

ANALYZING CHILD CARE TIME WITH TIME DIARIES

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TIME USE DATA ACCESS SYSTEM WORKSHOP



MPRC
Maryland Population Research Center



MEASURING CHILD CARE

- ◎ Primary Child Care
- ◎ “Secondary” child care
 - Child “in your care”
 - Responsibility / monitoring of child(ren)
 - ≠ simultaneous child care activity
- ◎ Time with Children
 - Any activity with household & nonhousehold children

MEASURING PARENTS



Home | Select Data | FAQ | Help | Logout

Data Cart
Your data extract
18 variables
3 time use variables
12 samples
VIEW CART →

Select Variables

Household ▾	Person ▾	Activity ▾	Who ▾	Time Use ▾	Search
-------------	----------	------------	-------	------------	--------

Create time use variable

Change Samples

- Rectangular [?] [Help](#)
- Hierarchical [?] [Display options](#)

An "X" indicates the variable is available in that dataset.

Constructed Household Composition Variables -- HOUSEHOLD [\[top\]](#)

Add to cart	Variable	Variable Label	Type	03	04	05	06	07	08	09	10	11	12	13	14
+	HH_SIZE	Number of people in household	H	X	X	X	X	X	X	X	X	X	X	X	X
✓	HH_CHILD	Children under 18 in household	H	X	X	X	X	X	X	X	X	X	X	X	X
✓	HH_NUMKIDS	Number of children under 18 in household	H	X	X	X	X	X	X	X	X	X	X	X	X
✓	AGEYCHILD	Age of youngest household child	H	X	X	X	X	X	X	X	X	X	X	X	X
+	HH_NUMADULTS	Number of adults in household	H	X	X	X	X	X	X	X	X	X	X	X	X
+	HH_SIZE_CPS8	Number of people in household (CPS)	H	X	X	X	X	X	X	X	X	X	X	X	X
+	HH_CHILD_CPS8	Children under 18 in household (CPS)	H	X	X	X	X	X	X	X	X	X	X	X	X
+	AGEYCHILD_CPS8	Age of youngest household child (CPS)	H	X	X	X	X	X	X	X	X	X	X	X	X

TYPES OF CHILD RELATED TIME

- ◎ Primary Child Care
- ◎ “Secondary” child care
 - Child “in your care”
 - Responsibility / monitoring of child(ren)
 - In ATUS-X ≠ simultaneous child care activity
- ◎ Time with Children
 - Any activity with household & nonhousehold children

FIGURE 1. COMPARING TYPES OF CHILD TIME

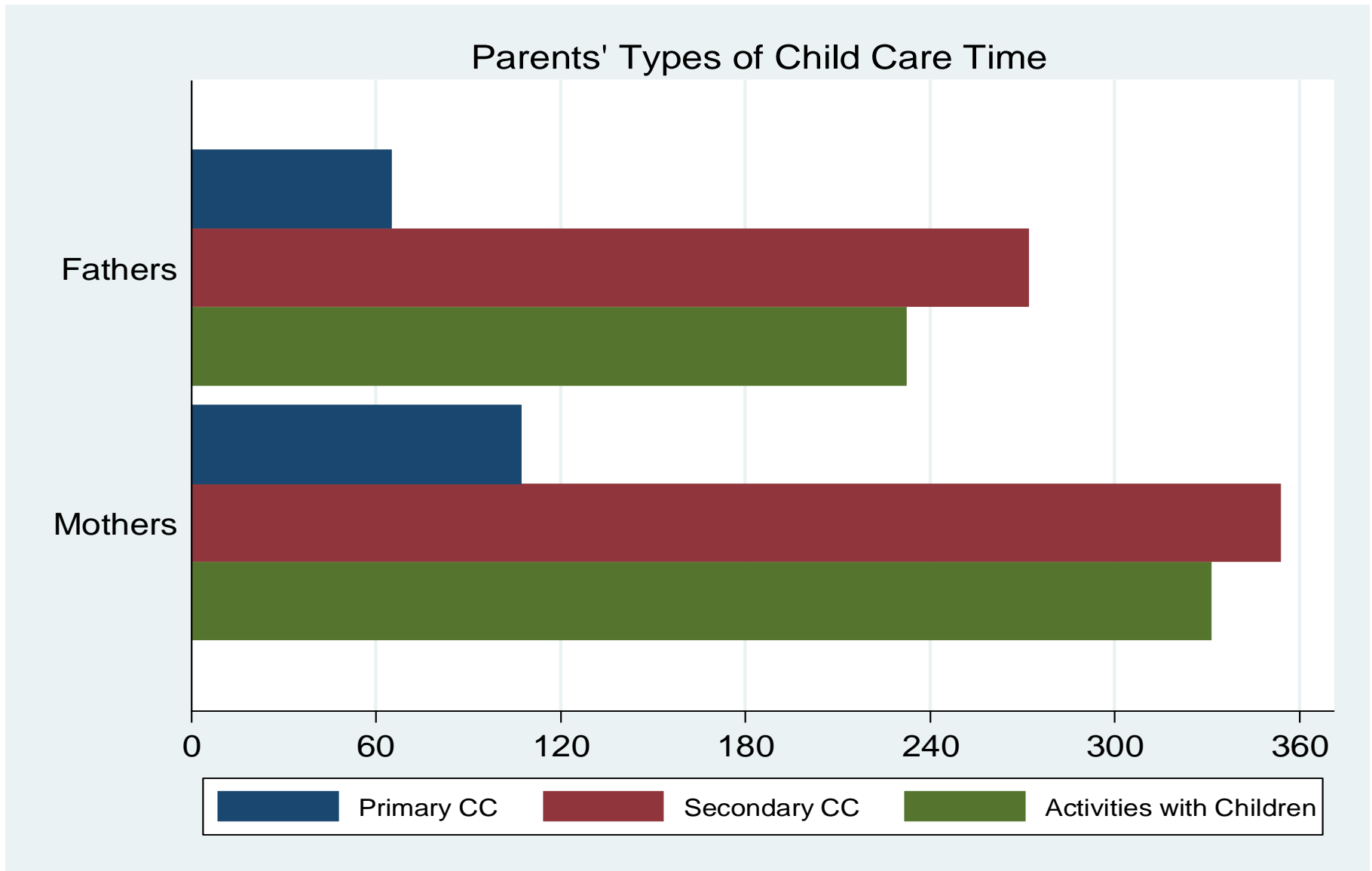
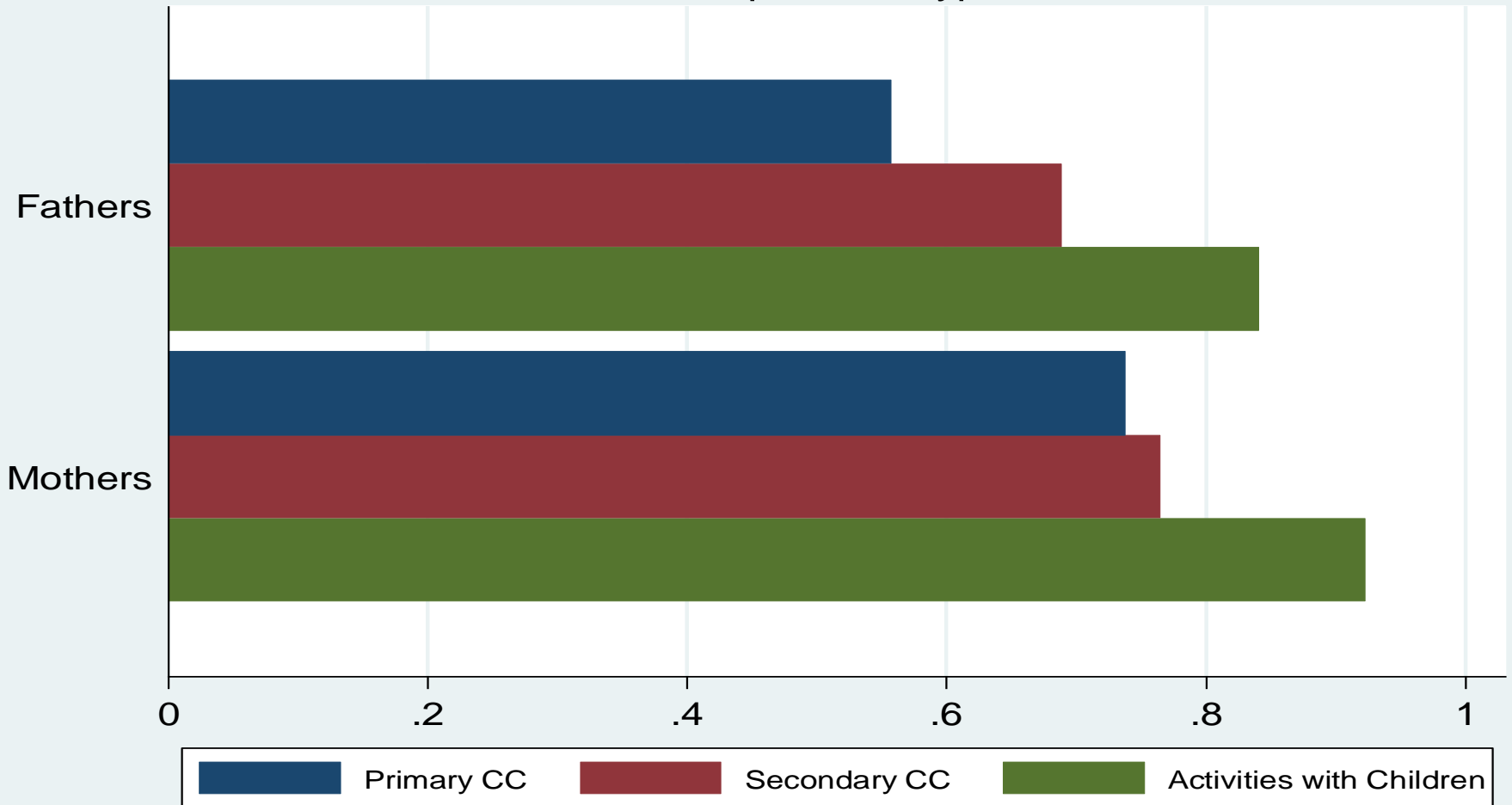


FIGURE 2. COMPARING REPORTS OF TYPES OF CHILD TIME

Gender Differences in Reports of Types of Child Care Time



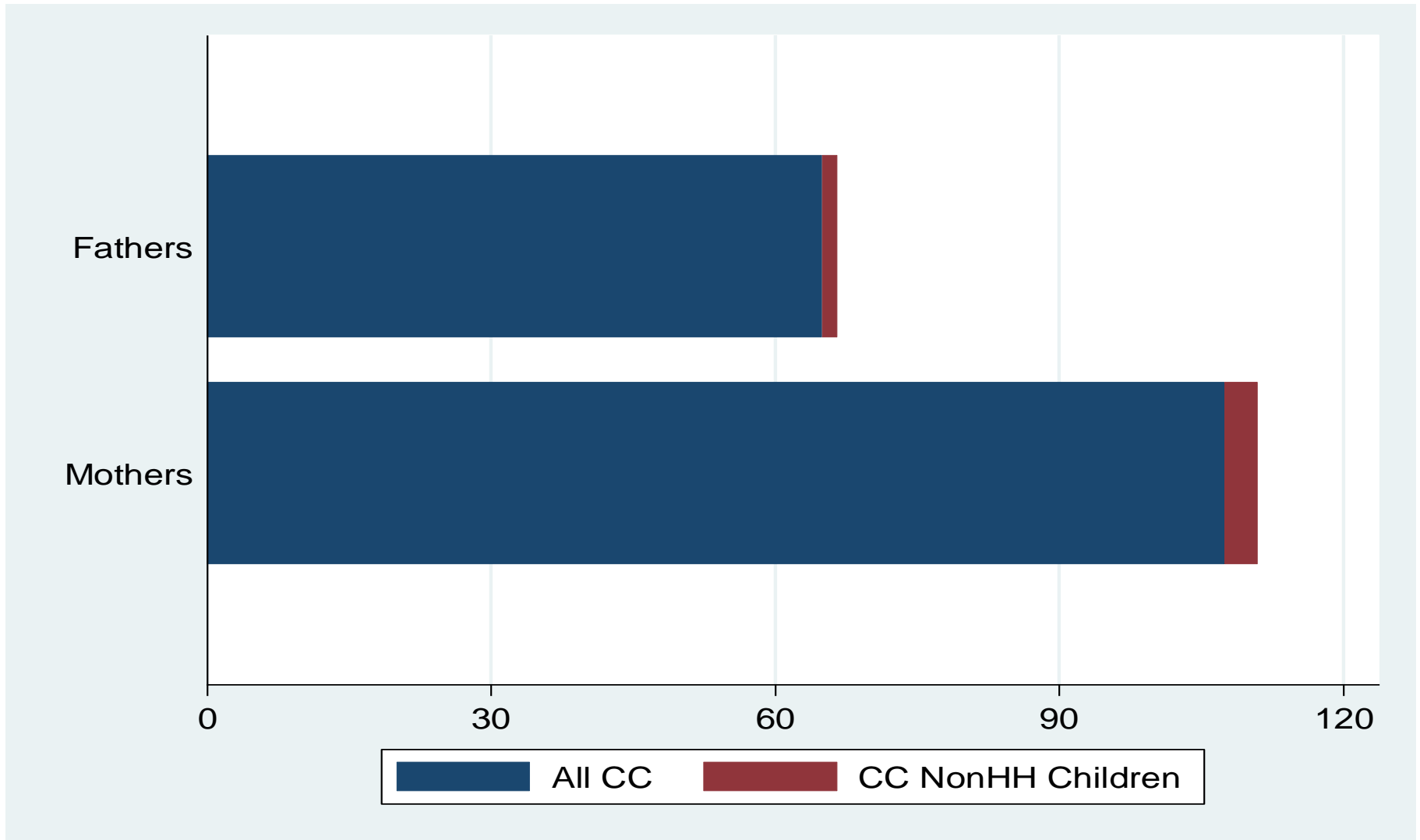
CONCEPTUALIZING PRIMARY CHILD CARE

- ⦿ Physical care
- ⦿ Developmental care
- ⦿ Managerial care

CODING PRIMARY CHILD CARE TIME

- ◎ Household and non-household children ages 0-17
 - Relationship to child not specified
 - https://www.atusdata.org/atus-action/variables/group?id=constr_child
 - https://www.atusdata.org/atus-action/variables/ACTIVITY#codes_section

FIGURE 3. MORE CHILD CARE TIME OF HOUSEHOLD CHILDREN



CREATING PRIMARY CHILD CARE MEASURES

The screenshot shows the ATUS-X Extract Builder web application. At the top left is the ATUS-X logo with the text "AMERICAN TIME USE STUDY EXTRACT BUILDER". A navigation bar contains links for Home, Select Data, FAQ, Help, and Logout. A "Data Cart" box on the right shows "Your data extract" with 10 variables, 0 time use variables, and 0 samples, and a "VIEW CART" button. Below the navigation bar is a "Select Variables" section with dropdown menus for Household, Person, Activity, Who, Time Use, and a Search field. To the right are buttons for "Create time use variable" and "Select Samples", along with radio buttons for "Rectangular [2]" (selected) and "Hierarchical [2]", and links for "Help" and "Display options". The main content area is titled "Activity coding structure" and contains a table with columns "Add to cart", "Name", and "Label".

Add to cart	Name	Label
+	ACT_PCARE	ACT: Personal care
+	ACT_HHACT	ACT: Household activities
+	ACT_CAREHH	ACT: Caring for and helping household members
+	ACT_CARENHH	ACT: Caring for and helping non-household members
+	ACT_WORK	ACT: Working and Work-related Activities
+	ACT_EDUC	ACT: Educational activities
+	ACT_PURCH	ACT: Consumer purchases
+	ACT_PROFSERV	ACT: Professional and personal care services
+	ACT_HHSERV	ACT: Household services
+	ACT_GOVSERV	ACT: Government services and civic obligations
+	ACT_FOOD	ACT: Eat and drinking
+	ACT_SOCIAL	ACT: Socializing, relaxing, and leisure
+	ACT_SPORTS	ACT: Sports, exercise, and recreation
+	ACT_RELIG	ACT: Religious and spiritual activities
+	ACT_VOL	ACT: Volunteer activities
+	ACT_PHONE	ACT: Telephone calls
+	ACT_TRAVEL	ACT: Traveling

At the bottom of the browser window, the taskbar shows three open files: "Introduction to IPU....pptx", "Sayer PAA Expensexlsx", and "Hamrick.EHM.UofM....pptx". A "Show all downloads..." button is visible in the bottom right corner of the taskbar.

CREATING PRIMARY CHILD CARE VARIABLES FROM SCRATCH (1)

Activity

Group: [Technical Activity - ACTIVITY](#)

Codes Description Comparability Universe Availability Flags

Codes and Frequencies

Category availability view Respondents

Case-count view Respondents and Household Members

Respondents and Non-respondents

Respondents and Non-respondents plus Household Members

An 'X' indicates the category is available for that sample

Code	Label	03	04	05	06	07	08	09	10	11	12	13	14
010000	Personal Care	.	.	.	.	.	.	.	.	.	.	.	.
010100	Sleeping	.	.	.	.	.	.	.	.	.	.	.	.
010101	Sleeping	X	X	X	X	X	X	X	X	X	X	X	X
010102	Sleeplessness	X	X	X	X	X	X	X	X	X	X	X	X
010199	Sleeping, n.e.c.	.	.	X	.	.	.	.	.	.	.	.	.
010200	Grooming	.	.	.	.	.	.	.	.	.	.	.	.
010201	Washing, dressing, and grooming oneself	X	X	X	X	X	X	X	X	X	X	X	X
010299	Grooming, n.e.c.	X	X	X	X	X	X	X	X	X	X	X	X
010300	Health-Related Self Care	.	.	.	.	.	.	.	.	.	.	.	.
010301	Health-related self care	X	X	X	X	X	X	X	X	X	X	X	X
010399	Self care, n.e.c.	X	X	X	X	X	X	X	X	X	X	X	X
010400	Personal Activities	.	.	.	.	.	.	.	.	.	.	.	.
010401	Personal or private activities	X	X	X	X	X	X	X	X	X	X	X	X

Physical

- 030101 + 030109 + 030199 + 030301 + 030302 + 030303 + 030399 + 180381 + 180382 + 180304

Developmental

- 030102 + 030103 + 030104 + 030105 + 030106 + 030107 + 030201 + 030203

Managerial

- 030108 + 030110 + 030111 + 030112 + 030202 + 030204 + 030299 + 080101 + 080102 + 080199 + 160107 + 180303 + 180801

• https://www.atusdata.org/atus-action/variables/ACTIVITY#codes_section

CREATING PRIMARY CHILD CARE VARIABLES FROM SCRATCH (2)

Code	Label	03	04	05	06	07	08	09	10	11	12	13	14
029999	Household activities, n.e.c.	X	X	X	X	X	X	X	X	X	X	X	X
030000	Caring for and Helping Household Members	-	-	-	-	-	-	-	-	-	-	-	-
030100	Caring for and Helping Household Children	-	-	-	-	-	-	-	-	-	-	-	-
030101	Physical care for household children	X	X	X	X	X	X	X	X	X	X	X	X
030102	Reading to or with household children	X	X	X	X	X	X	X	X	X	X	X	X
030103	Playing with household children, not sports	X	X	X	X	X	X	X	X	X	X	X	X
030104	Arts and crafts with household children	X	X	X	X	X	X	X	X	X	X	X	X
030105	Playing sports with household children	X	X	X	X	X	X	X	X	X	X	X	X
030106	Talking with or listening to household children	X	X	X	X	X	X	X	X	X	X	X	X
030107	Helping or teaching household children (not related to education) (2003)	X	-	-	-	-	-	-	-	-	-	-	-
030108	Organization and planning for household children	X	X	X	X	X	X	X	X	X	X	X	X
030109	Looking after household children (as a primary activity)	X	X	X	X	X	X	X	X	X	X	X	X
030110	Attending household children's events	X	X	X	X	X	X	X	X	X	X	X	X
030111	Waiting for or with household children	X	X	X	X	X	X	X	X	X	X	X	X
030112	Picking up or dropping off household children	X	X	X	X	X	X	X	X	X	X	X	X
030199	Caring for and helping household children, n.e.c.	X	X	X	X	X	X	X	X	X	X	X	X
030200	Activities Related to Household Children's Education	-	-	-	-	-	-	-	-	-	-	-	-
030201	Homework (household children)	X	X	X	X	X	X	X	X	X	X	X	X
030202	Meetings and school conferences (household children)	X	X	X	X	X	X	X	X	X	X	X	X
030203	Home schooling of household children	X	X	X	X	X	X	X	X	X	X	X	X
030204	Waiting associated with household children's education	X	X	X	X	X	X	X	X	X	X	-	-
030299	Activities related to household child's education, n.e.c.	X	X	X	X	X	X	X	X	X	X	X	X
030300	Activities Related to Household Children's Health	-	-	-	-	-	-	-	-	-	-	-	-
030301	Providing medical care to household children	X	X	X	X	X	X	X	X	X	X	X	X
030302	Obtaining medical care for household children	X	X	X	X	X	X	X	X	X	X	X	X
030303	Waiting associated with household children's health	X	X	X	X	X	X	X	X	X	X	X	X
030399	Activities related to household child's health, n.e.c.	X	X	X	X	X	X	X	X	X	X	X	X
030400	Caring for Household Adults	-	-	-	-	-	-	-	-	-	-	-	-
030401	Physical care for household adults	X	X	X	X	X	X	X	X	X	X	X	X
030402	Looking after household adult (as a primary activity)	X	X	X	X	X	X	X	X	X	X	X	X
030403	Providing medical care to household adult	X	X	X	X	X	X	X	X	X	X	X	X
030404	Obtaining medical and care services for household adult	X	X	X	X	X	X	X	X	X	X	X	X
030405	Waiting associated with caring for household adults	X	X	X	X	X	X	X	X	X	X	X	X
030499	Caring for household adults, n.e.c.	X	X	X	X	X	X	X	X	X	X	X	X
030500	Helping Household Adults	-	-	-	-	-	-	-	-	-	-	-	-
030501	Helping household adults	X	X	X	X	X	X	X	X	X	X	X	X
030502	Organization and planning for household adults	X	X	X	X	X	X	X	X	X	X	X	X

- Physical
 - 030101 + 030109 + 030199 + 030301 + 030302 + 030303 + 030399 + 180381 + 180382 + 180304
- Developmental
 - 030102 + 030103 + 030104 + 030105 + 030106 + 030107 + 030201 + 030203
- Managerial
 - 030108 + 030110 + 030111 + 030112 + 030202 + 030204 + 030299 + 080101 + 080102 + 080199 + 160107 + 180303 + 180801
- https://www.atusdata.org/atus-action/variables/ACTIVITY#codes_section

Screenshot Added
A screenshot was added to your Dropbox.

FIGURE 4. MORE DAILY TIME IN PHYSICAL CHILD CARE TIME

Parents' Child Care Activities

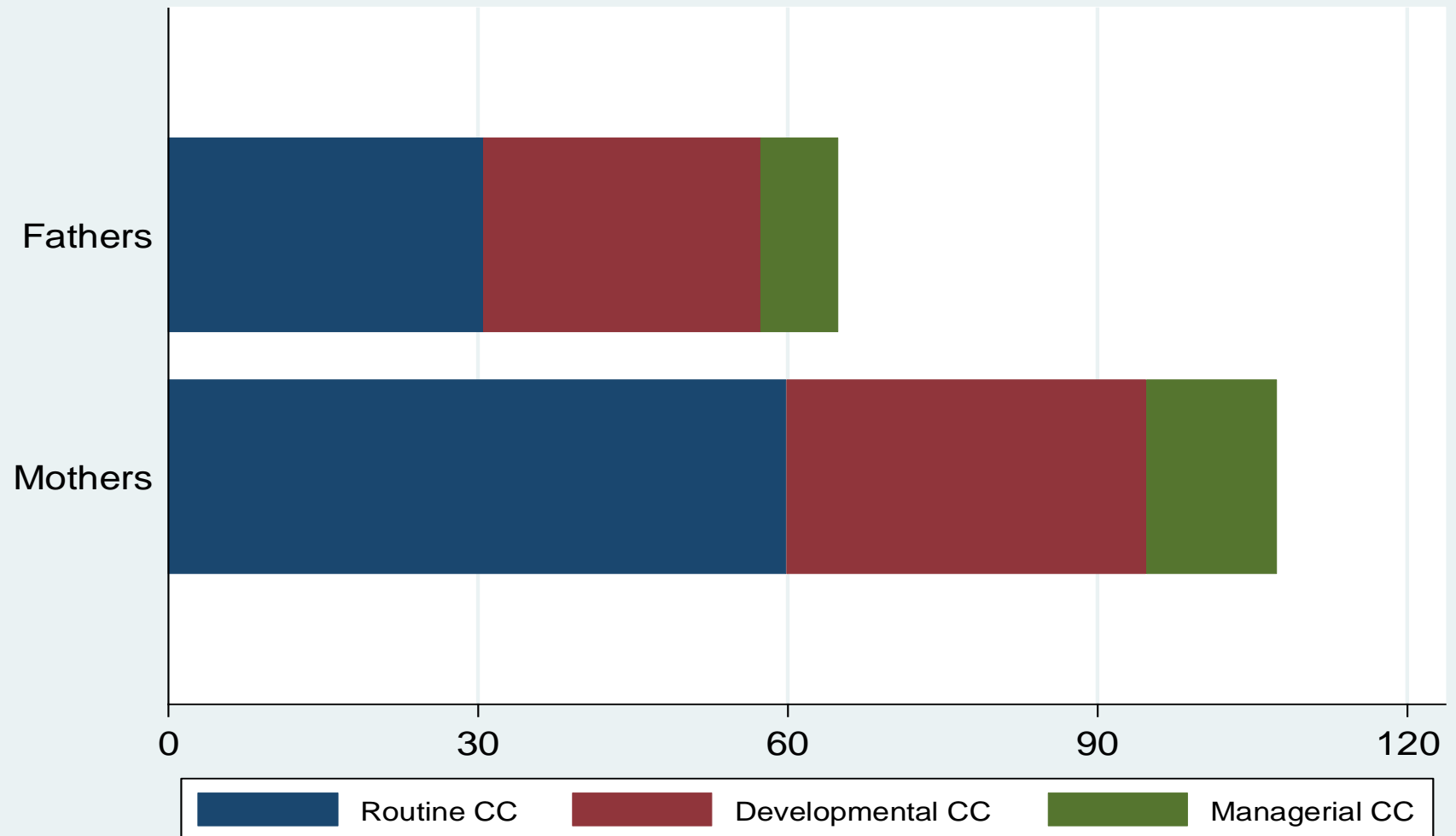


FIGURE 5. HIGHER % OF PARENTS REPORT PHYSICAL CHILD CARE ACTIVITIES

Gender Differences in Reporting Child Care Activities

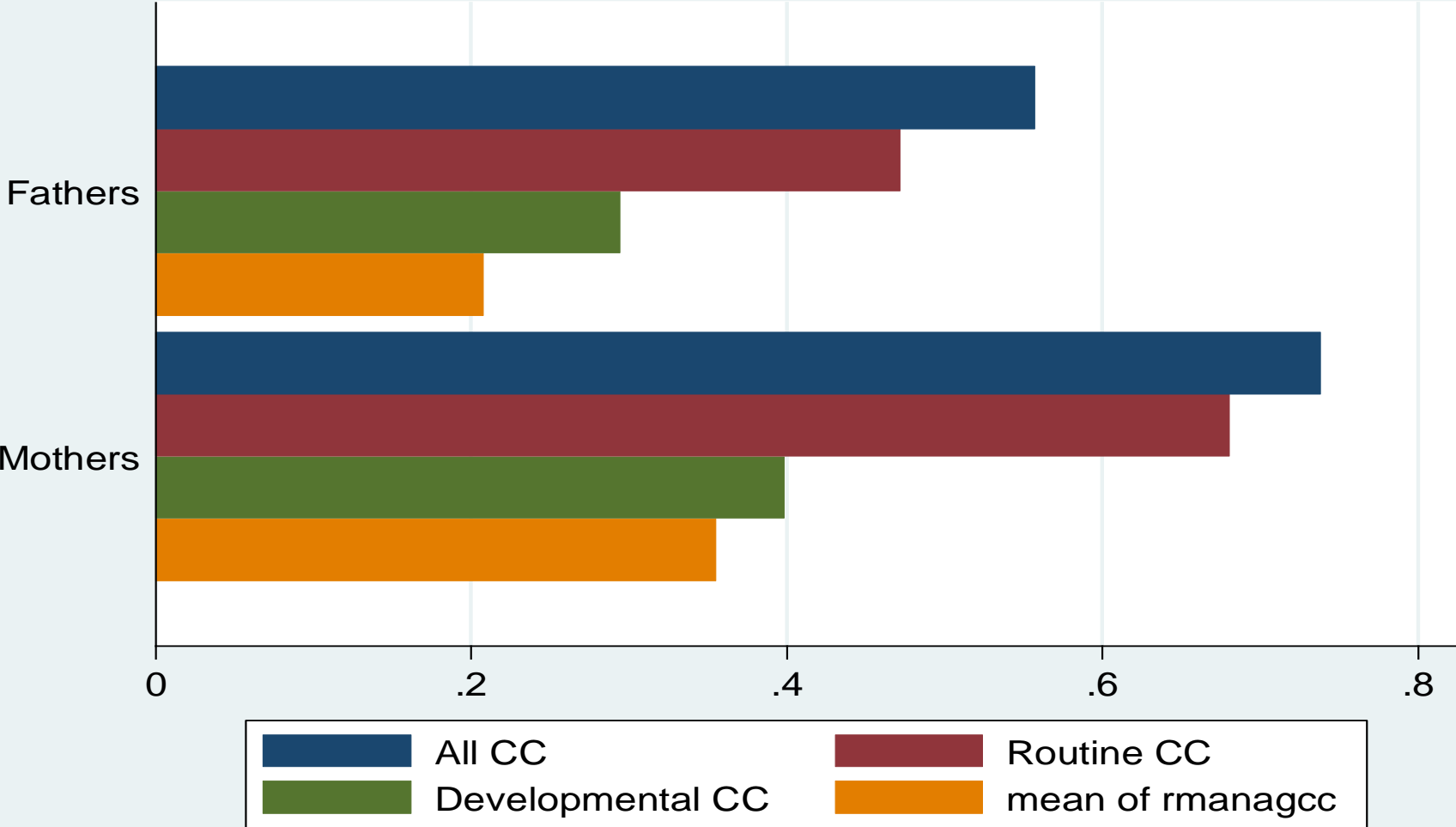


FIGURE 6. MORE CHILD CARE TIME WHEN YOUNG CHILDREN PRESENT

Parents' Child Care Activities by Age of Child

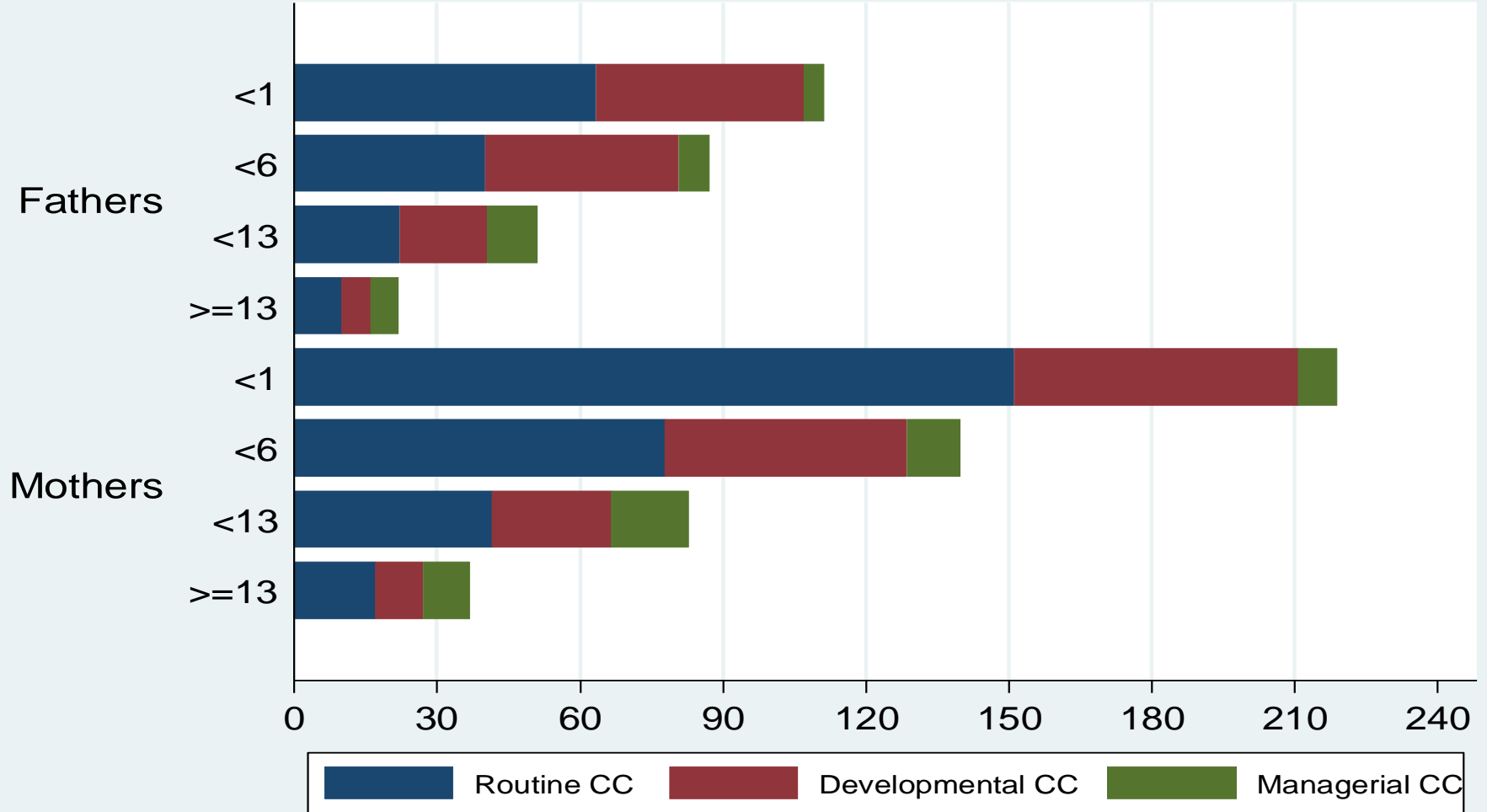
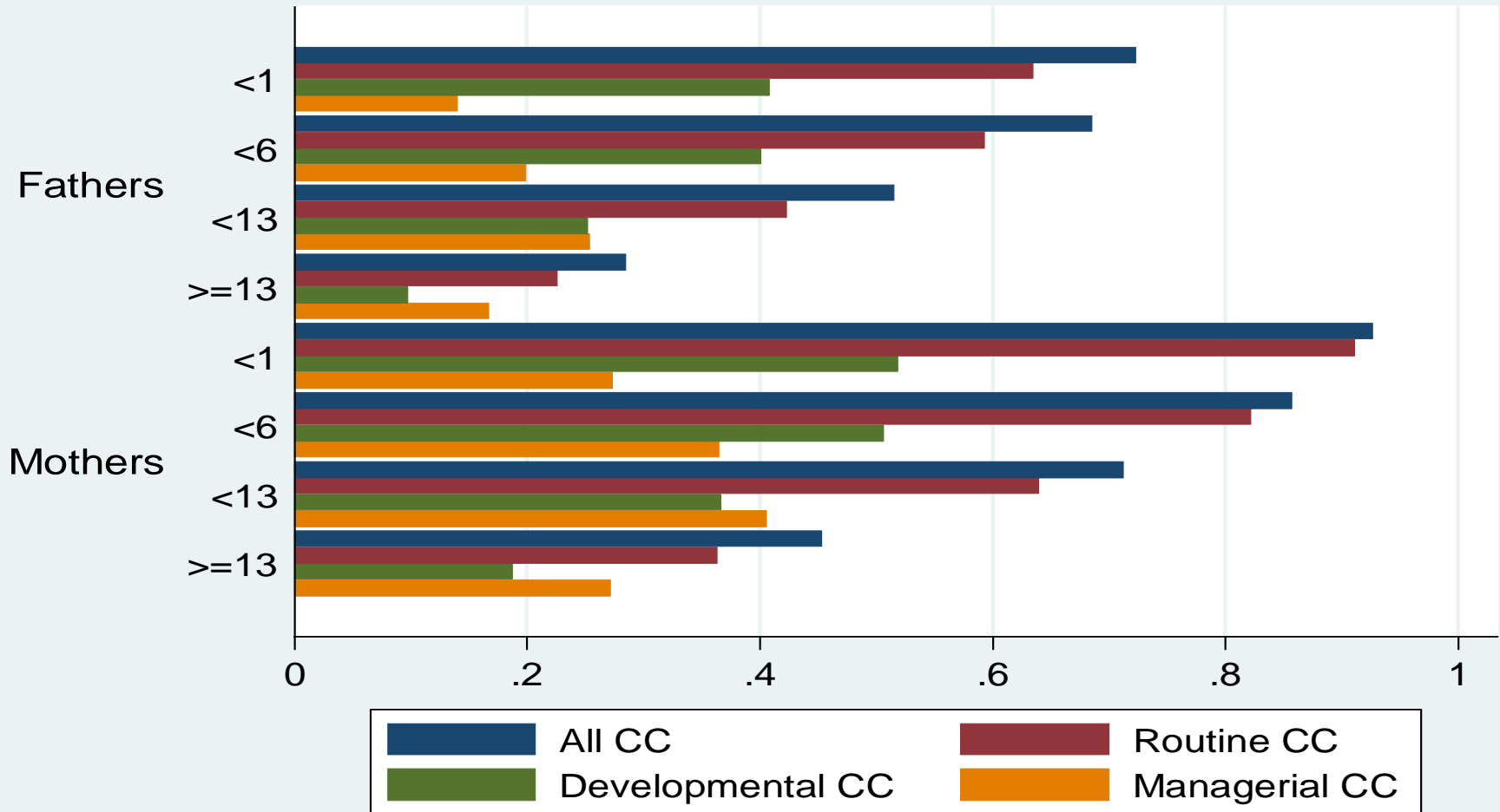


FIGURE 7. HIGHER % OF PARENTS REPORT CHILD CARE WHEN CHILDREN ARE <6

Gender Differences in Reporting Child Care Activities by Age of Child



SECONDARY CHILD CARE TIME

- ◎ Data collected after main diary
 - “at which times or during which activities was a child in your care?”
- ◎ Children ages 0-12
- ◎ Secondary child care not collected if
 - children are asleep
 - respondent is asleep
 - primary activity is child care

ATUS-X SECONDARY CHILD CARE MEASURES

- ◎ Summary and Activity-level measures
- ◎ Types of secondary child care, 2003
 - Household and own, non-household children
 - Non-household, non-own children
- ◎ Types of secondary child care, 2004-2014
 - Own *household* children
 - Own *non-household* children
 - *Non-own* household children
 - *Non-own, non-household* children

CREATING SECONDARY CHILD CARE MEASURES

Variable documentation on the web site can be filtered to display only material corresponding to chosen datasets ([more information](#) on this feature).

[Create variable from scratch](#)

[Quit making time use variable](#)

My Time Use Variables

Create	Name	Label
Load	primarync	ACT: Caring for and helping household members
Load	withkid	With Children

Activity coding structure

Create	Name	Label
Load	ACT_PRCARE	ACT: Personal care
Load	ACT_HHACT	ACT: Household activities
Load	ACT_CAREHH	ACT: Caring for and helping household members
Load	ACT_CAREHHH	ACT: Caring for and helping non-household members
Load	ACT_WORK	ACT: Working and Work-related Activities
Load	ACT_EDUC	ACT: Educational activities
Load	ACT_PBLCH	ACT: Consumer purchases
Load	ACT_PROFSERV	ACT: Professional and personal care services
Load	ACT_HHSERV	ACT: Household services
Load	ACT_GOVSRV	ACT: Government services and civic obligations
Load	ACT_FOOD	ACT: Eat and drinking
Load	ACT_SOCIAL	ACT: Socializing, relating, and leisure
Load	ACT_SPORTS	ACT: Sports, exercise, and recreation
Load	ACT_RELIG	ACT: Religious and spiritual activities
Load	ACT_VOL	ACT: Volunteer activities
Load	ACT_PHONE	ACT: Telephone calls
Load	ACT_TRAVEL	ACT: Traveling

[BLS published tables](#)

Secondary activities occur at the same time as primary activities. Secondary activities available in the ATUS include child care (2003+), eating and drinking (2006-2008), and eldercare (2011+). By applying secondary activity filters, only time spent during the primary activities in which the secondary activity also occurred will be aggregated to create a time use variable. Secondary activity filters may not be applied together. Users who are unfamiliar with how the secondary activity filters work should consult the additional documentation provided.

[\[more info\]](#)

Secondary Activity Filter

- Duration of entire activity
- Duration of time spent during activity on secondary child care of all children
- Duration of time spent during activity on secondary eating and drinking
- Duration of time spent during activity on secondary eldercare for household and non-household elderly

[Save time use variable](#)

[Quit making time use variable](#)

FIGURE 8. COMPARING MINUTES PER DAY OF TYPES OF SECONDARY CHILD CARE TIME

Parents' Types of Secondary Child Care Time

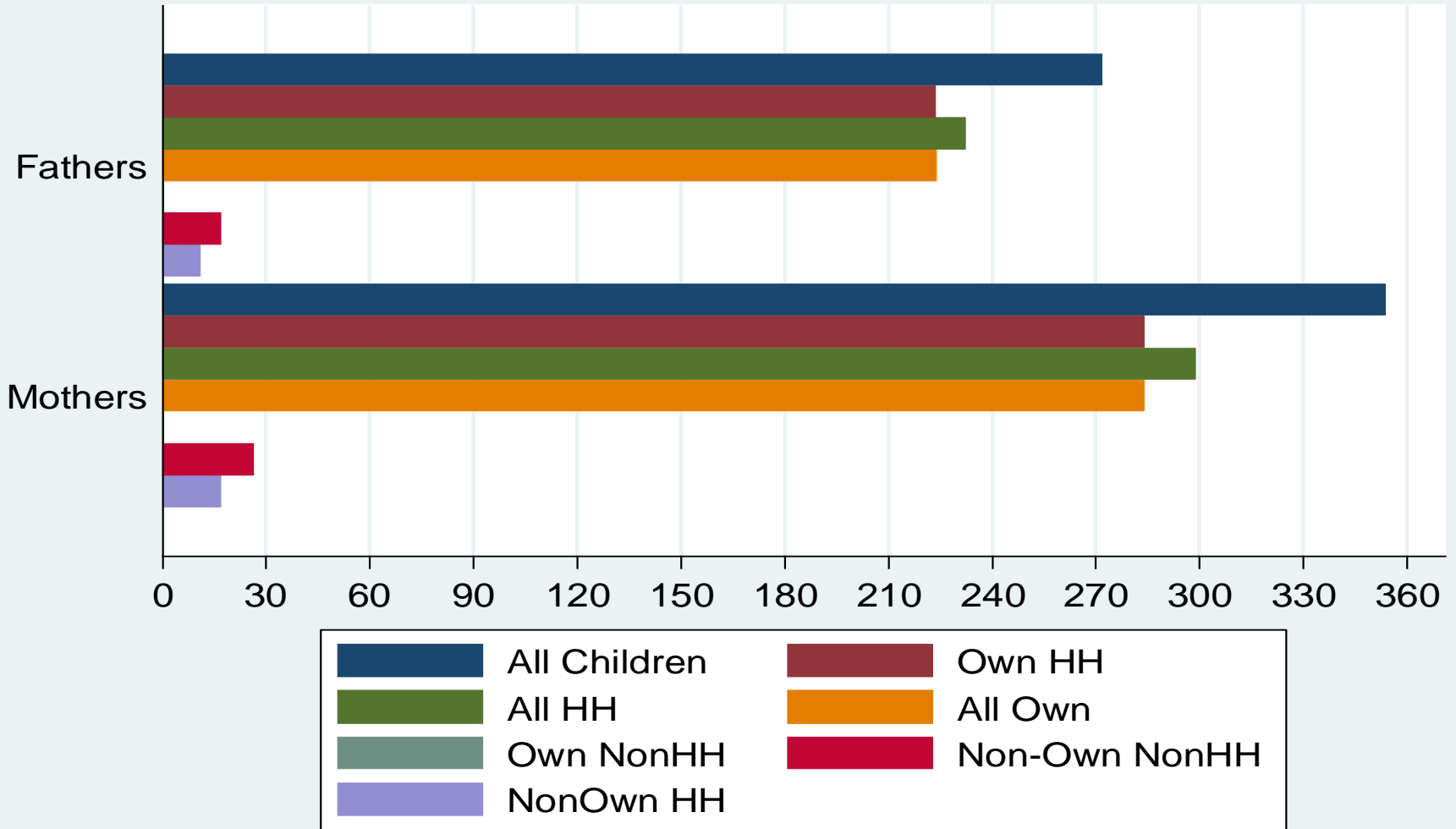
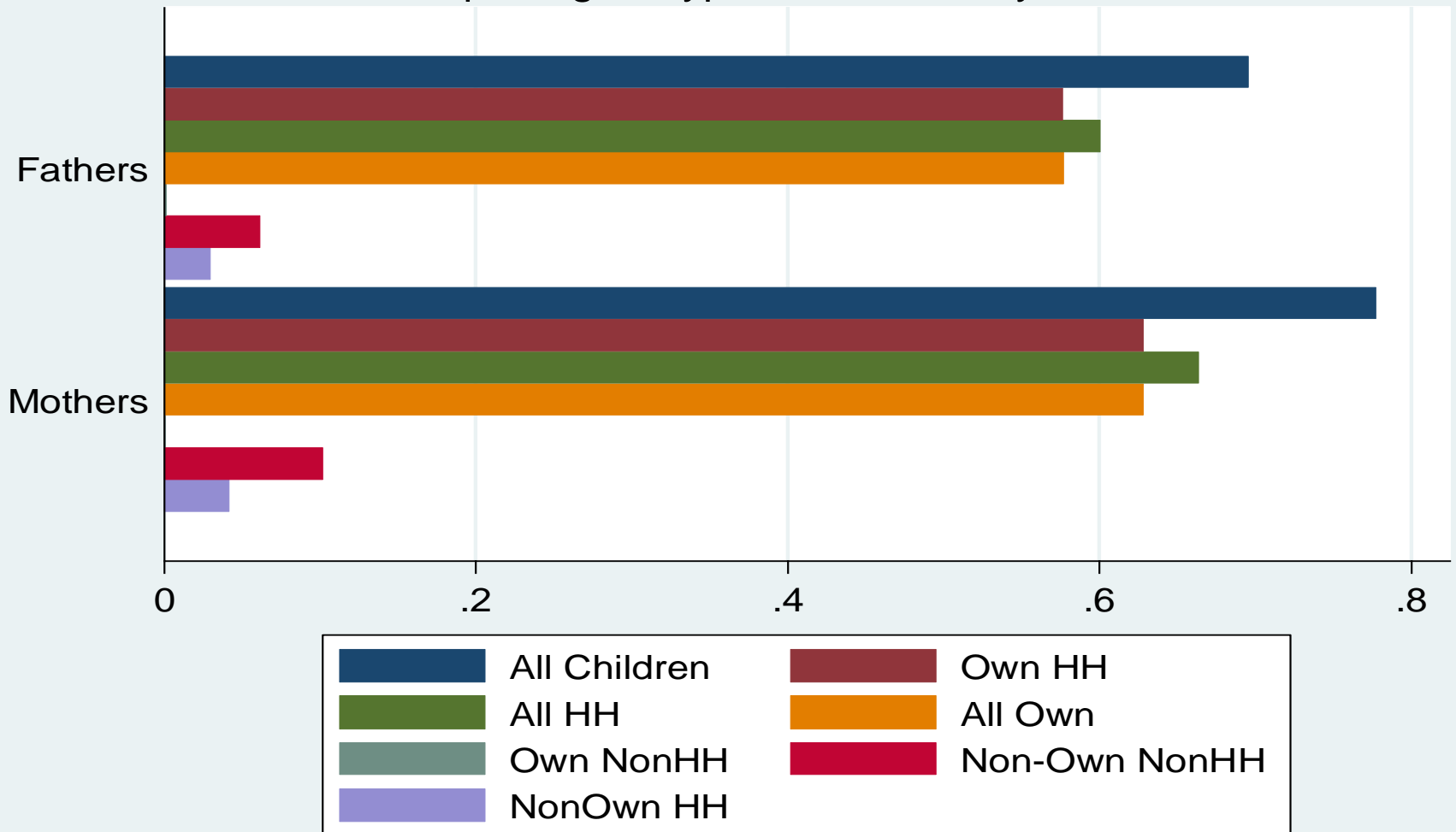


FIGURE 9. COMPARING REPORTS OF SECONDARY CHILD CARE

Parents' Reporting of Types of Secondary Child Care Time



WITH WHOM DATA

- ◎ Use “who with” variables to create
 - How much time is spent in “solo” and “shared” child care
 - How much time is spent with children in all activities
- ◎ With whom data is not collected if primary activity is
 - Sleep
 - Personal care

FIGURE 8. SHARED CHILD CARE

Table 3. Descriptive Statistics for Mothers' and Fathers' Shares of Routine and Non-routine Household Childcare and Childcare Performed Away From or Together With Spouse

	Share of Routine Household Care		Share of Non-routine Household Care		Share of Household Care Performed Away from Spouse		Share of Household Care Performed Together with Spouse		Total Household Care
	Fathers	Mothers	Fathers	Mothers	Fathers	Mothers	Fathers	Mothers	
Mean	.15	.51	.13	.21	.10	.38	.18	.34	1.00
SD	.23	.32	.21	.26	.21	.34	.23	.29	

How Mothers and Fathers Share Childcare: A Cross-National Time-Use Comparison

American Sociological Review
76(6) 834–861
© American Sociological Association 2011
DOI: 10.1177/0003122411427673
<http://asr.sagepub.com>



CREATING MEASURES USING WITH WHOM DATA (1)

- ① https://www.atusdata.org/atus-action/time_use_variables/select_template

The screenshot shows a web browser window with the URL https://www.atusdata.org/atus-action/time_use_variables/new. The page features a table with columns: Activity, Time of Day, Secondary Activity, Location, With Whom, Name and Label, and Summary. Below the table, there is explanatory text: "Respondent activities are recorded as six-digit numbers (ACTIVITY). The first two digits correspond to a broad category, the middle two to a more detailed subcategory, and the final two to a specific activity within those categories. Users may select any combination of activities from the activity hierarchy to create time use variables." Below this text is a "[more info]" link and "expand all" / "collapse all" controls. A tree view shows a hierarchy of activities, all of which are selected with checkmarks:

- All
- Personal Care (010000)
- Household Activities (020000)
- Caring for and Helping Household Members (030000)
- Caring for and Helping Non-Household Members (040000)
- Work and Work-Related Activities (050000)
- Education (060000)
- Consumer Purchases (070000)
- Professional and Personal Care Services (080000)
- Household Services (090000)
- Government Services and Civic Obligations (100000)
- Eating and Drinking (110000)
- Socializing, Relaxing, and Leisure (120000)
- Sports, Exercise, and Recreation (130000)
- Religious and Spiritual Activities (140000)
- Volunteer Activities (150000)
- Telephone Calls (160000)
- Traveling (180000)
- Data Codes (500000)

At the bottom of the page, there is a "Save time use variable" button and a footer with the URL <https://www.atusdata.org/atus-action/categories/documentation?id=276355>. The browser's taskbar shows several open applications, including "Introduction to IPU...pptx", "Sayer PAA Expense...xlsx", and "Hamrick-EMU-URM...pptx".

CREATING MEASURES USING WITH WHOM DATA (2)

① https://www.atusdata.org/atus-action/time_use_variables/select_template

The screenshot shows a web browser window with the URL https://www.atusdata.org/atus-action/time_use_variables/new?template_id=5835. The page has a navigation menu with tabs: Activity, Time of Day, Secondary Activity, Location, With Whom (selected), Name and Label, and Summary.

The main content area contains the following text:

The with whom filter allows users to restrict the time use variable currently being created to those that occurred alone or with specified others (see [RELATEW](#)). The default selection is no specifications, meaning that the times spent in each of the selected activities (given other filter selections) are added together regardless of who was present during the activities.

[more info]

Who Filter

- Do not make any specifications
- I want to specify others with whom the respondent did (or did not) spend time
- I am only interested in time the respondent spent [\[alone\]](#).

With Whom

- Include time spent during an activity with ANY of the people identified in the present column [?]
- Include time spent during an activity with ALL of the people identified in the present column [?]

Present	Does Not Matter	Not Present	Relationship
			Household members
<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	Spouse
<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	Unmarried partner
<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	Own household child
			Specify Age and Sex
<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	Grandchild
<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	Parent
<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	Brother/sister
<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	Other related person
<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	Foster child
<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	Housemate, roommate
<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	Roomer, boarder
<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	Other nonrelative
<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	Own non-household child under 18
			Other non-household people
<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	Parents (not living in household)

CREATING MEASURES USING WITH WHOM DATA (3)

The screenshot shows a web browser window with the URL https://www.atusdata.org/atus-action/time_use_variables/new. The page features the ATUS-X logo (American Time Use Study Extract Builder) and a navigation menu with links for Home, Select Data, FAQ, Help, and Logout. A 'Data Cart' widget displays the current state: 10 variables, 2 time use variables, and 0 samples, with a 'VIEW CART' button. The main content area is titled 'Create Time Use Variable' and includes a tabbed interface with 'With Whom' selected. Below the tabs, a text box explains that 'Name' is the file name, 'Label' is the display name, and 'Description' is an optional field. The form fields are filled with: Name: 'withkid', Label: 'With Children', and Description: 'activities done with children'. At the bottom, there are buttons for 'Save time use variable' and 'Quit making time use variable'. The Windows taskbar at the bottom shows several open applications, including PowerPoint and Excel files.

ATUS-X
AMERICAN TIME USE STUDY
EXTRACT BUILDER

Home | Select Data | FAQ | Help | Logout

Data Cart
Your data extract
10 variables
2 time use variables
0 samples
VIEW CART

Create Time Use Variable

Activity | Time of Day | Secondary Activity | Location | **With Whom** | Name and Label | Summary

Name indicates what your variable will be called in your data file. **Label** is the label associated with the variable you created. **Description** is not delivered with your data file; it is an optional field that you may use to describe the variable in greater detail and to store relevant notes.

Name:

Label:

Description:

[Save time use variable](#)

[Quit making time use variable](#)

Introduction to IPU....pptx | Sayer PAA Expensexlsx | Hamrick.EHM.UofM....pptx | Show all downloads...

FIGURE 10. MORE TIME WITH OWN HOUSEHOLD CHILDREN

Parents' Time with Children

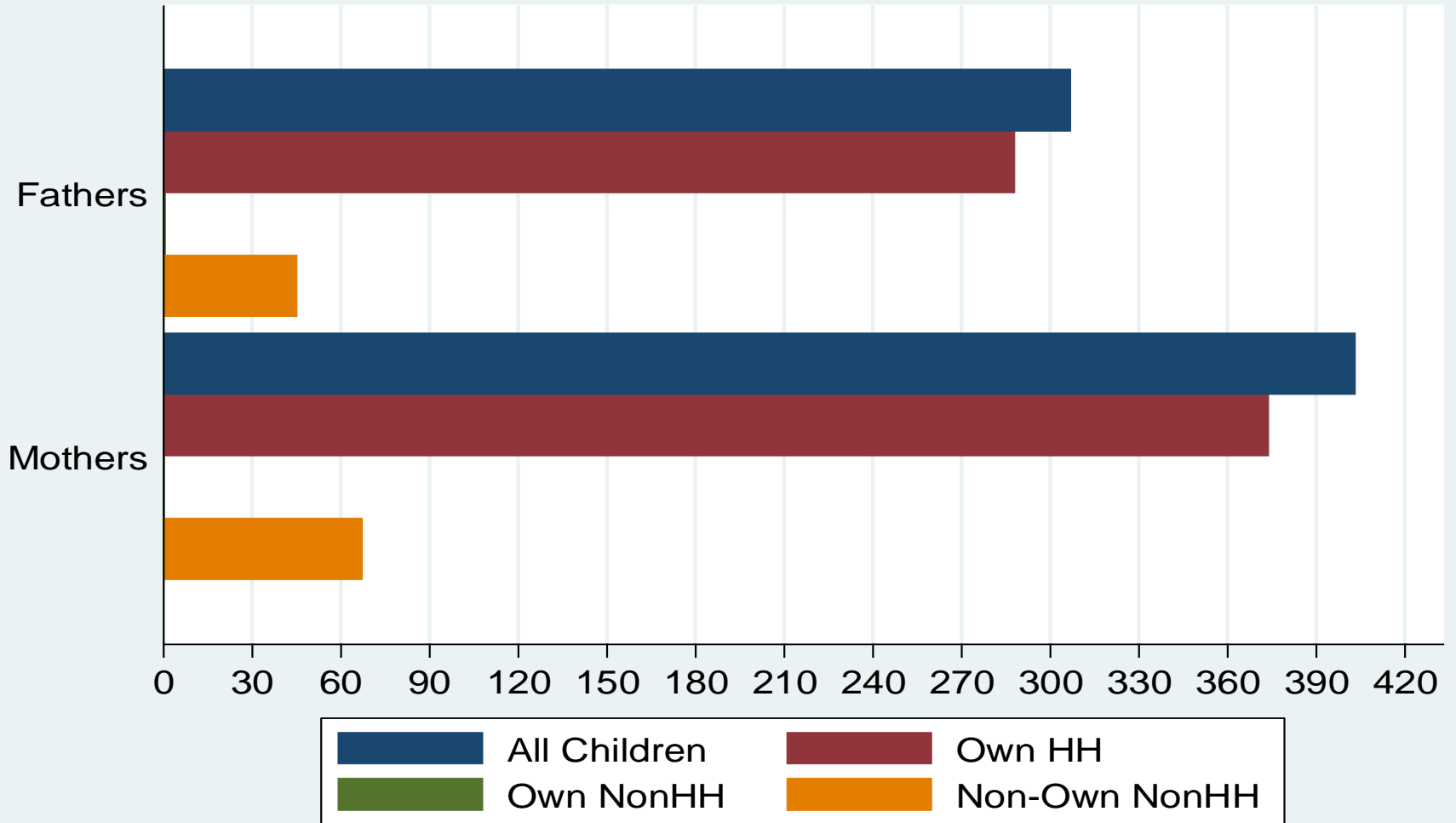


FIGURE 11. REPORTS OF TIME WITH CHILDREN

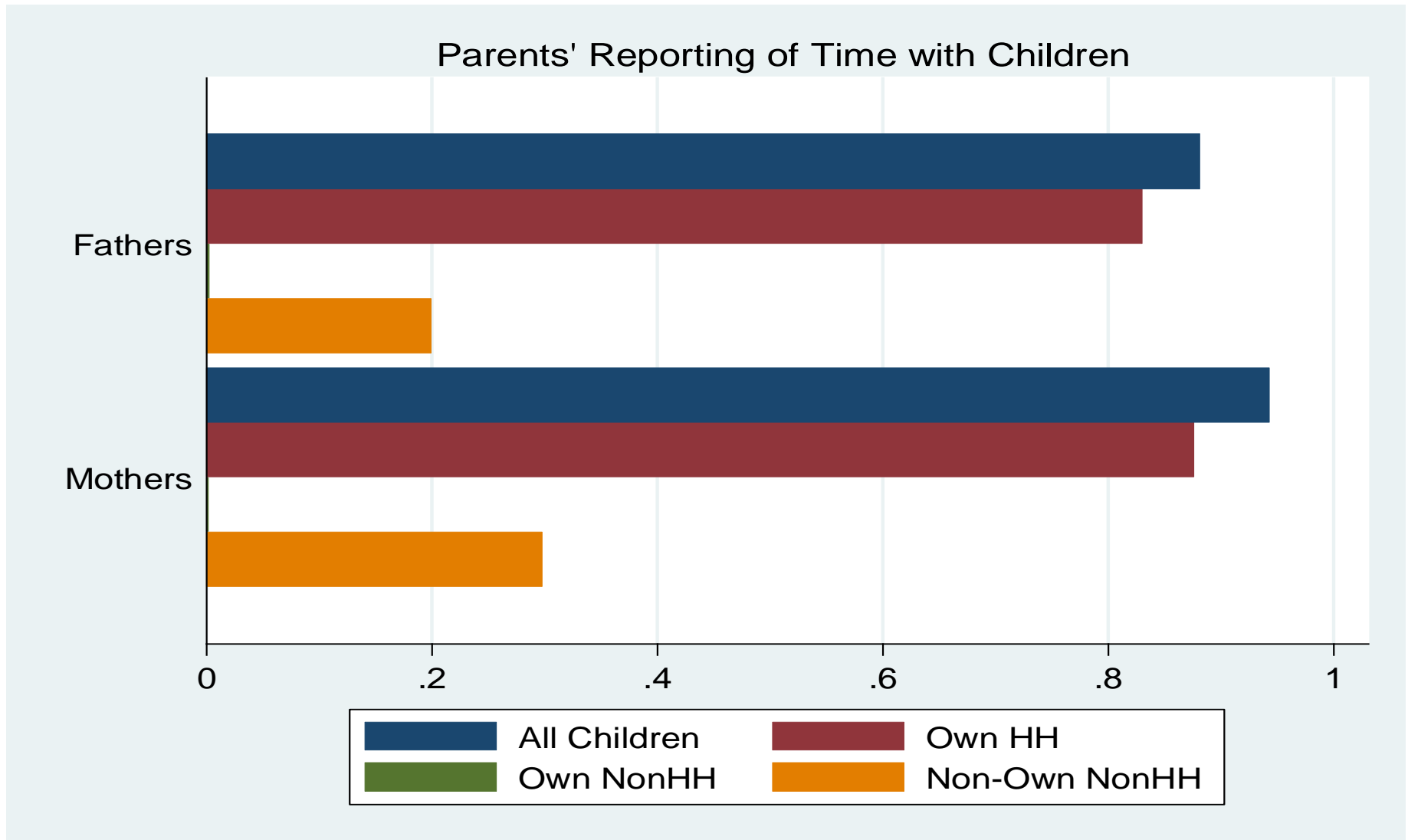
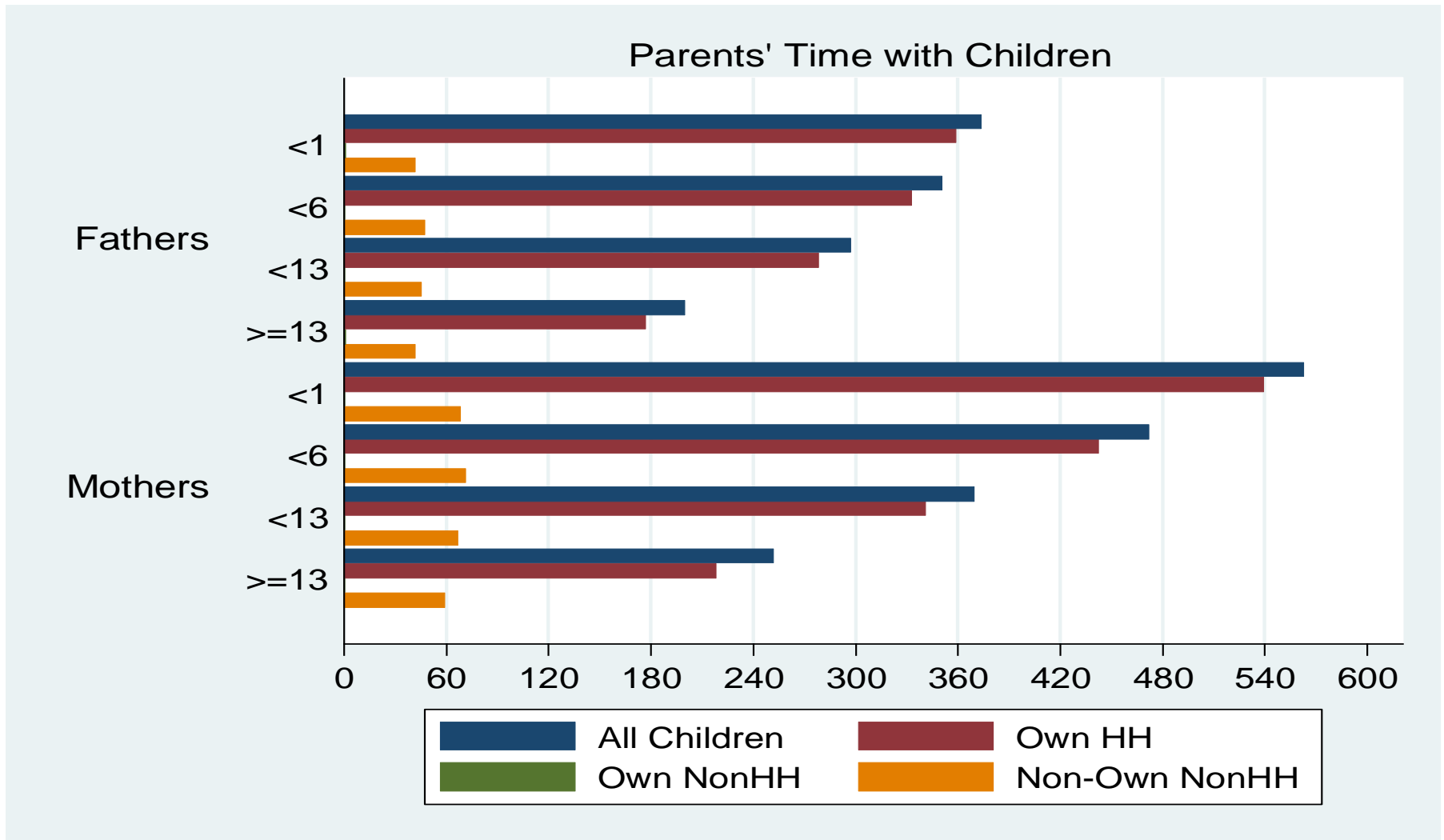


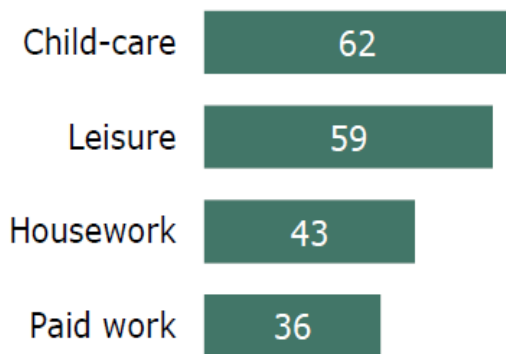
FIGURE 12. NEGATIVE INFLUENCE OF AGE OF CHILDREN SMALLER FOR TIME WITH CHILDREN THAN PRIMARY CHILD CARE



CHILD CARE & WELL-BEING

Parents Find Child Care Meaningful ...

% of ... activities rated "very meaningful"



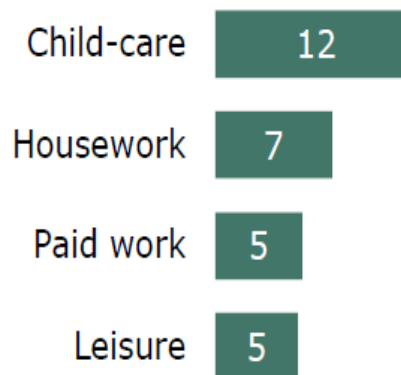
Note: Based on ratings of adults ages 18 to 64 with own child(ren) under age 18 living in the household. "Don't Know/Refused" not included.

Source: Pew Research Center analysis of 2010 American Time Use Survey, Well-being Module.

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... But Also Exhausting

% of ... activities rated "very tiring"



Note: Based on ratings of adults ages 18 to 64 with own child(ren) under age 18 living in the household. "Don't Know/Refused" not included.

Source: Pew Research Center analysis of 2010 American Time Use Survey, Well-being Module.

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LIMITATIONS OF TIME USE MEASURES OF CHILD CARE

- ⦿ Can't produce data on care for specific children
- ⦿ Can't determine quality of time
- ⦿ Affect data for selected activities only
- ⦿ One-day snapshot
 - May not reflect long-term child related time
 - Difficult to model causality

QUESTIONS?