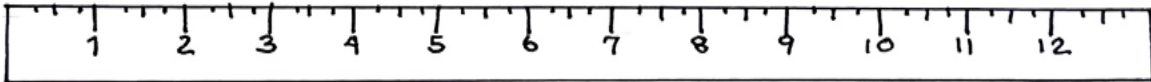


# Measuring Care Provision in the United States



## Resources, Shortfalls, and Possible Improvements



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and the support of the Hewlett Foundation

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## Summary and Recommendations

The COVID-19 pandemic has challenged conventional thinking, dramatizing the essential contributions that “care infrastructure” can make to economic well-being. Unfortunately, available data to study care provision in the United States are limited and fragmented, making policy analysis difficult. This working paper takes a step toward addressing this problem. It provides an overview of empirical research, identifies strengths, weaknesses, and gaps in existing data resources, and considers possible improvements and synergies.

We define care provision broadly as time and money devoted to the production, development, and maintenance of human capabilities, encompassing paid and unpaid work, market exchange, intra- and inter-household transfers, and public expenditures and services. As we understand it, caregiving includes unpaid care, typically provided by family members and friends, and a wide variety of paid care provided by nurses, doctors, teachers, childcare workers, home health aides, personal care aides, and others. We focus on caregiving to children and adults with care needs related to age, illness, or self-care difficulties, while also recognizing that care is a universal need. The dimensions of care provision we focus on interface with the formal healthcare system and carceral institutions. However, the evaluation of these two areas is largely outside the scope of this working paper.

Care provision is indispensable and universal. Nevertheless, despite its importance, researchers have given insufficient attention to analyzing the level and distribution of resources dedicated to care beneficiaries—more broadly, the costs of producing, developing, and maintaining human capabilities. Questions we know relatively little about include: How does public support for care provision compare to private expenditures of time and money? How are the economic benefits of capabilities developed by care inputs distributed?

Shortfalls in the data available for analysis of care provision are both cause and consequence of a tendency to view care simply as a voluntary expression of concern for others. This working paper looks beyond individual decisions to analyze care provision's social and economic organization, focusing on equity, efficiency, and unmet need. While writing this paper, we reviewed recent empirical research (detailed in the main body), inventoried relevant data sets (Appendix A), and consulted with social scientists via personal communications, an online survey, and group discussion (Appendix B).

Understanding care provision requires a holistic approach with attention to care needs and responsibilities, transfers of time and money to meet care needs, access to services and supports, care service quality, and paid and unpaid caregivers' well-being. Despite the wealth of data summarized in Appendix A, existing data sources typically focus on one specific site of care provision or one form of care, making it challenging to see interconnections important to the bigger picture. Overall, the current data infrastructure makes it very difficult, if not impossible, to answer fundamental questions about the size of the care sector, the distribution of the costs and benefits of care provision, or the extent of unmet care needs. Our research identifies major areas for improvement that pose significant challenges to policymakers, researchers, and the public. These findings inform our recommendations.

**Recommendation 1: Create a working group or standing committee of academic researchers, researchers and statisticians in federal agencies, and other experts to provide advice on improving, expanding, and integrating care data infrastructure in the United States.**

Addressing existing limitations in our care data infrastructure will require increased public investment, mainly from the federal government. To justify this investment and enhance its impact, Congress and Executive branch officials need independent scientific advice on improving and expanding our care data infrastructure.

The most straightforward way to meet this need would be for the National Academies of Sciences, Engineering, and Medicine (NASEM) and the Committee on National Statistics, a NASEM standing committee, to establish a working group or standing committee on care data. The membership of such a body should include academic researchers, statisticians and researchers working in federal agencies, and other experts. The body should include representatives from the Department of Health and Human Services and the Women's Bureau at the Department of Labor. Precedents for establishing a NASEM standing committee or working group on care data include NASEM's [Standing Committee on the American Opportunity Study](#) and their [Panel on the Implications of Using Multiple Data Sources for Major Survey Programs](#).

**Recommendation 2: The working group should initially conduct an in-depth review of current care data sources and assess the feasibility, costs, and resources needed to undertake the ongoing tasks (detailed in recommendations 2.1 to 2.7) to improve care data's availability and usefulness.**

*Recommendation 2.1—The working group should develop standardized definitions, terms, and options for measures across federal surveys.*

This standardization should include guidelines for researchers interested in measuring care provision, including defining who is considered a caregiver, defining different types of unpaid and paid care provision, and determining how to operationalize care needs to capture both intensity of need and what constitutes unmet need.

*Recommendation 2.2—The working group should advise on creating and maintaining a publicly accessible database of data sets that include care-provision variables.*

This database should include the information in Appendix A of this working paper. It should also highlight potential linkages researchers can make between federal surveys, which are critical resources given the many disparate surveys that include care-related measures. As part of this process, this working group could identify which existing federal surveys are best suited for revisions to existing care-related measures and additions of new ones.

*Recommendation 2.3—The working group should investigate the feasibility, costs, and benefits of developing an extensive household survey to capture data on the many facets of care provision.*

The [National Health Interview Survey](#) offers a model for a potential household survey focusing on care provision. Alternatively, the federal government could accomplish this goal by expanding and redesigning the existing [National Study of Caregiving](#), which does not currently measure care provided to children.

*Recommendation 2.4—The working group should provide advice on connecting and coordinating federal and state-level care data sources.*

Coordination among federal and state agencies is crucial for improving care policy data. The working group should consider expanding federal survey sample sizes for state and

local comparisons, identifying care-related administrative data sources in each state, and highlighting opportunities to merge administrative data with national household surveys.

***Recommendation 2.5**—The working group should identify opportunities to create new longitudinal care survey instruments.*

Options include adding measures to existing longitudinal surveys like the Panel Study of Income Dynamics or the Survey of Income and Program Participation and creating new care-focused surveys. Better longitudinal data will allow researchers and policymakers to understand and address the lifecycle effects of care, the distribution of care costs, and the long-term impacts of unmet care needs.

***Recommendation 2.6**—The working group should identify ways to improve the measurement of care provided within extended families and other networks but outside of conventional household units.*

Households are not isolated “care units.” In today’s world, many family members live apart, and new forms of kinship are emerging. Extended families remain an important source of informal assistance, insurance, and wealth transfers, with significant social consequences that vary by race, ethnicity, and gender. Survey measures often focus on within-household dynamics and do not usually provide enough information about care supports and transfers to and from people outside the household.

***Recommendation 2.7**—The working group should compile best practices to ensure national household surveys capture data on informal and independent gray markets for care.*

A growing body of research notes that millions of people in the U.S. rely on informal gray markets. Knowledge about these markets' size and quality, and their impacts on broader social organizations of care is challenging to assess because current household and employer surveys undercount independent and informal providers whose jobs are often part-time, transitional, or not reported.

### **Recommendation 3: Create other federal advisory bodies and forums to improve the collection, reporting, and dissemination of federal data on care.**

These could include a Federal Interagency Forum on Care Statistics modeled on the [Federal Interagency Forum on Child and Family Statistics](#). This forum, created in 1994, brings together officials from 23 federal agencies to enhance and improve consistency in the collection and reporting of federal data on children and families and improve the reporting and dissemination of information on the status of children and families. Another helpful



model that the federal government could extend to other care areas is the RAISE Family Caregiving Advisory Council. Established by federal law in 2018, this advisory council provides recommendations to the Secretary of Health and Human Services on effective models of family caregiving and support to family caregivers, as well as improving coordination across federal government programs.

**Recommendation 4: Develop and expand measures needed to assess varying aspects of care provision, including the costs of care provision; earnings, working conditions, and quality of services in the paid care sector; care needs; and the causes and consequences of inadequate care provisions (detailed in Recommendations 4.1 to 4.4).**

*Recommendation 4.1—Improve Measures of the Costs of Care Provision for Individuals and Families*

Using existing data sets to estimate the total cost of care provision and assess the substitutability of paid and unpaid care is challenging. Our current data infrastructure spreads care data—including expenditures of time and money, intra-household and intra-family transfers, receipt of public benefits, and utilization of public services—across numerous surveys that are not easily linked. The [American Time Use Survey](#) offers high-quality time-use data but no information on expenditures; the [Consumer Expenditure Survey](#) is just the opposite. The [Survey of Income and Program Participation](#) provides data on public benefits and services but relatively little on combined private expenditures of money and time. The [Health and Retirement Survey](#) offers information on intra-family transfers, which, however useful, cannot be easily matched with other data.

Existing estimates, such as the U.S. Department of Agriculture’s reports on parental expenditures on children, include monetary expenditures but omit accurate measures of the imputed value of unpaid care time. Expenditures on, and access to, paid care services vary considerably across geographic locations and are difficult to compare. Federal surveys may include estimates of caregivers’ out-of-pocket expenditures without fully capturing the managerial responsibilities of finding and coordinating care.

Underestimates of the cost of care provision make income-poverty thresholds used to compare the relative well-being of different types of households in the U.S. misleading. We need to know more about differences in living standards between households with different compositions and care needs.

***Recommendation 4.2—Improve Measures of Earnings, Working Conditions, and Quality of Services in the Paid Care Sector***

Existing research often relies on general workforce surveys that do not have an adequate sample size to study the conditions of the paid care workforce in detail. For instance, the [National Post-Acute and Long-term Care Study](#) does not include information about workers' wages, benefits, or well-being. Even less is known about the many informal providers—nannies, home care, companions, and housekeepers—that help more affluent families meet care needs, despite research showing that immigrants in these poorly compensated jobs increase the employment of women with college degrees living in major metropolitan areas.

The COVID-19 pandemic highlighted issues of poor care quality in nursing homes, where shockingly high mortality rates were common and preventable. Poor compensation and high turnover are endemic problems in nursing homes and Medicaid-financed and private-pay home care. Increases in privatization and financialization have intensified concerns regarding care quality, particularly among for-profit providers serving relatively disempowered populations. Evidence suggests that women and men employed in health, education, and social services—including professionals and managers—earn considerably less than their counterparts in business services. Efforts to use rating systems to improve care quality have not proved very successful. We need to know more about worker availability, job quality, and the impact of compensating family members for care provision.

***Recommendation 4.3—Improve Measures of Care Needs***

Significant inconsistencies in assessment and measurement make it difficult to provide precise estimates and projections of care needs and which care needs are unmet. Definitions of caregivers vary considerably among surveys. The needs of adults and children experiencing disabilities are more heterogeneous and unpredictable than those of most young children. The temporal demands of care are often unevenly distributed. Smaller family sizes and increases in geographic mobility may reduce the supply of family-based care in the future. Inadequate data regarding unmet needs makes it difficult, if not impossible, to assess the success or failure of federal and state policies.

The Census Bureau should adopt recent care measurement-related recommendations by NASEM's Panel on Evaluation and Improving the Supplemental Poverty Measure. These recommendations include: 1) adding an amount for basic childcare needs to the poverty threshold for households with children under the age of 13 (or up to age 18, if disabled) that are using paid child care, and 2) including health insurance in the estimates of both the needs threshold and resources. Once the Census Bureau incorporates these care

considerations into the Supplemental Poverty Measure, it should become the federal government's "primary" statistical measure of poverty, and the Census Bureau should stop using the current official poverty measure for statistical purposes. At the same time, further changes will be necessary to account fully for care in poverty measures. As the Panel recognized, future discussion and research on incorporating unpaid child care into poverty measures are needed.

***Recommendation 4.4—Improve Measures to Allow for Better Assessment of the Causes and Consequences of Inadequate Care Provision***

A comprehensive research agenda should include more analysis of public care policies. Since the passage of the Affordable Care Act in 2010, most care policy innovations have taken place at the state level, and stark differences are emerging in expanding Medicaid eligibility and adoption of paid sick leave and paid family and medical leave guarantees. Access to abortion care now varies widely. Care policy scorecards should publicize these differences and assess child care availability and costs, the level of Medicaid-financed support for home- and community-based care for elderly and disabled people, child allowances, and enforcement of child support responsibilities of noncustodial parents. To fully realize the potential benefits of state-level innovation on care policy matters, policymakers and voters need accessible comparisons of costs and benefits.

Care provision reaches beyond individuals and families to influence macrosocial outcomes. The distribution of care costs tends to reproduce, or even intensify, patterns of economic inequality. Increases in early deaths due to suicide, drug abuse, and alcoholism are symptomatic of social carelessness. More research is needed on how inequality and lack of opportunity undermine mental and physical health. Residential segregation and reduced opportunities for developing long-term relationships among people from different backgrounds contribute to political polarization. Concepts such as social capital, social climate, and well-being point to environmental influences we do not fully understand.

Despite significant public support for elderly and disabled adults through Social Security, Disability Insurance, and Medicare, these programs do not provide coverage for long-term care, home care, or other non-medical assistance with chronic needs. Medicaid does provide this kind of coverage but is income and wealth-tested, and state governments typically ration access to many home- and community-based services.

## **Recommendation 5: Improve care data collection in key household surveys.**

Several changes to existing surveys (detailed in recommendations 5.1 to 5.6) would strengthen and expand care measurement. Some of these would benefit from consideration by the working group in recommendation 1, but federal agencies should consider implementing other ones in the near short term.

### ***Recommendation 5.1—Improve the Current Population Survey***

As one of the primary household surveys in the U.S., the Current Population Survey is well poised to fill three major gaps in care data infrastructure: care needs, care expenditures, and familial care and labor market decisions.

*Care Needs:* The federal government should consider measuring care needs, including whether they are met, by adding a supplement to the CPS. CPS supplements, like the Food Security Supplement, take advantage of the large sample size and general-purpose design of the CPS to provide detailed data on a specific topic.

*Care Expenditures:* The Annual Social and Economic Supplement (ASEC) to the CPS includes questions about out-of-pocket spending on health care and, for employed persons, spending on child care. Explicit questions about expenditures on acute and long-term care services should be added, and the childcare spending question should not be limited to employed persons.

*Familial Care and Labor Market Decisions:* Currently, no questions in the CPS directly ask respondents about their familial care obligations. However, the Basic Monthly Survey includes questions about why a respondent was absent from work, why a respondent works part-time, and why a respondent is not looking for work. These questions include response options related to care, but because they are not standardized, different conceptualization and data processing is necessary to combine them into larger aggregate measures. Similarly, response option wording is often overly broad or includes care provision in broader categories like “tending to house or family.”

Standardizing and clarifying response options across variables would improve information on the impact of familial caregiving on labor market decisions. The universe of respondents is often heavily skewed towards those who are employed. Some questions—like the one asking respondents not in the labor force what their main activity was in the preceding month—are only asked in the Basic Monthly Survey, not the Annual Social and Economic Supplement. As a result, the ability to combine measures across samples is limited.

***Recommendation 5.2—Improve the American Time Use Survey***

The efficacy of American Time Use Survey data is limited by the collection of time diaries for only one person 15 years or older per household, making it impossible to measure total care provision on the household level. Many consulted experts highlighted this limitation (see Appendix B). Ideally, the survey would be expanded to include the collection of time diaries for persons 15 or above. Another option might be adding stylized questions to the interview, like those used in the Panel Study of Income Dynamics. The American Time Use Survey also has limited ability to reveal inter-household provision and receipt of unpaid care services, which have become more prominent along with nontraditional and blended family structures.

Since time and money are complements and substitutes, the lack of information on household wealth and consumer durables in the American Time Use Survey is problematic. We applaud recent efforts by the Bureau of Labor Statistics to statistically match data from the American Time Use and Consumer Expenditure Surveys. Such efforts could be facilitated by minor design changes to both surveys adding more overlapping information. For example, stylized questions about household time use could be added to the Consumer Expenditure Survey, and stylized questions about care-related expenditures could be added to the American Time Use Survey.

The American Time Use Survey lacks information on the utilization of public services such as child care or subsidized home- and community-based care for elderly persons and those with disabilities, both of which likely affect family time allocation. While the survey includes an occasional module on paid leave, it has only been fielded in three of the last 12 years. In designing the next iteration of the leave module, experts should consider the feasibility of measuring other types of care policies and benefits related to unpaid household care provision across the life course.

***Recommendation 5.3—Improve the Consumer Expenditure Survey***

The Consumer Expenditure Survey looks at intra- and inter-household transfers in less detail than money expenditures, despite considerable evidence that such transfers are large. The University of Michigan’s Health and Retirement Survey provides a useful model to measure services and money transfers between households, but it is limited to older adults. Adding these measures to a general population survey like the Consumer Expenditure Survey would provide information regarding explicit and implicit transfers within extended families, including utilization of in-kind assets through shared housing, which are crucial to understanding the utilization of public and paid care services. The

Survey of Income and Program Participation provides examples of questions that could enrich the Consumer Expenditure Survey or help link the two surveys.

***Recommendation 5.4—Improve National Compensation Survey***

The National Compensation Survey currently measures many employment benefits related to paid care work, including health insurance and paid leave for various purposes, but could be expanded. Efforts to create templates of social accounting for firms and metrics of their success could help address the difficulties in linking benefits information to other survey data sources. Furthermore, guidelines for standard evaluation of benefits such as health insurance, paid leave, and retirement savings, and whether these benefits are government or employer-provided, would allow for compensation comparisons that are currently not feasible.

***Recommendation 5.5—Improve the National Post-acute and Long-term Care Study***

To create the National Post-acute and Long-term Care Study (NPALS) in 2012, the National Center for Health Statistics merged two smaller surveys into a single survey and added administrative data. The NPALS data set covers adult day services centers, residential care communities, nursing homes, home health agencies, and hospice agencies. However, it does not include workforce questions from the earlier surveys (the [National Nursing Assistants Survey](#) and the [National Home Health Aide Survey](#)). A section about care worker job quality should be added to the NPALS. Absent this data, researchers must rely on data from broader household surveys like the Current Population Survey, where sample sizes are often too small to allow for meaningful comparison or analysis.

***Recommendation 5.6—Improve the National Study of Early Care and Education***

The National Study of Early Care and Education provides comprehensive information about children’s care arrangements and the paid workforce caring for children. However, it does not collect information about children's unpaid care from parents. A comprehensive measure of the childcare workforce would include accurate measures of unpaid care provided by parents, relatives, and friends. More information on utilizing afterschool programs and the potential impact of school scheduling changes would also be helpful. Lastly, the transaction costs of finding child care—including managing and maintaining eligibility for public services—are high, yet we know little about how such difficulties affect take-up rates.

# Measuring Care Provision in the United States: Resources, Shortfalls, and Possible Improvements

## Introduction

People in the U.S. devote substantial amounts of time and money to producing, developing, and maintaining human capabilities, our broad definition of care provision. However, this process's many dimensions remain opaque, especially those within families and communities. Historically, social scientists and policymakers have treated care provision outside the public sphere as an individual, private commitment that perhaps delivers non-pecuniary benefits—relevant to happiness and welfare but not to output or productivity. However, unpaid care work and intra-family transfers are indispensable to what is typically labeled “the economy” and have shaped its evolution over time ([Folbre and Nelson 2000](#)). A broad understanding of care provision requires a clear understanding of connections and interactions between families, communities, the market, and the state.

This working paper develops a critical review of the data sources available to inform the understanding of care provision in the U.S. Empirical researchers periodically get together to discuss the limitations of existing data infrastructure and propose methods of improving existing surveys ([NAS 2022](#); [Census Bureau 2021](#); [ASPE 2004](#)). Our approach is similar in some respects and draws on earlier discussions of problems such as limited sample size, declining survey response rates, the potential for linkages with administrative data, and the need for new surveys. However, our reach is broader, emphasizing the influence of conventional theoretical paradigms on definitions of empirical relevance and offering some insights into the process of paradigmatic change.

As sociologist Daniel Hirschman argues, “the social sciences rely on *knowledge infrastructures* to monitor trends and identify stylized facts. These infrastructures collect, process, and distribute data in ways that channel sustained attention to particular problems” ([Hirschman 2021:739](#)). By improving care data, we aim to improve the overall knowledge infrastructure available to study care provision and “channel sustained attention” to the most significant care problems the U.S. currently faces.

Many earlier discussions of survey adequacy in the social sciences have been motivated by concerns about measuring household income inequality and individual earnings mobility. While these concerns remain important, insufficient attention has been devoted to analyzing the care sector of our economy, which crosses traditional boundaries between private and public and calls attention to unpaid work and non-market transfers. A circular dynamic comes into play: data considered unimportant are seldom collected, making it difficult to establish their importance. As new data emerge, new questions come

into view. The need for additional data becomes apparent in the framing and asking of new questions.

Our descriptive analysis is motivated by growing interest in the social organization of care provision, particularly as it bears on the well-being of those who require personal care and those who provide it—disproportionately women. The COVID-19 pandemic highlighted the importance of essential work that we depend on in a crisis, responds to human needs, and does not merely reflect the impersonal dynamics of supply and demand ([Stevano, Ali, and Jamieson 2021](#)). Both paid and unpaid care work helped buffer the sudden external shock to daily routines. The pandemic also dramatized the impact of exogenous shocks to human health on institutional arrangements previously taken for granted. A country that has long prized individual autonomy has been forced to confront increased risks of vulnerability and dependency in a highly polarized political environment.

A better picture of care provision is important in and of itself. It also has complex implications for measures of living standards, insecurity, and analysis of inequality among and within households. Conventional market-income and consumption-expenditure measures ignore the value of unpaid family services that loom particularly large in households with a full-time caregiver or homemaker. The tendency to treat family households as the main or sole unit of analysis ignores how time and money devoted to children reduce adult consumption. Snapshots of inequality at one point in time obscure the enormous significance of a human life cycle that relies heavily on private and public transfers outside the market.

This working paper explores the resources available for economic analysis of care provision, the shortfalls in available survey and administration data, and possibilities for addressing these shortfalls. It draws on discussions with an interdisciplinary network of care researchers and provides a basis for further discussion and efforts to prioritize research and data collection needs. We begin with a review of the diverse ways in which care provision has been defined and empirically operationalized, separately considering care for children and care for adults. We review the scholarly literature and highlight data priorities to improve our understanding of care provision for children and adults. While an in-depth consideration of health care is beyond our scope here, we note how health care intersects with other aspects of care provision. We do not discuss care provided in carceral settings at this time—not because it is unimportant, but because it raises particularly complex questions that require further study on our parts—or various forms of “spiritual care” ([Nissen, Viftrup, and Hvidt 2021](#)).

Two technical appendices supplement our review of the social science literature on care provision: Appendix A provides a tabular description of major sources of relevant survey data. Appendix B summarizes feedback provided by consultations with other researchers.



## I. Definitions and Focal Question

Much of the vast and growing literature on care provision dwells on the needs of people conventionally thought of as largely dependent on others: young children and people experiencing considerable self-care or independent living difficulties. This focus is understandable, yet care is also a universal need. Adults depend on one another. They are generally both care providers and care receivers throughout the life course. Human beings inhabit a shifting continuum of interdependence and are always at risk of requiring assistance ([Fraser and Gordon 1994](#); [Watson et al. 2004](#)).

We define care provision broadly as the production, development, and maintenance of human capabilities.<sup>1</sup> One could argue that everything we do is, in some way, an input into capabilities—people need food and shelter to survive. Economists often take a narrower “human capital” approach, emphasizing skills that enhance market earnings. Our emphasis on capabilities signals attention to a broader set of skills that have intrinsic value and contribute to individual and social well-being.

This approach draws upon the work of Amartya Sen, Martha Nussbaum, and others who treat human capabilities as ends in themselves rather than merely as inputs into the production of commodities ([Robeyns and Fibieger Byskov 2021](#)).<sup>2</sup> Empirical research informed by social theory can help explain the distribution of the costs and benefits of care provision and its implications for many different dimensions of social inequality. Care provision has many features that distinguish it from other productive activities. It is often person-specific, involving close emotional or physical interaction, and often located in homes and rooms. It requires sensitivity and awareness of the needs of others. It typically represents an investment in or maintenance of capabilities. It generates positive externalities or spillovers that benefit those who are not immediate recipients. Care also has multiplier effects because care recipients are often motivated to reciprocate directly or indirectly, paying back or paying forward.

Care provision is complex. It involves transfers of money and time that occur in various sites, crossing the boundaries of the market, the family, the community, and the state. Much of the growth of the paid service sector over time reflects the declining role of unpaid care provision in families. Nonetheless, unpaid care remains a significant part of the U.S. care sector and the U.S. economy ([Folbre and Nelson 2000](#); Folbre 2023).

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<sup>1</sup> This working paper generally refers to “care provision”, following [Folbre \(2012a\)](#). Related concepts include “care regimes” ([Bettio and Plantenga 2004](#)) and “care infrastructure” originally coined by Ai-Jen Poo, a prominent care and domestic worker activist, who has written extensively about the need to invest in public infrastructure for care provision (e.g., [Poo 2016](#)). Care infrastructure highlights policies related to care provision, while the concepts of social organization of care provision or care regimes are often used to refer to a broader range of contextual characteristics.

<sup>2</sup> Notable related work on measurement in this vein includes [Brighouse and Robeyns \(2010\)](#).

Despite its personal qualities, care provision has been, and continues to be, coerced by multiple forms of institutional power and economic inequality. Patriarchal laws and norms assign women disproportionate responsibilities for care work by restricting reproductive rights and opportunities for economic advancement. People with little bargaining power in the labor market, including many immigrants and Black and Latinx workers, disproportionately provide paid care, as is also the case with other stressful and costly tasks ([Glenn 2010](#); [Romero 2018](#)). Not all care workers fall in the same category—some are far more vulnerable to exploitation than others. Nonetheless, the common features of care work create the potential for political alliances among workers and between workers and consumers ([Bagenstos 2016](#); [Folbre 2006](#)). For example, a recent coalition led by the Service Employees International Union and the National Domestic Workers Alliance, with the strong participation of disability rights activists, pushed for support of the proposed Build Back Better legislation to increase public investment in care provision.

Care is disproportionately, but not exclusively, provided by women and often entails a high level of intrinsic motivation. Some level of concern for the well-being of a care recipient is often key to the quality of the care services provided ([Folbre 2012a](#); [2012b](#); [2018](#)). Yet the larger context in which people provide care is also consequential. Care typically involves team production—parents collaborate with other parents, childcare workers, and teachers; patients cooperate with doctors and nurses. Care provision involves interconnections of families, friends, neighbors, citizens, and a global community in ways that affect well-being and productivity levels. As a result, measuring a care provider's individual value-added is often difficult, and care provision often leads to reduced bargaining power in the labor market.

Current research on care provision is siloed into many different compartments: private and public expenditures on children, family and community time devoted to children, private and public expenditures on adults needing assistance as a result of self-care disabilities or difficulties of old age, family and community time devoted to adults in need of assistance, indirect care in the form of unpaid household services for all household members, and analysis of the earnings and working conditions of workers in paid care services in education, social services, and health care.

Our focal question is this: What data is available and needed to assess the adequacy of our current care-provision system? An answer to this question requires explicitly considering the possible causes and consequences of unmet care needs and assessing how care provision affects, and is affected by, economic inequality and public policy.

We start by assessing what we know and do not know about the levels and distribution of resources devoted to persons needing care in the U.S. In addition to being of interest to families planning their lives, better knowledge in this area is essential to public policy. The size of transfers to the younger generation directly affects macroeconomic issues such as fertility decline and public finance. The distribution of expenditures of time

and money devoted to children has momentous consequences for household inequality and women's relative access to market income. As the age structure of the U.S. population changes, the costs of caring for older people with care limitations and difficulties are growing—not just pension and medical benefits, but also the need for home- and community-based care, whether provided by family members, funded by the state, or purchased on the market. Increased vulnerability to pandemic infections, climate change, and shocking increases in suicide and deaths related to alcoholism and drug abuse—so-called “deaths of despair”—represent new challenges facing the care economy.

## II. Care Provision for Children

Care provision entails inputs of money and time in many different institutional contexts: families, communities, markets, and the state. Differences based on gender, disability, class, ethnicity and race, and citizenship, play a mediating role.

### 2.1 Family spending on children

Economists have traditionally treated household spending on children largely as the result of parental preferences—parents are assumed to be anticipating a flow of future utility or satisfaction from “child services” (Becker 1993). While parental inputs are now often described as an investment in their children's futures, they remain categorized as consumption in the System of National Accounts—the internationally agreed standard set of recommendations on how to compile measures of economic activity—in line with the longstanding emphasis on non-pecuniary and personal returns of spending in children categorization. A genre of Human Capital Accounts largely focuses on the impact of education on future earnings ([Jorgenson 2010](#)) with no explicit recognition of parental expenditures of time and money.

Most models of utility maximization by families or individuals assume perfect information, including knowledge of prices. However, childrearing is a responsibility with a long-time horizon, making it unlikely that parents know what it will cost them. Indeed, some economists argue that the unanticipated costs of motherhood help explain why women's participation in paid employment in the U.S. began to plateau after 1990 ([Kuziemko et al. 2018](#)).

Measuring parental expenditures on children might seem straightforward using data from the Consumer Expenditure Survey. The U.S. Department of Agriculture (USDA) has used this data semi-regularly to estimate the cost of raising children from birth through age 17. But USDA's estimates also illustrate why the exercise is more difficult than it might

seem ([Lino et al. 2017](#)).<sup>3</sup> While families spend on child-specific goods such as clothing, toys, education, and child care, they typically spend far more on household public goods, such as housing, utilities, and transportation, all likely to be affected by family size. Families also pay a large premium for housing in highly regarded school districts ([Black and Machin 2011](#); [Lareau 2011](#); [Owens 2016](#); [Goldstein and Hastings 2019](#)). Household public goods and economies of scale drive a wedge between expenditures and actual consumption, making it unclear how expenditures should be allocated between adults and children. This methodological issue is especially relevant to state-level policies regarding the level of child support legally required of noncustodial parents (see later discussion). USDA's average-cost approach is more consistent and reliable than approaches based on marginal differences in expenditures between families with and without children ([Lino et al. 2017:16-17](#)), but the answers to other thorny methodological and data issues are less clear cut.<sup>4</sup>

The USDA estimates are hefty, even restricting attention to expenditures on children aged 17 and under—and therefore excluding assistance with the cost of higher education in the form of transfers or loans (discussed further below). In 2023, they range from about \$16,000 to \$18,000 per year per child for married couples, two-child, and middle-income families ([Lino et al. 2017: ii](#)).<sup>5</sup> Expenditures on children are highly correlated with family income. As income and wealth inequality in the U.S. has increased, so has inequality in child expenditures relevant to early childhood development, with implications for intergenerational mobility and wealth ([Gibson-Davis and Hill 2021](#); [Kornrich and Furstenberg 2013](#); [Schneider et al. 2018](#)).

The opportunity costs of providing unpaid care represent another expense. A recent report published by the Urban Institute in conjunction with the Women's Bureau of the U.S. Department of Labor further fills out the picture of care costs by estimating women's lost lifetime earnings resulting from the care of family members (predominantly children). Simulations show that lost earnings average \$237,000 (in 2021 dollars) or 15 percent of women's projected lifetime earnings if they had not provided such care. These costs vary significantly by race, level of education, and family structure ([Johnson et al. 2023](#)).

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<sup>3</sup> USDA has issued reports on a mostly annual basis between 1996 and 2017. As of May 2022, it has no immediate plans for an update and is currently evaluating the methods used to produce the report. Authors' email correspondence with Mark Lino, Economist, USDA, Food Nutrition, and Consumer Services.

<sup>4</sup> Other forms of complexity include whether and how to factor in expenditures on children made by 1) non-parental family members inside and outside the household; 2) parents outside the child's household (beyond child support); and 3) parents who share custody of a child on an equal or near equal basis. USDA's sample is limited to parents living with at least one child ages 17 or under and no other related or unrelated people. Likely due to data limitations, USDA does not include expenditures made by grandparents or other family members, and limits family types to married-parent households with children and single-parent ones.

<sup>5</sup> These are the USDA estimates for 2015 (the most recent year available from USDA adjusted for inflation through April 2023).

The Panel Study of Income Dynamics, which has, since 2017, asked respondents questions regarding parental time devoted to children, as well as expenditures on them, confirms previous research showing that imputations of the market value of unpaid care considerably boost estimated expenditure. Here too, significant inequalities are apparent: while single mothers spend about the same amount of money as their married counterparts with similar income levels, their need to earn market income imposes greater limits on the time they can devote to child care. In one- and two-parent households, family expenditures on items other than child care seem to have little effect on the time devoted to unpaid household work. Childcare expenditures, by contrast, are associated with significant reductions in parental time devoted to child care ([Gautham and Folbre, forthcoming](#)).

Expenditures on non-parental child care and early childhood education significantly affect maternal labor force participation and child outcomes later in life. In the U.S., relatively low levels of public provision mean that these expenditures represent a very high percentage of the income of those low-income families that can afford them ([NSECEPT 2022](#)). Prices are untenable for many families ([Landivar 2023](#)). The relatively new [National Database of Childcare Prices](#) (NDCP) is a comprehensive source of childcare prices at the county level developed by the Women’s Bureau of the U.S. Department of Labor. In 2018, the latest year for which data are available, median childcare prices for one child ranged from \$5,357 to \$17,171 (both figures in 2022 dollars) depending on provider type, children’s age, and county population size. This price range equals 8 to 19.3 percent of the median family income ([Landivar et al. 2023](#)).

Childcare costs are particularly burdensome for low-income families who pay out-of-pocket. Indeed, after considering childcare expenditures, the remaining income of many families with young children falls below the poverty line ([Mattingly et al. 2017](#)). About 11 percent of very low-income families (under 100 percent of the poverty line) using regular child care spend more than 20 percent of their income on it, as do 17 percent of low-income families (100-199 percent of poverty) (See Table 1). Among very-low and low-income families with a child under five that regularly use child care and early education, about 40 percent rely on an unpaid individual provider, typically a grandparent or other relative (See Table 1). Some families avoid childcare costs by depending on shift work that allows tag-team parenting ([Presser 1989](#)). About 700,000 children under age 6 live in two-parent households where both parents work but have schedules that do not overlap ([Borton, Datta, Ventura 2021](#)). Although low- and middle-income two-parent families are less likely to have two high-income jobs, they are much more likely to have parental work schedules that do not overlap.<sup>6</sup> High-income families have access to far more extensive and higher-quality childcare services than other families ([Flood et al. 2022](#)).

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<sup>6</sup> But see [Kim \(2020\)](#) finding that two-parent families with young children were more likely to voluntarily choose to work non-standard schedules, but that this did not vary by family income.

## Table 1: 2019 Child Care Cost Burden as a Percent of Household Income

Households with children ages 0 to 5 that regularly use some form of non-parental child care or early education

	No Cost* (indv. provider)	No Cost* (org provider)	1-5% of HH Income	5-10% of HH Income	10-20% of HH Income	> 20% of HH Income
All income levels	29%	19%	12%	14%	14%	12%
<b>As a percent of federal poverty line</b>						
Under 100%	40%	33%	6%	4%	7%	11%
100-199%	38%	22%	7%	6%	11%	17%
200-299%	35%	20%	9%	11%	14%	11%
300% or more	17%	10%	18%	25%	19%	11%

\*No Cost = Child care provided at no cost to the household because the provider is unpaid (i.e., grandparent) or because the provider payment is subsidized (i.e., Head Start).

\*Indv. provider = Independent child care provider such as a family member, relative, or a paid professional child care worker.

\*Org. provider = Organizational child care provider such as center based providers

Table: Victoria Coan, CEPR • Source: Authors' calculations using National Survey of Early Care and Education Data

Unpaid child care, whether provided by parents, family members, or friends, does not come without a cost, helping explain why it is essential to look at expenditures of both money and time. Current USDA estimates of the cost of children include average spending on child care but do not explicitly consider the earnings or the leisure foregone by parents, especially mothers (for further discussion, see Folbre 2008). This omission leads to a significant underestimate of the costs that parents incur. As noted earlier, women's foregone lifetime earnings due to family care are enormous. In addition, the general failure to assign economic value to unpaid work confounds comparisons of family and household living standards both over time and in the cross-section—overstating the relative consumption level of families with two full-time earners compared to those with a full-time caregiver, especially when these families include young children for whom child care must be purchased ([Folbre et al. 2018](#)).

Both purchased child care and publicly provided early childhood education have long been a significant aspect of the U.S. economic landscape ([U.S. Census 2013](#); [NCES 2021](#)). Not surprisingly, higher levels of statewide childcare costs are associated with lower levels of maternal employment, especially for less-educated mothers ([Landivar et al. 2022](#); [Ruppanner et al. 2019](#); [2021](#)). These estimates, however, are based on a crude measure—

state-level differences in average childcare costs relative to median married-couple family income ([Child Care Aware of America 2019](#)). State-level differences are large but based on providers' average charges without considering actual hours of care, subsidies, or fees. As the Child Care Aware report puts it, "Child care data in the U.S. are currently siloed and inconsistently defined across various state, local, and non-governmental organizations—making it nearly impossible to get a full picture of the needs and opportunities in our nation's childcare system" ([2022: 19](#)).

This concern certainly applies to the analysis of trends in childcare expenditures and prices over the past two decades. One study based on [Survey of Income and Program Participation](#) data finds that between 2005 and 2019 median hourly spending on center-based child care increased by 43 percent, compared to a 47 percent increase for non-relative individual provider care after adjusting for inflation. The cost of relative care, which started at a much lower level, increased a surprising 85 percent ([Herbst 2023:259](#)). Another recent analysis of national trends based on the [National Household Education Survey-Early Childhood Program Participation](#) reports a striking inflation-adjusted increase of 86 percent in average out-of-pocket expenditures on child care between 1995 and 2016, mainly as a result of increased utilization.<sup>7</sup>

Compared to most other goods and services, all major types of care have become more expensive for families in the lowest income category, including for high-income families willing to pay a premium for quality. Such price increases could help explain a surprising trend over this period—an increase in the percentage of families utilizing unpaid relative care from 18 percent to 22 percent ([Swenson and Simms 2021:3](#)). Many working-class families do not receive childcare assistance, despite being categorically and financially eligible for it—instead of providing sufficient funding to serve all eligible families, federal and state governments utilize various rationing mechanisms, including waiting lists and priorities for certain groups, such as single parents ([GAO 2021](#)).<sup>8</sup> The pressure of increased childcare prices helps account for the stagnation in maternal employment over much of this period ([Blau and Kahn 2017](#)).

In addition to the [Survey of Income and Program Participation](#) and the [National Household Education Survey-Early Childhood Program Participation](#), four other nationally

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<sup>7</sup> Similarly, [Kubota \(2020\)](#), using the Survey of Income and Program Participation from 1988 to 2010, finds that "(net) mean real hourly expenditure on child care was mostly stable until the mid-1990s. Then, it jumped up by 29 percent from 1999 to 2011. For those who receive no allowance, the (gross) price increased by 40 percent in the same period. Subsequently, the rising costs caused the mean weekly hours of child care to decline by 23 percent.

<sup>8</sup> The Office of the Assistant Secretary for Planning and Evaluation in the U.S. Department of Health and Human Services uses the Current Population Survey and childcare administration data — collected from states and territories using [Form ACF-801](#) (ACF 2022) — to estimate the number of children eligible for childcare subsidies under federal rules and the number who actually receive subsidies. According to their most recent estimate, 12.8 million children were eligible for federally funded child care in FY2018, but only 1.9 million children (about 15 percent of eligible children) actually received it ([Chien 2021](#)).

representative household surveys, the [Current Population Survey Annual Social and Economic Supplement](#), the [Consumer Expenditure Survey](#), the [Panel Study of Income Dynamics](#), and the [National Survey of Early Care and Education](#) collect information on childcare expenditures that could be better exploited, though sample size limitations often preclude the ability to conduct state-level comparisons (See Appendix A1. Care Provision Data in General Population Surveys for more details about childcare costs measures included in these surveys).<sup>9</sup> Consumer Expenditure Survey data on childcare spending is incorporated into the U.S. Department of Agriculture estimates of family expenditures on children. Childcare spending data from the Current Population Survey Annual Social and Economic Supplement is used in the U.S. Census Bureau's Supplemental Poverty Measure.

However, spending data is limited by many factors other than sample size. For instance, starting in 2010, the Current Population Survey Annual Social and Economic Supplement asks about out-of-pocket childcare expenditures, but only if necessary for adult employment. It does not measure the utilization of subsidized child care or unpaid family care.<sup>10</sup> The Consumer Expenditure Survey and the Panel Study of Income Dynamics also count only out-of-pocket expenditures on child care. The Survey of Income and Program Participation provides data on childcare expenditures, program utilization, and utilization of paid care. However, since 2014 it has stopped collecting information about hours in paid care. A comparison of reports from the Current Population Survey Annual Social and Economic Supplement 2009 data and the Survey of Income and Program Participation data for 2005 (for employed women only) reveals inconsistencies: in the former, child care comprised 19.6 percent of yearly family income for low-income families and 6.7 percent for the nonpoor. Corresponding numbers for the Survey of Income and Program Participation were 28.2 percent and 6.4 percent—hardly a confidence-inspiring result, with a discrepancy of almost nine percentage points ([Macartney and Laughlin 2011](#), Table 2).

The Census Bureau redesigned the Survey of Income and Program Participation in 2014, partly to render it more comparable with the Current Population Survey Annual Social and Economic Supplement. However, a comparison between reports of child care utilization and costs for employed mothers in 2014 also found significant discrepancies, probably related to differences in the reference period and the relative number of

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<sup>9</sup> There are no questions about child care in the American Community Survey (ACS), but Census Bureau researchers ([Fox, Glassman, Pacas 2020](#)) have used a logistic method to determine which households in the ACS pay for child care and a predicted means matching method to impute a weekly childcare amount to each unit paying for child care. They have used these methods to estimate state-level Supplemental Poverty rates with the ACS ([U.S. Census Bureau 2021b](#)).

<sup>10</sup> Matching Current Population Survey Annual Social and Economic Supplement data with Child Care and Development Fund (CCDF) administrative records, [Shantz \(2019\)](#) found that among households with children under age 13 in which all adults were employed at least half time, about 5.5 percent received CCDF-funded child care. About CCDF recipients who made out-of-pocket co-payments (according to CCDF administrative data), 53 percent did not report spending out-of-pocket on child care.



imputations ([Knop and Mohanty 2018](#)). Such discrepancies are problematic since the Supplemental Poverty Measure is sensitive to the measure of childcare expenditures. The National Survey of Early Care and Education provides the most extensive data on child care usage and out-of-pocket costs ([NSECEPT 2016](#)), but it has only been conducted in 2012 and 2019; the next study is planned for 2024.

Afterschool programs are an important part of the larger childcare system, providing supervisory care for children whose parents are not immediately available after school hours. Despite evidence of positive impacts, such as the remediation of learning deficits resulting from pandemic closures, they are often underfunded ([McCombs et al. 2017](#)). Serious shortages of qualified workers have also been noted ([Langreo 2022](#)). Little systematic data is available concerning utilization or out-of-pocket costs.

Expenditures on older children also deserve careful consideration, especially given trends in market income. The economic prospects of male wage earners without a college degree in the U.S. have long been declining, and women still earn considerably less than men at every level of educational attainment ([Jarosz, Mather, and Martinez 2022](#)). While the college wage premium seems to have diminished in recent decades, the premium for post-BA graduate degrees has risen ([Ashworth and Ransom 2019](#); [Autor et al. 2020](#)). Parental ability to help children cover higher education costs, whether through direct transfers or loans, has become increasingly consequential ([Zaloom 2019](#)).

Yet it is remarkably difficult to arrive at any quantitative estimate of the actual costs that parents incur ([Walsemann and Ailshire 2017](#)).<sup>11</sup> Perhaps the best source is Sallie Mae Bank's ([2021](#)) *How America Pays for College*, an annual survey conducted by Ipsos since 2008.<sup>12</sup> The school year 2020-2021 survey was conducted online and included 1,000 undergraduate students ages 18-24 and 985 parents of undergraduate students in the same age range. According to the survey, about 85 percent of undergraduate students used funds from parental income or savings to pay for all or part of college, and about 21 percent relied on parental borrowing ([Sallie Mae Bank 2021](#)). Microdata from this survey does not appear to be publicly available or used in academic research in any substantial way.

Virtually all efforts to set poverty thresholds or living wage standards for family households of differing sizes and compositions rely on equivalence scales that weigh the needs of children relative to adults. Historically, children's consumption needs have been

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<sup>11</sup> The National Longitudinal Survey of Youth 1979 includes questions about child-related educational debt and biological children's college enrollment but does not ask when child-related educational debt was initially obtained and does not link debt to specific children. As Walsemann, Ailshire, and Hartnett ([2020](#)) note, in a study finding that having greater amounts of child-related educational debt was associated with more depressive symptoms and worse mental health among fathers, it isn't possible to examine whether such associations are "related to the characteristics of the child (e.g., college completion) or the college they attended (e.g., private or for-profit, access to financial aid)."

<sup>12</sup> Originally a government-sponsored enterprise created to service public student loans, Sallie Mae was privatized between 1997 and 2004, and is now a publicly traded corporation, with no direct ties to the federal government, that creates, services, and collects private loans for post-secondary education.

weighted lower than those of adults because they require less food. As discussed further in the next section, however, consideration of the foregone earnings of mothers, as well as expenditures on child care and education, suggests that children should be weighted more heavily ([Folbre et al. 2018](#)). Allowances for the care of children (including child care, health care, and other developmental needs) should be incorporated directly into poverty thresholds and other family budget thresholds ([Fremstad 2020](#)).

Children living in very low-income households experience adverse consequences for their health, educational attainment, and future earnings ([NAS 2019](#)). Inequality in parental expenditures on children has increased alongside increased income inequality in the U.S., likely contributing to increased inequality in educational outcomes and decreased economic mobility ([Kornrich and Furstenberg 2013](#); [Lunn and Kornrich 2018](#)). Later discussion in this paper will show that these dynamics appear sensitive to variations in public spending on children across states ([Jackson and Schneider 2022](#)).

We now know enough about family spending on children to frame several hypotheses. The share of parental income devoted to children in the U.S. is probably increasing, particularly for single mothers.<sup>13</sup> Inequality measured in terms of individual adult consumption (net of expenditures on children) is probably greater than inequality defined in terms of household income. At the same time, inequality in expenditures on children is increasing, likely intensifying future inequalities in education and lifetime earnings. It is difficult to test these hypotheses without looking beyond expenditures on child-specific goods and services to examine how children affect the trajectory of parental spending over time as household structures change.

## 2.2 Family time devoted to children

Unpaid family care is a font of satisfaction for most parents, but also a source of economic stress. Measurement of family expenditures has implications for the measurement of family time and vice versa. Economists influenced by human capital models developed by Reuben Gronau ([1973](#)) and Gary Becker (1993) treat unpaid household services as intrinsically rewarding and say little about their impact on material living standards. Empirical research on the relationship between expenditures and time use has been hampered by the format of existing data sets: the [U.S. Consumer Expenditure Survey](#) does not include any data on time use, and the [American Time Use Survey](#) does not include any data on expenditures.

With time-use data, researchers can impute an estimated market value to unpaid care services by asking what it would cost to hire someone to provide comparable services

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<sup>13</sup> Using data from the 2003-2018 Consumer Expenditure Surveys, [Hastings and Schnieder \(2020\)](#) find that “controlling for income, single parents spent more on parental financial investments [in their children’s development] than married households.”

(a replacement cost approach). Household extended income can be defined as the sum of market income and the imputed value of household services. Not surprisingly, existing estimates show that household extended income in the U.S. is higher than household market income and distributed somewhat more equally ([Frazis and Stewart 2011](#); Folbre et al. 2014). Such estimates require assumptions regarding economies of scale and differences in total consumption by age, which require more empirical scrutiny ([Folbre et al. 2018](#)).

More information is sorely needed on the substitutability between expenditures of time and expenditures of money—a linear model assigning the same dollar value to every hour of unpaid work is misleading. Threshold effects may be significant: for instance, a household may require a minimum level of unpaid work to make good use of its money income, and likewise, a minimum level of money income to be able to engage in unpaid work productively. Empirical research can address this issue. One comparison of the expenditures from the Consumer Expenditure Survey and the American Time Use Survey shows that couple households with mothers who are not employed spend considerably less on child care and food purchases away from home than dual-earner households. These mothers also devote more unpaid time to child care and food preparation ([Sullivan 2020](#)). An analysis of pooled data for 2017 and 2019 from the [Panel Study of Income Dynamics](#) reveals little substitutability overall between total unpaid work and total consumer expenditures but also shows a significant negative relationship between parental childcare time and childcare expenditures among two-adult families with children under the age of 5 ([Gautham and Folbre, forthcoming](#)).<sup>14</sup> Using data from the Bureau of Economic Analyses' Household Production Satellite Account for the U.S., a recent analysis finds remarkably little “marketization” of household production since 1965, apart from food provision ([Bridgman 2023](#)).

Accurate estimates of the impact of unpaid work on living standards depend on precise measurement of time use. The U.S. enjoys a valuable data source in the American Time Use Survey, conducted annually since 2003 in conjunction with the Current Population Survey. This survey includes an important and unique set of questions posed to respondents living in a household with at least one child under the age of 13, including whether such a child was “in-your-care” during the previous 24 hours (not including the time that the reporting adult and children were asleep). Responses to this question can be construed as a useful, though imperfect, proxy for supervisory responsibilities. They should be seen, like social time with children, as part of the “parenting package” ([Fomby and Musick 2018](#)). Estimates of the imputed market value of parental time based on conservative replacement cost estimates are highly sensitive to including supervisory time (Folbre 2008; [Suh and Folbre 2016](#)).

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<sup>14</sup> In 2017, the Panel Study of Income Dynamics added child care to a list of questions concerning time allocation in the preceding week.

Parents are not the only family or household members providing unpaid care. In 2019, about 3 million children under age 6 were regularly cared for by relatives who did not receive compensation (another 1.7 million were in a paid relative care arrangement) (Cui and Natzke 2021:Table 1). Among children in weekly non-parental care arrangements, Black and Latino children are more likely than white and Asian children to be cared for by relatives (about 45 percent compared to about 35 percent).

## Table 2: 2019 Child Care Arrangement Type for Young Children

Number and percentage of children ages 0-5 not in kindergarten

	Number of Kids (1000s)	Percent of Total	Percent of Children in NPC
<b>1+ weekly non-parental care (NPC) arrangement</b>	<b>12,505</b>	<b>59%</b>	<b>100%</b>
<i>Relative care</i>	4,752	22%	38%
<i>Nonrelative care</i>	2,501	12%	20%
<i>Center-based care</i>	7,753	37%	62%
<b>Only parental care</b>	<b>8,690</b>	<b>41%</b>	-
All care arrangements	21,195	100%	

Table: Victoria Coan, CEPR • Source: Authors' calculations from (Cui and Natzke 2021:Table 1)

Before 2014, the Survey of Income and Program Participation provided considerable information on child care provided by non-parents (See Appendix Table A1).<sup>15</sup> The American Time Use Survey includes questions regarding “care of non-household children.” However, the ATUS collects time data for only one person (age 15 or over) in each household, making it ill-suited to measure household production, comprehensive income, or total childcare services. Many experts who responded to our survey highlighted this limitation (see Appendix B). Nor does the ATUS include information on household wealth (such as home ownership), consumer durables (which are likely to affect the productivity of unpaid household services), or utilization of public services such as publicly financed child care.

<sup>15</sup> The [Survey of Income and Program Participation](#) asks whether a grandparent, other family relative, or nonrelative provided care to children age 14 or under during a typical week (in the fall of the reference year) while the reference parent worked, went to school or was not available. It also asks whether children cared for themselves during a typical week while the reference parent was not there.

A more comprehensive household survey could address these shortcomings. One partial remedy lies in the construction of synthetic households. For example, to measure total unpaid work time in married-couple households, researchers can add values for unpaid work by a married man with certain characteristics to values for unpaid work by a married woman with certain characteristics. This approach can illustrate how replacement-cost valuation would likely affect average household income ([Folbre et al. 2009](#)). A more accurate approach applies statistical matching methods to individual records based on characteristics ([LaBriola and Schneider 2021](#)). The Bureau of Labor Statistics has recently commissioned an effort to statistically match data from the American Time Use Survey with data from the Consumer Expenditures Survey, which should be complete by the end of 2023. This synthetic data set promises greater insights into the substitutability of market income and unpaid household services but will not enable detailed analysis on the household level.

### 2.3 Living standards of families with children

Another factor relevant to the living standards of families with children is the utilization of in-kind benefits and public services. The [Annual Social and Economic Supplement](#) includes federal and state taxes; SNAP, WIC, and school lunch benefits; federal housing assistance; and energy assistance. The Survey of Income and Program Participation includes much of the same data and information on whether respondents “paid support” to parents, adult children, or non-relatives who lived elsewhere. However, the Census Bureau’s current “official” annual income and poverty estimates are limited to money income (tracked by 18 variables in the ASEC) and do not currently incorporate the other available variables.<sup>16</sup>

As noted above, both surveys also include out-of-pocket spending on child care—although the Annual Social and Economic Supplement is limited to child care needed for employment. The Survey on Income and Program Participation includes several other childcare questions, including who provided non-parental child care and whether “assistance” was received for child care.

The [Census Bureau’s Supplemental Poverty Measure](#) takes taxes, refundable tax credits, money income, and many means-tested in-kind benefits into account (but not including childcare assistance, Medicaid, or other health insurance benefits) when determining whether a family has income above or below its poverty threshold. Certain expenditures—including out-of-pocket spending on health care, and for families with an

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<sup>16</sup> In a [report on income and poverty](#) published in 2022 and covering the calendar year 2021, Census included—for the first time in this annual report series—a set of post-tax household income tables in an appendix.

employed member, child care—are subtracted from family income before comparing it to the poverty threshold.<sup>17</sup>

The Supplemental Poverty Measure’s comprehensive income accounting clearly improves markedly on the limited official poverty measure. However, the measure’s approach to child care and health care has limitations. A person who needs child care to work but cannot pay for it out-of-pocket and does not receive free or subsidized public care is treated as having no childcare need. Similarly, suppose a parent can work or go to school because of a childcare benefit. That benefit is treated as having no economic value or relevance to the parent’s poverty status. By contrast, most budget standards developed by experts today assume all parents work and need child care that is purchased at market rates, which also has limitations, but at least acknowledges the need.<sup>18</sup>

As with child care, the Supplemental Poverty Measure assumes that health insurance is unnecessary for children or adults. While it deducts out-of-pocket health care expenditures from family income, it does not include health insurance as a minimum need in the thresholds. To address this problem, Korenman, Remler, and Hyson (2019) have developed a health-inclusive poverty measure (HIPM) that adds the cost of health insurance to the SPM threshold (using the cost of the unsubsidized premium of the second-least-expensive silver plan in the ACA marketplace where the family resides, or, for Medicare beneficiaries, the cost of the least expensive Medicare Advantage prescription drug plan in their area) and then the value of health insurance benefits is added to resources.

In a subsequent paper, they find that the “elderly population classified as poor by the health-inclusive poverty measure appears more disadvantaged than the population classified as poor by the Supplemental Poverty Measure”—the former group is less likely to have a college degree than the latter one and more likely to be Black or Hispanic, to receive SNAP benefits, and to pay rent for housing. This health-inclusive poverty measure also has significant policy implications for people aged 65 and over, showing that Medicare accounts for a large reduction in poverty second in importance only to Social Security (Korenman, Remler, and Hyson 2021).

In a new report commissioned by the Census Bureau, a consensus study panel of the National Academies of Sciences, Engineering, and Medicine recommends making the Supplemental Poverty Measure the nation’s “headline poverty statistic” and changing its name to the Primary Poverty Measure. (NASEM 2023). The panel also recommended

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<sup>17</sup> A flat per-worker estimate of other work-related expenditures (85 percent of median work-related expenses from the Survey of Income and Program Participation) and child support paid to someone outside the unit are also subtracted from family income.

<sup>18</sup> The [family budgets](#) developed by the Economic Policy Institute start with this assumption and then develop different thresholds for families with children based on children’s ages and whether the family lives in a metro or non-metro area. All families in urban areas are assumed to use center-based care and all families in rural areas are assumed to use care provided in a more informal home-based setting.

important improvements to the measure that should help address the limitations described. On the child care front, the panel recommended adding an amount for basic childcare needs to the poverty threshold for households with children under the age of 13 (or up to age 18, if disabled) that are using paid child care and conducting future discussion and research on the topic of unpaid child care and whether and how such care should be reflected in poverty measurement. On health care, the panel recommended including health insurance in the estimates of both the needs threshold and resources.

The Census Bureau measures both supplemental poverty and income inequality using a three-parameter equivalence scale that allows for a different adjustment for single parents.<sup>19</sup> The scale is calculated as follows:

- One and two adults: scale = (number of adults)<sup>0.5</sup>
- Single parents: scale = (number of adults + 0.8\*first child + 0.5\*other children)<sup>0.7</sup>
- All other families: scale = (number of adults + 0.5\*number of children)<sup>0.7</sup>

Table 3 below shows the adjustment factor using this scale for different family configurations. In general, children are weighted less than adults using the Census three-parameter scale.<sup>20</sup> The adjustment factor for a three-adult household is 2.16 compared to 1.9 for a household of two adults and one child and 1.79 for a one-parent, one-child household. One exception: the adjustment factor for a one-adult, one-child household (1.51) is higher than for a two-adult, no-child household (1.41). It is also notable that adding a third adult to a two-adult-no-child household produces a much more significant change in the adjustment factor (.74) than adding a second child to a one-adult household (.28) or adding a fourth child to a 2-adult household (.25). Weighting children so much less than adults ignores the significantly greater demands that children place on adult time use and the costs of child care ([Folbre et al. 2018](#)) and children's developmental needs ([Fremstad 2020](#)).<sup>21</sup>

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<sup>19</sup> The Supplemental Poverty Measure's base poverty threshold (for a two-child, two-adult unit) is set at the 33<sup>rd</sup> percentile of expenditures on food, clothing, shelter, and utilities (from the Consumer Expenditure Survey) multiplied by 1.2. After being adjusted for equivalence, this base threshold is further adjusted for differences in housing costs by housing status (owner with a mortgage, owner with no mortgage, or renter) and geographic area.

<sup>20</sup> By comparison, using a square root scale weights children and additional adults equally, although it also results in adjustment factors that are generally lower, especially for two-adult units with children and units with more than two adults but no children.

<sup>21</sup> The Supplemental Poverty Measure does not specifically address children's developmental needs (beyond their need for food, clothing, and shelter) or their related social and cultural participation needs. A child is essentially treated as equivalent to an adult when it comes to goods and services necessary to not be poor. By contrast, "family budgets" produced by the federal government in the 1960s did take these developmental needs into account. For example, the City Workers Family Budgets produced by the Bureau of Labor Statistics in 1967 all "assume that maintenance of health and social well-being, the nurture of children, and participation in community activities are both desirable and necessary social goals for all families of the type for which the budgets were constructed."

**Table 3: Adjustment Factors Using Census Bureau's Three-Parameter Equivalence Scale**

Number of Adults	Number of Children	Adjustment Factor Using 3-Parameter Scale	Marginal Cost of Additional Person
1	0	1.00	-
2	0	1.41	0.41
3	0	2.16	0.74
4	0	2.64	0.48
1	1	1.51	0.51
1	2	1.79	0.28
1	3	2.06	0.26
1	4	2.31	0.25
2	1	1.90	-
2	2	2.16	0.26
2	3	2.40	0.25
2	4	2.64	0.24
Number of people in HH	all adults, no kids	1 adult with 1+ kids	2 adults with 1+ kids
2-person units	1.41	1.51	-
3-person units	2.16	1.79	1.90
4-person units	2.64	2.06	2.16

Table: Victoria Coan, CEPR • Source: Authors' calculations using Census Bureau Three-Parameter Equivalence Scale

In addition, many families have special needs that are not well-documented. Parents of children with disabilities experience additional expenses as well as foregone income, estimated in 2012 at a median of about \$30,500 per year; however, few surveys with information on specific costs also include information on particular disabilities ([Stabile and Allin 2012:69](#)). The percentage of adults caring for a child with special needs increased from an estimated 4.3 percent in 2015 to 5.7 percent in 2020 ([NAC and AARP 2020:9](#)).

Considerable economic research shows that economic deprivation and poor health in childhood can significantly undermine adult capabilities ([Currie 2009](#); Hogan 2012).



Researchers also use measures of deprivation and hardship to examine living standards. Although deprivations typically decline as income and spending increase, some groups, including people with disabilities, are more likely to experience deprivation than others, even if they have similar incomes. The USDA's Food Security measure is one of the most prominent U.S. material deprivation indicators but is limited to one dimension. By contrast, the United Kingdom tracks material deprivation in families with children using a list of 21 goods and services, 12 specific to children ([Fremstad 2020](#); [UKDWP 2019](#)). Material deprivation is also tracked for "pensioners" using a different list of fifteen goods and services.

There are few measures of childcare-related hardship or deprivation in U.S. surveys. In 1977 and 1982, the Census Bureau fielded childcare supplements to the Current Population Survey. These supplements asked mothers if they would be employed "if satisfactory child care were available at reasonable cost." However, the Census Bureau has not asked this question since then, perhaps because its staff views terms like "satisfactory" and "reasonable" as too subjective ([Presser and Baldwin 1980](#); [Leibowitz and Waite 1988](#); [Cattan 1991](#)). One notable recent effort to assess unmet childcare needs at the state level relies on stylized assumptions built into a microsimulation model rather than direct reports ([Isaacs et al. 2015](#)). By comparison, the Current Population Survey has included an [annual food security supplement](#) since 1995. Using data from the supplement, USDA publishes annual reports and supplemental tables on food security that are detailed and extensive.<sup>22</sup>

The [Early Childhood Program Participation Study](#) does ask parents whether they had "difficulty finding care" and, if they did, whether the difficulty was due to cost, location, quality, lack of open slots for new children, or other reasons. Among parents who had difficulty finding care, high cost is the most commonly cited reason for all income groups except those over \$100,000 (see Table 7 in [NCES 2021](#)). The Census Bureau's [Household Pulse Survey](#), an experimental data collection product, asks whether children could not attend daycare or another childcare arrangement due to a closed childcare facility, unavailability, unaffordability, or safety concerns. If child care was unavailable, the Household Pulse Survey then asks whether parents took unpaid leave; used vacation or sick days, or other paid leave; cut hours; left a job; lost a job; did not look for a job; or supervised one or more children while working. These measures could be extended to consider utilization of unpaid care from family and friends and to provide a more complete picture of needs over a longer time-period.

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<sup>22</sup> The most recent report was published in September 2022 and measures food insecurity in 2021 ([Coleman-Jensen et al. 2022](#)).

## 2.4 Children, individual living standards, and gender inequality

Households are meaningful units for comparing material living standards in the cross-section but do not capture individual trajectories over the lifecycle. For instance, while measuring the percentage of children living in poverty at any point in time is important, the depth and duration of poverty also merits consideration. The neighborhoods children grow up in and the resources their family has access to impact many socioeconomic outcomes ([Chyn and Katz 2021](#); [Hicks et al. 2018](#)).

Parental expenditures at a point in time say little about the lifetime costs of commitments to children. A recent simulation analysis (discussed earlier) estimated the earnings and earnings-related benefits that mothers forgo (Johnson et al. 2023). Among mothers pooling income with partners, these costs—like other expenditures on children—are at least partially shared. Still, the dissolution of a marriage or domestic partnership leaves many single mothers vulnerable to poverty ([Tach and Eads 2015](#)). Even the threat of dissolution reduces the bargaining power of the lower-earning spouse. While the gender gap in lifetime earnings has declined in recent years, it remains far greater than the gender gap in earnings in a given year ([Rose and Hartmann 2004](#); [Kleven et al. 2019](#); [Guvenen et al. 2021](#)). This gap has significant implications for retirement benefits and women’s economic security in old age and, in turn, life satisfaction and well-being ([Weller and Tolson 2020](#); [Calasanti et al. 2021](#)).

Evidence from experiments conducted with fictitious resumes for job applications shows that mothers of young children face discrimination in the form of fewer callbacks from employers ([Correll et al. 2007](#)). Experimental evidence also suggests that Black and Latina mothers are penalized in the U.S. housing market ([Faber and Mercier 2022](#)). The motherhood penalty in employment seems to hold for both poorly compensated service jobs and well-compensated professional and managerial jobs ([Ishizuka 2021](#)). Mothers also pay a high price for less consistent or continuous participation in paid employment. Earnings foregone vary significantly across countries, largely reflecting differences in public policy ([Harkness and Waldfogel 2003](#); [Budig et al. 2012](#); [Musick et al. 2020](#)).

The “motherhood penalty” is sometimes defined quite narrowly, focusing on the effects of motherhood on individual wages and controlling for differences in occupation, industry, employment history, and hours of employment ([Leonard and Stanley 2020](#)). These controls, however, are typically influenced by parental status. Both motherhood and prospective motherhood (more difficult to measure) affect women’s choice of occupations, with long-term consequences ([Abendroth et al. 2014](#); see also discussion in [Jee et al. 2019](#)). Partly due to methodological differences, estimates of trends in the U.S. motherhood penalty over time show somewhat conflicting results ([Avellar and Smock 2003](#); [Pal and Waldfogel 2016](#); [Jee et al. 2019](#); [Kleven 2022](#)).

Focus on earnings rather than family income has implications for the effect of class and race/ethnicity on the motherhood penalty.<sup>23</sup> The opportunity cost of taking time out of paid employment on future earnings is highest for well-educated white women, many of whom enter jobs that put a premium on hours worked and continuity of employment ([England et al. 2016](#)). However, college-educated white women are far more likely than other women to marry and pool income (at least partially) with a relatively high-earning partner. These women experience a loss of autonomy and bargaining power as they become more economically dependent on their spouses, but they enjoy a substantial income buffer. Indeed, the premium highly educated men receive for fatherhood helps compensate directly for the motherhood penalty ([Glauber 2018](#)). By contrast, the earnings losses of single mothers are translated directly into income losses. Recent research suggests that parents without college degrees suffer the greatest income losses from parenthood because they cannot afford child care ([Gonalons-Pons and Marinescu 2022](#)).

A more comprehensive approach to the motherhood penalty would combine an analysis of consequences for earnings with attention to how separation and divorce affect the distribution of the costs of raising children between mothers, fathers, and cohabitators over the lifecycle. While data on transitions in family and household membership is available in longitudinal surveys such as the [Panel Study of Income Dynamics](#), the [National Longitudinal Survey of Youth](#), or the [Survey of Income and Program Participation](#), the difficulty of ascertaining the size of custodial parents' contributions of both time and money makes it difficult to assess the relative contributions of noncustodial parents (see discussion above), or the costs incurred by parents relative to non-parents who pay taxes that fund public programs for children.

Still, women contribute significantly more than men to the creation and maintenance of the next generation. A longstanding decline in the proportion of adult men living with children in the U.S. was apparent as early as 1993 ([Akerlof 1998](#)). The Census Bureau first began collecting data on the lifetime fertility of men in the 2014 Survey of Income and Program Participation ([Monte and Knop 2019](#)). In that year, about 69 percent of women 15 and over, compared to 60 percent of men in the same age category, were biological parents ([Monte 2017](#): Table 1). About 90 percent of mothers lived with all their biological children under age 18, compared to 75 percent of fathers ([Monte 2017](#): Figure 2). Among people ages 55-64 in 2018, 22 percent of men were “childless” (having zero biological children) compared to 17.3 percent of women, and adults in this age range were more likely to be childless than adults 65 and over ([Valerio 2022](#)).

Parenthood is not limited to biological children, and the increasing diversity of family living arrangements in the U.S.—particularly the growth of unmarried domestic partnerships and same-sex unions—poses significant challenges to survey design

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<sup>23</sup> Even an empirical study emphasizing the life course and important variations by race and ethnicity takes the hourly wage as the dependent variable ([Van Winkle and Easang 2020](#)).

([Anderson et al. 2021](#)). The Census Bureau made significant changes to the [Current Population Survey](#) in 2007 to improve the measurement of children's living circumstances. In 2019, about 70 percent of all children lived with two parents, broadly defined (married or unmarried, biological or not), a minimal decline from a measure derived from the 1991 [Survey of Income and Program Participation](#). However, the likelihood that a child would live with only one parent for at least a year has almost certainly increased over time.

Moreover, the economic security of children living in single-parent households, and particularly single-mother households, remains fragile. As David Brady and his colleagues put it in a New York Times op-ed discussing their comparative research: “What really differentiates rich democracies is the penalty attached to single motherhood. Countries make political choices about how well social policies support single mothers. Our political choices result in families headed by single mothers being 14.3 percent more likely to be poor than other families.” ([Brady, Finnigan, and Hübgen 2018](#); [2017](#)).

While the U.S. has lagged when it comes to adopting broadly inclusive social policies for families with children—like child allowances, universal child care, and child support assurances—many U.S. policymakers have continued to view the legal establishment and enforcement of intra-familial obligations and transfers as an adequate substitute for a social democratic set of family benefits. Federal legislation enacted in 1975 required states to assist custodial parents, regardless of prior marital status, with establishing and enforcing legal orders requiring noncustodial parents to pay child support. However, the legislation also required parents applying for Aid to Families with Dependent Children (AFDC) to sign over their rights to child support or spousal maintenance to the state and cooperate with the state in establishing the paternity of children born outside of marriage. Any child support collected while a parent was receiving AFDC became the state's property. In 1984, the law was amended to pay the first \$50 of child support collected to the parent and disregard it when calculating the parent's AFDC benefit.

The 1996 welfare law replaced AFDC with Temporary Assistance to Needy Families (TANF), a block grant program that eliminated the federal right to monthly income assistance AFDC had provided. The 1996 law included many provisions related to marriage—in fact, three out of four of TANF's programmatic purposes are marriage related—and a major set of changes designed to increase child support enforcement ([Fremstad, Glynn, and Williams 2019](#)).

The 1996 law continued to require parents to sign their rights to child support as a condition of eligibility for receiving any monthly income assistance provided by states under the program. However, states no longer had any obligation to pay the first \$50 of support collected each month to parents. Research has found that the AFDC/TANF child support assignment and cooperation requirements create resentment, discourage parents from applying for TANF, and worsen debt and disadvantage among noncustodial parents, particularly among incarcerated and formerly incarcerated noncustodial parents ([Edin et al. 2019](#); [Kurz and Hirsch 2003](#); [Cancian et al 2009](#)).

Since establishing the TANF block grant in 1996, the federal government has never increased its funding. As a result, TANF expenditures have declined by nearly 50 percent in real terms since then. Due to declining federal funds, TANF's punitive work-related requirements, and the lack of any meaningful federally enforced duty to serve low-income parents, only about one in five eligible people receive TANF income assistance. At the same time, the percentage of custodial parents in the public child support system who are there of their own volition has increased, while the percentage forced in by the state has fallen ([Fremstad 2021](#)).

In 2021, \$29.5 billion in child support was collected through the CSE program ([OCSE 2021](#)), most of it through wage withholding. Of the 12.7 million cases (representing 13.2 million children) in OCSE's caseload in 2021, about 68 percent had collections during the year. Most of the child support collected through CSE is distributed to the parents of children who have never received TANF assistance. Still, state governments kept about \$1.3 billion of the child support collected in 2021—this was child support paid by noncustodial parents of children who were currently receiving or had previously received TANF assistance.

In addition to the administrative data collected by OCSE, the [Survey of Income and Program Participation](#) and the Child Support Supplement of the Current Population Survey collect data on child support. Estimates based on the 2018 [Survey of Income and Program Participation](#) showed that only about 25 percent of single custodial parents of children under age 21 received child support payments in 2017. Slightly more than half (about 57 percent) of those with formal agreements received such payments. Some noncustodial parents contributed gifts or other in-kind transfers. Starting in 2022, the SIPP will collect more detailed information on these ([Grall and Valle 2022](#)).

The median annual support payment was \$3,328 ([Grall and Valle 2022](#)). By comparison, estimated annual expenditures for the younger child (under three) in a two-child family headed by a single parent in the low-income category (average income \$24,400) three years earlier was \$9,090 ([USDA 2017](#):Table 7). As previously noted, this estimate does not include any consideration of earnings foregone as a result of childcare responsibilities. On the other hand, there is no way to determine from existing data how much time non-resident parents spend providing care and non-monetary support to their children, a factor clearly relevant to the distribution of costs.

The numbers reported in the [Survey of Income and Program Participation](#) differ somewhat from those reported in the [Current Population Survey](#) in the same year, in part because of differences in wording and timing ([Grall and Valle 2022](#):2). In 2017, only 40 percent of non-Hispanic white custodial mothers received child support. The shares of Black and Hispanic mothers receiving child support were even lower than this: 23 percent for Black mothers and 27 percent for Hispanic mothers. ([Grall 2020](#)).

The Current Population Survey reports the percentage of custodial parents who had legal or informal child support agreements (49.4 percent) and, of those, the percentage

who received the full amount designated (45.9 percent) ([Grall 2020:1](#)). This implies that 22.7 percent of all these custodial parents received the full amount designated but says nothing about those without agreements who might have received support. The average annual payment among those who received one was \$3,341, slightly higher than the median reported in the Survey of Income and Program Participation. About 58 percent of custodial parents reported some non-cash support, but its value remains unclear.

Did the 1996 welfare law lead to a large increase in child support payments? If they did, it is difficult to see in Child Support Supplements to the [Current Population Survey](#), which has asked a consistent set of child support questions since 1994. The proportion of custodial mothers with child support agreements increased from 59.8 percent to 64.2 percent in 2004. It subsequently declined to 51.4 percent in 2018 ([Grall 2020:2](#)). The bulk of the research suggests that the child support provisions in the 1996 law may have lowered births, particularly among teens, but have had only modest impacts on working-class mothers' income and poverty rates (Huang and Han 2012). High rates of poverty and unemployment among fathers, unrealistically high support requirements, and punitive measures have been blamed ([Berger et al. 2021](#)).

More generally, the federal government has taken few positive steps over the last several decades to stem the long-term decline in working-class men's employment; if anything, many policies adopted during this period have pushed in the opposite direction. Thus, while child support is an important source of income for many parents, it also tends to be uneven and uncertain, especially for parents without a formal child support agreement. Emotional attachments and the assumption that "mothering is its own reward" complicate family bargaining over child support ([England and Folbre 2002](#); [Edin and Nelson 2013](#)).

## 2.5 Public spending on children

Federal, state, and local governments spent about \$15,100 per child in 2018, most of which (nearly \$9,990) was state and local spending ([Hahn et al. 2021](#)). Over 90 percent of state and local spending on children is on public education; most of the remainder is on health (See Table 4).

**Table 4: 2018 Public Spending Per Child by Category and Level of Government**

	Federal	State and Local	Total
Education	\$536	\$8,775	\$9,311
Health	\$1,531	\$902	\$2,433
Income Security and Other	\$3,037	\$312	\$3,349
<b>Total</b>	<b>\$5,104</b>	<b>\$9,989</b>	<b>\$15,093</b>

*All amounts reported in 2020 U.S. Dollars*

Table: Victoria Coan, CEPR • Source: (Hahn et al. 2021)

Federal spending, on the other hand, includes a greater variety of programs. The largest portion of spending (about 44 percent) goes to money payments (annual and monthly cash benefits), most of which are provided by the Internal Revenue Service (the Earned Income Tax Credit and Child Tax Credit for eligible families) and the Social Security Administration (Old Age, Survivors, and Disability Insurance and Supplemental Social Insurance), followed by federal spending on health (about 28 percent) and on other in-kind benefits (See Table 5).

**Table 5: Billions of Federal Dollars Spent on Children in 2019**

Category and Program	\$	Percent of Total	Category and Program	\$	Percent of Total
<b>Money Payments</b>	<b>225.9</b>	<b>44.1%</b>	<b>Education and Training</b>	<b>43.4</b>	<b>8.5%</b>
CTC (tax reduction)	78.7		Education for the Disadvantaged	16.3	
EITC (refundable portion)	52.5		Special Education/IDEA	13.2	
CTC (refundable portion)	38.6		School Improvement	4.7	
Social Security	21.6		Impact Aid	1.4	
Supplemental Security Income	10.4		AIAN Education	1.3	
Veterans' Benefits	9.3		Dependent Schools Abroad	1.3	
Earned Income Tax Credit	6.3		Other	3.1	
Other Tax Reductions	4.9		Training (DOL)	1.1	
TANF	2.7		Innovation + Improvement	1	
Other Tax Credits (refundable)	0.9				
<b>Health</b>	<b>146.4</b>	<b>28.6%</b>	<b>Child Care</b>	<b>20.3</b>	<b>4.0%</b>
Medicaid	98.2		Head Start	9.4	
Tax exclusion for ESHI	24.3		CCDF	7.2	
CHIP	16.8		CDCTC (tax reduction)	3.4	
Vaccines	4.2		Other	0.3	
Other	2.2				
Premium Tax Credit (refundable)	0.7				
<b>Housing</b>	<b>9.3</b>	<b>1.8%</b>	<b>Social Services</b>	<b>12.7</b>	<b>2.5%</b>
Section 8 Rental Assistance	7.5		Foster Care	5.2	
Public Housing	1		Adoption Assistance	3	
Other	0.8		Other	2.9	
			Unaccompanied Children	1.6	
<b>Nutrition Assistance</b>	<b>54.3</b>	<b>10.6%</b>	<b>Total Federal Spending</b>	<b>512.3</b>	
SNAP	27.5		<b>Total Less Tax Reductions</b>	<b>401</b>	
Child Nutrition	22.1				
WIC	4.7				

Table: Victoria Coan, CEPR • Source: Authors' adaptation of (Han et al. 2000)

Using state administrative data linked to [Consumer Expenditure Survey](#) data on parental expenditures, Jackson and Schneider (2022) find that more generous state-level public spending for children and families is associated with significantly narrower class



gaps in parents' spending on children's care and development.<sup>24</sup> At the same time, they note constraints on their ability to measure additional forms of parental investment in children that might yield developmental benefits, such as healthier foods for children, marginal increases in housing expenditures to obtain better neighborhood or school quality or additional spending on heating or cooling, but that are likely a small part of much larger spending categories (housing, food, utilities) that are not child-specific, but for which the child-specific component cannot be disaggregated in the data. Despite data limitations, it remains clear that the U.S. spends less than most other wealthy OECD nations on early childhood education, child care, and related needs ([Davis and Sojourner 2021](#); [Aizer et al. 2022](#)).

## 2.6 Privately and publicly provided childcare services

Child care is an essential part of economic infrastructure in the U.S., as increases in women's employment and geographic mobility have reduced the supply of unpaid caregivers willing and able to help mothers out ([Brewster and Padavic 2002](#); [Short et al. 2006](#)). The U.S. has no federal childcare system, providing only limited means-tested assistance for child care.<sup>25</sup> Only a small percentage of children eligible for the available assistance—12 percent or less—actually receive it ([Ulrich et al. 2019](#)). In a study using data from the 2012 [National Survey of Early Childhood Education](#) survey, Datta and Borton ([2020](#)) found that only 3.3 percent of children aged 0-3 and 14.1 percent of children aged 3-5 were in publicly-funded center-based child care in 2012, and only 1 percent of children in these age ranges were in publicly funded paid home-based care.

Both private and public childcare establishments have grown substantially since then ([Herbst 2023](#)). It is difficult to ascertain the percentage of children in publicly funded or subsidized care today. However, public spending on child care varies enormously by age: In 2019, public spending per child amounted to less than \$500 for those up to age two and about \$2,800 for those ages three to four, compared to \$12,800 for elementary -age children ([Davis and Sojourner 2021:3](#)).

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<sup>24</sup> Notably, they find that both targeted and universalist forms of public spending on children have inequality reducing effects: "More progressive forms of state investment—income support and health—are associated with bottom-up equalization driven by increased spending among lower-SES households. In contrast, the universal state investment of public educational spending on children is associated with top-down equalization, driven by decreased spending among high-SES households."

<sup>25</sup> The main components are the Child Care and Development Fund (CCDF), Head Start, the Military Child Development Program, and the Child and Dependent Care Credit (CDCTC). CCDF ([CRS 2022](#)) provides about \$12 billion a year to states for means-tested childcare assistance and serves about 1.4 million children. Under Head Start ([CRS 2019](#)), HHS awards about \$10 billion a year directly to local grantees who enroll about 900,000 children. The Military Child Development Program ([CRS 2020](#)) is operated by the Department of Defense and enrolls about 200,000 children of uniformed servicemembers and DOD civilians at a cost of about \$1.2 billion a year.

Many states (and some cities) have stepped in to provide their own early childhood education programs, making it easier for parents of 3- and 4-year-olds to combine family work with paid employment.<sup>26</sup> Private-sector provision has burgeoned, but profit margins are low; few parents can afford the higher prices necessary to increase wages or profits. Childcare services remain limited in many places, with substantial numbers of families living in child care “deserts” or unable to find assistance outside conventional 9 to 5 employment hours ([CAP 2018](#)).

Overall availability declined even before the COVID-19 pandemic, partly due to persistently low worker wages and high turnover rates. In 2018 and 2019, wages were bid up faster in sectors where consumers can pay more, pulling workers out of low-paid care jobs. An innovative analysis using aggregated mobile phone data shows that childcare center closings in the U.S. during the pandemic disproportionately affected Black, Latino, and Asian families and widened inequality in access to care ([Lee and Parolin 2021](#)).

It is difficult to systematically assess childcare services' demand and supply, spanning many different institutional forms, including unlicensed care by family members and friends; licensed family providers; publicly funded or subsidized services; and upscale for-profit childcare centers. Childcare center staff reporting is often based on licensed capacity rather than actual utilization. However, the [National Study of Early Care and Education](#) does provide comprehensive information about children's paid and unpaid non-parental care arrangements.

Scheduling problems have intensified along with the increased time demands of paid employment. At the high end of the earnings distribution, employers often demand more than 40 hours a week, insisting on availability on evenings and weekends ([Cha and Weeden 2014](#)). At the low end, the rise of unstable and unpredictable schedules, based on “just-in-time” management of labor in food service and retail industries, makes life difficult for children and parents ([Luhr et al. 2022](#)).

Most school schedules end approximately two hours before the end of the standard 9-5 workday, creating a substantial care gap for employed parents. Long summer vacations are also problematic. Many parents rely on afterschool and summer programs as beneficial experiences for their children and as a form of child care. Uneven availability and schedules are problematic. According to the Afterschool Alliance ([2022a](#)), about 7.8 million school children were enrolled in an afterschool program in 2020, but 42 percent of parents reported that afterschool programs were not available in their community, and 57 percent reported that available care programs were too expensive.

While current school schedules are deeply entrenched, they could be modified to provide services until 5:30 pm and all twelve months of the year for both parents and

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<sup>26</sup> Seven states and the District of Columbia have universal pre-K programs. ([Early Edge California 2021](#)). The Child and Dependent Care Credit is a nonrefundable tax credit that subsidizes child care and dependent adult care purchased by employed tax filers who have federal income tax liability. ([CRS 2021](#)).

students ([Gregory 2019](#)). The federal government provides about \$1.25 billion for afterschool programs. These funds are awarded to school districts on a competitive basis. Because afterschool funding is so limited, many school districts that apply for funds do not receive them ([Afterschool Alliance 2022b](#)). About one-third of children who receive federal childcare assistance through the Child Care and Development Fund are ages 6 to 13 and receive before-school, afterschool, or summer programming. As some researchers put it, “U.S. public schools make life unnecessarily harder for working parents” ([Brown et al. 2016:1](#)).

Federal survey data on afterschool and other forms of child care for children ages 6 to 13 are limited. The [Survey of Income and Program Participation](#) asks whether children ages 3 to 14 were cared for in a before- or afterschool program during a typical week of the fall of the reference year while the reference parent worked, went to school, or was not available, but does not include questions on hours of before and afterschool care, costs of such care, or whether assistance was received to pay for such care. As noted above, the [Annual Social and Economic Supplement](#) asks about out-of-pocket spending on child care. However, it asks only for employed parents, and it does not distinguish between types of care or specifically mention before and aftercare as the Survey of Income and Program Participation does.

Another issue for employed parents is the inability to pay for private extracurricular activities. U.S. children’s participation in public and private activities increases with family income ([Papandrea 2021](#); [Pew Research Center 2015](#)). A recent survey found that most parents with children in competitive activities have used credit cards or other debt to finance them ([Papandrea 2021](#)). Here, the Chinese experience is worth noting. Private tutoring classes burgeoned there in an environment of highly competitive university admissions. Concerns about unequal access led the Chinese government to outlaw this practice in 2021, demolishing several large firms that specialized in their provision and raising concerns that rich families would simply resort to private tutoring ([Stevenson and Li 2021](#)).

In the U.S., growing inequalities in access to extracurricular activities by race and class have been described as a “new knife perforating American communities by social class,” even though such activities have “the potential to serve as a conduit to social mobility among those able to access them” ([Meier et al. 2018:1299](#)). Without a federal childcare initiative, private child care provision is expanding in the U.S., with for-profit centers largely catering to the affluent.

Need assessment is largely lacking from childcare data infrastructure. We know that many families eligible for subsidized services cannot access them, relegated to waiting lists. We know far less about how many families would benefit from childcare services but cannot obtain them. Differences in state program administration make it difficult to provide accurate comparisons across states ([Smith et al. 2021](#)). The transaction costs of

finding child care—including managing and maintaining eligibility for public services—are under-researched.

## 2.7 The childcare workforce

That paid childcare workers in the U.S. earn less than parking attendants was first noted in 1975, and it remains true today ([Feldberg 1984](#):324). In May 2021, childcare workers in the U.S. averaged \$13.31 per hour relative to \$14.04 for those tending to paid car parking lots.<sup>27</sup> Their median wages have remained basically flat since about 1990 ([Herbst 2018](#); [Milli 2022](#)). This group has been described as “under-professionalized, under-valued, and under-compensated” ([Kwon et al. 2020](#); [Whitebook et al. 2018](#)). The [Center for the Study of Child Care Employment](#) offers several quantitative indicators of compensation, as well as information on state policy initiatives.

Low wages and poor working conditions increase turnover and reduce continuity of care, important determinants of care quality. Annually, almost 30 percent of early childhood care and education professionals leave their positions or the field ([McMullen et al. 2020](#)). Some empirical studies taking advantage of state-level survey data provide evidence of adverse effects on the quality of care ([Bassok et al. 2021a](#) and [2021b](#)).

Employees of childcare centers and family day businesses are not the only paid childcare providers in the U.S. There is also a large informal market of babysitters and nannies, facilitated by the emergence of digital platforms such as Care.com, Sittercity, UrbanSitter, and Helpr that are widely used in major metropolitan areas. These platforms have an upscale tone, encouraging employers to pay a premium for more experienced, educated, and “passionate” providers ([Fetterolf 2022](#)). Because many childcare jobs are part-time or transitional, it is unclear how well nationally representative surveys capture them.

Another factor that often escapes attention is that pre-pandemic immigration patterns increased the supply of domestic workers in some metropolitan areas, increasing the employment and the family-size decisions of college-educated women ([Cortés and Tessada 2011](#); [Furtado and Hock 2010](#)). This research raises interesting questions regarding the effect of earnings inequality on forms of childcare provision, including disincentives for more highly educated parents to support more significant public provision (Milkman et al. 1998; Duffy, 2020).

The survey collecting the most comprehensive information about paid childcare workers is the [National Study of Early Care and Education](#), which includes four different survey instruments: one for parents, one for home-based childcare providers, one for directors of center-based childcare providers, and a final one for the workers of center-

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<sup>27</sup> Based in the U.S. Bureau of Labor Statistics Occupational Employment and Wages Statistics, accessed May 28, 2022 at [https://www.bls.gov/oes/current/oes\\_nat.htm](https://www.bls.gov/oes/current/oes_nat.htm)

based childcare providers. The surveys about paid childcare workers include information about wages and benefits, as well as measures of health and well-being (See Appendix A Table A2).

A truly comprehensive measure of the childcare workforce would include accurate measures of the supply of unpaid care from all sources, including family, friends, and the care provided by parents themselves.<sup>28</sup> In 2019, 38 percent of children in a weekly non-parental care arrangement were cared for by relatives ([NCES 2021:3](#)). However, the total amount of time provided by families, friends, and neighbors, which could, in theory, be converted to “full-time equivalent” jobs, remains unclear. Tallies of total unpaid care time devoted to children (including supervisory time) can be estimated from the [American Time Use Survey](#), but are typically omitted from tallies of the childcare “workforce.”

### III. Care Provision for Adults

Care provision for adults includes a wide range of paid and unpaid care services to support adults who require care due to illness, disability, or frailties of old age. Unpaid caregivers, often family members and relatives, provide the lion’s share of care to adults. Among older adults with long-term care needs not living in nursing homes, more than 50 percent receive only support from unpaid caregivers ([Van Houtven et al. 2020](#)). Paid care services, however, play an important role too. Workers in nursing homes, adult day care services, and in home health care provide essential care and support.

The existing literature distinguishes three types of adult care services: post-acute care, long-term care, and hospice care ([Goldberg, 2015](#)). The differences between these types of care are particularly relevant to understand the array of paid care adult services. Post-acute care refers to temporary support to recover from acute episodes, such as accidents or serious medical procedures. Post-acute care can take place at home or in skilled nursing facilities, and it is typically covered by Medicare Part A as well as private healthcare plans when the post-acute care episode is preceded by a 3-day hospital stay. Long-term care provides support with chronic health conditions, and it aims to improve quality of life rather than focus on recovery. People with disabilities, regardless of age, can have long-term care needs, and require assistance with activities of daily living such as

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<sup>28</sup> On the characteristics of unpaid non-parental providers, see [NSECEPT \(2016\)](#). About one-third of unpaid providers are age 60 or older and about 28 percent are age 50-59. Median household income of unpaid providers in 2011 was about \$39,400. Nearly half (47.5 percent) of unpaid providers had other paid employment. Nearly one fifth (19.1 percent) of unpaid providers had no health insurance. Notably paid but “unlisted” providers had lower household incomes and were less likely to be insured than unpaid providers but were less likely to have other paid employment. (A provider is categorized as “unlisted” if they do not appear on state or national administrative lists of providers but were found in households directly when someone reported regularly caring for children not their own at least five hours per week in a home-based setting). Moreover, most providers categorized as paid, unlisted providers reported that “very little” or “none” of their household income was from providing care.

eating or bathing (often called ADLs), or with instrumental activities of daily living, such as shopping and paying the bills (often referred to as IADLs). Individuals receive long-term care at home, in adult day services centers, assisted living facilities, and nursing homes. Long-term care is not typically covered by private health insurance plans or Medicare, but it is covered by Medicaid for those who meet the health and financial eligibility criteria. Lastly, hospice care focuses on pain management for people facing late-stage terminal and advanced life-limiting illnesses. Hospice care can also take place at home or in specialized facilities, and, when preceded by a 3-day hospital stay, it is temporarily covered by Medicare and private health insurance plans ([Goldberg, 2015](#)).

This working paper focuses on long-term care provision because it presents unique challenges due to weak insurance coverage and expanding demand with population aging. As with child care, the complex nature of long-term care provision makes it difficult to effectively monitor unmet need or assess the overall distribution of costs ([Johnson 2019](#)). In general, the U.S. healthcare system provides greater insurance coverage for acute and temporary care via private insurance and Medicare, while coverage for long-term care is partial and incomplete. There is a very small insurance market for long-term care and the Medicaid long-term care insurance only covers individuals who meet a stringent means test ([American Council on Aging 2023](#)). The needs of a growing elderly population vulnerable to dementia-related limitations have highlighted this shortfall, which poses a particular threat to women who are less likely to need extra-familial care than men.

Table 6, below, presents an overview of common paid care services utilized by long-term care recipients. In 2015-2016, home health agencies served the largest number of long-term care users (nearly 4.5 million), followed by hospice, nursing homes, residential care communities, and adult day services centers. Unsurprisingly, the prevalence of required assistance with activities of daily living is higher among long-term care users in home health agencies and nursing homes, compared to residential care communities and adult day services centers.

As we will discuss below, the volume of long-term care users is not a good measure of the actual need for long-term care support in the population. Adults who need long-term care may receive support solely from unpaid caregivers and/or might have unmet care needs. Improved survey measures are necessary to understand the level of need for long-term care, adequacy of services, and conditions of work for both paid and unpaid caregivers.

**Table 6: Characteristics of Long-Term Care Recipients by Care Setting, 2015-2016**

	<b>Adult Day Services Center</b>	<b>Home Health Agency</b>	<b>Hospice</b>	<b>Nursing Home</b>	<b>Residential Care Community</b>
Total LTC Users	286,300	4,455,700	1,426,000	1,347,600	811,500
Under age 65	37.4%	18.1%	5.5%	16.5%	6.6%
65 and over	62.5%	81.9%	94.6%	83.5%	93.4%
65–74	20.3%	26.8%	17.5%	18.2%	11%
75–84	25.9%	29.9%	29.3%	26.7%	30.3%
85 and over	16.3%	25.2%	47.8%	38.6%	52.1%
Men	41.8%	39.1%	41.3%	35.4%	29.4%
Women	58.2%	60.9%	58.7%	64.6%	70.6%
<b>Needs Assistance:</b>					
Eating	23.2%	61.2%	-	59.9%	19.2%
Bathing	38.6%	97.2%	-	96.7%	63.6%
Dressing	36%	92%	-	92.7%	48.2%
Toileting	33.5%	81.1%	-	89.3%	40%
Walking or Locomotion	45.8%	95.4%	-	92%	56.5%
Transferring to/from a Chair or Bed	28.5%	91.3%	-	86.8%	29.2%

*Note: Many people fall outside male/female sex and gender binaries. However, data limitations prevent us from explicitly measuring gender diverse populations.*

Table: Victoria Coan, CEPR • Source: (Harris-Kojetin et al. 2019: Table VIII)

### 3.1 Family spending on adults with disabilities and the elderly

Many U.S. families experience financial stress associated with meeting long-term care needs. These stresses are typically related to out-of-pocket expenditures to obtain paid care services as well as loss of employment income to provide unpaid care. However, available surveys are based on broad and unreliable definitions of such expenditures, and it is often difficult to ascertain who pays the costs ([NAS 2016](#):126).

The [National Study of Caregiving](#) asks caregivers: 1) if they used their own money to pay for various categories of expenses of the persons they care for, and, for each category, whether it was more or less than \$1,000; and less than \$500 or more than \$2,000;<sup>29</sup> 2) whether they provided financial help or gifts to the person they cared for, and how much (using the same ranges); and 3) whether the caregiver has received financial help or gifts from the person they cared for (using a similar range).

American Association of Retired Persons (AARP) Research has conducted nationally representative surveys in [2016](#) and [2021](#) on the costs of providing long-term unpaid care to an adult family member or friend. The survey covers five categories of costs: medical expenses, housing expenses, personal care expenses, recreation/education/travel expenses, and personal expenses related to caregiving (including hiring respite help). In their most recent survey ([AARP Research 2021](#)), 78 percent of family caregivers reported incurring routine out-of-pocket costs in the prior year. On average, these caregivers spent \$7,242 with housing expenses accounting for just over half (52 percent) of spending, followed by medical expenses (17 percent). As hours of care provided per week increase, so does out-of-pocket spending on care. Just over one-third of caregivers (35 percent) reported cutting back on personal spending, and 29 percent reported using personal savings.

### 3.2 Unpaid care for adults with disabilities and the elderly

Unpaid care is the primary source of long-term care. Among people aged 65 and older with at least two limitations with activities of daily living and not living in care facilities or nursing homes, about three-quarters received unpaid care and 37 percent received paid care in 2016. About one in three received both unpaid and paid care, while about 51 percent received only unpaid care and 9.2 percent received only paid care ([Van Houtven et al. 2020](#)). Unpaid care is also an important source of care for residents of nursing homes and residential care facilities. ([Coe and Werner 2022](#)).

Several surveys provide data that can be used for quantitative analysis of long-term unpaid care provided to older adults with limitations. The [National Study of Caregiving](#)

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<sup>29</sup> The categories are medication or medical care; Medicare premiums or copayments; mobility devices; home safety; assistance devices; and paid in-home help.



(NSOC) is an annual (as of 2021) survey of family and other unpaid caregivers providing assistance to older adults with limitations conducted in conjunction with the [National Health and Aging Trends Study](#).<sup>30</sup> Before 2021, the NSOC was fielded in 2011, 2015, and 2017; NSOC is now an annual survey. The [American Time Use Survey](#) added elder care questions in 2011 but remains limited in that it only collects data on one person per household ([Denton 2012](#)). The [Health and Retirement Survey](#), a longitudinal survey conducted by the University of Michigan, looks at this issue from the perspective of adult, primarily elderly, care recipients (see Appendix A for more details). The National Alliance for Caregiving, in conjunction with the American Association for Retired Persons, has conducted regular, though small-scale surveys of care providers for adults (and children with disabilities) in the U.S. that are particularly attentive to the subjective experience of caregiving ([NAC/AARP 2020](#)).

Results from these and other surveys show that unpaid care has significant economic and health consequences for caregivers. However, the “combination of ambiguity in defining what constitutes caregiving and the diverse methods of identifying a caregiver have contributed to wide variations in the estimates of numbers of caregivers in the U.S.” ([Giovannetti and Wolff 2010](#):311).

A powerful illustration of this problem is seen in “Valuing the Invaluable 2019 Update,” an estimate by AARP’s Public Policy Institute of the replacement cost value of long-term unpaid caregiving in the U.S. ([Reinhard et al. 2019](#):Table A2) that averages estimates of caregiving hours in 2017 from four different surveys ranging from 5.2 hours per week to 19.9 hours per week. It is difficult to put much confidence in an average of such disparate results. Surveys based on stylized activity lists are not easily comparable with time-diary surveys such as the [American Time Use Survey](#), and the ATUS itself does not devote sufficient attention to supervisory or on-call time in adult care ([Suh 2016](#)).

While many surveys focus on the elderly population, a substantial share of unpaid long-term care is devoted to non-elderly people experiencing long-term disabilities. Additionally, unpaid caregivers helping with short-term assistance with medical problems ranging from terminal cancer to HIV infection and COVID-related illnesses can significantly improve health incomes. Among the elderly, care for those living with Alzheimer’s disease or other cognitive deficiencies is especially stressful and time-consuming ([NAC/AARP 2020](#)).

Conventional economic models of utility maximization presume that unpaid care is a choice that reflects individual preferences, which must necessarily be remunerated by resulting psychic income. However, in 2020, most unpaid caregivers of children and adults with disabilities painted a far more complex picture. Social norms of obligation clearly

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<sup>30</sup> The National Health and Aging Trends Study is a nationally representative sample of Medicare beneficiaries ages 65 and older that focuses on the “disablement process and its consequences.” It can be linked to Medicare records.

come into play: over 60 percent of those caring for a spouse, partner, parent or parent-in-law reported that they felt they had no choice, and reports of feeling constrained increased the longer the time period over which care was provided ([NAC/AARP 2020:20](#)).

Commitments to care are costly and stressful. People need ways of insuring themselves against the risk of their own illness or disability, but also against the risk of finding themselves unexpectedly responsible for the long-term care of a family member or friend ([Hoffman 2016](#)). Neither private nor public insurance in the U.S. meets these needs, though other countries have developed promising models ([Folbre and Wolf 2012](#)). Many policymakers once expressed concern that the expansion of home and community-based services would “crowd out” unpaid family care and result in dramatic increases in costs to taxpayers. However, recent empirical research suggests that expanding these services has actually increased demand for unpaid care, which is an important complement to daily or weekly visits by professional care providers: the two systems “work in tandem” ([Basu et al. 2022](#)). People with disabilities who can avoid institutionalization, like those who “age in place,” typically enjoy considerable assistance from family, friends, and neighbors.

We concur with the RAISE Family Caregiving Advisory Council’s recommendation that Congress establish a national data infrastructure that uses standardized data, questions, and definitions about caregivers and their experiences. While this recommendation (5.1 in its 2021 report to Congress) explicitly refers to family caregiving, standardized data is needed for all types of caregiving ([RAISE 2021:110](#)).

### **3.3 Living standards of adults with disabilities and the elderly**

Among non-elderly adults, adults with disabilities are twice as likely as adults without disabilities to have income below the poverty line ([Brown et al 2022](#)). Among elderly adults, the disability poverty gap narrows somewhat, particularly for men. Moreover, elderly adults with disabilities are somewhat less likely to be poor than non-elderly with disabilities. This is due in part to social insurance and social assistance, including Social Security, Supplemental Security Income (SSI), Medicare, and Medicaid, which are more available to elderly than non-elderly adults with disabilities. However, there are notable gender disparities. The Supplemental Poverty Rate for elderly women with disabilities is much higher than for elderly men with disabilities (20.1 percent compared to 14.1 percent). Although elderly women with disabilities have a somewhat lower poverty rate than non-elderly women without disabilities, the decline is half that for men (see Table 7).

**Table 7: Supplemental Poverty Rates for Adults by Disability Status, Age and Sex, 2017-2019**

	All	Men	Women
<b>18-64 Years Old</b>			
Not Disabled	11.3%	10.6%	12.1%
Disabled	23.1%	21.8%	24.4%
<b>65 Years and Older</b>			
Not Disabled	11.9%	10.9%	12.7%
Disabled	17.4%	14.1%	20.1%

*Note: Many people fall outside male/female sex and gender binaries. However, data limitations prevent us from explicitly measuring gender diverse populations.*

Table: Victoria Coan, CEPR • Source: (Brown et al. 2022)

Children have lower poverty rates (about 14 percent in 2017-2019) than adults with disabilities and only modestly higher poverty rates than elderly adults without disabilities. However, as noted in Section 2.3, there is good reason to believe that the Census Bureau’s poverty measures use equivalence measures that do not adequately account for children’s care and developmental needs. As also was noted, the Supplemental Poverty Measure subtracts out-of-pocket expenditures on health care and child care but doesn’t include medical care or child care in the poverty threshold (as it does with housing, food, and certain other necessary items). As a result, the SPM undercounts child poverty relative to elderly poverty (especially poverty among the elderly without disabilities). The Health-Inclusive Poverty Measure (HIPM), which treats health care as a basic need and makes certain other changes to the Supplemental Poverty Rate, results in a higher SPM poverty rate for children (18.2 percent in 2015) and a lower rate for elderly adults as a whole (10.9 percent) ([Korenman, Remler, and Hyson 2019](#)). Households with an adult with disabilities need an average of 28 percent more income—an extra \$17,690 per year for a typical U.S. household—in order to achieve the same standard of living as a comparable household without a disabled member ([Morris et al 2022](#); [Mitra et al 2017](#)).

### 3.4 Individual living standards and gender inequality

Responsibilities for caring for a family member often lead to a reduction in hours of paid employment or early retirement, lowering lifetime earnings, and increasing vulnerability to poverty ([Van Houtven et al. 2013](#); [Bauer and Sousa-Posa 2015](#)). Cause and effect are unclear: family members with lower labor force attachment may be more likely to take on caregiving responsibilities. Van Houtven et al. ([2013](#)) use the [Health and Retirement Study](#) to estimate the economic costs of providing unpaid care for older adults. They find that female caregivers experience a substantial reduction of work hours (between 3-10 hours per week) and face a 3 percent wage penalty compared to non-caregivers. Maestas, Messel and Truskinovsky ([2022](#)) find that the impacts of caregiving vary with the gender and age at which caregiving starts, but that both women and men experience reductions in both employment and earnings.

Women are more likely to provide unpaid long-term care for spouses and parents. Grigoryeva ([2017](#)) finds that daughters provide more unpaid long-term care to parents than sons and reports little change in the higher likelihood of daughters to provide unpaid long-term care between 1995 and 2010. The NAC/AARP [Caregiving in the U.S.](#) reports similarly finds that women are more likely to become unpaid long-term care providers than men; but these studies do suggest small increases in men's involvement in unpaid long-term care in recent decades.

### 3.5 Privately and publicly provided paid long-term care services

Long-term care services are essential to support individuals with disabilities or limitations with Activities of Daily Living, as well as their families. Individuals with long-term care needs regularly rely on care services provided either at home or at specialized centers. Population aging is increasing the demand for long-term paid care services. The size of the 65-and-older population has increased by 13.8 million since 2010, and 6.2 million individuals in this age range live with Alzheimer's dementia ([Alzheimer Association 2021](#); [U.S. Census Bureau 2020](#)). Children and adults with disabilities or other impairments constitute an additional key group with long-term care needs. Among those enrolled in Medicaid long-term care benefits (the largest form of government-supported access to long-term care services), about half are children and adults under 64 ([Houser et al. 2015](#)).

The configuration of long-term care paid services is complex, including services provided in a variety of settings (home, assisted-living communities, nursing homes), involving for-profit as well as nonprofit providers, and financed through out-of-pocket spending as well as public and private insurance plans. According to [Harris-Kojetin et al \(2016\)](#), in 2014 there were 67,000 regulated long-term care services providers serving about 9 million people. Assisted living and similar residential care facilities constituted

nearly half of these long-term care service providers (45 percent), followed by nursing homes, home health agencies, adult day service centers, and hospices. This report shows that the long-term care sector employs 1.5 million nursing workers, including registered nurses, licensed practical nurses, licensed vocational nurses, and nurse aids.

Medicaid is the largest long-term care insurance program in the U.S. Medicaid is a federal policy administered by the states that subsidizes the cost of long-term care for those who qualify based on having low household income and assets or qualifying for federal disability benefits. Conventionally, Medicaid funding for long-term care was primarily directed to nursing homes and other residential long-term care providers. Over the past decades, however, Medicaid has shifted dramatically towards funding home- and community-based services. Over half of all Medicaid long-term care funding now goes to home- and community-based services ([Murray et al. 2021](#); [Watts et al. 2022](#)).

Because Medicaid is administered at the state level, there is substantial variation in who is eligible for long-term care Medicaid insurance, the kinds of services eligible individuals can access (i.e., nursing vs home care), and the reimbursement rates set for different long-term care services ([Ng et al. 2015](#); [Skira et al. 2022](#); [Wenzlow et al. 2013](#)). Importantly, the expansion of Medicaid HCBS has also expanded opportunities for family members to become paid caregivers for their relatives. Family members are eligible to provide long-term care and receive compensation for these services across a number of states, although access to this option is not always easy nor well-funded ([Feinberg and Newman 2006](#); [Friedman and Rizzolo 2016](#)).

In the U.S., the long-term care industry is amongst the fastest-growing sectors of the economy but also creates some of the lowest-paid lowest-quality jobs. In 2020, home and personal care aides ranked 22 in the list of the top 30 fastest-growing occupations in the country. In that same year, home care workers' average hourly wage was \$13/hour, and their average annual income was \$28,060, placing these workers in the bottom 5 percent of the wage distribution ([BLS 2020](#)).

The endemic low pay and low job quality in the long-term care industry are costly for workers and their patients. Precarious working conditions and high turnover undermine the quality of care workers can provide and hurt patient outcomes, potentially contributing to health disparities among patients ([Ruffini 2021](#); [Stevens et al. 2015](#); [Dean et al. 2022](#)). On the worker side, the characteristics of long-term care jobs tend to increase caregivers' vulnerability to poverty and contribute to gender and racial disparities. The overwhelming majority of long-term care paid workers are women who often live with children and are the primary breadwinners in their households ([PHI 2016](#); [Dill and Duffy 2022](#)).

Improving the wages and job conditions in long-term care services is increasingly recognized as an important priority—but it faces important obstacles. Reimbursement rates set by Medicaid provide an “anchor” that likely impacts the entire sector, constraining the wages workers are paid. Private long-term care insurance may provide higher

reimbursement rates, but these rates are still limited by the patients' ability to pay and buy the limited demand for long-term care private insurance. It has become increasingly clear that improving the wages and jobs in long-term care requires increased public investment and that this improvement would result in benefits for care recipients and their families ([Allan and Vadean 2023](#); [Powers and Powers 2010](#); [Lerman et al. 2014](#)).

The COVID-19 pandemic has helped raise awareness about this issue, and pandemic-recovery funds have been directed to improve the wages and working conditions of the long-term paid workforce ([Mantz 2023](#); [Feder, 2020](#); [Denise et al. 2022](#)). However, pandemic recovery funds were temporary, and cannot replace permanent, long-term federal investment. In January 2023, U.S. Senator Bob Casey (D-PA) and Congresswoman Debbie Dingell (D-MI) re-introduced the "Better Care Better Jobs" Act which would guarantee long-term funding to expand Medicaid home and community-based services ([Office of U.S. Senator Bob Casey 2023](#)).<sup>31</sup> Like many issues described throughout this paper, researchers and advocates alike have demonstrated the need for investment in the long-term care workforce. What is needed is the political power to pass legislation mandating that investment and better data infrastructure to help ensure its effectiveness.

Research about the long-term care workforce has often relied on general population surveys, such as the [Current Population Survey](#) or the [American Community Survey](#) (i.e., [Dill and Duffy 2022](#)). These surveys provide information to generate estimates about the size of the workforce and describe the general characteristics of this workforce in terms of composition and economic standing. But these surveys also have considerable limitations when it comes to measuring the long-term care workforce.

Sample sizes, especially in the CPS, are relatively small and limit the ability to understand patterns of heterogeneity (i.e., between jobs in specialized care settings vs. home-based settings). The information available about job characteristics and well-being is limited. On job characteristics, studies and respondents in our survey note the insufficient information about work hours and schedule predictability. Schedule unpredictability has become a key feature of the low-wage labor market ([Schneider and Harknett 2021](#)), and it disproportionately impacts the long-term care sector ([Clawson and Gerstel 2014](#)). Similarly, the lack of health measures on existing surveys limits the ability to understand the health impacts associated with long-term care jobs and how these relate to workplace conditions, including unionization ([Dean et al. 2022](#); [Matta et al. 2020](#)). Additionally, there are concerns about the extent to which both official and specialized surveys are able to capture the presumably sizable group of long-term care workers who remain in the informal economy ([Abraham et al. 2023](#)). Independent providers, who are an important segment of the workforce, may be less well represented than agency-based workers. ([PHI 2022](#)).

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<sup>31</sup> "S.R. 2210 – 117th Congress (2021-2022): Better Care Better Jobs Act." June 24, 2021. <https://www.congress.gov/bill/117th-congress/senate-bill/2210>

The U.S. Department of Health and Human Services collected valuable and detailed survey data about the long-term care workforce in the mid-2000's, but this effort has since been discontinued. This data effort was motivated by the growing demand for long-term care services, persistent challenges of recruitment and retention, and the lack of nationally representative data about this key segment of the workforce ([Bercovitz et al. 2011](#); and [Park-Lee and Decker 2010](#)). This effort included two surveys: the [National Nursing Assistants Survey](#) and the [National Home Health Aide Survey](#). Both surveys provided valuable information about working conditions in the long-term care sector but have not been administered in more than fifteen years.

The U.S Department of Health and Human Services continues to collect nationally representative information on providers of long-term care services, but no longer collects comprehensive information about the workforce employed by the long-term care service providers. In 2012, the National Center for Health Statistics initiated the National Post-acute and Long-term Care Study (formerly called the National Survey of Long-Term Care Providers) that collapsed [National Nursing Assistants Survey](#) and the [National Home Health Aide Survey](#) into a single survey that covers adult day services centers, residential care communities, nursing homes, home health agencies, and hospice agencies using administrative data for home health and hospice agencies from the Centers for Medicare and Medicaid (CMS). However, NPALS is limited because it does not include information on wages, job benefits, job turnover, nor other measures of job quality (more details on measures included in the NPALS are available in Appendix A Table A2.).

Overall, the lack of representative and detailed information about the long-term care paid workforce makes it incredibly difficult to understand the challenges facing this key sector of the economy and how to improve job and care quality. In fact, advocates mention data gaps and shortfalls as hampering their work to increase public investment in the long-term care workforce.

## **IV. The Care Sector**

Specific groups clearly have specific care needs, and the burden of care provision is distributed unequally along many individuals and groups. Yet in many respects, care provision is a public good, generating diffuse, long-term benefits for society. The need for care at both ends of the life cycle and the risks of periodic dependency in between are built into the human life cycle. The common characteristics of care provision make it logical to consider the “care sector”, encompassing transfers of money and time outside the market economy, market-based services, and publicly provided or subsidized services. The distinctive labor process and unique output of paid care services have implications for both prices and wages, and the significant contribution of intra-family transfers and unpaid work mandates the development of new accounting systems. Furthermore, because a well-

cared for society is a public good, robust public investment and planning via local, state, and federal policy is needed to ensure adequate provision across all parts of the care sector.

The concept of a care sector invites new ways of thinking about industrial organization, public finance, and public policy. Appreciation of positive externalities does not necessarily inspire successful efforts to invest in care provision. Complex interactions among families, communities, for-profit firms, nonprofit establishments, and public provision are mediated by many different forms of collective identity and conflict.

#### **4.1 The relative price of care services**

Paid care services differ from many other services in significant ways, with implications for relative price trends and industrial organization. Paid provision of health, education, and social services tends to be somewhat labor-intensive and person-specific, involving personal interactions between provider and recipient that are often sustained over time. This specificity contributes to information problems, including difficulty ascertaining quality before purchase. Institutional factors such as third-party payment complicate transactions, and positive externalities imply that social benefits often exceed private gains.

Not surprisingly, both public and nonprofit enterprises play a prominent role in care provision. Regardless of institutional form, however, the output of care provision is seldom measured directly: The value of improved health cannot be assigned a clear market value, much less be attributed to specific inputs of time and money. Likewise, the value of educational services that may pay off in higher earnings over an entire lifetime, or social services helping reduce the risk of hunger or homelessness cannot easily be parsed. Because services are often person-specific, requiring effective cooperation from the care recipient (and, often, their family and friends), it is difficult to measure their quality and their productivity often remains opaque.

Most economic analysis of care services has focused on their resistance to labor-saving technical change. In the early 1990's, William Baumol deplored the "cost disease" of services, warning that the share of Gross National Product devoted to health, education, and social services was destined to escalate ([Baumol 1993](#)). In later years, he softened his diagnosis somewhat, arguing that productivity gains elsewhere in the economy could facilitate increased consumption of services with a high-income elasticity of demand (Baumol 2012). Victor Fuchs and others elaborated on these concerns, suggesting that child care, education, medical care, and long-term care represented a distinctive subcategory of the larger service sector (Fuchs 2008).

William Nordhaus summarized data supporting Baumol's argument that lagging labor productivity in many service industries was associated with increasing relative prices ([Nordhaus 2008](#)). However, the categorization of service industries has remained



somewhat vague. It includes very disparate components, ranging from typically poorly paid retail services to relatively lucrative business services, to the care services associated with health, education, and social welfare. Baumol himself often emphasized the challenge of increasing the productivity of in-person performance arts. Patterns of technological change and industrial organization obviously vary considerably across these product categories.

One early effort to disaggregate service employment broke it down into four subsectors: 1) Distributive Services (transportation, communication, wholesale and retail trade, except eating and drinking, 2) Producer Services (financial, insurance, engineering, law, and business services) 3) Social Services (health, education, welfare, and government) and 4) Personal Services (domestic, lodging, repair, and entertainment) ([Browning and Singelmann 1978](#); [Singelmann and Browning 1980](#)). However, U.S. statistical agencies largely rely on more disaggregated categories. The Standard Industrial Classification (SIC) system, developed in the 1930s when manufacturing was ascendant, utilized 12 basic categories, where the category of services includes primarily personal services, health, and education and other differently named categories (still generally considered services) including wholesale trade, retail trade, public administration, finance/insurance, and real estate/ and transportation/communications/electric, gas and sanitary services). Dissatisfaction with these categories led to developing an alternative system in 1997, the North American Industry Classification System (NAICS), which includes five mainly goods-producing and fifteen mainly service-providing industries.

Categorization matters, because it provides the context for analysis of comparative trends in prices, productivity, and industrial organization. The Browning and Singelmann categorization is more consistent with attention to “Care Industries” than the disaggregated SIC or NAIC codes, although its “Social Services” rubric also includes all government-funded activities, including, presumably, military spending. Victor Fuchs (2008) does not explicitly use the term “care industries,” but the thrust of his analysis is consistent with this term. Categorical ambiguities reflect a lack of a theoretical focus—relatively little attention has been devoted to the empirical analysis of prices or productivity in care industries as a whole, though price trends in separate industries have been tallied.

Official collection and analysis of price data in the U.S. takes two basic forms. The Bureau of Labor Statistics utilizes data from the [Consumer Expenditure Survey](#) and other sources to analyze out-of-pocket expenditures by households to construct Consumer Price Indices. The Bureau of Economic Analysis collects data on [personal expenditures](#) including expenditures made by institutions (such as corporations and the government) on services destined for household consumption. Both series suggest that care industries follow a distinctive pattern.

The construction of price indices is both conceptually and empirically demanding since price changes affect the composition of the average basket of goods and services purchased. In general, the construction of such a basket is based on the average consumer,

considered a kind of representative agent. In other words, the composition of the basket of purchased goods and services does not vary according to consumer characteristics. As Darren Rippy puts it in his history of the Consumer Price Index, “in reality, each consumer unit (be it a household or an individual) purchases a unique mix of goods and services, and uniquely responds to changes in the relative prices of the goods and services in this basket” ([Rippy 2014](#)). The effects of inflation vary significantly by household income level, and the U.S. Bureau of Labor Statistics has repeatedly considered this issue ([Garner et al. 1996](#); [Klick and Stockburger 2021](#)). Recent research suggests that lower-income households in the U.S. tend to purchase goods subject to higher price increases ([Jaravel 2021](#); [Klick and Stockburger 2021](#)).

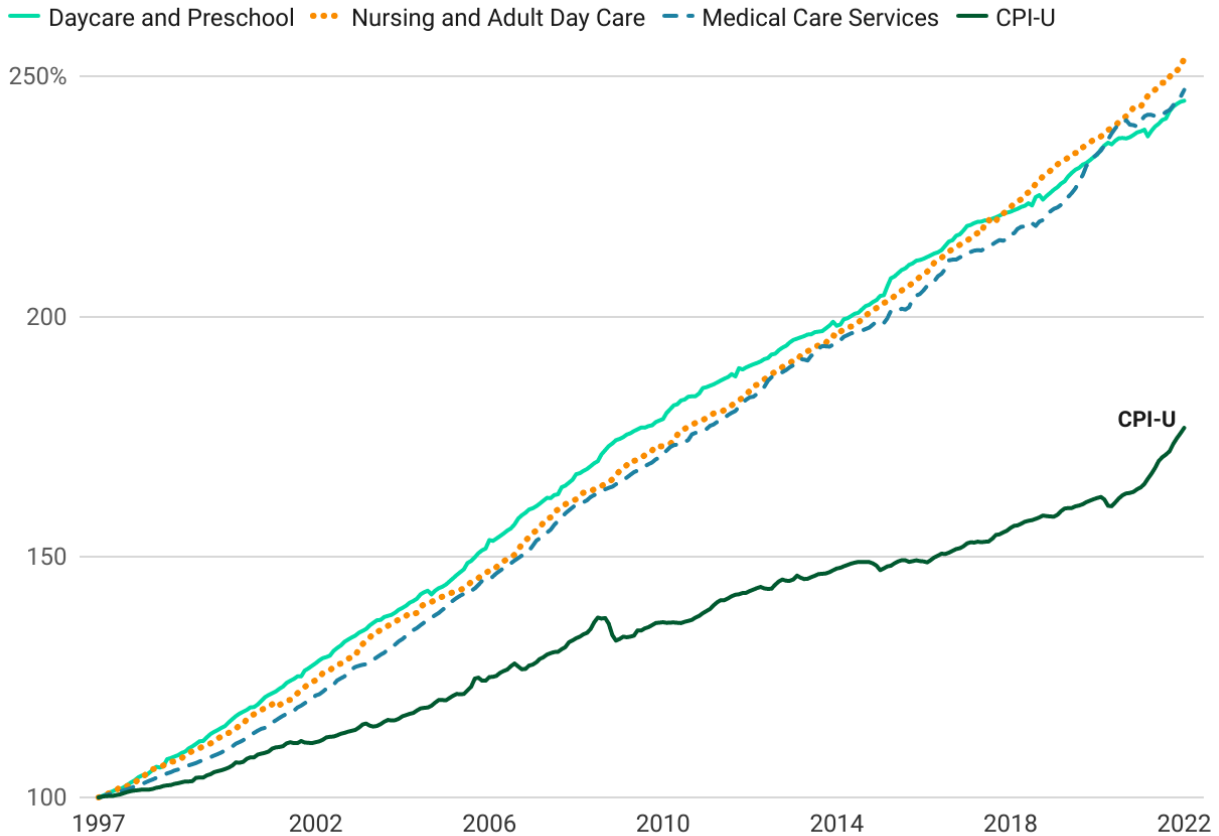
This pattern may be partially driven by differences in the composition of households in the lowest and highest quartiles, especially the presence of young children, college students, adults with disabilities, or elderly persons, which is likely to affect the consumption basket. These differences are significant since the federal government uses the Consumer Price Index to adjust Social Security payments and the official U.S. poverty line for inflation. The Bureau of Labor Statistics has developed an experimental version of the Consumer Price Index for Urban Consumers (CPI-U) for households with members over age 62, labeled the CPI-E, which shows that these households generally experience a higher rate of inflation than indicated by the overall CPI-U.

However, the CPI-E is a simple re-weighting of data collected for the entire population; a more accurate measure would be based on a larger sample of older households ([Munnell and Hubbard 2021](#)). Concerns about the applicability of the CPI-U to measurement of poverty trends have expressed concerns about accuracy as utilization of paid childcare services has increased over time ([Sherman and Van de Water 2019](#)). Evidence suggests that childcare costs significantly increase the inequality of family market income, in part because they discourage maternal employment—a factor not captured by price indices ([Gonalons-Pons and Marinescu 2022](#)).

The Bureau of Labor Statistics publishes data on the prices of medical services since 1956, childcare and nursery school services since 1991, and nursing home and adult care services since 1997. Figure 1 juxtaposes trends in the price of these categories juxtaposed with the CPI-U for all items. Two interesting features are apparent: first, the price index for all these care services has increased far more rapidly than the average for all items. Second, the trends in medical services, childcare and nursery school services, and nursing home and adult care services closely overlap. Trends in the relative price of care services in general deserve more attention than they have yet received.

## Figure 1: Consumer Price Indices of Major Care Services 1977 - 2022

The cost of Daycare and Preschool, Nursing Homes and Adult Day Care, and Medical Care Services have rapidly outpaced increases in CPI-U over the past 2 decades.



All data seasonally adjusted and reported in January 1997 dollars

Chart: Victoria Coan, CEPR • Source: Bureau of Labor Statistics, Data Series ID: CUSR0000SEEB03 (Daycare and Preschool), CUSR0000SEMD02 (Nursing home/Adult Care), CUSR0000SAM2 (Medical Care Services), CUSR0000SA0 (All Consumer Items)

### 4.2 Quality assurance

A relative lack of consumer sovereignty is another distinctive feature of paid care services. Young children and people experiencing serious health limitations or disabilities often lack both information regarding service quality and the ability to act on that information. Furthermore, many rely on public or private insurance that involves third-party payment or on public services that do not offer a wide range of choices. These institutional features make for-profit provision somewhat risky and dictate the need for public regulation.

The upside of private provision can be greater flexibility and a range of choices for parents. The downside, however, is increased inequality in access and quality. Incentives to maximize profit do not always align with incentives to provide high-quality services—for-profit providers may be “nimble critters,” but also “agile predators” ([Deming et al. 2012](#)). Even a report published by the American Enterprise Institute conceded that for-profit care might yield less favorable outcomes than either nonprofit or publicly financed care ([Grindal 2012:3](#)). One *Fortune* article explicitly asks, “Is it risky to mix profits and toddlers?” ([Aspan 2021](#)).

Two out of three of the largest center-based childcare companies, KinderCare and the Learning Group, are private equity firms. Bright Horizons is publicly traded; their large size made it easier for them to survive the health challenges and financial stresses of the COVID-19 pandemic ([Aspan 2021](#)). Little if any recent research has explored measures of relative quality or working conditions across the multiplicity of institutional arrangements for out-of-home child care. However, public daycare providers tend to score higher than for-profit centers on quality measures ([Brogaard and Petersen 2021](#)). Regulatory design and enforcement vary considerably across states and probably have discernible impacts on these comparisons.

Research has also explored the impact of institutional structure on the quality of care for persons with disabilities, including the frail elderly. The growing role of private equity and the associated financialization of the industry has sparked considerable criticism ([Walker et al. 2022](#); [Harrington et al. 2017](#)). National policies and regulatory regimes clearly play a significant role ([Brennan et al. 2012](#)). While quality is difficult to operationalize (especially when reporting standards are lax), a meta-analysis of international research comparing patient outcomes found that not-for-profit nursing homes generally delivered better outcomes, partly due to higher staffing ratios ([Comondore et al. 2009](#)). Similar results have been found in the U.S. ([Amirkhanyan et al. 2008](#); [Harrington et al. 2012](#)). Institutional ecology matters: the very presence of a large number of nonprofits within provider networks may well increase pressures on for-profits to meet quality standards ([Grabowski and Hirth 2003](#)).

Concerns about the quality of nursing home care were intensified by the experience of high mortality rates among the institutionalized elderly during COVID-19 pandemic years 2020-2021. Black and Hispanic residents were disproportionately affected ([Li et al. 2020](#)), a factor that contributed to higher overall mortality rates within these racial/ethnic categories ([Gold et al. 2020](#)). Many factors influenced cross-sectional differences in infection rates, including racial/ethnic composition, facility size and location ([Abrams et al. 2020](#)). Notably, differences in national quality measures (the “star rating” system) had little impact. Research on nursing homes in Ontario, Canada demonstrates institutional effects: for-profit status was associated with both the extent of an outbreak and the number of resident deaths ([Stall et al. 2020](#); [Pue et al. 2021](#)). National comparisons are limited by current tracking and reporting capacity, as well as the lack of a national system for

reporting nursing home COVID-19 cases. Widespread variation in reporting format, case definitions, and update frequency may present a barrier to further longitudinal and national analyses ([Abrams et al. 2020](#):654).

Parallel research indicates that nonprofit home health care agencies (providing home health care funded through Medicare rather than long-term care more likely to be provided by Medicaid in the U.S.) seem to generate significantly better outcomes than their for-profit counterparts ([Cabin et al. 2014](#)). Comparisons of for-profit and nonprofit hospitals are complicated by differences in their service mix and client populations. Recent research with a narrower focus on specific services such as hemodialysis and intracranial hemorrhage outcome report superior outcomes in nonprofit environments ([Dickman et al. 2021](#); [Chiu et al. 2019](#)).

Regulation of care quality suffers from the same problems that limit consumer sovereignty. The star-rating system for U.S. nursing homes was initially heralded as an innovation enabling consumers to make better-informed choices and create incentives to improve care quality. However, it proved relatively easy to game a rating system based on largely self-reported measures ([Han et al. 2018](#)). Supply constraints also proved difficult to overcome: the Medicaid funding levels that many nursing homes rely on are extremely low; high-quality facilities tend to be located close to affluent population centers, and family members may opt for facilities that are nearby even if their overall quality is lower because they hope to visit and supervise or enhance care themselves. If there has been some slight improvement in average care quality, it has been accompanied by increased inequality in access to that quality ([Konetzka et al. 2015](#)). Average quality ratings remain quite low, and some critics point to violations of basic human rights ([Harrington et al. 2020](#)).

### **4.3 Earnings penalties in paid care jobs**

Jobs that involve care provision typically pay less than other jobs, even controlling for gender and for differences in individual human capital ([England, Budig and Folbre 2002](#); [Hirsch and Manzella 2015](#); [Barron and West 2013](#); [Pietrykowski 2017](#); [Budig et al. 2019](#); [Folbre et al. 2023](#)). These findings suggest that the characteristics of jobs themselves affect compensation, echoing early studies of comparable worth and findings on earnings differences across industries (England 1992; [Avent-Holt and Tomaskovic-Devy 2014](#)).

Care jobs have typically been defined in terms of occupations or occupation/industry overlaps, with an emphasis on distinctive aspects of the labor process. Recent analysis of industry-specific effects emphasizes the public good aspects of care services, which are often provided by federal, state, or local governments ([Folbre et al. 2023](#)).

It is difficult to directly capture the benefits of long-run improvements in human capabilities—care providers are not typically paid based on their individual value added,

which is, in any case, difficult to measure. Care provision often entails collaboration among disparate groups, including care recipients themselves, who must exert some effort themselves to take full advantage of medical care, education, and family care.

As noted earlier, patterns of low pay in child care and long-term care have been intensified by historical dynamics of gender and racial/ethnic inequality. Care penalties are also evident in higher-paid occupations such as teaching; more research is needed on how differences in work schedules, night shifts, and mandatory overtime may affect relative compensation, especially in nursing. Contrasts within occupations are also notable: environmental engineers (many of whom are contracted by public agencies) earn significantly less than civil or electrical engineers with similar levels of education and experience ([Oerther et al. 2022](#)). Plastic surgeons, many of whom have private-pay clients, typically earn about twice as much as physician specialists in infectious disease ([Medscape 2022](#)).

Even for-profit firms find it difficult to directly capture rents from care provision, a factor affecting their employees' bargaining power. Controlling for gender and for public employment, professionals and managers working in care service industries such as health, education, and social services earn significantly less than their counterparts in business services, a cross-sectional finding reinforced by a fixed-effects analysis of what happens when employees switch from one set of industries to the other ([Folbre et al. 2023](#)). The negative impact of employment in care services is also apparent in wage contours among workers deemed “essential” in the early stages of the COVID-19 pandemic ([Folbre et al. 2021](#)). This pattern helps explain the rationale for sectoral bargaining strategies emphasizing the benefits to care recipients of increased pay and reduced turnover in care employment, a strategy pursued by teacher strikes in several states ([Blanc 2019](#)).

#### **4.4 Caring preferences and public goods**

Care provision is a necessary input into the sustainable production, development, and maintenance of human capabilities, including future generations, which helps explain why it is often examined under the rubric of “social reproduction.” It also fits comfortably under the rubric of public goods, providing some benefits that are not perfectly excludable or rival in consumption. The contribution of care provision to future humans unrepresented in the present dramatizes the limited role of market forces, emphasized at an early date by Paul Samuelson ([1958](#)) in his discussion of intergenerational contracts and by Kenneth Arrow ([1963](#)) in his emphasis on the externalities and information asymmetries typical of medical care.

Possible shortfalls in care provision can be thought of as adverse changes in social capital, a concept systematically developed by James Coleman as an input into human capital ([1988](#)). While subsequent research on social capital has ranged widely and is therefore difficult to summarize, much of it has focused on measures of trust, a largely

cognitive construct describing the likelihood that people will actually do what they say they will do, the solution to an information problem (Putnam 2000). Trust is clearly an important cause (and probably effect) of reciprocity, or informal exchange, but is not directly relevant to the care of others who may not be able to reciprocate. Surely concern for the welfare of others—a social preference—is also relevant to outcomes such as the likelihood of cooperation to address public goods problems. But while many behavioral economists have begun to examine the impact of altruistic preferences and moral norms, their linkages to aggregate social outcomes remain under-explored ([Fehr and Fishbacher 2002](#); [Banuri et al. 2019](#)).

The global COVID-19 experience provided poignant evidence of the impact of intangible dimensions of ‘pro-sociality’ on public health. International comparisons of the efficacy of national responses to the Covid-19 pandemic reveal highly significant effects of “trust in government” and, more generally “trust in others” ([Bollyky et al. 2022](#)). One might well ask how “care for others” affects “trust in others” (and vice versa), as well as how these are affected by moral architecture and care infrastructure. Answers to these questions invite further interdisciplinary efforts to analyze the causes as well as the consequences of pro-social preferences.

While the metaphor of “social capital” effectively calls attention to the importance of externalities, it also encourages simplistic assumptions regarding measurement and accumulation, as though social networks are literally bankable. It may be more useful to think, instead, of “social climate,” emphasizing parallels between gradual and unexpected changes resulting from human actions and institutional malfunctions. Likewise, it is important to look beyond care provision for the young, old, and persons experiencing illness or disability to also examine implications for the physical and mental health of those not considered “dependents.”

While the care frame is most often applied to circumstances in which people are unable to care for themselves because of their age or physical condition, it also involves the basic maintenance of human capabilities, the potential to sustainably engage in enjoyable and productive activities. The reciprocal exchange of care and emotional support contributes to both subjective and objective well-being. Community-level care provided through religious and civic volunteering is particularly crucial for the survival of communities racialized as non-white ([Banks 2020](#)).

Deaths of despair are a particularly visible culmination of lives of despair ([Na et al. 2022](#)). They are correlated with economic stressors such as poverty, job loss, and downward mobility, exacerbated by lack of reliable access to health care ([Case and Deaton 2020](#)). The quantitative parameters of this trend, including differences based on race, ethnicity, and gender, have been hotly contested, but the increased frequency of drug-abuse-related mortality is well-documented. High inequality may also have social and psychological effects that threaten both physical and mental health through non-economic pathways ([Wilkinson and Pickett 2011](#)). The efficacy of family and community care

provision is also a major factor: troubled family backgrounds and lack of social support often undermine individual resilience. We know too little about how many people suffer “lives of despair” or what can best be done to help them.

However, it seems clear that drastic cuts in government-funded health care and social safety net programs can seriously undermine both public health and long-run economic outcomes. Russia’s “shock therapy”—perhaps the most horrifying example of policy-induced economic dislocation—had devastating health effects ([Stuckler and Basu 2013](#)). A comparative analysis of the impact of the Great Recession of 2007-2008 across several countries that pursued different policy responses—ranging from Iceland to Greece—clearly demonstrates that stringent austerity measures led to significant declines in life expectancy. As David Stuckler and Sanjay Basu put it, “economic choices are not only matters of growth rates and deficits but matters of life and death” (2013:x).

One of the unfortunate legacies of traditional economic theory is a tendency to counterpose purely individual decisions with a social welfare analysis that presumes a perfectly altruistic social planner ([Sugden 2013](#)). A binary distinction between private and public goods implies that the former can simply be allocated through markets, and the latter through the state. Yet most goods and services lie somewhere on a complex spectrum between private and public that is heavily influenced by legal institutions and normative constraints ([Adams and McCormick 1987](#)). Furthermore, many groups, including those based on gender, age, race and ethnicity, citizenship, and class have the ability to exclude others from access to “quasi-public goods,” a point forcefully articulated by James Buchanan ([1965](#)) in his early analysis of “club goods.”

Indeed, the history of private and public care provision is characterized by complex distributional struggle over allocating costs and benefits. Laws restricting women’s opportunities for employment outside the family long artificially increased the supply of unpaid family care. The Civil Rights Movement that emerged in the U.S. in the 1960s challenged race-based restrictions on access to education and health services, not just lunch counters. Perception of collective interests based on both race and age has influenced the distribution of public benefits in the U.S., which have reduced poverty among the elderly far more successfully than poverty among children (Folbre 2021). Resurgent populist movements around the globe demand restrictions on immigrant access to the amenities of citizenship in affluent countries.

Here again, parallels with efforts to combat physical climate change are striking. The uneven distribution of the future net costs, based on factors such as location of residence, type of employment, level of income, and ownership of wealth makes it difficult to coordinate collective action. Whatever altruistic social planners (whether real or imaginary) might have to say about the potential payoffs to investments in public goods is largely drowned out by promoters of individual and group aggrandizement. In care provision as well as environmental policy, tensions between individual self-interest and social welfare are overlaid by complex tensions between shifting coalitions of haves and



have-nots. The end result could lead to perdition: major ecological disruption combined with significant reductions in private and public care provision.

Over the past two decades, the paid care sector has been among the fastest growing in the U.S. economy ([Hartmann et al. 2018](#); [Winant 2021](#)). This trend is expected to continue, with the Department of Labor projecting that jobs in health care and social service sectors alone will grow by more than 2.5 million jobs over the next decade, accounting for nearly one-third of total labor market growth ([BLS 2022](#)). At the same time, stratification across occupations within the care sector has also grown, contributing to rising levels of occupational segmentation and stratification in the labor market as a whole ([Dwyer 2013](#); [Milkman 2023](#)). Growing intra-care sector inequality, coupled with extreme stress and disruptions due to the COVID-19 pandemic, has stretched the U.S. care workforce to its limits ([Tyler et al. 2021](#); [Cantor et al. 2022](#); [Crouse et al. 2023](#); [Jones & Glynn 2022](#)), leading to considerable unmet need.

Simultaneously, population aging and COVID-19-related chronic illness and disability have increased the need for daily care and assistance ([Johnson et al. 2021](#); [Brown et al. 2022](#); [Hodgson et al. 2021](#)). Despite the growth of the care sector and care demand, the care workforce continues to struggle with high turnover and attrition rates and workforce shortages across many paid care occupations ([Scales 2021](#); [Sutcher et al. 2019](#); [Zhang et al. 2020](#); [Coffey & Khattar 2022](#)). Among many factors, care workforce shortages contribute to rising levels of unmet care needs, resulting in negative individual and societal outcomes ([Park et al. 2022](#); [Hawks et al. 2020](#)). Research on unmet care needs in the U.S. focuses predominantly on health care deficits, partly because there are almost no data sources that measure unmet care needs that are not health related. This is partly due to a broader cultural inattention to care, and a failure to recognize disparate types of care as integrally related. Fully understanding the impact of care workforce shortages on population well-being will require measuring levels of unmet need for care that is not explicitly health related. The Summary and Recommendations section details our suggestions for developing improved measures of unmet care needs.

The juxtaposition of a swiftly growing care sector, persistent care workforce shortages, and growing levels of unmet care needs highlight the perils of leaving care provision to market forces. Private businesses are unable to capture or monetize the social benefits directly. Robust public investment in the care sector is needed to correct these market inefficiencies and to ensure that the care labor and services meet the growing demand for care across the life course. Recent research highlights the potential of public investment in the care sector to address not only the longstanding supply and demand tensions noted above, but broader inequality in the US labor market ([De Henau & Himmelweit 2021](#); [Palladino 2021](#)). Sustained public investment has the potential to address some of the most influential factors driving attrition and turnover in the care sector, including low-wages and limited employment benefits. Without addressing these

factors, no amount of sector-wide growth will be able to address growing demand for care at all stages of the life course.

## 4.5 Policy synergies

The fiercely contested evolution of U.S. care policies has generated a complex, even haphazard, multi-level system that is highly resistant to reform. The mix of private for-profit providers and public subsidies in child care, elder care, and disability care has created institutional constituencies strongly invested in the status quo. Existing institutional structures often make aligning incentives for efficiency-enhancing policies difficult, even when research and public opinion favor reform. For instance, research indicates that high-quality home- and community-based services improve health outcomes for the elderly and persons with disabilities by improving medical supervision, preventive care, and quick transitions to necessary hospital care. Appreciation of the potential economic benefits has motivated several venture capital-financed efforts to shift toward higher-quality long-term care regimes, often demonstrating valuable results. However, third-party payers of hospital and physician services are seldom inclined to divert medical savings to finance home care that is largely financed by private payers or Medicaid ([Doty 2017:117](#)).

The U.S. remains one of the only nations in the world which does not federally guarantee the right to paid leave ([Chzhen et al. 2019](#)). Institutional boundaries have also hindered efforts to move toward expanded guarantees of paid sick leave in the U.S. Such guarantees clearly offer social benefits, such as reduced emergency care utilization ([Bhuyan et al. 2016](#)) and reduced transmission of COVID-19 ([Pichler et al. 2020](#)). However, employers paying the costs of sick leave provision cannot directly capture most of these benefits, leading to business lobbying groups like the National Restaurant Association and the National Federation of Independent Businesses spearheading efforts to preempt paid sick leave legislation ([Bottari 2013](#); [Campaign for a Healthy Denver 2011](#); [NFIB 2018](#)).

Furthermore, for-profit companies that provide care services are often the biggest opponents of federal and state care policies as threats to their business model and profits. Two recent examples of this are the health insurance industry's mobilization against Medicare For All in 2019, and for-profit childcare chains lobbying against Universal Pre-K provisions in the now defunct Build Back Better Act ([Conley 2023](#); [Pear 2019](#)). Similar disconnects undermine support for policies such as paid family leave, required pregnancy accommodations and public investments in child care, which generate social payoffs that, however valuable, extend far into the future, and promise few benefits to those paying the immediate costs (especially the elderly).

Across the care sector, there is significant inter-state variation in care policies ([Kashen & Novello 2021](#); [McKernan et al. 2021](#); [Naylor et al. 2015](#); [Rehkopf et al. 2021](#); [Dawson et al. 2020](#)). This variation is enabled by the lack of federal care programs in

addition to the uniquely federalist structure of the U.S. government that grants states significant autonomy in setting social policy and implementing federal programs like SNAP and TANF. A growing body of literature emphasizes the impact of inter-state policy variation on social, economic, and well-being outcomes ([Montez et al. 2020](#); [Montez & Hayward 2021](#); [Landivar et al. 2022](#); [Michener & Brower 2020](#)). State-policy variation has also impacted how individuals spend time and money ([Jackson & Schneider 2022](#); [Gonalons-Pons & Marinescu 2022](#); [Ruppanner & Maume 2016](#)).

State level research on care policy, need, and outcomes is fairly limited due to data limitations ([Duffy et al. 2013](#)). Some of these limitations reflect the broader problems reviewed in this working paper; others reflect differences in program administration, data collection, and data availability across states ([Smith et al. 2020](#); [Newquist et al. 2015](#); [Maxwell 2017](#); [Saunders & Chidambaram 2022](#)). Even where data is available, the lack of centralized data sources significantly increases burdens on researchers. Given the documented increasing polarization between U.S. states over the last forty years ([Grumach 2018](#)), better state-level data infrastructure is needed to fully assess the impact of inter-state care policy inequality.

Policies such as paid family leave could not only benefit infants and help people balance employment with family care, but also help reduce nursing home use, a possible effect consistent with a comparative analysis of the California experience with paid family leave ([Arora and Wolf 2018](#)). Recent research also shows that access to subsidized kindergarten increases the time that mothers supply to the unpaid care of adults, an effect often larger than increases in their paid employment ([Chari and Valli 2021](#)). Empirical forays such as these could be strengthened by time-use surveys representative of state populations as well as the U.S. as a whole.

For many years, cost-benefit analysis of public social spending in the U.S. focused primarily on disincentives to employment or marriage, with little attention to long-run benefits for children. Recent research has changed the emphasis, finding evidence of high rates of return not only to educational investments but also to reductions in poverty and access to medical care ([Currie 2009](#); [Aizer et al. 2022](#)). Indeed, evidence suggests that increases in state and local minimum wages reduce infant mortality ([Wolf et al. 2021](#)). Cost-benefit analysis of such policies is sensitive to the time horizon; U.S. Congressional Budget Office policy cost-benefit estimates are based on a ten-year time horizon that simply ignores longer time payoffs ([Aizer et al. 2022](#)). A more profound problem is that current taxpayers are unlikely to capture a significant share of the resulting positive externalities.

Furthermore, it is difficult to precisely estimate policy effects in diverse populations and variable environments, especially when child outcomes are defined and measured differently. As James Heckman has observed, dynamic complementarities come into play—early investments increase the payoff to those that might take place later ([Heckman 2007](#)). Complementarities among programs also complicate the story—the effect of early

childhood education programs such as Head Start, for instance, is mediated by the quality of subsequent educational opportunities. Better longitudinal surveys combined with access to administrative data could enhance research opportunities in this area.

One lesson for public finance is the pressing need for more critical thinking regarding institutional design. For instance, evidence suggests that means-tested social programs breed resentment among those at or above eligibility levels, who face high implicit income tax rates due to benefit reduction ([Holt and Romich 2007](#)). Universal benefits defined as economic rights rather than need-based donations reduce distributional conflict and allay suspicions of opportunistic behavior. This type of care infrastructure, a central feature of Nordic countries, is now a stated ambition of policymakers in several countries, including Uruguay, with its articulated goal of developing a National Integrated Care System ([UNWomen 2019](#)). Unfortunately, relatively little research in the field of public finance directly addresses social spending from this perspective.

As the U.S. organization Caring Across Generations emphasizes in their [2022 Annual Report](#), a comprehensive care policy improving access to child care and long-term care for the frail elderly and those experiencing disabilities could potentially unite an otherwise divided constituency and also generate significant efficiency gains—if efficiency is properly defined to encompass the value of improved human capabilities. The National Academy of Social Insurance has provided a detailed analysis of paths toward developing financially sustainable state-based social insurance programs with this comprehensive approach ([Veghte et al. 2019](#)).

Policy analysis should also consider more radical changes to the design and financing of public care provision. For instance, in their classic textbook of U.S. public finance, Richard and Peggy Musgrave (1973) outlined an alternative to the existing Social Security system, guaranteeing retirees a specific share of the average earnings of the younger generation, rather than a defined benefit based on their individual earnings histories. While this proposal may seem far-fetched, it points to ways in which institutional design can align incentives for taxpayer investment in public goods.

## V. Conclusions

Our current system for measuring care data is fragmented, inconsistent, and insufficient. The longstanding reliance on stand-alone surveys for time use, consumer expenditure, and utilization of public services impedes a more unified analysis of living standards and care provision. Cross-survey comparisons are rendered difficult by the lack of standardized definitions of terms as basic as “caregivers” and standardized time periods for measuring care provision. Failure to measure levels of care need, both met and unmet, makes it very difficult to evaluate policy interventions to improve access to care services — including child care, early childhood education, and home- and community-based care for needy adults—and to assess the costs and the benefits of care policies. Market income continues to receive far more attention than extended income, and using outdated equivalence scales for the comparability of household incomes is problematic. We hope that researchers, other experts, and policymakers work together to improve our care-measurement system.

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## Appendix A. Summary of the U.S. Care Data Infrastructure

The following three tables describe the information about care provision included in existing surveys. The first table ([Table A1](#)) focuses on general population surveys, the second table ([Table A2](#)) focuses on surveys concerning the paid care workforce, and the third table ([Table A3](#)) focuses on data concerning care policies.

[Table A1](#) on Care Provision Data in General Population Surveys reviews whether surveys include information on the following:

1. Care needs of respondents and/or members of the household. Care needs refer to physical or mental health conditions that require help from others.
2. Care services used by respondents and/or members of the household. Care services refer to paid or unpaid care services to help meet the respondent's and household members' care needs, such as paying for child care, hiring a home health aide, or receiving unpaid help from a relative outside the household. We note if information about care services is collected, including information about monetary costs and subsidies.
3. Care provided by respondents and/or members of the household. Care provided refers to unpaid care respondents and/or members of the household provide to others in or outside of the household. Parents' time devoted to caring or looking after their children is an example.

[Table A2](#) on Care Provision Data in Paid Workforce Surveys reviews whether surveys include information on the following:

1. Sociodemographic characteristics of paid care workers
2. Job quality measures: wages, schedule predictability, benefits, unionization, etc.
3. Health and well-being measures: physical health, mental health, work injuries, etc.
4. Characteristics of paid care provided: number of care recipients, characteristics of care recipients (health, special needs, etc.).
5. Unpaid care measures: notes whether surveys include measures about paid care workers' unpaid care (i.e., do they have children or other dependents they care for outside of their jobs?).
6. Care services used by paid caregivers. Same care services as noted above.

[Table A3](#) lists sources collecting information about social policy and notes if they include measures about care policies. Care policies include: paid leave, early childcare education programs, access to long-term care services (adult care centers, nursing homes, etc.)

**Table A1. Care Provision Data in General Population Surveys**

Survey	Care needs of people in the household		Care services (and related monetary cost) used by household people		Care provided by members of the household	
	Children	Adults	Children	Adults	Children	Adults
<p><b><u><a href="#">Survey of Income and Program Participation (Survey of Income and Program Participation)</a></u></b></p> <p>Series of panel surveys, 1984-2020. Nationally representative sample of individuals 15 years of age and older.</p>	<p>Most surveys ask whether children in the household physical or mental conditions have limiting ordinary activities.</p> <p>Reengineered 2014 Survey of Income and Program Participation and subsequent panels includes 10 child disability questions.</p>	<p>Panels 1984-2008 ask whether respondents require help of another person to perform daily activities. The list of activities varies across panels.</p> <p>Since being redesigned in 2014, the Survey of Income and Program Participation includes the same six-item short set of disability questions as the ACS and three “work disability” questions.</p>	<p>Most panels ask who cares for children while the reference parent is working (looking for a job or attending training), whether arrangements were paid for, the amount paid, and whether assistance was received for payment of this care (i.e., from friends, family, or government agencies).</p>	<p>Panels 1985-2008 ask whether the respondent uses the help of other people doing different daily activities, who provides this help, and whether the person that provides help is a member of the household. Some panels ask about duration and costs when help is paid.</p> <p>Since being redesigned in 2014, these questions have been dropped.</p>	<p>There is no direct measure of care provided by children, but indirect collection of this information through questions about childcare arrangements (one of the answers is child care for siblings under 15).</p>	<p>Panels 1985-1989 and 1996-2008 ask whether respondents provide help to others with various ADLs and IADLs (such as personal care, housework, meal preparation, etc.). Panels 1985-1989 only collect data on care provided to people outside the household, Panels 1996-2008 collect data on care provided to people inside and outside the household.</p>
<p><b><u><a href="#">American Time Use Survey (ATUS)</a></u></b></p> <p>Cross-sectional surveys, 2003-2020. Nationally representative of individuals 16 and older. Sample selected from CPS.</p>		<p>Asks if respondents have a disability that prevents them from doing/accepting any kind of work during the next six months.</p>				<p>Minutes per day spent providing care for any child or adult (household and non-household), regardless of relationship. Care provision is measured as an activity. Data on time spent on child care as a secondary activity and, beginning in 2011, also on adult care as a secondary activity.</p>

Survey	Care needs of people in the household		Care services (and related monetary cost) used by household people		Care provided by members of the household	
	Children	Adults	Children	Adults	Children	Adults

<p><b><u>Current Population Survey (CPS)</u></b></p> <p>Cross-sectional surveys, 1962-present. Basic monthly CPS is nationally representative of civilian noninstitutionalized populations age 15 and older. Annual Social and Economic Supplement (ASEC) includes all March Basic Monthly Survey respondents and oversamples from other months.</p>		<p><b>CPS</b>, starting in June 2008, asks a six-item “short set” of disability questions for all household members age 15 and older about difficulty with: hearing, vision, remembering, physical, disability limiting mobility, or personal care limitations. <b>ASEC</b> includes additional “work disability”-related questions, including if respondent or anyone in the household had a disability or health problem in the prior year that prevented them from working or the work they could do, even for a short time.</p>	<p><b>ASEC</b>: Asks whether anyone in the household paid for care of their children while they worked in the prior year and how much was paid for that care. It also asks whether anyone in the household: 1) received any child support in the prior year and how much they received; 2) has a child living outside the household, and if so, how much child support that person paid in the prior year.</p>			
<p><b><u>Consumer Expenditure Survey (CEX)</u></b></p> <p>Cross-sectional surveys, 1980-present. Nationally representative of adult non-institutionalized population</p>			<p><b>Childcare expenses</b>: Asks whether any member of the household had expenses for babysitting, nanny services, or other child care inside or outside of their home.</p> <p><b>Child support</b>: Asks if any household members have given or received any money to benefit child support.</p>	<p>Asks if anyone in the hh made any payments for care in convalescent or nursing homes, care for disabled, or elderly persons in the home, or adult day care centers.</p> <p>Asks for description of care if not apparent, whether care took place inside or outside of home, whether care was for a hh member or not, and total month \$</p>		

Survey	Care needs of people in the household		Care services (and related monetary cost) used by household people		Care provided by members of the household	
	Children	Adults	Children	Adults	Children	Adults

<p><b><u>Health and Retirement Survey (HRS)</u></b></p>		<p>Asks about respondents' difficulty with ADLs (activities of daily living).</p>		<p>Asks if anyone helps respondents with ADLs. Ask who helps, and their relationship to the respondents.</p> <p>Asks whether children or grandchildren have provided help with household chores, errands, transportation.</p> <p>Asks if anyone has been hired or paid for assisting respondents with activities like dressing, bathing, or other care needs. Also asks how many hours/day, days/month, and whether care totaled \$100 or more per month.</p>		<p><u>Grandchild care</u>: Asks if respondents or spouses spent 100+ hours taking care of (great)grandchildren in the last 2 years and estimate how many hours in total. Also asks if respondents/spouses are raising any children in the household under 18 who aren't their own.</p> <p><u>Parental care</u>: Asks whether respondents or their partners spent 100 or more hours in the past 12 months providing care to their (step)parents with basic personal needs like dressing, eating, and bathing.</p> <p><u>Spousal care</u>: Respondents who need assistance with ADL/IADL tasks are asked who their primary and secondary helpers are. Spouses can be listed as primary or secondary caregivers, and they are interviewed too.</p>
<p>Biennial Longitudinal survey, 1996-present. Nationally representative sample of Americans over 50.</p>						

Survey	Care needs of people in the household		Care services (and related monetary cost) used by household people		Care provided by members of the household	
	Children	Adults	Children	Adults	Children	Adults

<p><b><u><a href="#">Panel Survey of Income Dynamics (PSID)</a></u></b></p> <p>Longitudinal survey, 1968-present. Nationally representative sample</p>		<p>Surveys 1968-2019 ask whether respondents have a physical or mental condition that limits the type of work or the amount of work they can do. Since 2021 this question focuses on diagnosed conditions and how they limit daily activities. Beginning in 1992, surveys ask if respondents have difficulty with a list of ADLs and IADLS.</p>	<p>Surveys 1969-1972 ask if respondents received help with housework or child care from anyone, for how many hours, whether it was paid, and how much it cost.</p>	<p>Beginning in 1992, survey asks whether respondents receive help with ADLs and IADLS.</p>	<p>[PSID Child Development supplement includes a child time-use study with information about child activities, including providing care for others. See more below.]</p>	<p>Infrequent questions about whether the respondent provides help to others in or outside the household (1968, 1980, 2021). Since 1968, PSID has collected time-use data on work hours and housework hours from family members, including estimates of weekly hours spent doing housework, looking after children, and looking after an adult.</p>
<p><b><u><a href="#">PSID Child Development Supplement</a></u></b></p> <p>CDS I-III include up to two children per household ages 0-12 who are followed over three waves. Starting with CDS-2014 all eligible children in PSID households are included</p>	<p>Asks about diagnosed disabilities, health conditions, and mental/emotional/behavioral problems and whether any of this limit their ability to do usual childhood activities</p>		<p>Asks whether the child is in a childcare center (nursery, preschool, pre-k, etc.), first time child was cared for by someone other than primary caregiver. Asks questions about each childcare arrangement used, including costs.</p>		<p>Child time-use study includes information on activities children are involved in, including caring for others</p>	<p>(Unpaid child care provided to children in the household indirectly measured through child-focused time diaries, which collect information on how children spend their time, who was with them, doing activities with them and/or responsible for watching them during activities.)</p>



Survey	Care needs of people in the household		Care services (and related monetary cost) used by household people		Care provided by members of the household	
	Children	Adults	Children	Adults	Children	Adults

<p><b><u>National Survey of Families and Households (NSFH)</u></b></p> <p>Cross-sectional. Three waves: 1987-88 (Wave 1), 1992-94 (Wave 2), 2001-2003 (Wave 3). Nationally representative sample of American households with oversampled groups</p>		Asks if respondents or anyone in the household require care or assistance because of a disability or chronic illness, the type of care needed and how it limits activities.	Waves 2 and 3 ask about childcare arrangements for children in the household, including whether respondents' parents/in-laws have helped watch respondents' children while they were working, or at other times when they were not working.	Waves 2 and 3 asks if respondents receive help or assistance from anyone in or outside the household due to a health condition, illness, or disability in the last 12 months.	Waves 1 and 2 ask about time spent by respondents and spouses providing care for household children.	Surveys ask whether respondents provide care for relatives in or outside of the household and the time devoted to provide this care. Wave 3 also asks about whether respondents provided anyone with unpaid babysitting or child care.
<p><b><u>National Alliance for Caregiving /AARP Caregiving in the US</u></b></p> <p>Cross-sectional surveys (1997, 2004, 2009, 2015, 2020). Nationally representative sample of adults who provide unpaid care to adults and/or children with special needs</p>	[If respondent provides care to a child with special needs in the household] Asks whether the child's condition limits in any way their ability to do the things that most children of the same age do.	[If respondent provides care to an adult in the household] Asks information about the adult care recipient's physical/emotional conditions and reasons they require care.	When care recipient is a child] Asks whether anyone else provides unpaid care to the children they care for, or if they receive paid help from any aides, housekeepers, or other people who were paid to help them.	[When care recipient is an adult] Asks whether anyone else provides unpaid care to the adult person they care for, or if they have received paid help from any aides, housekeepers, or other people who were paid to help them.	[When collecting information about additional people who provide care to the person the respondent cares for] Asks if any of the people who helped provide unpaid care were children under the age of 18.	Asks extensive information about the type of care provided for the adult or the child with special needs. Collects information about how many hours they spend in an average week providing this care, whether this is constant care, and whether they help with any medical or nursing tasks.

Survey	Care needs of people in the household		Care services (and related monetary cost) used by household people		Care provided by members of the household	
	Children	Adults	Children	Adults	Children	Adults

<p><b><u>National Long Term Care Survey (NLTC)</u></b></p> <p>Longitudinal survey (1982, 1984, 1989, 1994, 1999, 2004). Sample of individuals over 64 enrolled in Medicare. This survey was folded into the NHATS beginning in 2011.</p>		<p>Asks whether respondents have trouble performing ADLS and IADLS without help and asks whether this is due to a disability or health problem. Asks whether respondents have a list of physical and mental health conditions. Survey also asks whether respondents require special equipment to get around inside/outside.</p>		<p>Asks if the respondent receives help with ADLS and IADLS, including having someone stand by in case help was needed. Collects information on who helps the respondent, which activities of daily living they help with, their relation to the respondent, how long they have provided care, whether they are paid, how much (under/over \$5000), and who pays for care. Asks whether there is a need for someone to check on the respondent regularly, whether someone does, and who. Asks whether the respondent goes to a senior center or adult day care center regularly.</p>		
<p><b><u>National Health and Aging Trends Study (NHATS)</u></b></p> <p>Longitudinal cohort survey. Began in 2011, annual interviews, sample replenished in 2014. Nationally representative sample of Medicare beneficiaries ages 65 and older</p>		<p>Asks if the respondent has any diagnosed health or medical condition (long list of conditions provided). Asks if a physical, mental, or emotional condition causes respondent or their spouse to need the help of another person with personal care needs. Asks if the</p>		<p>Asks if the respondent lives in a retirement community, group home, assisted living facility, or CCRC. Asks whether place of living offers help with medications, ADLS and IADLS and whether respondent has used these services, if they are</p>		<p>Asks if the respondent ever provided care for or looked after an adult or child who cannot care for themselves in the past month (besides as a job/volunteer work), and who they provided this care to.</p>

Survey	Care needs of people in the household		Care services (and related monetary cost) used by household people		Care provided by members of the household	
	Children	Adults	Children	Adults	Children	Adults

		respondent requires devices that help with daily activities or moving around. Asks if the respondent has experienced thinking or memory problems in the past 12 months, and how often this interferes with daily activities.		included in the amount paid for living place or if there is an extra charge. Asks if the respondent has needed help from another person to get around inside/outside the house, drive places, or with IADLS, and who provided the help.		
<p><a href="#"><u>National Study of Caregiving (NSOC)</u></a></p> <p>Cross-sectional survey (2011, 2015, 2017, annual starting in 2021). Sample of family and unpaid caregivers of participants in the NHATS. It is a nationally representative study of family and other unpaid caregivers to older persons living with limitations in daily activities.</p>		Collects information about respondents' health, diagnosed conditions, pain, and whether these conditions limit activities.		Asks if the respondent has friends or family that help them with their daily activities. Asks if the respondent uses any service that took care of NHATS sample person so that they could take some time away from helping in the past year. Asks if the respondent has helped NHATS sample person find a paid helper to do household chores or personal care in the past year.		Asks about respondent care provided to NHATS sample person. Collects information about various tasks as well as the time and frequency they require. Asks if the respondent provides care to or looks after a child or adult who cannot care for themselves (excluding the NHATS sample person).

Survey	Care needs of people in the household		Care services (and related monetary cost) used by household people		Care provided by members of the household	
	Children	Adults	Children	Adults	Children	Adults

<p><b><u>NSOC Time Diary Supplement</u></b></p> <p>Begins with NSOC III, respondents providing care to a living NHATS person become eligible to fill in time-diary</p>		Time spent receiving medical care from a family member or friend, using in-home health and care services (paid), and using medical, health, and long-term care services outside the home. Diary refers to the 24 hours prior to filling the survey.		Time spent contracting with paid child or adult care services for someone else's care (hiring/paying for/talking to/ interviewing caregivers including babysitters, summer camp, nanny, adult day care, aide).	* Supercategory 5 * Time spent providing physical care for someone else (dressing, bathing, feeding, grooming someone and physical care for a baby, child, or adult), looking after someone else (supervising, keeping an eye on, watching for health-related reasons), helping with mobility, and providing medical care to someone else.	* Supercategory 5 * Time spent providing physical care for someone else (dressing, bathing, feeding, grooming someone and physical care for a baby, child, or adult), looking after someone else (supervising, keeping an eye on, watching for health-related reasons), helping with mobility, and providing medical care to someone else.
<p><b><u>Household Pulse Survey</u></b></p> <p>Cross-sectional semi-monthly surveys (2020-present). Nationally representative sample of households.</p>		Asks if the respondent has difficulty seeing, hearing, remembering/concentrating, or walking/ climbing the stairs. Lists sickness (not coronavirus related) or disability as an option for why respondent was not working at time of survey.	Asks whether children in the household were unable to attend daycare or other childcare arrangements due to COVID19 and about the impacts of these care interruptions. Questions on Child Tax Credit (CTC) spending include whether funds were spent on child care.	Asks if the respondent has in-home housekeeping or caregiving services.		If the respondent is not working, the survey asks if the respondent takes care of someone else who is sick or a child not in school or daycare.

Survey	Care needs of people in the household		Care services (and related monetary cost) used by household people		Care provided by members of the household	
	Children	Adults	Children	Adults	Children	Adults

<p><b><u>Behavioral Risk Factor Surveillance System (BRFSS)</u></b></p> <p>Cross-sectional surveys, 1981-present. Nationally representative of noninstitutionalized adult population 18+</p>		Asks if the respondent has difficulty seeing, hearing, remembering/ concentrating /making decisions, walking/ climbing the stairs, dressing, or bathing, or doing errands alone.				Optional Caregiver Module asks if respondent provides regular care or assistance to a friend or family member who has a health problem or disability, their relationship to the person, how long care has been provided, average number of hours per week care is provided, the main health problem, long term illness, or disability the person has.
<p><b><u>NHES Early Childhood Program Participation Survey (ECPP)</u></b></p> <p>Cross-sectional surveys (1991, 1995, 2001, 2005, 2012, 2016, 2019). Sample of parents of children 0-6yo who are enrolled in kindergarten</p>	Asks if the child was ever diagnosed with developmental delays or with a list of health conditions/disabilities.		Asks about childcare arrangements (formal care, care received from relatives, etc.). Asks details about relationship, time, and type of care the focal child receives from other people, and whether care is paid. Asks how much the household pays for this care (and whether it is for the focal child or includes other children in the household).			

Survey	Care needs of people in the household		Care services (and related monetary cost) used by household people		Care provided by members of the household	
	Children	Adults	Children	Adults	Children	Adults

<p><a href="#"><u>National Survey of Early Care and Education (NSECE) 1: households with children under age 13</u></a></p> <p>Cross-sectional surveys (2012, 2019, COVID-19 follow-up). Sample of households with children under 13</p>	<p>Asks if any children have physical or emotional conditions that affect how care is provided for them and whether children have illnesses, disability, or special needs limiting their activities.</p>	<p>Asks if there are any adults aged 18 or over in the household who require assistance with daily activities such as eating or walking.</p>	<p>Collects information about all people or organizations that cared for all children in the household last week (excluding parents), as well as after-school programs, playdates, or babysitters. Collects information about time, frequency, and payment of all childcare arrangements.</p>			<p>Asks if the respondent provides care to other children who are not their own or to an adult (in or outside the household) who requires assistance with ADLs.</p>
<p><a href="#"><u>National Longitudinal Survey of Youth (NLSY)</u></a></p> <p>Two longitudinal cohort surveys (1979, 1997). Representative of each corresponding cohort.</p>		<p>If the respondent is not working or not looking for work, the survey asks whether health conditions are the reason for not working or looking for work. Asks if health conditions limit the type and amount of work they can do.</p>	<p><a href="#"><u>NLSY79</u></a> asks about where children live, if child care is the reason respondent is not employed or part-time, and whether respondent receives child support. Beginning in 1995, survey asks retrospective questions about childcare arrangements when own children were 0 to 3 years old, including how many childcare arrangements were used during the first three years of life, what the arrangements were, where they took place, and how long they were used. All questions are asked for ages 0-1, 1-2, 2-3.</p>			<p>If the respondent works less than full-time, the survey asks whether illness of a family member or other family responsibilities (including child care) are the reason for not working full-time.</p>

Survey	Care needs of people in the household		Care services (and related monetary cost) used by household people		Care provided by members of the household	
	Children	Adults	Children	Adults	Children	Adults

			<p><u>NLSY97</u> asks where children live, childcare arrangements for all their own children, and if child care interferes with employment, and whether the respondent receives child support. Beginning in round 5, survey asks about childcare arrangements used by respondent in the last week/a typical week over the past 12 months while they were at work or school: type of arrangements children (under age 13) spend most hours (if relative care, asks which relative), money paid for child care during a typical week in the past year. If an employer, outside agency, or anyone outside of the household pays for this child care, the survey asks who or what agency, and how much is paid.</p>			
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Survey	Care needs of people in the household		Care services (and related monetary cost) used by household people		Care provided by members of the household	
	Children	Adults	Children	Adults	Children	Adults

<p><a href="#"><u>Survey of Household and Economic Decision making</u></a></p> <p>Cross-sectional surveys (2013-present). Voluntary representative sample of Americans 18+</p>		Collects information about disability status through questions about current employment situations.				
<p><a href="#"><u>National Home and Hospice Care Survey (NHHCS)</u></a></p> <p><a href="#"><u>Patient survey</u></a></p>		Asks about respondents' primary and other diagnoses. Collects information about equipment in the patient's home.		Asks about the type of care received by agency staff and also additional care outside of the agency. Asks about payment for respondent's care.		



**Table A2. Care Provision Data in Paid Care Workforce**

Survey	Worker Demographics and characteristics	Pay and Job Characteristics	Health/Well-Being of Workers	Paid Care Provided by respondent	Unpaid Care Provided by respondent	Care services received/used by paid caregiver
<p><b><u><a href="#">NSECE 2: home-based providers of ECE</a></u></b></p> <p>Cross-sectional survey of home-based providers of Early Childhood Education. 2012, 2019, and 2019 COVID-19 Follow Up</p> <p>* Information collected from 2019 documentation</p>	<p>Respondent's age, race, gender, spoken languages, birth country, marital status, own children in the household, household income, and highest level of education.</p> <p>Also collects demographic information of other workers at the home-based child care.</p>	<p>Asks about payment rates and about non-monetary forms of compensation.</p> <p>Asks if the respondent has any other jobs, and the name of the position at which they work most hours (and number of hours/week).</p>	<p>Asks about respondents' depressive symptoms, concentration, restless sleep, etc.</p>	<p>Asks about time devoted to providing care for children, how many children were looked after by age group, health conditions of the children, and whether anyone helps care for the children the provider looks after.</p>		<p>[If provider has children] Survey asks if any of providers' children under age 6 regularly receive care from someone outside of the household (ie: in a pre-school or by a neighbor).</p>
<p><b><u><a href="#">NSECE 3: center-based providers of ECE</a></u></b></p> <p>Cross-sectional survey of <u>directors</u> of center-based providers of Early Childhood Education. 2012, 2019, and 2019 COVID-19 Follow Up</p> <p>* Information collected from 2019 documentation</p>	<p>Respondent's age, race, gender, spoken languages, birth country, marital status, own children in the household, household income, and highest level of education obtained.</p> <p>Collects information on providers' attitudes and orientations toward caregiving, and beliefs about education and caregiving.</p>	<p>Asks about price rates for families. Asks about staff in center, and distribution of staff across different positions (aides, assistant teachers, teachers, etc.).</p>		<p>Collects information on the type of services offered by the center for children of different ages, number of children enrolled, health condition of children in attendance, and about flexibility of hours and days children can attend. Asks about health consultant or nurse services.</p>		
<p><b><u><a href="#">NSECE 4: center-based workforce provider</a></u></b></p> <p>Cross-sectional survey of <u>instructional staff</u> of center-based providers of Early Childhood Education. 2012, 2019, and 2019 COVID-19 Follow Up</p> <p>* Information collected from 2019 documentation</p>	<p>Respondent's year of birth, race, gender, Hispanic descent, spoken languages, birth country, marital status, own children in the household, household income, and highest level of education obtained.</p> <p>Asks whether the respondent has a Child Development Associate (CDA) certificate or</p>	<p>Asks if the respondent is covered by health insurance. Asks about wages (before taxes and deductions) and whether the respondent is in a union. Asks respondents if they have looked for additional work/other jobs and the reasons for which they have done so.</p>	<p>Collects information on providers' depressive symptoms, concentration, restless sleep, etc.</p>	<p>Asks about the respondent's tenure at the current program, their current role/title, and years of paid experience working with children under 13. Asks about the number of children enrolled in the program, how many hours/week respondent works at this program, and</p>		

Survey	Worker Demographics and characteristics	Pay and Job Characteristics	Health/Well-Being of Workers	Paid Care Provided by respondent	Unpaid Care Provided by respondent	Care services received/used by paid caregiver
	<p>state certification to teach young children, special education, or elementary school.</p> <p>Asks whether the respondent has participated in workshops, mentoring, meetings, college courses, etc. for professional development in the past 12 months.</p> <p>Collects information on providers' attitudes and orientations toward caregiving, and beliefs about education and caregiving.</p>			<p>how many months out of the last twelve the respondent has worked at this or another childcare program. Asks whether the respondent works mostly with children who have mental, physical, or other disabilities or delays at their program. Survey collects information about a typical paid work day at the care center (i.e.: time spent on learning activities with the whole group, small group, etc.).</p>		
<p><a href="#">National Nursing Assistant Survey (NNAS)</a></p> <p>Cross-sectional survey of nursing assistants working in nursing facilities. 2004-2005</p>	<p>Collects extensive sociodemographic information (age, sex, ethnicity, race, marital status, schooling, household income, citizenship, languages, English speaking status). Asks how many adults over 18 live in their household, and whether they are working (full or part time). Asks how many are 17 or younger, and how many of these children are their own or they are responsible for.</p>	<p>Asks about how the respondent found this job, what type of training they received, benefits included, scheduling, job satisfaction, etc. Asks if the respondent has other jobs and reasons for having them. Asks if respondent missed work due to childcare needs</p>	<p>Lists "health issues" as reason why the respondent does not work more hours at their job. Asks whether the respondent has been injured at their facility (since starting, and in the last 12 months).</p>	<p>Asks about respondents' work history as a nursing assistant and about the characteristics of the work done in the current facility.</p>	<p>Asks if the respondent is taking care of a family member, relative, or friend who has a disability or health problem (not counting care they get paid for), whether they have missed any time from work because of having to take care of a family member, relative, or friend and how much time. Asks if they missed time from work because of problems with childcare arrangements.</p>	<p>Collects information about how many children in the household require child care while the respondent is working at their current facility.</p>

Survey	Worker Demographics and characteristics	Pay and Job Characteristics	Health/Well-Being of Workers	Paid Care Provided by respondent	Unpaid Care Provided by respondent	Care services received/used by paid caregiver
<p><a href="#"><u>National Nursing Home Survey (NNHS)</u></a></p> <p>Cross-sectional surveys of nursing home providers. 1973-1974, 1977, 1985, 1995, 1997, 1999, 2004</p>		Collects basic information on number of employees, benefits, and work time.		Asks about the agency's services and the type of patients they provide care for.		
<p><a href="#"><u>National Home Health Aide Survey (NHHAS) [supplement to 2007 NHHCS]</u></a></p> <p>Cross sectional survey of home health aides working in agencies providing home health and/or hospice care. 2007</p>	Collects extensive sociodemographic information (age, sex, ethnicity, race, marital status, schooling, household income, citizenship, languages, English speaking status). Asks how many adults over 18 live in their household, and whether they are working (full or part time). Asks how many are 17 or younger, and how many of these children are their own or they are responsible for.	Asks about how the respondent found this job, what type of training they received, benefits included, job satisfaction, etc.	Asks about number of times respondent has been hurt or injured while working as a home health aide	Asks about the characteristics of the job and care provided in the agency. Where the care is provided, how many locations, how many patients, and other duties related to the job.	Asks whether the respondent is currently taking care of a family member, relative, or friend who has a disability or health problem (excluding care they are paid for). It also asks whether they have missed any work in the past month due to this responsibility, and how much time was missed.	Collects information about how many children in the household require child care while the respondent is working at their current facility.
<p><a href="#"><u>National Post-Acute and Long-term Care Study (NPALS)*</u></a></p> <p>*Formerly known as National Study of Long-Term Care Providers (NSLTCP) Cross-sectional surveys on long term care providers (home health, nursing home, hospice, inpatient rehab, and long-term care hospital sectors). 2012, 2014, 2016, 2018, 2020</p>		Collects information on staff (number of RNs, LPNs/LVNs, CNAs, social workers; part-time vs full-time; center employees vs contract staff, etc), and how many activities directors or activities staff are on-site providing services (if any). No information collected on wages, job benefits, or other job quality measures.		Collects information about patients currently enrolled at the centers: their diagnoses with different conditions, and number of participants currently needing assistance in activities of daily living (ADLs) from another person or special equipment.		

Survey	Worker Demographics and characteristics	Pay and Job Characteristics	Health/Well-Being of Workers	Paid Care Provided by respondent	Unpaid Care Provided by respondent	Care services received/used by paid caregiver
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<p><a href="#"><u>Early Childhood Longitudinal Study (ECLS)</u></a></p> <p>The ECLS program includes four longitudinal studies that examine child development, school readiness, and early school experiences. Data from 2011-present, ECLS-K:2024 data collection begins in 2023.</p> <p>Survey includes interviews with children's early care and education providers, where these measures are collected. These measures are included in all ECLS samples (ECLS-B, ECLS-K, and ECLS-K2011)</p>	<p>Collects respondent's age, address information, whether they are related to the target child(ren) who they provide care to, and what the relationship is. Asks where care is provided (in a home, center/program).</p> <p>For CENTER-BASED DIRECTOR/ADMINISTRATOR AND HOME-BASED CAREGIVERS, asks if respondent is an administrator, teacher, or both. Collects information on the type of program the child is enrolled in (if not home care), where the program is located, whether it is licensed, etc. Asks how many months/years they have been an administrator at a program.</p> <p>For CAREGIVER/TEACHER, collects information on gender, age, Hispanic origin, race, education, CDA or related credentials, languages spoken, and if they have a community license for providing child care, and for how many 4–5-year-olds they are licensed to care for at the same time.</p>	<p>For CENTER-BASED DIRECTOR/ADMINISTRATOR AND HOME-BASED CAREGIVERS, asks how many total staff members, who work directly with children, are employed at the center/program, asks how many have been hired in the last 12 months and how many have left the program in the last 12 months.</p> <p>For CAREGIVER/TEACHER, asks how long they have been providing child care or working in the early education field, not including their own children. Collects information on if they enjoy their work, if they would choose this career again, if they believe they are making a change in children's lives</p>		<p>For CENTER-BASED DIRECTOR/ADMINISTRATOR AND HOME-BASED CAREGIVERS: Asks the average fee for 5-year-old children who attend the {center/program} full-time and whose parents pay in full. Asks if program receives funding from Title 1, Title XX, local or state funds, No Child Left Behind supplemental services funds, or other grant funds.</p> <p>For CAREGIVER/TEACHER, asks how many months respondent has provided care to the target child, how many days in a typical week care is provided, and how many hours each week. Asks how many adults including themselves help care for a child at the same time, how many other children are cared for at the same time. Asks if any of these children have special health needs. Asks about activities offered by the program, and whether they are offered daily, weekly, monthly, occasionally, as needed, or never.</p>		
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**Table A3. Data Sources about Care Policy and Care Infrastructure**

Source	Measures on Care-Related Policies
<p data-bbox="138 201 701 259"><a href="#"><u>The National Institute for Early Education Research (NIEER) Yearbooks</u></a></p> <p data-bbox="113 289 590 341">Annual yearbook reports. Surveys of state preschool administrators. 2003-2021.</p>	<p data-bbox="743 201 1440 227">Tracks state-funded preschool program funding, access, and policies.</p> <p data-bbox="743 266 1913 321">Data collected includes state pre-k, pre-k + pre-k special education, and pre-k + pre-k special education + head start enrollment, enrollment changes, quality standards, and other measures.</p>
<p data-bbox="243 380 600 406"><a href="#"><u>Century Foundation Report Card</u></a></p> <p data-bbox="113 438 701 516">National report analyzing each state's progress toward enacting ideal care policies to support children, families, and communities. 2021</p>	<p data-bbox="743 380 1913 467">Five major policy areas for which progress is measured: child care and early learning, home and community-based services/long-term care, paid family and medical leave, paid sick and safe days, and fair working conditions for care workers.</p> <p data-bbox="743 477 1944 532"><b>Child Care and Early Learning:</b> assesses affordability of child care and early learning, accessibility to a diverse supply of options, the quality of care, and success in achieving universal pre-K.</p> <p data-bbox="743 542 1902 597"><b>Home and Community-Based Services/Long-Term Care:</b> assesses affordability and access, choice of setting and provider, quality of life and care, support for family caregivers, and effective transitions.</p> <p data-bbox="743 607 1934 695"><b>Paid Family and Medical Leave:</b> assesses eligibility standards, family member definition, reasons for leave, benefits duration, benefit amount, contribution levels, scheduling flexibility, job protection, continued health care benefits, and retaliation and non-discrimination.</p> <p data-bbox="743 704 1923 792"><b>Paid Sick and Safe Days:</b> assesses number of employees, accrual rate of paid sick and safe days, number of days that can be accrued, inclusive family definition, private right of action for violations, inclusion of paid safe days, use of sick days, and tenure before being able to access accrued time.</p> <p data-bbox="743 802 1955 857"><b>Fair Working Conditions for Care Workers:</b> assesses The Domestic Workers Bill of Rights, legislative support for care worker unions, pre-K and childcare worker wages, and home health and personal care aide wages.</p>
<p data-bbox="128 883 711 909"><a href="#"><u>AARP Long-Term Services &amp; Supports State Scorecard</u></a></p> <p data-bbox="113 941 680 1029">Four reports scoring states' quality of access to long-term care services and supports for older adults, people with physical disabilities and family caregivers. 2011, 2014, 2017, 2020</p>	<p data-bbox="743 883 1094 909">26 indicators across 5 dimensions:</p> <ul data-bbox="743 915 1570 1068" style="list-style-type: none"> <li>- Affordability and Access (6 indicators)</li> <li>- Choice of Setting and Provider (7 indicators)</li> <li>- Quality of Life and Quality of Care (4 indicators)</li> <li>- Support for Family Caregivers (12 policy areas, grouped into 4 broad categories)</li> <li>- Effective Transitions (5 indicators)</li> </ul> <p data-bbox="743 1078 1709 1104">Collects information on demand for and access to personal care and home health aides by state.</p> <p data-bbox="743 1110 1934 1166">Collects information on the number of assisted living and residential care units per 1,000 people ages 75 and older by state.</p> <p data-bbox="743 1175 1955 1230">Measures quality of care through following indicators: rate of employment, nursing home residents with pressure sores, and use of antipsychotic medications by state.</p> <p data-bbox="743 1240 1864 1266">Collects information about state policies supporting family caregivers, and how states address caregiver needs.</p>
<p data-bbox="247 1289 596 1315"><a href="#"><u>IPPSR Correlates of State Policy</u></a></p>	<p data-bbox="743 1289 1944 1315">This data set includes very few measures related to care policy. It measures if the state adopted a kinship care program</p>

Source	Measures on Care-Related Policies
<p>Data set tracking policy differences across the 50 states and changes over time, with the aim to compile, disseminate, and encourage the use of data relevant to U.S. state policy research. Includes more than 3000 variables, with observations from 1900–2019, approximately.</p>	<p>and, in the healthcare, section includes measures for health care expenditures per capita, and whether the state has health insurance benefit mandates for home health care, long-term care, hospice care. It also collects the number of people employed in health care and pharmaceuticals.</p>
<p><b><a href="#">State Education Practices (SEP)</a></b></p> <p>General resource on state education reform activities, describing major developments in state-level education policies. Site reflects information collected from 1990 through 2020, although prior to this website, NCES published the Overview and Inventory of State Requirements for School Coursework and Attendance (1992) which covers related information from 1983 through 1990.</p>	<p>This website draws primarily on data collected by organizations other than NCES, compiles and disseminates data on state-level elementary and secondary education reform efforts in the eight following topics: enrollment and attendance policy, school choice, high school completion, early childhood and kindergarten, accountability, subject-specific policy, staff qualifications, and state assessments.</p> <p>Early childhood and kindergarten section includes data tables on state prekindergarten standards and teacher qualifications (2016–17), early childhood school readiness definitions, assessments, and interventions for children not meeting expectations, by state (2018), and percent and number of children enrolled in state prekindergarten programs, by state (2016–17).</p>
<p><b><a href="#">National Database of Childcare Prices</a></b></p> <p>The National Database of Childcare Prices (NDCP) is the most comprehensive federal source of childcare prices at the county level in the United States. The NDCP was developed to fill a need for local level childcare price data, standardized across U.S. states.</p>	<p>This database offers childcare price data by childcare provider type, age of children, and county characteristics. Data are available from 2008 to 2018. The NDCP provides data on the price of child care by children’s age groups and care setting (home-based or center-based) at the median and 75th percentile over an 11-year period (2008-2018, inclusive) at the county level.</p>
<p><b><a href="#">Family and Medical Leave Act Surveys</a></b></p> <p>The Family and Medical Leave Act Surveys are administered by the U.S. Department of Labor and has 4 waves of data: 1995, 2000, 2012, and 2018. The 2018 surveys consisted of two separate surveys, one for employees and one for worksites.</p>	<p>This data set includes information about access, uptake, and barriers to accessing paid and unpaid leave in the workforce. The data set includes a variable noting whether a respondent lives in a state with guaranteed paid family leave. The survey also asks detailed questions about what kind of event leave was taken for (Ex: caring for a personal illness, a loved one, a child etc.). More information about specific variables in the 2018 survey can be found <a href="#">here</a>.</p>
<p><b><a href="#">American Time Use Survey Leave Module</a></b></p> <p>The U.S. Department of Labor Women’s Bureau sponsors the ATUS Leave Module. This module includes 3 waves: 2011, 2017, and 2018. The survey will be fielded again in 2024.</p>	<p>The 2011 Leave Module data files contain information related to workers’ access to paid/unpaid leave from their jobs, and their ability to adjust their work schedules and locations. The 2017-18 Leave/Job Flexibilities Module data files contain information related to workers’ access to paid/unpaid leave from their jobs, job flexibilities/work schedules.</p>

## Appendix B. Comments from Interviews with and Surveys of Researchers

As part of our research to prepare this working paper we consulted with researchers with expertise on topics related to care provision. This consultation process took three modalities. First, we had one-on-one conversations with several researchers to discuss their perception of the current data infrastructure for provision. Second, we designed an online survey to collect more information from a broader range of experts across social sciences disciplines. The survey asked respondents to describe their experiences using US survey data to study care and identify strengths, gaps, and weaknesses in existing data. Over 60 experts answered our survey. Third, we invited many researchers and policy analysts to participate in an on-line discussion of a draft of our report in Fall 2022. Below we summarize key themes emerging from this consultation process.

1. **Disconnection and Fragmentation.** Respondents indicate that an important challenge that emerges in research about care provision is the fact that surveys often only cover one dimension of care provision. There is no survey that collects comprehensive information on all key dimensions of care provision: care needs, care received, care provided. For instance, the ATUS is a very valuable data source to understand unpaid care, but it does not measure the care received by the household that might help fulfill their care needs (i.e., hiring a babysitter) nor does it measure the care needs of the household. The CEX includes information on household expenditures to purchase care services, but it does not collect information on unpaid care or care needs, making it difficult to assess whether and when purchased care and unpaid care are substitutes or complements. There are many other examples of similar disconnection and fragmentation. One respondent summarized this issue as follows “better integration of family, health, and economic data - surveys tend to specialize in one but the interconnections are critical.”
2. **Gaps in measures about care needs.** Respondents indicate that there is a lack of consistent measures about care needs outside health-specialized surveys. Surveys sometimes collect information on disability status, but such measures are often insufficient to capture whether individuals have or are responsible for someone who has limitations with ADLs and/or IADLs. Health-specialized surveys (such as HRS) include good measures that could be incorporated in other surveys.
3. **Gaps in measures about unpaid care provision.** In general, unpaid care provision is probably underestimated, especially when provided by non-resident family and friends. Respondents agree that the American Time Use Survey offers good quality measures of unpaid care provided by working-age adults, but not on care received.

The household-centric focus of the ATUS means that we know little about the contributions that family members and friends provide to the care of nursing home residents. Moreover, the core focus on working-age adults creates blind spots. Respondents point to the need for time use surveys focused on children and older adults. Respondents also note the need to improve measurement of infrequent or low-intensity forms of unpaid care. Monthly visits to a grandparent in a nursing home, for instance, might not be well captured in current measures of the American Time Use Survey. There is also concern that the burden of care crisis moments is not well captured in the existing data. Estimates about care provided to older adults seems very low and it might be related to the episodic nature of care needs that might not be adequately captured in single-day diary data collection.

4. **Gaps in measures about care services usage and purchase.** Respondents note that existing surveys do not include adequate measures to understand the extent to which individuals/families/households rely on care services to fulfill care needs. The Consumer Expenditure Survey (CEX) includes measures on spending to purchase care services, but these measures often lack sufficient detail (i.e., in a household with more than one child under school age, a researcher cannot disaggregate spending per child). Additionally, measures on spending do not cover the use of care services that might not be paid for (e.g., Head Start).
5. **Gaps in measures about available care services and supports.** Respondents note the lack of measures describing policies that offer services and support to meet care needs, such as access to sick or family leave, subsidies to cover costs of purchasing care services, availability of care services, etc. These care supports might be offered by employers as well as by local and state governments.
6. **Weaknesses in survey designs.** Respondents note that their research is often limited by survey sample size, which makes it difficult to examine how care varies across population subgroups of interest (i.e., by race/ethnicity, migration status, age). One respondent noted the lack of age disaggregated data after 80 or 85, which makes understanding the challenges of care provision at older ages difficult. This is a group in which women are overrepresented and nursing home entry ramps up. Respondents also noted that surveys often miss information to contextualize care relationships. For instance, PSID measures of care provided to adults outside of the household do not collect information about respondents' relationship to care recipients (are they parents? grandparents? aunts and uncles? friends? former partners?). Similarly, in households with multiple children, measures of care provided to children do not always identify which child is the care recipient. Respondents emphasize the need to obtain data from all household members (American Time Use Survey only includes a time diary for one household member; this was often identified as a weakness by our respondents). At the same time,



respondents also indicated that having the household as the sole focus could also generate blind spots and miss information on care transfers that occur across households.

7. **On data linkages.** Respondents expressed interest and optimism in overcoming some of the data shortages via data linkages. Respondents mentioned three kinds of data linkages: a) linkages across surveys (i.e. the CPS-ATUS linkage that already exists) and the planned BLS linkage between the Consumer Expenditure Survey and the ATUS), b) linkages between surveys and contextual measures at the state or county level (Respondents noted that some surveys lack measures to identify geographical regions and this is a shortcoming), and c) linkages between surveys and administrative data (i.e. the HRS-Medicare linkage that already exists).
8. **Other data shortages.** Several respondents noted the shortcomings in employment and earnings data, particularly in understanding employment in the gig economy, platform work, informal work, and schedule unpredictability and variability. There is concern that income is underreported due to the relevance of informal income-generating activities. Also noteworthy is the lack of attention to nonprofit institutions.

Our consultation with experts also provided several survey-specific recommendations for improvement (see Table B1. Below).

**Table B1: Suggestions for Existing Survey Revisions from Experts and Researchers Interviewed**

<b>Current Population Survey</b>	<ul style="list-style-type: none"> <li>● Add measures about unpaid care provided to children and adults with care needs. Add measures about childcare arrangements for children in the household.</li> <li>● Improve measures about preschool enrollment and childcare enrollment in October supplement.</li> <li>● Improve life history data on key life-course transitions related to family formation, fertility.</li> </ul>
<b>American Time Use Survey</b>	<ul style="list-style-type: none"> <li>● Collect time diaries from more than one adult member of the household. Reporting from a single adult is limited, it does not capture intra-household dynamics of care provision.</li> <li>● Improve measures about supervisory and secondary care. Time with a child “in your care” does not offer sufficient details. Difficult to assess quality of care during these time intervals.</li> <li>● Improve measures about care for older adults, including better measures of supervisory care for adults in and outside of the household.</li> <li>● Add measures about well-being across all activities.</li> <li>● Add geographic identifiers for smaller areas.</li> <li>● Improve measures about paid work schedules to capture non-standard and unpredictable work.</li> <li>● Incorporate better measures of cognitive and mental work related to housework and care responsibilities.</li> </ul>
<b>Survey of Income and Program Participation</b>	<ul style="list-style-type: none"> <li>● 2014 redesign meant a big loss of information about detailed childcare arrangements (i.e., survey no longer asks about the time each care arrangement is used). Plus, information is only gathered corresponding to the month of December.</li> <li>● Improve harmonization and consistency about unpaid care, utilization of paid care services, and receipt of subsidies for care services across waves + panels.</li> <li>● Improve measures about paid work schedules to capture non-standard, unpredictable work.</li> </ul>
<b>Panel Study of Income Dynamics</b>	<ul style="list-style-type: none"> <li>● Ask questions about unpaid care to all members of the household, instead of relying on reports from the primary respondent.</li> <li>● Improve measures about adult caregiving and adult care recipients.</li> <li>● Expand the limited information available about transfers of time and money related to caring for adults (i.e., expand the 2013 Roster and Transfers module)</li> <li>● Improve measures about paid work schedules to capture non-standard, unpredictable work.</li> </ul>
<b>Consumer Expenditure Survey</b>	<ul style="list-style-type: none"> <li>● Add measures to disentangle the extent to which expenditures reflect desire to pursue higher “quality” services or goods vs regional price variation. This is relevant to evaluate expenditures for childcare or adult care.</li> <li>● Add geographic identifiers for smaller areas</li> </ul>
<b>Health and Retirement Study</b>	<ul style="list-style-type: none"> <li>● Improve measures of unpaid care provided by respondents to capture a greater range of care provided by older adults. The current question about grandchild care, for instance, only asks about care provided above a certain number of hours and misses infrequent care.</li> </ul>
<b>National Health and Aging Trends Study</b>	<ul style="list-style-type: none"> <li>● Improve measures about receipt of care from others. Current questions are often yes/no and do not capture relevant details about care provision: when was this care received? For how long? Who provided it? Add information about all offspring of older adult to contextualize care provision</li> </ul>

Finally, our consultation with experts also included references to surveys that could serve as models to improve the U.S. data infrastructure on care provision. Experts mentioned the following surveys:

- The Generations and Gender Survey could be a good model for studying forms of care across generations, although questions about care provision and needs can be improved.
- The Canadian General Social Survey on Time Use has the ability to link measures of mental health, stress, and time pressure to time use data. It collects information on secondary and simultaneous activities. It also includes data on use of technological devices during activities.
- The UK Time Use Survey includes time diaries for all household members and a time diary for young children, which collects information on care received from the child's point of view. This design allows researchers to triangulate reports of care between parents and between parents and children. It also collects information about use of technological devices during activities.
- The Canadian General Social Survey on Family includes questions about care for children for non-residential parents, and it integrates information about use of paid childcare services and the use of family policies.
- The European Social Survey asks questions about care that could be easily incorporated into the General Social Survey in the U.S.
- The Survey of Health Aging and Retirement in Europe does a better job at asking questions about care intergenerational transfer than the U.S. Health and Retirement Study (HRS)
- Lastly, experts proposed new surveys that could significantly improve data shortfalls. Notably, one expert proposed a Health and Retirement type survey starting at birth.