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Employment in Child Care and Early Education in the U.S., 2000-2021

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Employment in Child Care and Early Education in the U.S. 2000-2021

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Abstract

Accurate assessment of trends in the availability and affordability of childcare services in the U.S. hinges on accurate assessment of a paid labor force that is difficult to precisely measure, because it spans a wide range of informal and formal institutional arrangements. This paper calls attention to these measurement problems and traces significant changes in the composition of child care and early education employment from 2000 to 2021 based on data from the American Community Survey (ACS).¹ It shows that employment in the Child Day Care Services industry has become an increasingly poor measure of the number of those employed in Child Care and Preschool/Kindergarten occupations, due to increased provision in both Private Household Services and Elementary and Secondary Education industries. Comparisons of worker characteristics and median annual earnings across occupations and industries highlight the effects of institutional context, including differences in the composition of demand for paid care services. Consideration of these issues points to the need for specific improvements in labor force survey design.

Key words: child care employment, measurement problems, survey design

When researchers refer to the paid “early childhood care and education workforce” what do they mean? Industry classifications are designed to convey differences in the types of goods or services being provided, while occupation classifications are designed to convey differences in the type of work, or the “labor process.” While industry and occupation don’t necessarily overlap, they are often complementary. However, early childhood care and education poses a particular classification challenge. Apart from the significant role played by unpaid and unreported providers, paid provision takes a number of different institutional forms. Some paid services are provided within children’s own homes by household employees designated as part of the Private Household Services Industry.² Some are provided by small family daycare businesses located in the provider’s home, and some are provided by for-profit or non-profit day care centers, both of which are placed (undifferentiated) within the Child Daycare Services Industry.³ Some are provided by public schools that have recently expanded their provision of kindergarten and pre-K programs, as part of the Primary and Secondary Education Industry.⁴ In the U.S., kindergarten services are primarily aimed at 5-year olds, preschool at 4-year olds.

Household employees such as nannies are not infrequently hired “under the table” in order to avoid payment of Social Security taxes by both employer and employee, but little is known about their actual numbers.⁵ Many small home-based businesses known as family daycare providers are more firmly embedded in a formal market, but quite heterogenous—they may be registered or unregistered, regulated or unregulated, unincorporated or incorporated, and some may report themselves as employed in Private Household Services. Child care centers tend to be larger scale, are seldom home-based, and are more likely to be registered and regulated. They include non-profit organizations, local for-profit firms, and corporate/private-equity firms, some based on a franchise model. The federal government funds public Head Start programs,

and several state governments have increased funding of preschool programs alongside established kindergartens in public schools.

Individuals reporting an occupation classified as Child Care Workers or Preschool and Kindergarten Teachers (a single, combined category) represent an important subset of the total paid labor force providing all such paid services.⁶ Many efforts to examine trends in child care provision in the U.S. focus on these two occupations, often filtering them by industry, institutional context, and/or type of employment. Differences in the way such filters are applied reduce the comparability of many estimates of the size of the paid early childcare and education workforce, especially those based on annual national-level household surveys such as the American Community Survey and the Current Population Survey.

This paper reviews several estimates of the size and characteristics of the paid early education and care work force, illustrating differences in its definition. Next, it details trends in the institutional structure of the paid early childcare and education work force in the U.S. between 2000 and 2022. On the industry level, declines in employment shares in the Child Day Care Services industry were accompanied by significant increases in Private Household Services and Elementary and Secondary Education. On the occupational level, declines in the share of Child Care Workers within the Child Day Care Services industry were accompanied by significant increases in the number of Preschool and Kindergarten Teachers. Troubling ambiguities in the measurement of institutional components of the paid early care and education workforce motivate discussion of possible improvements in survey wording and design.

The Size of the Paid Early Childcare and Education Workforce

Accurate and consistent definitions of the paid early childcare and education work force are necessary for analysis of secular and cyclical changes in the supply of services to parents of

young children.⁷ Definitions also influence assessment of wages, benefits, and turnover rates that are relevant to considerations of service quality. Lack of a clear consensus on appropriate definitions has exacerbated problems related to institutional heterogeneity. Many employees in the child care industry are not engaged in child care occupations, and many of those reporting childcare occupations do not work in the child care industry. Definitions of this paid labor force vary widely, sometimes based on industry classification, sometimes on occupational classification, and sometimes on a combination of these two alongside other job aspects, such as self-employment.

Many different sources, ranging from the Federal Reserve Bank of St. Louis to the Center for American Progress, and the Center for the Study of Child Care Employment have recently published estimates of child care employment based on reports from business and government establishments categorized as part of the child care industry, based on the Current Employment Survey (CES).⁸ A recent analysis of turnover in paid early child care and education jobs also relies on this industry survey.⁹ Two reports by the U.S. Council of Economic advisors that examine the impact of federal Child Care Stabilization grants temporarily provided in 2020 and 2021 treat employment in the Child Day Care Services Industry as a proxy for the child care and early education workforce.¹⁰ Another policy-oriented discussion based on industry data suggests that concerns regarding the negative impact of recent cuts in pandemic era federal subsidies have been overstated, since industry-level employment has not declined.¹¹

While this is true, measures based on employment in the Child Day Care Services industry do not include the entire paid early child care and education work force. The Current Employment Survey effectively captures child care center employment. However, it does not include workers in the Private Household Services industry (which includes “nannies”) or those

preschool and kindergarten teachers employed in Elementary and Secondary Education. It almost certainly omits many small-scale unlicensed and often unlisted family day care businesses. Also, as later discussion will show, the industry-based estimate includes many employees in the Child Daycare Services Industry who do not report their occupation as Child Care or Preschool and Kindergarten Teachers (about 30% of the industry total in the American Community Survey in 2022). Similar concerns apply to estimates based on the establishment-based Occupational Employment and Wages Survey (OEWS).¹²

A very different definition has been deployed by nationally-representative surveys focused specifically on paid child care users and providers, such as those conducted by the Office of Planning, Research, and Evaluation (OPRE) within the Administration for Children and Families of the U.S. Department of Health and Human Services in 2012, 2019, and 2024 (the National Survey of Early Child Care and Education or NSECE).¹³ These surveys are based on a broader age-based definition of child care and early education, referring to caregiving and educational services for children from birth to age 13 (implicitly excluding parental care). Early care and education is defined as services provided only for children from birth to age 5 who are not yet in kindergarten.

The NSECE surveys explicitly acknowledge the heterogeneity of child care services, with separate modules for household parents or guardians, home-based providers such as family day care businesses, directors of center-based care programs, and center-based staff. Their definition captures far more informal providers than traditional paid labor force surveys.¹⁴ Still, it remains limited in some respects. While it tallies both paid and unpaid assistance from non-parents who devote more than 5 hours or more to child care, the lack of specificity regarding hours makes it difficult to know how much care is actually provided, and the survey of home-based providers is

limited to those that are officially listed. It does not include those from the Private Household Services industry that report their occupation as child care worker.¹⁵

The age-based categories used by the NSECE surveys raise another conceptual issue, the boundary between “care” and “education,” which no longer coincides as neatly as it once did with the distinction between children under 5 and 5-year-olds enrolled in kindergarten. Many states have added preschool services for 4-year olds into their public education systems, following a trajectory similar to that of the gradual expansion of kindergarten services in the twentieth century.¹⁶ States now serve about half of all 4-year olds who attend any preschool program, in enrollments that far exceed the federal Head Start program.¹⁷

Some policy reports focus exclusively on Child Care Workers.¹⁸ However, many also include the Preschool and Kindergarten Teachers who are employed in the Child Day Care Services industry, screening out those employed in the Elementary and Secondary Education industry. In this context, the distinction between Child Care Worker and Preschool Teacher becomes blurry, even though the former are more likely to be caring for younger children, and the latter for 3 or 4-year olds. The growing emphasis on the educational impacts of early child care has probably led providers to emphasize their preschool bonafides, whether or not they are part of a larger public or private school organization.¹⁹

Many center-based programs describe themselves as preschools, while family day care businesses are more likely to emphasize the “care” word. However, regulation of credentials and nomenclature varies considerably from state to state, and respondents to household surveys designate their own occupations. The unclear boundaries between “child care worker” and “preschool teacher” have led some experts to propose revisions to the occupational categories

that would invite reports of age differences of the children being cared for, since educational content is less relevant to children ages birth to 3 than to later age groups.²⁰

Labor economists examining the paid early child care and education work force often take advantage of several different data sources (including but not limited to the NSECE surveys, establishment-level data on industry and occupation, and household surveys such as the Current Population Survey and the American Community Survey) and utilize information regarding both occupation and industry. For instance, in his recent comprehensive review, Chris Herbst defines child care and early education occupations as Child Care Workers and Preschool/Kindergarten Teachers, plus three other smaller occupations (Special Education teachers, Other Teachers and Instructors, and Teaching Assistants) if all of the above also report their industry of employment as Child Day Care Services.²¹ This definition excludes both child care workers in Private Household Services and child care workers and Preschool/Kindergarten teachers employed in the Elementary and Secondary education industry.

Herbst notes the significance of the “home-based care” provided by small family day care businesses and the “private household care” provided by paid nannies, friends and relatives in children’s own homes and reports an estimate of about 3.8 million home-based/private household workers based on a 2016 survey, compared to about 1 million center-based teachers in 2013-2014.²² He also notes that about 70% of these home-based/private household workers were classified as “unlisted and unpaid,” a finding that dramatizes the quantitative significance of what economists might think of as the “informal sector” (not including the care that parents provide, and with the caveat that the average hours of care provided per week remain unclear). About 30% of workers in this informal category were paid—over a million workers, or about the same as those working in child care centers.

Far more attention has been devoted to the expansion of formal care and early education over the last decades than to possible declines in the supply of “home-based” care.²³ This may be partly related to the lack of adequate data covering this component of the paid care labor force as well as concerns about the overall quality and educational impact of paid care services. As is clear from the discussion above, data limitations pose a serious problem. Herbst measures the number of those employed in family day care businesses by filtering the occupation and industry data for the “self-employed” status that proprietors of small businesses report. While this is the only proxy available in the American Community Survey to capture this component of the paid early care and education workforce, it falls short by excluding those employed as helpers in family day-care businesses, who are therefore implicitly assigned to the “center-based” workforce. As explained later, it also seems likely that some of those running small family day care businesses report their industry as Private Household Services.

Taken together, the definitional issues outlined above may lead to an underestimate of trends towards reduced supply of relatively informal paid care services. Significant declines in the number of family day care businesses have been widely reported.²⁴ These businesses were particularly hard hit by the end of federal “stabilization” funding that was initiated during 2020 as a result of the Covid-19 pandemic.²⁵ Low and middle-income families can seldom if ever afford to hire private household workers. It also seems likely that a relatively low unemployment rate, combined with increases in earnings at the bottom of the earnings distribution constricts the supply of friends and relatives willing to provide inexpensive services.

Even the expansion of state-funded pre-K programs could have the unintended effect of crowding out private care and preschool businesses.²⁶ Such crowding out can take indirect as well as both direct forms. For instance, a shift of 4-year olds into public preschool programs tilts

the demographic composition of children in need of care toward more costly-to-care-for younger ages, increasing average costs for private providers. While regulatory pressure for higher-quality care services offers distinct benefits, it may also reduce affordability. Our analysis of data from the 2000-2021 American Community Survey reveals a variety of institutional changes that may have contributed to contraction in the supply of paid home-based child care provision affordable for low-income families with children under the age of 4, in particular.

Changes in Institutional Structure

Our analysis of changes in institutional arrangements in the paid early child care and education work force considers shifts in employment across three industries (Child Daycare Services, Elementary and Secondary Education, and Private Household Services), changes in occupational structure within the Child Daycare Services industry, and trends in both self-employment and type of employer by both industry and occupation, with some consideration of changes in the personal characteristics and earnings of employees. We rely on data from the American Community Survey data from IPUMS since 2000.²⁷ We restrict our attention to employed adults ages 18-64 and choose 2021 as our preliminary endpoint in order to sidestep the sharpest effects of the Covid-19 epidemic in 2020.

Industrial Composition of Two Major Occupations

While the precise distinction between Child Care worker and Preschool Teacher remains blurry, the former are more likely than the latter to be caring for young children outside of center-based preschools. Since 2000, the industrial composition of the Child Care worker occupational category has changed dramatically. The number of persons reporting this occupation in the Child Daycare Services industry declined by about 43% between 2000 and 2021, from 928,899 in 2000 to 597,097, while the number in Private Household Services

increased by 87%, from 109,093 to 203,976 (See Figure 1). Trends in the absolute numbers of Child Care Workers in other industries were far less pronounced, and the overall number in the occupation declined by about 25%.

These shifts had a striking effect on employment shares. For instance, by 2021, only about 50.1% of all Child Care workers as strictly defined by occupation were employed in the industry to which many researchers assume they belong, while those in Private Household Services represented 20.5% of the total (See Figure 2). In other words, the group often described as “nannies” had assumed greater relative importance, despite likely underreporting of their numbers, especially by undocumented immigrants working under the table. A significant role for employment in Private Household Services is consistent with evidence that college-educated U.S. born women living in metropolitan areas where many low-educated immigrants reside benefit economically from the relative low cost services they can provide.²⁸ Recent research confirms that non-college educated women were much less strongly affected.²⁹

The industrial composition of the occupation of Preschool and Kindergarten Teacher has shifted since 2000 in less dramatic, but nonetheless significant ways. Since 2015, in particular, significant growth has occurred in Elementary and Secondary Education, reflecting the growth of public investments in preschool in many states. Because the Census classifications used in the American Community Survey combine Preschool and Kindergarten and many states now offer Kindergarten services through their public schools, attention to this occupation has often been filtered by industry, considering only Preschool and Kindergarten Teachers employed in the Child Day Care Services as part of the early care and education workforce.³⁰ The number of employees in this filtered category grew significantly between 2000 and 2021, by 63%. This positive change almost countervailed the decline in the number of child care workers; the sum of

all workers in a Child Care occupation plus Preschool and Kindergarten teachers in the Child Care Services industry declined over the period by only about 8%.

However, if the increase in the overall number of Preschool and Kindergarten teachers primarily represented growth in Preschool for 4-year olds rather than Kindergarten for 5-year olds, as seems likely, then overall employment in child care and early education slightly increased. In 2021, about 31% of all Preschool and Kindergarten teachers were employed in Primary and Secondary Education, compared to 21% in 2000.

Changes in Occupational Composition of Child Daycare Services

Since considerable empirical attention has focused on employment in the Child Daycare Services industry alone, changes in its particular occupational structure invite consideration. In 2000, Child Care workers represented 60% of all those in the industry; by 2021, their representation had dwindled to about 36%. As suggested by the trends outlined above, the representation of Preschool and Kindergarten teachers in the industry increased over the period, from 21% to 36% (See Figure 4). Managers, teachers not otherwise classified, and other occupations also increased their share in the industry.

Trends within the Elementary and Secondary Education industry were less notable. Preschool and Kindergarten teachers, despite their growth over time, represented less than 4% of employment in that relatively large industry, even in 2021. Trends in the occupational structure of the Private Household Services industry, on the other hand, confirmed its increasing importance as a source of child care. In 2000, Child Care workers represented only 20% of total employees in the industry; by 2021, their representation had grown to 33%.

Changes in Type of Employment

Consideration of trends in both self-employment and type of employer (for-profit, non-profit, or public) also shed light on the paid early care and education work force. As noted above, the Census classifications utilized by the American Community Survey do not distinguish small daycare businesses predominantly based in a provider's own home from larger center-based businesses. Since most of the smaller businesses are operated by individuals reporting themselves as self-employed in the Child Daycare Services industry this variable provides a rough proxy for this category of what are sometimes termed "family daycare businesses." While it excludes individuals working as assistants or aides in small family daycare businesses, it nonetheless provides a useful indicator of trends over time and confirms reports of contraction in the supply of services provided by these smaller, more informal (and often unlicensed and/or unlisted) businesses.³¹ In other words, the decline of self-employment is a strong indicator of the decline of family day care businesses, even though it excludes consideration of wage earners within those businesses.

Within the Child Day Care Services industry, the most prominent trend in type of employment is a steady increase in the number employed by for-profit firms (from 41% to 52%) and a concomitant decline of the self-employed (from 32% to 17%) between 2000 and 2021 (See Figure 5). The percentage shares of both non-profit and public employment held steady. However, as noted above, the Child Day Care Services industry does not capture the significant number of Child Care Workers in Private Household Services or the Pre-School Teachers in Elementary and Secondary education.

A Revised Estimate of the Paid Early Care and Education Workforce in 2021

The descriptive analysis above provides the basis for an approximation of the size of the paid early child care and education labor force across all three industries in 2021 that conforms

to the basic intent of traditional estimates—focusing on those paid workers providing services to children under the age of 5. We take the number of Child Care Workers and Preschool and Kindergarten Teachers in the Child Day Care Services industry as a starting point, (1,519,527) and add the number of Child Care Workers in Private Household Services (203,976), some of whom are nannies, and some of whom may be family day care business owners. Next, we add an approximation of the number of Preschool Teachers employed in Elementary and Secondary Education.

While we cannot distinguish them from Kindergarten Teachers who are lumped in the same occupational category, we know that most state-funded pre-school programs were put into place after 2010, while enrollment in public kindergartens has remained fairly constant with the exception of a pandemic-related dip in 2020.³² Therefore, we treat the increment in the number of Preschool and Kindergarten Teachers within Elementary and Secondary Education since 2010 (pictured in Figure 3) as an estimate of the number of Preschool Teachers in that industry in 2021 (103,885). This sums to a total of 1,827,388, a number about 20% larger than that based on those in Child Care and Preschool/Kindergarten Teacher categories in the Child Day Care Services industry alone.

Characteristics and Earnings of Workers in Different Institutional Settings

An expanded definition of the early child care and education workforce clearly has implications for assessment of the quality and the affordability of services provided. However, an overview of differences in worker characteristics and earnings across industries and occupations today must be prefaced by further consideration of measurement issues that complicate comparisons.

While some NSCSEC surveys collect information on services provided by unpaid or low-paid relatives or friends, we know little about their personal characteristics or about those participating in unlicensed family day care businesses, especially those that are also “unlisted” by state agencies, because they are seldom captured by surveys of formal economic establishments. Workers in family day care businesses have typically been identified as the self-employed, leaving out those who are wage earners, who are then assumed to be part of the center-based workforce. Undocumented workers probably play a significant role in both unlicensed family day care businesses and private household services, consistent with analysis of the impact of intensified immigration enforcement on the employment of highly-educated mothers.³³ Finally, it seems likely some respondents describing themselves as child care workers in the Private Household Services industry are actually self-employed family day care providers.

Since our primary goal is to emphasize the significance of compositional change in both occupations and industries in the early child care and education workforce, we focus on four comparisons of median annual earnings and demographic characteristics that cross these boundaries.

Child Care Workers Compared with Teachers in Child Day Care Services

Differences in the characteristics of workers reporting different occupations in the same industry reflect differences in the ages of children primarily cared for, which relate to the educational content of the care provided. While increased awareness of the value of early childhood education has increased the social desirability of the label “Preschool/Kindergarten teacher,” the average characteristics of workers in these two occupations in the same industry differed substantially in 2022 (See Table 1). About 34.7% of Preschool/Kindergarten teachers had a college degree, compared to about 15.3% of Child Care workers. Only about 2.3% of those

in the former category lacked a high school degree, compared to about 11.2% in the latter. Other differences were less extreme, but Preschool/ Kindergarten teachers were also more likely to be White Non-Hispanic and U.S.-born. While both groups were near the bottom of the earnings distributions the median earnings of Preschool/Kindergarten teachers were considerably higher at \$23,000 compared to \$15,600. Part of this difference reflects their higher mean weeks worked in the years (46.4 compared to 43.6 and slightly higher typical hours worked per day (35.6 compared to 34.8).

It seems likely that Preschool/Kindergarten teachers were concentrated in center-based employment rather than family day care businesses. Existing data do not allow for a clear comparison between employment in these institutional categories, but it seems likely that employees in the more informal arrangements were those who worked shorter weeks and hours.

Preschool/Kindergarten Teachers Compared Across Two Industries

The impact of diverse institutional arrangements is also demonstrated by differences in the characteristics of Pre-School/Kindergarten Teachers in the largely private industry of Child Day Care Services compared to the largely public industry of Elementary and Secondary Education, though this comparison is biased by the fact that Kindergarten teachers are very underrepresented in the former industry. Table 2 shows that, as with the previous comparison, differences in attainment of a Bachelor's Degree or higher are striking (80.5% of teachers in the Primary and Secondary Education industry compared to 34.7% of those in the Child Day Care Services industry) and help explain differences in median annual earnings (\$46,100 compared to \$23,000) (See Table 2).

Here again, differences in annual weeks and hours worked are relevant, with those in the Primary and Secondary Education industry working on average more weeks per year (48.3

compared to 46.4) and more hours per day (40.2 compared to 35.6). However, it is not clear whether lower overall average annual work hours are a cause or a consequence of lower wages. Rates of return to education are far higher in Primary and Secondary Education, especially among those with higher credentials. White/Non-Hispanic Preschool/Kindergarten teachers with less than a Bachelor's degree enjoy an annual earnings premium ranging from 4-15%, while those with a Bachelor's Degree or higher enjoy an annual earnings premium of 92% (\$46,408 compared to \$24,224). Those with a higher level degree, such as a Master's, earn about 150% more in Primary and Secondary education than in Child Day Care Services. While this comparison is somewhat biased by the greater representation of kindergarten teachers in the occupational category in education, it is difficult to believe that the actual value of educational credentials differs greatly for 5-year-old kindergarteners relative to 4-year-old preschoolers.

The low average level of educational credentials certainly helps explain lower relative pay in Child Day Care Services.³⁴ However, it also seems likely that relatively few employees in Child Day Care Services have a college degree or higher because the returns to such a degree are far lower there than in Elementary and Secondary Education. The high price elasticity of demand for privately purchased preschool and kindergarten services among low and middle-income families makes it difficult for this sector to compete for college-educated personnel.

Child Care Workers Across Two Industries

Because those reporting their occupation as Child Care worker typically have lower educational credentials than Preschool/Kindergarten teachers, they might be expected to have much in common with Child Care workers in Private Household Services, who as noted earlier, are now a significant component of the larger early child care and education workforce. Surprisingly, those in Private Household Services are more likely to have a Bachelor's degree or

higher than Child Care workers in the Child Day Care Services industry (24.5% compared to 15.3%), possibly a reflection of immigrant status or language barriers (See Table 3). Only 64.6% of these private household workers are US.-born, compared to 76% of those child care workers in Child Day Care Services. Their earnings are only slightly lower, with median annual earnings of \$15,000 compared to \$15,600 in 2022, and may well reflect their slightly lower average of employed hours per week and employed weeks per year.

The relatively low pay of Child Care workers in Child Day Care Services compared to those in Private Household Services suggests that the former could also be designated “domestic workers,” even though many of them they are working in their own home rather than someone else’s. Indeed, a recent compilation of data on domestic workers includes self-employed Child Care worker in this category, alongside “nannies.”³⁵ As the following discussion will show, this categorization is entirely plausible, given patterns of self-employment.

Self-Employed Child Care Workers Across Two Industries

As noted earlier, the number of workers in small daycare businesses is often approximated by identifying those Child Care Workers who report as self-employed within the Child Day Care Services industry.³⁶ A surprisingly high percentage of Child Care workers in Private Household Services report that they are self-employed—45.1% in 2022 (See Table 4). This represents a significant increase over the 31.6% reporting as such in 2000, and is about the same as the percentage of all Child Care workers who are self-employed (figures not included in Table 4). Self-employed child care workers in Private Household services report much lower weeks worked than those in Child Day Care Services (41.2 compared to 45.6) and usual hours worked per week (31.9 compared to 38.8). This helps explain why they have substantially lower median annual earnings than those in Child Day Care Services, \$12,200 compared to \$18,000.

Self-employment among Child Care workers in Private Household Services seems to afford more temporal flexibility than in Child Day Care Services.

These individuals may bargain with employers by promising to pay their own Social Security and Medicare taxes in return for higher money wages or simply be taken advantage of by employers seeking to minimize both pay and transactions costs. The rise of digital platforms such as Care.com may have contributed to such arrangements.³⁷ Considerable (though somewhat outdated) evidence suggests considerable non-compliance with payment of household employment taxes.³⁸ However, ambiguous wording of standard industry categories may contribute to misreporting of self-employment across industries, since family day care businesses that are run in the owner's own home could easily be designated as Private Household Services, and those that are provided via private arrangements or digital platforms to clients in their own homes could be reasonably identified as Child Day Care Services.

Priorities for Improved Survey Design

While many of the measurement problems noted above are related to intrinsic limitations of large-scale labor force surveys, some are specific to the early child care and education work force and have implications for assessing the overall supply of care services available to parents. First, as emphasized from the outset, relatively little is known regarding the level or reliability of informal care hours supplied by other family members or friends as gift, barter or pay, how these hours change over the business cycle, or how they are likely to be affected by changes in retirement age or the aging of the population.

Second, the occupational categories of Child Care workers and Preschool/Kindergarten teachers should be clarified or reconfigured. It remains unclear where the boundary between “care” and “education” lies. As noted over ten years ago, one option would be to introduce

distinctions based on the typical age range of children being cared for, such as infants (under 1 year), toddlers (between 1 and 3 years) and preschoolers (ages 4 and 5).³⁹ However, the lumping together of Preschool and Kindergarten teachers, both of whom tend to preschoolers in the higher age category, is a bit problematic, since Kindergartens in many states are more fully integrated into the public education system.

Third, the overall decline of self-employment in Child Day Care Services, alongside its rise in Private Household Services, demands attention. It is widely recognized that family day care businesses provide more affordable (though lower quality) services than child care centers, are more economically vulnerable to the business cycle, and also less able to meet stringent regulatory standards.⁴⁰ Their decline may have been partially buffered by the rise in self-employed Private Household Services through digital platforms, but these are probably far less accessible to low-income than to high-income (and highly “computerized”) households. More accurate measurement of the services provided by small businesses—including those that are unlicensed and/or unlisted—could improve assessments of overall trends in the supply of affordable services.

Finally, the stark difference between the compensation of Preschool/Kindergarten teachers in the largely private for-profit environment of Child Day Care Services compared to those within the largely public environment of Elementary and Secondary Education, invites more attention to differences in access to health and retirement benefits within the early care and education work force. In the economy as a whole, the value of employer-provided benefits amounts to more than 20% of total compensation.⁴¹ Both public and private benefits tend to be slim or nonexistent in informal employment, particularly in Private Household Services.

Conclusion

Despite measurement limitations, this assessment of trends in employment in child care and early education in the U.S. yields several substantive conclusions. Employment in the Child Day Care Services industry provides an increasingly poor proxy for this sectoral labor force, since about 19.0% of those in the Child Care occupation were located in the Private Household Services industry and about 10.7% in the Elementary and Secondary Education industry in 2022. Also, about 30.3% of Preschool and Kindergarten Teachers were located in Elementary and Secondary Education, partly as a result of state-level expansion of preschool programs.

Both researchers and policy-makers assessing the supply of paid child care services should be more attentive to the institutional segmentation of paid child care services, including trade-offs between educational quality and affordability and the effects of increased inequality in household income. The growth of for-profit center-based child care provision (including an increased role for private equity), has been accompanied by increases in child care services located in Private Household Services. Both trends auger better for high-income than low-income families. The recent expansion of state-funded universal pre-kindergarten services for 4-year olds represents a small countervailing trend. Accurate assessment of the overall consequences for U.S. families and their children will require careful analysis of the relationship between institutional trends and specific economic outcomes, which invites more attention to surveys of both child care providers and consumers.

Figures and Tables
Employment in Child Care and Early Education in the U.S. 2000-2021

All data from the American Community Survey from IPUMS, with survey weights applied. Universe restricted to workers aged 18 to 64. Industry and occupation classifications based on OCC1990 and IND1990.

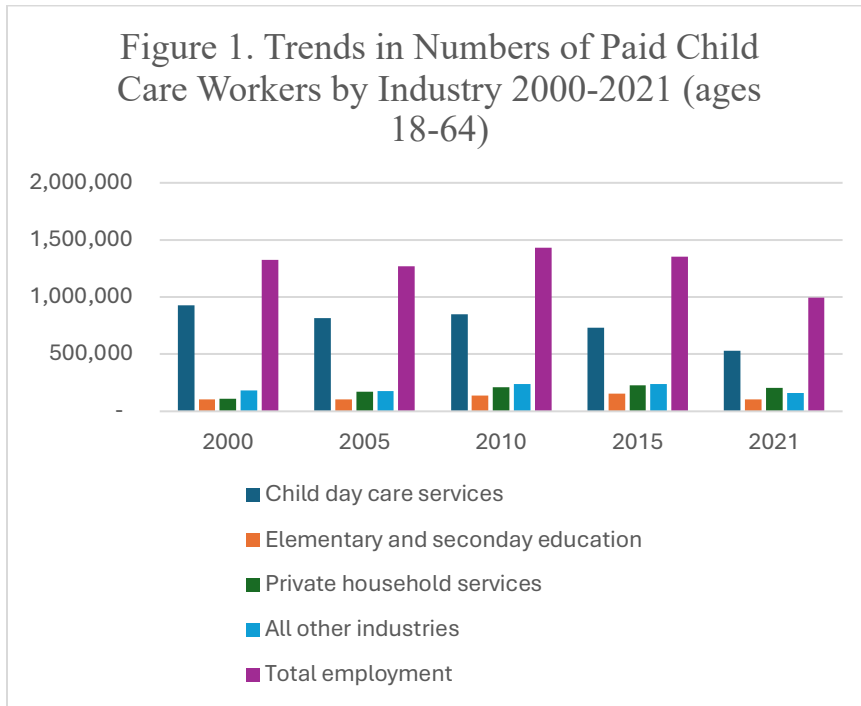


Figure 2. Trends in Percentage Distribution of Paid Child Care Workers by Industry (ages 18-64, based on the American Community Survey)

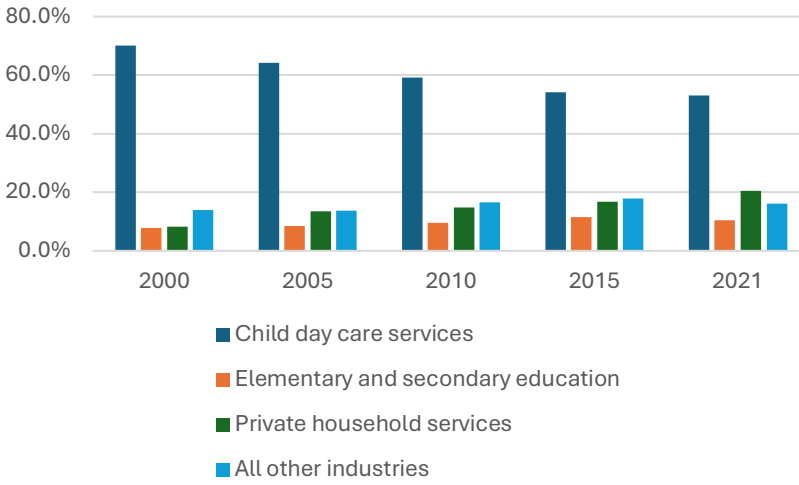


Figure 3. Trends in Numbers of Preschool and Kindergarten Teachers by Industry 2000-2021 (ages 18-64)

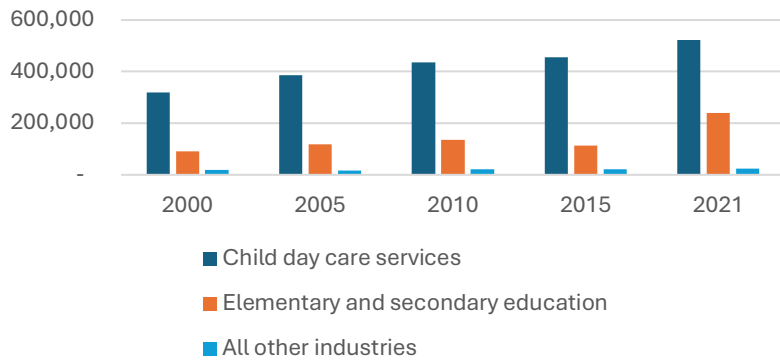


Figure 4. Trends in Percentage Distribution of Occupations Within the Child Daycare Services Industry 2000-2021 (ages 18-64)

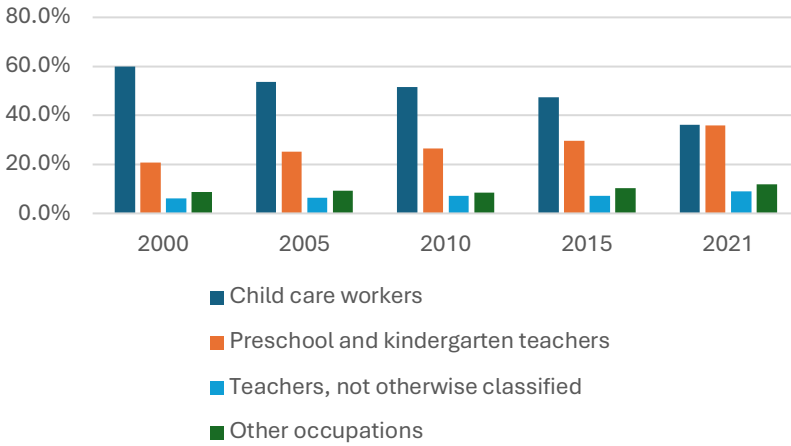
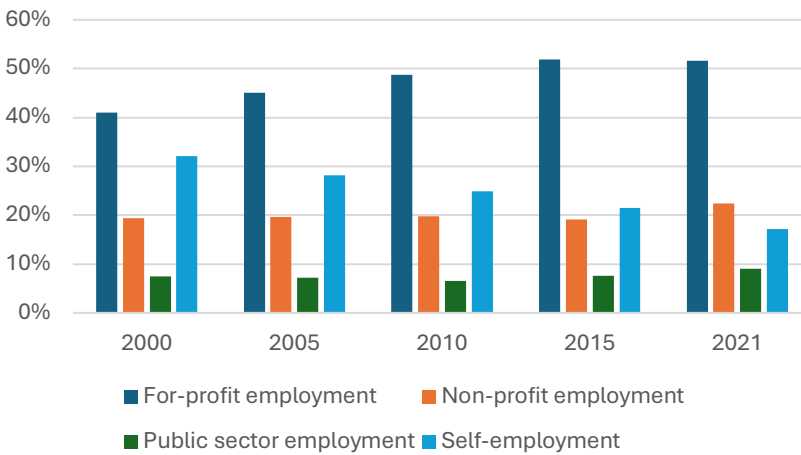


Figure 5. Trends in Percentage Distribution of Type of Employment: Child Daycare Services Industry 2000-2021 (ages 18-64)



NOTE: WHILE THE FOLLOWING TABLES COULD BE CONSOLIDATED, OUR EXPERIENCE SUGGESTS THAT IT IS CHALLENGING TO MENTALLY TRACK THE DIFFERENCES IN OCCUPATION AND INDUSTRY AND THEREFORE PREFERABLE TO FORMAT TABLES IN A WAY THAT ENCOURAGES THE BINARY COMPARISONS DEVELOPED IN THE TEXT.

Table 1. Characteristics of Child Care Workers Compared to Preschool/Kindergarten Teachers in Child Day Care Services Industry in 2022.

	Child Care Workers	Preschool/Kindergarten Teachers
Percentage with Bachelor's Degree or above	15.3%	34.7%
Percentage White/Non-Hispanic	47.6%	60.1%
Percentage born in the U.S.	76.0%	85.0%
Mean weeks worked	43.6	46.4
Mean usual hours worked per week	34.8	35.6
Median annual earnings	\$15,600	\$23,000

Table 2. Characteristics of Preschool/Kindergarten Teachers in Child Day Care Services Compared to Elementary and Secondary Education in 2022.

	Child Day Care Services	Elementary and Secondary Education
Percentage with Bachelor's degree or above	34.7%	80.5%
Percentage White/Non-Hispanic	60.1%	67.4%
Percentage born in the U.S.	85.0%	88.6%
Mean weeks worked	46.4	48.3
Mean usual hours worked per week	35.6	40.2
Median annual earnings	\$23,000	\$46,100

Table 3. Characteristics of Child Care Workers in Child Day Care Services Compared to Private Household Services in 2022.

	Child Day Care Services	Private Household Services
Percentage with Bachelor's Degree or above	15.3%	24.5%
Percentage White/Non-Hispanic	47.6%	48.9%
Percentage born in the U.S.	76.0%	64.6%
Mean weeks worked	43.6	42.9
Mean usual hours worked per week	34.8	33.7
Median annual earnings	\$15,600	\$15,000

Table 4. Characteristics of Self-Employed Child Care Workers in Child Day Care Services Compared to Private Household Services in 2022.

	Child Day Care Services	Private Household Services
Percentage with Bachelor's Degree or above	16.0%	22.3%
Percentage White/Non-Hispanic	48.1%	53.2%
Percentage born in the U.S.	69.6%	67.2%
Mean weeks worked	45.6	41.2
Mean usual hours worked per week	38.8	31.9
Median annual earnings	\$18,000	\$12,200

Notes

¹ We plan to update the empirical analysis to 2023 as soon as the recently released American Community Survey data publishes results for the industry variable we require.

² North American Industry Classification System (NAICS) 814110.

³ NAICS code 624410.

⁴ NAICS code 611110.

⁵ On non-compliance with the “nanny tax,” see Brian Erard, “Who is Minding the Nanny Tax?” *2018 IRS Research Bulletin, Publication 1500* (2018), 189-208.

⁶ The U.S. Census 2018 Occupation Code for childcare workers is 4600, a subcategory of “Personal Care and Service Occupations and for preschool and kindergarten teachers, 2300, a subcategory of “Educational Instruction and Library Occupations.”

⁷ Jessica H. Brown and Chris M. Herbst, “Childcare Over the Business Cycle,” *Journal of Labor Economics* 40, no. S1 (2022): S429-S468.

⁸ Federal Reserve Bank of St. Louis, FRED economic data, “All Employees, Child Care Services,” accessed October 12, 2024, at <https://fred.stlouisfed.org/graph/?g=DSGY>; Center for American Progress, Data Dashboard: An Overview of Child Care and Early Learning in the United States, at <https://www.americanprogress.org/article/data-dashboard-an-overview-of-child-care-and-early-learning-in-the-united-states/>; Center for the Study of Child Care Employment, “Child Care Sector Jobs,” <https://cscce.berkeley.edu/publications/brief/child-care-sector-jobs-bls-analysis/> All accessed October 12, 2024)

⁹ Flavio Cunha and Marcos Lee, “One Says Goodbye, Another Says Hello: Turnover and Compensation in the Early Care and Education Sector,” National Bureau of Economic Research Working Paper No. w31869, 2023.

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¹³ Martha Zaslow, Tamara Halle, Rebecca Madill, and Nicole Forry, "History of the National Survey of Early Care and Education, Part I: The Development of the 2012 NSECE," accessed October 14, 2024 at <https://www.acf.hhs.gov/sites/default/files/documents/opre/OPRE-History-of-the-NSECE-Part1-March2024.pdf>; "History of the National Survey of Early Care and Education, Part II: The Development of the 2019 NSECE and the NSECE COVID-19 Longitudinal Follow-Up," Accessed October 14, 2024 at <https://www.acf.hhs.gov/sites/default/files/documents/opre/OPRE-History-of-the-NSECE-Part2-March2024.pdf>

¹⁴ Owen Schochet and Pia Caronongan, "Undercounting Child Care and Early Education Workers Excludes Those Who Need the Most Help from Public Policy," Mathematica Blog, Mar 01, 2022, accessed October 14 at <https://www.mathematica.org/blogs/undercounting-child-care-and-early-education-workers-excludes-those-who-need-the-most-help#:~:text=Current%20methods%20of%20counting%20the,state%2C%20or%20local%20provider%20rosters.>

¹⁵ *Home-based Early Care and Education Providers in 2012 and 2019: Counts and Characteristics* OPRE Report #2021-85 May 2021, accessed October 14, 2024, at <https://www.acf.hhs.gov/sites/default/files/documents/opre/NSECE-chartbook-homebased-may-2021.pdf>

¹⁶ Maryellen Schaub, "The Expansion of the Child's Garden: Women's Education and Kindergarten Enrollment During the Twentieth Century," *American Journal of Education* 122, no. 2 (2016): 267-286.

¹⁷ Allison Friedman-Krauss and Steven Barnett, "Opportunities and Challenges for Preschool Expansion," *State Education Standard* 24, no. 2 (2024), p.5. See also National Institute for Early Education Research, *The State of Preschool 2023 Yearbook*, accessed online November 21, 2024 at <https://nieer.org/yearbook/2023/executive-summary#:~:text=Enrollment%20in%20preschool%20increased%20in%202022-2023%20and%20the,pandemic%2C%20and%20six%20states%20are%20still%20without%20programs.>

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²³ Elizabeth U. Cascio, "Early Childhood Education in the United States: What, When, Where, Who, How, and Why," pp. 30-70 in *The Routledge Handbook of the Economics of Education*, pp. 30-72. New York; Routledge, 2021.

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