Education Accounted for, Median Income Households

Racial/ Ethnic Differences (Relative to White, Non-Hispanic) in Log of Spending on Children's Care and Education, Among Those Reporting at Least $1 of Spending, by Income Percentile

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Percentage of Difference in Amount Spent on Children's Care and Education, Among Households Reporting at Least $1 Spent, Median Income Households

Legend: ■ Asian-White Difference ■ Hispanic-White Difference

Categories (x-axis): Family Characteristics, Age and Gender of Children, Highest Education, Wealth (Property Value), All

DISCUSSION AND CONCLUSION

- Race, income, and probability and amount spent on children's care and education (same-income comparisons relative to Whites)
  - Blacks: "hurdle"- lower probability of spending but often equal or higher spending among those who do
  - Hispanics: "double disadvantage"
  - Asians: "double advantage"
  - These patterns vary substantially by income level child age (early childhood supplementary analyses for Duke)
  - Partially accounted for by racial variation in correlates of spending, net of income, particularly Hispanic-White differences

- Implications include income gaps in children's educational achievement and attainment (Bailey & Dynarski, 2011; Duncan et al., 2017; Reardon, 2011)

- However, we have analyzed only one, financially intensive form of parenting.
  - Patterns could differ for other measures, such as time with children and cultural socialization, which could compound or offset inequities in spending and are known correlates of child development (e.g. Cabrera et al., 2016; Hughes et al., 2006; Kalil & DeLeire, 2004; Mesman et al., 2012; Neblett et al., 2008)

- Limitations include lack of data on neighborhood characteristics, which vary by race, net of income
  - Lower quality neighborhoods could constrain Black and Hispanic parents' spending opportunities relative to same-income Whites and Asians