



ADMINISTRATION FOR
CHILDREN & FAMILIES

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Dear Standard Occupational Classification Policy Committee:

The Administration for Children and Families (ACF), U.S. Department of Health and Human Services is submitting the enclosed white paper in response to the May 22 Federal Register notice seeking comments for the 2018 revision of the Standard Occupational Classification (SOC). The white paper, which was commissioned by ACF, proposes changes to the SOC definitions for occupations involving the early childhood care and education (ECCE) workforce.

The current SOC definitions for the ECCE workforce are problematic. For example, they make artificial distinctions between child care workers and preschool teachers even though there is substantial overlap in between the nature of work performed in these occupations. The current SOC definitions for ECCE occupations are also inconsistent in articulating the ages of children served. A 2012 Report by the U.S. Government Accountability Office (GAO-12-248) described how data gaps impede efforts to improve the quality of the ECCE workforce.

The proposed SOC revisions described in ACF's white paper would allow us to accurately capture data on the size and characteristics of the ECCE workforce. As the largest funder of ECCE programs--including the Child Care and Development Fund, Early Head Start, and Head Start – ACF is committed to improving data on the ECCE workforce in order to inform implementation of professional development systems and other efforts to support the ECCE workforce. We urge the SOC Policy Committee to adopt the recommendations in the white paper, and ACF stands ready to address questions or further refine the proposal as the Committee proceeds with its work.

Sincerely,

/s/

Linda K. Smith
Deputy Assistant Secretary and
Inter-Departmental Liaison for
Early Childhood Development

**Proposed Revisions to the Definitions for the Early Childhood Workforce
In the Standard Occupational Classification**

White Paper Commissioned by the Administration for Children and Families,

US Department of Health and Human Services

Prepared by the Workgroup on the Early Childhood Workforce and Professional Development

Under Contract Through the

Child Care and Early Education Policy and Research Analysis, 2005-2018 Project

For Submission to

The Standard Occupational Classification Policy Committee

Office of Management and Budget

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Introduction

This White Paper responds to the Federal Register Notice published on May 22, 2014 (Volume 79, number 99, pp. 29620- 29624) by the Office of Management and Budget soliciting public comment for the 2018 revision to the Standard Occupational Classification (SOC). The solicitation notes that “Under 31 U.S.C. 1104(d) and 44 U.S.C. 3504(e), the Office of Management and Budget (OMB) announces the review of the *2010 Standard Occupational Classification (SOC) Manual* for possible revision in 2018 and solicits public comment on: the proposed revision of the 2010 SOC Classification Principles; the intention to retain the 2010 SOC Coding Guidelines; the intention to retain the 2010 SOC Major Group Structure; the correction, change, or combination of selected 2010 SOC detailed occupations, and inclusion of new detailed occupations” (p. 29620). Regarding proposed revisions to detailed occupations, the solicitation indicates that comments are welcome “concerning typographical or definitional errors and other changes to the existing detailed occupations, including the combination of occupations. Suggested changes to existing detailed occupations may address the occupational title, definition, or its placement in the structure” (p. 29622).

In this White Paper, we propose changes to the titles, definitions, and placement for the detailed occupations involving the early childhood care and education (ECCE) workforce in the Standard Occupational Classification (SOC). We do so taking into account the proposed revisions to the Classification Principles noted in the request for public comment.

The federal occupational data system plays a vital role in informing US economic and social policy development with accurate, consistent and frequent labor force data. Standardized across all agencies, it includes data on wages, hours and benefits; characteristics of workers such as age, education and race/ethnicity; roles and responsibilities; and the nature of the industries in which workers are employed. Standard occupational data are collected quite frequently: annually for households by the Census Bureau, monthly and quarterly by the Bureau of Labor Statistics from

employers and households. This makes it possible to analyze trends in great detail across economic cycles and other changes in the environment. Standard federal data are often published at the state and local level, adding to their utility.

Having accurate and consistent data on the number and characteristics of individuals employed in different occupations in the US is important for a variety of purposes. For example, the federal data on specific occupations are accessed by individuals to make occupational decisions; state and federal government agencies use these data to target resources for professional development initiatives for specific occupations; and federal data on occupations are used to forecast areas of economic growth at both state and national levels. The availability of such data allows for calculations of the level of compensation required to recruit and retain workers with a given set of skills in a competitive and changing labor market.

Problems with the definitions used for occupations in the federal occupational data system can limit the usefulness of statistics collected using them. At present, a series of problems exists with the categorization and definitions used in the federal occupational data system for the early childhood care and education (ECCE) workforce: those in occupations involving care and education of children between birth and kindergarten entry. These problems were articulated by members of the Committee on the Early Childhood Care and Education Workforce of the Board on Children, Youth and Families; National Academies of Science (NAS); Institute of Medicine and National Research Council, in a workshop convened at the initiative of the Administration for Children and Families (ACF), US Department of Health and Human Services, in February 2011. These problems are described in the published workshop report (Institute of Medicine and National Research Council, 2012). The workshop report also includes papers as appendices that provide extremely helpful background on the federal occupational statistical system, on the nature of the problems with the current definitions for the ECCE workforce, and

descriptions of the limitations with the data currently available on the ECCE workforce. Summaries of the problems with the current definitions of the ECCE workforce are provided later in this paper.

A report by United States Government General Accountability Office (GAO), considering the issues raised by the Committee on the Early Childhood Care and Education Workforce, as well as further information gathered from representatives of federal agencies with programs focusing on young children, concluded that:

The existing gaps in national data on the ECCE workforce make it difficult to describe these workers and whether they have the necessary education, training, and skills to help children reach positive outcomes. Not knowing the true size of this workforce and its education and training levels inhibits research needed to link worker characteristics to worker quality, and to positive outcomes, including academic achievement of children, particularly those from low income families. Lack of data also hinders development of targeted support for these workers.

(GAO 2012, p. 28)

The GAO report cautions that care will be needed in thinking through ways to address the problems with federal data collection on the ECCE workforce. Any proposal for changes must be formulated in keeping with the principles for data collection and guidelines for coding used across the current federal occupational statistical system.

With this in mind, ACF commissioned the development of this White Paper. The paper was developed under a contract based on input provided by the "Workgroup on the Early Childhood Workforce and Professional Development," referred to hereafter as the Workgroup for brevity, consisting of members from academic institutions and research organizations. The members of the Workgroup, listed in Appendix A, have extensive backgrounds in research, policy and practice related to the early childhood workforce and substantial experience in using data on the early childhood workforce.

The intent in commissioning the White Paper was to assure that progress would be made beyond the identification of problems. The Workgroup was tasked with identification of the specific problems with the definitions currently used in the Standard Occupational Classification for the ECCE workforce and with developing a proposal for revising the definitions to address the identified problems. The Workgroup was asked to present initial drafts of the revised definitions to the leadership of ACF, and incorporate their feedback.

This White Paper presents the proposal for revised definitions developed by the Workgroup, incorporating the input of the leadership of ACF. It is being submitted by ACF to the Standard Occupational Classification Policy Committee in response to the Solicitation of Comments for the 2018 SOC Revision made by the Office of Management and Budget in a Federal Register Notice on May 22, 2014 (Volume 79, Number 99, pp. 29620-29624). We believe that the proposed new definitions address each of the problems identified by the NAS Committee and by the Workgroup. In formulating the proposed new definitions, we have worked to adhere to the principles that guide the 2010 Standard Occupational Classification (SOC) as well as to take into account the guidelines that must be followed in assigning SOC codes. We believe this will provide for consistency between data on ECCE and that on other occupations.

This White Paper:

- I. Summarizes the key principles and coding guidelines from the 2010 SOC that must be taken into account in proposing revisions to the SOC definitions for the ECCE workforce;
- II. Presents the definitions for the current detailed occupational categories in the SOC pertaining to the ECCE workforce;
- III. Summarizes the problems with the current categorization and definitions as identified by the NAS Committee and further issues that the Workgroup has identified when

considering how the current definitions align with the principles and coding guidelines for the SOC;

- IV. Proposes a revised set of categories and definitions, indicating how they address the problems with the current occupational categories and definitions while adhering to the current principles and coding guidelines for the SOC;
- V. Indicates how the revised categories and definitions could be used in conjunction with data on employment by industry to identify key subgroups of the ECCE workforce that are of high priority to federal agencies and other public and private users of the data;
- VI. Discusses the important priority of time series continuity (noting the proposed addition of a new Classification Principle focusing on this priority in the May 22nd, 2014 Federal Register Notice), and the potential for conducting time series analyses if the new occupational categories and definitions are adopted;
- VII. Discusses the differing contributions of recurrent data collection on the early care and education workforce through the federal statistical system and such one-time or periodic efforts as the National Survey of Early Care and Education (NSECE); and finally,
- VIII. Acknowledges key limitations that cannot be addressed through proposing changes to the SOC categories and definitions because of the nature of federal data collection on occupations, as well as the need for parallel steps to be taken to review definitions for the workforce working with school-age children in out-of-school-time care.

I. Principles and Coding Guidelines of the Standard Occupational Classification

A background paper prepared for the Committee on the Early Childhood Care and Education Workforce by Dixie Sommers, Assistant Commissioner, Bureau of Labor Statistics (Sommers, 2012) provides an overview of federal data sources for understanding the early childhood care and education

workforce. In this section of the White Paper, we draw upon this background paper to briefly summarize key features of the two classification systems relevant to the early childhood care and education workforce: the North American Industry Classification System (NAICS), and the Standard Occupational Classification (SOC). Because our focus here is on proposing revisions to the Standard Occupational Classification, we then summarize key principles for occupational classification and coding as presented in the background paper by Sommers and other key papers on the SOC. Our goal here is to identify the classification principles and coding guidelines that must be taken into account and adhered to in proposing revisions to the definitions of the early childhood care and education workforce for the Standard Occupational System. While our focus here is on the Classification Principles and Coding Guidelines in the 2010 SOC, in a later section of this White Paper we discuss the proposed changes to the Classification Principles, and more specifically the proposed addition of a further Classification Principle underscoring the importance of time series continuity, as noted in the Federal Register Notice of May 22nd, 2014.

Overview of the Two Major Classification Systems: NAICS and SOC

Sommers' background paper provides an overview of the two major classification systems used by the Bureau of Labor Statistics as well as the Census Bureau that are important for data collection on the ECCE workforce: the North American Industry Classification System (NAICS) and the Standard Occupational Classification (SOC). These systems have critical components that lay the foundation for recommending changes. These are summarized below:

- The NAICS focuses on industries, and categorizes them according to the similarity of their production processes. It provides a common industry classification used in the United States, Canada and Mexico. Within the NAICS, an establishment is considered a physical location for an economic activity. An enterprise is considered a private firm, government or nonprofit organization, and can consist of more than one establishment. A NAICS code is assigned to

each industry, involving five tiers or levels of specificity. At the broadest level, there are 20 industry sectors. At the most specific level, there are 1,175 detailed industries. Each establishment is assigned into only one of the detailed industries. For early childhood care and education, establishments are locations where ECCE services are provided. These include, for example, schools, child care centers, and private homes. The current edition of the NAICS is from 2007. The Office of Management and Budget Economic Classification Policy Committee, chaired by the Census Bureau, requested public input for a revision of the NAICS in 2012, and is presently overseeing the revision process.

- The Standard Occupational Classification focuses on the type of work performed. Here too, the goal is to assure consistent data reporting across the federal statistical system. The 2010 version of the SOC is currently in use. It has four tiers or levels of specificity, ranging from 23 major occupational groups to 840 detailed occupations. Each worker is classified based on the tasks he or she performs into only one detailed occupation. The Standard Occupational Classification Policy Committee was convened by the Office of Management and Budget in 2005. Chaired by the Bureau of Labor Statistics, it has the responsibility of making recommendations for changes to the SOC to the Office of Management and Budget. The next revision to the SOC is anticipated for the 2018 edition. Work towards the revision is now underway.

Each classification system is important for ECCE data, and we discuss in some detail below in section V the importance of joint consideration of data using both the NAICS and SOC. As will be noted, the joint consideration of the proposed new occupational categories and definitions along with the NAICS industry categories will be particularly important for tracking change over time in specific occupational categories, such as those involving educating and caring for young children in the context of public schools. However the timeline is now appropriate only for proposing changes to the SOC.

Accordingly, we focus here on the principles and coding guidelines for the SOC that must be taken into account in proposing changes to the definitions used in the SOC. Further work is anticipated at the appropriate time in the future addressing issues identified by the NAS Committee related to the NAICS.

Classification Principles of the Standard Occupational Classification: Implications for Revised Definitions

The classification principles for the 2010 SOC, as they appear in the Manual for the Standard Occupational System (User Guide, February, 2010) and in the background paper by Sommers (2012), are provided in Appendix B of this White Paper. Further discussions of the classification principles are provided by Cosca and Emmel (Cosca & Emmel, 2010; Emmel & Cosca, 2010) as well as in the paper by Sommers (2012). Here we highlight selected principles that are of particular importance in proposing revisions to the SOC that therefore must be carefully adhered to in any suggested revisions. In italics we note what we see as the implications of these principles for classification of the work of members of the ECCE workforce in the SOC. Proposed new Classification Principle #10, focusing on maximizing the comparability of data over time, is discussed in a later section of this White Paper after the proposed new categorization and definitions have been introduced. We view the changes to specific wording in Classification Principles 1 through 3, for which public comment has been requested in the Federal Register Notice of May 22nd 2014, as important and helpful clarifications. They do not, however, alter our understanding of the implications of the classification principles for the classification of ECCE occupations or for proposing revisions to the categorization and definitions of ECCE occupations in the SOC. These implications are summarized below.

- The first classification principle makes clear that the SOC focuses on occupations in which work is performed for pay or profit. In the SOC, “pay” refers to salary or wages, and “profit” refers to monetary remuneration such as through fees. *The SOC applies to those in the ECCE workforce who*

are paid for or profit from their work, and does not encompass those volunteering their time educating and caring for young children.ⁱ

- The first classification principle also indicates that work performed in family-operated enterprises by family members is included in the occupational classification. *When family members educate and care for young children as part of a family-operated enterprise, they should be included as members of the ECCE workforce under the SOC as long as they are paid for or profit monetarily from the work of the family-operated enterprise.*
- The first principle does not set any minimum number of hours worked or wages/income earned in order for an individual to be classified as employed. The federal data system collects information on hours worked per week and wages earned, allowing users of the data to make differentiations. *Home-based ECCE workers should be included in the workforce irrespective of whether they work few hours per week or earn less than what might be considered "market rate wages."*
- The second classification principle indicates that occupations are classified based on the work performed. *For those working in ECCE occupations, as for those in all other occupations, the primary consideration in classification is the nature of the work performed, not where the work is performed. When the same work is conducted in different settings, it should be coded in the same way under the SOC.ⁱⁱ*
- The second classification principle also indicates that occupational classification can take into account the level of responsibility involved in the work, and the skills, education and/or training needed to perform the work. *The classification of the ECCE workforce into different occupations should be made in light of the nature of tasks and the level of responsibility involved.*
- The third classification principle indicates that those primarily engaged in planning and directing should be classified in management occupations. *Irrespective of where the work is performed, when an ECCE position primarily involves planning and directing, the classification should be in a*

*management occupation. This principle should be applied consistently across settings in which individuals in the ECCE workforce are employed, such as schools, child care centers, preschools, Head Start centers, settings affiliated with religious entities, and homes.*ⁱⁱⁱ

- The fourth classification principle notes that in specific major occupational groups, including the education major group, supervision does not result in a separate classification, as supervisors in these major groups usually have work experience and perform activities similar to those of the workers they supervise. *For members of the ECCE workforce, supervision alone in an educational setting is not sufficient to result in a classification as managing or directing. However, as noted above, when the work involves primarily planning and directing^{iv}, the SOC classification does call for assignment in a management occupation irrespective of setting.*

Coding Guidelines for the SOC: Implications for Revised Definitions

In addition to classification principles, a set of coding guidelines for the SOC governs how the principles are applied. These coding guidelines are included in the background paper by Sommers prepared for the Committee on the Early Childhood Care and Education Workforce (2012), and appear in the 2010 Manual for the Standard Occupational System. For reference, they have been included in Appendix C of this White Paper. The Federal Register Notice of May 22nd, 2014 does not propose revisions to the coding guidelines for the SOC.

As in the previous section, here we highlight selected coding guidelines that are of particular importance in proposing revisions to the SOC for the ECCE workforce and thus must be carefully adhered to in any suggested revisions. In italics, we note our view of the implications of these guidelines for assigning occupations to members of the ECCE workforce.

- The first coding guideline reaffirms that the basis for assignment to a SOC occupation is the work performed. *Members of the ECCE workforce perform similar tasks in a variety of settings, such as schools, child care centers, preschools, Head Start centers, settings affiliated with religious entities,*

and homes. The same work performed in any of these settings should receive the same occupational code.

- The second coding guideline indicates that when a worker in a single job could be coded in more than one occupation, the code should be assigned based on the highest level of skill. However, when there is no difference in skill level, the assigned occupation should be the one in which the worker spends the most time. *As will be discussed in further detail below, research indicates that those in the early childhood care and education workforce perform a range of activities, including both those involving educating young children and those involving caring for them. This is the case whether a member of the workforce works in a school or non-school setting. The education and care activities are likely to be closely interrelated. Given the close relationship between education and care in the early years, definitions of occupations in this age range should encompass both education and care. Members of the workforce who provide at least some education (along with care) should be coded in occupation categories that include both education and care.*
- The second coding guideline also makes clear that it is appropriate to distinguish among the positions of individuals depending on the age of the children with whom they work. This coding guideline indicates that those in education who work at the elementary, middle, or secondary levels should be coded in occupational categories for the highest education level that they teach. *This coding guideline indicates that it is appropriate to specify the age of children for whom the worker is responsible when defining ECCE occupations. In keeping with occupational distinctions made for those teaching at the elementary, middle and secondary school levels, we specify that the ECCE workforce involves working with children between birth and entry into kindergarten (that is, those who have not yet entered kindergarten), and does not include individuals who only or primarily work with older children.*

- Coding guideline five indicates that licensed and non-licensed workers performing the same work should be coded together in the same detailed occupation, except where specified otherwise. *This is especially important for ECCE occupations because of wide state variation in licensing requirements for programs and certification requirements for individuals working in ECCE. In proposing revised definitions for the ECCE workforce in the SOC, it will be important to focus on the tasks involved for the occupational category and to be cautious about referencing a requirement for certification or licensing in light of lack of consistency of these requirements.*

II. Current Definitions for the ECCE Workforce in the SOC

The 2010 Standard Occupational Classification includes three occupations for the early childhood workforce *apart from special education teachers*. Each of the three definitions falls in a different major occupational group in the classification system. Below we provide context for each definition by giving examples of other occupations in the major group within which it falls. We then provide the definition for the occupation.

Childcare Workers

The occupation Childcare Workers (39-9011) appears in the SOC major group for Personal Care and Service Occupations. As examples of occupations other than Childcare Workers, the Personal Care and Service Occupations major group includes also Animal Trainers; Motion Picture Projectionists; Amusement and Recreation Attendants; Locker Room, Coatroom, and Dressing Room Attendants; Funeral Attendants; Barbers; Hairdressers; Manicurists and Pedicurists; Baggage Porters and Bellhops; Fitness Trainers and Aerobics Instructors; and Recreation Workers.

The definition provided for Childcare Workers provided in the 2010 SOC is:

39-9011 Childcare Workers

Attend to children at schools, businesses, private households, and childcare institutions. Perform a variety of tasks, such as dressing, feeding, bathing, and overseeing play. Excludes "Preschool Teachers, Except Special Education" (25-2011) and "Teacher Assistants" (25-9041).

Illustrative examples: Au Pair, Daycare Provider, Nanny

Preschool Teachers, Except Special Education

The occupation Preschool Teachers, Except Special Education (25-2011) appears in the SOC major group involving Education, Training, and Library Occupations. In addition to Preschool Teachers, Except Special Education, this major group includes, among others, teachers for differing grade ranges (Kindergarten Teachers, Except Special Education; Elementary School Teachers, Except Special Education; Middle School Teachers Except Special and Career/Technical Education; Special Education Teachers at the Preschool, Kindergarten and Elementary School, Middle School, and Secondary School Levels; Substitute Teachers; and teachers at the Postsecondary level teaching specific subjects); Teaching Assistants; Instructional Coordinators; Librarians and Library Technicians.

The definition provided in the 2010 SOC for Preschool Teachers, Except Special Education, is:

25-2011 Preschool Teachers, Except Special Education

Instruct preschool-aged children in activities designed to promote social, physical, and intellectual growth needed for primary school in preschool, day care center, or other child development facility. May be required to hold State certification. Substitute teachers are included in "Teachers and Instructors, All Other" (25-3099). Excludes "Childcare Workers" (39-9011) and "Special Education Teachers" (25-2050).

Illustrative examples: Head Start Teacher, Nursery School Teacher, Pre-Kindergarten Teacher

Education Administrators, Preschool and Childcare Center/Program

The occupation Education Administrators, Preschool and Childcare Center/Program falls in the major group for Management Occupations. Separate occupations are included for Education Administrators working with different age ranges, including in addition to the occupation involving ECCE, Education Administrators, Elementary and Secondary School; Education Administrators, Postsecondary; and Education Administrators, All Other. Examples of other occupations in this SOC major group include Chief Executives; General and Operations Managers; Legislators; Sales Managers; Computer and Information Systems Managers; Financial Managers; Food Service Managers; and Social and Community Service Managers.

The definition provided in the 2010 SOC for Education Administrators, Preschool and Childcare Center/Program follows:

11-9031 Education Administrators, Preschool and Childcare Center/Program

Plan, direct, or coordinate the academic and nonacademic activities of preschool and childcare centers or programs. Excludes "Preschool Teachers" (25-2011).

Illustrative examples: Childcare Center Administrator, Head Start Director

Several features of the current SOC definitions for the ECCE workforce are noteworthy. First, the definitions for Childcare Workers and Preschool Teachers are explicitly noted to be mutually exclusive. The roles and activities are treated as if they were distinct and non-overlapping. Second, the major group for Education, Training and Library Occupations has a separate occupation for Assistant Teacher. However the age range for this occupation is not specified. Further, there is no assistant or aide occupation for Childcare Workers. Thus, this level of responsibility is only partially reflected in the current occupational classification.

Further, it is noteworthy that in the Education, Training and Library Occupations major group, separate occupations are provided for teachers of children in differing age ranges, including preschool,

kindergarten, elementary school, middle school, secondary school and post-secondary school. Thus, specification of occupations based on the age range served to reflect the different knowledge, skills and responsibility entailed is clearly reflected in the current SOC. Lastly, for Education Administrators, Preschool and Childcare Center/Program, it is noteworthy that child care centers and programs are explicitly included as educational settings, though the definition of Childcare Workers does not list educational activities. Thus, there is inconsistency in the current SOC definitions about child care as a setting in which educational activities take place. Finally, the illustrative examples for the occupation of Education Administrators, Preschool and Childcare Center/Program note the settings in which this work may take place. However, the illustrations do not extend across the full range of settings in which the members of the ECCE workforce work. In particular, home-based settings are not included.

III. Problems with the Current SOC Definitions for ECCE Occupations

Two central problems with the current SOC definitions for ECCE occupations were identified in deliberations of the NAS Committee on the Early Childhood Care and Education Workforce. These were discussed in presentations at the Workshop held in 2011, and are well summarized in the background paper included in Appendix B of the Workshop report (2012). Two further problems identified by the Workgroup on the Early Childhood Workforce and Professional Development relate to adherence to SOC classification principles or coding guidelines. In combination, these problems result in making inappropriate distinctions across occupations based on setting rather than tasks performed, and in failing to provide consistent distinctions based on age of child and level of responsibility.

- (1) *Nature of the work performed.* The first of the two issues identified by the NAS Committee focuses on the nature of the work described in the definitions for Childcare Workers and Preschool Teachers and the mutually exclusive categorization of these two occupations, despite evidence of substantial overlap in the responsibilities of individuals in these

occupations. A related concern is the placement of these occupations in differing major occupational groups.

- (2) *Specification of the early childhood age range.* The second issue identified by the NAS Committee is inconsistency in the articulation of age ranges for different ECCE occupations. More specifically, the definition for the occupation Preschool Teachers, Except Special Education specifies “preschool-aged children” (though no further specification in terms of age is provided). However, the definition for Childcare Workers does not provide a specification regarding age, and leaves open the possibility of work occurring primarily with school-age children rather than children prior to kindergarten entry.
- (3) *Inclusion of all settings in which early childhood education and care is occurring across definitions.* A further issue identified by the Workgroup convened by ACF to follow up on the NAS report concerns adherence to SOC classification principles and coding guidelines indicating that categorization into an occupation should be based on work performed and not on setting. The current definitions, in several places, provide illustrative examples that include only some of the settings in which ECCE work takes place, even though the same activities and tasks may occur in further settings.
- (4) *Differentiation among levels of responsibility.* A final issue identified by the Workgroup convened by ACF concerns levels of responsibility. There is some differentiation of ECCE occupations by level of responsibility in the current set of definitions (for example, Education Administrators are separated out). However the levels that are differentiated are not applied consistently across settings in which ECCE work takes place. In addition, further occupational levels that are widely acknowledged by ECCE programs and in ECCE research, especially work involving assisting or serving as an aide to a lead teacher or caregiver, are not recognized as an occupation for the ECCE age range in the SOC definitions.

We note that the NAS Committee identified further problems pertaining specifically to how the NAICS categories limit utility of the data on the ECCE workforce. However, because we are proposing changes only to SOC definitions due to the timing of when changes can be made, our discussion below focuses only on problems we have identified with the current SOC definitions for the ECCE workforce. Improved occupational classification will be valuable even in the absence of NAICS improvements. We turn now to further discussion of issues 1 through 4 above pertaining to the current SOC definitions for the ECCE workforce.

Nature of the Work Performed

Sommers (2012) notes the concern articulated by members of the Committee planning for the Workshop on the Early Childhood Care and Education Workforce that “the SOC distinction between child care worker and preschool teacher does not reflect the work performed” (p. 179). While Preschool Teachers are defined as providing instruction, Childcare Workers are defined as performing tasks other than instruction, primarily custodial care. Yet, as Sommers notes, “ECCE researchers indicate that this distinction does not reflect practices and standards in the field.” (p. 179)

Members of the Workgroup on the Early Childhood Workforce and Professional Development concur with this concern, noting that situating Childcare Workers within the Personal Care and Services Occupations Group, and distinguishing this occupation from Preschool Teachers in the Education, Training, and Library Occupations Group, also reflects a notion which has been overtaken by current developmental and neurological science, that children only learn when they are above a certain age and engaged in structured academic activities. Those educating and caring for young children are part of an educational continuum that starts at birth and carries through to secondary and higher education. Accordingly, we recommend that the non-managerial ECCE occupations should all be placed in the Education, Training and Library Occupations Group.

Sommers summarizes information gathered for the Employment and Training Administration's Occupational Informational Network (O*Net), that gathers information on the tasks performed and skills of incumbent workers in specific SOC occupations (see further information at www.onetcenter.org), indicating that Childcare Workers perform tasks that go beyond custodial care. These activities include, for example, the preparation of developmentally appropriate lesson plans, clearly pointing to the occurrence of intentional learning activities. The background paper by Sommers also notes that the National Association for the Education of Young Children's articulation of standards for developmentally appropriate practice with young children (NAEYC Position Statement on Developmentally Appropriate Practice, 2009; see also Copple & Bredekamp, 2009) indicates that such practice encompasses both education and care. Thus, assigning occupations based on the assumption that "Preschool Teachers" focus on education and "Childcare Workers" focus on custodial care does not reflect current standards within the profession.

To examine this issue further, a member of the ACF appointed Workgroup, Dr. Margaret Burchinal, a child development researcher and statistician with substantial experience designing, conducting and analyzing data from ECCE studies, examined data on educational and caregiving activities in the data from two large research studies focusing on ECCE: one specific to state funded pre-kindergarten classrooms in 11 states (the National Center for Early Development and Learning Study of Pre-Kindergarten, funded by the US Department of Education, Institute of Education Sciences; Howes et al, , 2008) and one focusing on the child care experiences of children born in 10 cities across the United States (the NICHD Study of Early Child Care and Youth Development; NICHD ECCRN, 2000).

Analyses of the data from the pre-kindergarten study documented that classrooms providing state funded pre-kindergarten include activities focusing on teaching academic skills (e.g., teaching early literacy and math skills), and routine caretaking (e.g., snacks and lunch, dressing for outdoor play). Similarly, in the study of early child care, both educational and routine care activities were documented

when direct observations were conducted in child care settings. In this study, both types of activities were observed when children were infants, toddlers, and preschoolers; in center- and home-based settings; and when the teacher/caregiver was a relative as well as a nonrelative.^v

The members of the NAS Committee expressed concern about the overlap in the types of workplace responsibilities of individuals currently classified into the occupational categories of Childcare Workers and Preschool Teachers. As reflected in the analyses conducted by Burchinal, those in both current ECCE occupations are responsible for both education and caregiving.

Specification of the Early Childhood Age Range

Sommers' background paper (2012) also drew attention to the age range covered by current SOC definitions, noting that "The 2010 SOC does not consistently distinguish workers who care for or instruct children from birth through age five (the B-5 population) from those who care for or instruct school age children" (p. 178). It is not possible to determine the size of the ECCE workforce using the current definitions because the categories do not exclusively define individuals who provide education and care for children prior to entry into kindergarten.

The current definitions within the SOC for ECCE occupations do not specify a particular age range. The definition for only one of the three current ECCE occupations makes even a general reference to child age. The definition for Preschool Teachers, Except Special Education (along with Special Education Teachers, Preschool), specifies a focus on preschool-age children. However, the specific ages are not given. Further, the definition for Childcare Workers does not restrict the focus to children prior to kindergarten entry. It is impossible to know whether those classified as Childcare Workers are caring only or primarily for children prior to entry into kindergarten or instead primarily provide care for school-age children during out-of-school-time. Further, focusing the definition on preschool-age children, without further specification, may result in lack of inclusion of those working with infants and toddlers, even in formal center-based settings with a strong educational focus.

Similarly, as noted by Sommers, while Education Administrators, Preschool and Child Care Center/Program are most likely serving children between birth and age five, this is not specified. With this lack of precision, it is likely that those working in programs primarily serving school-age children are being included in this occupation. Overall, the combination of lack of clarity on age range in the definitions, and wording that focuses on older children in the birth to five age range, may result in those caring for infants and toddlers not being included in the early childhood occupations, and in some of those who are actually working primarily in settings that serve school-age children being included. Thus, it is not currently possible to determine how many individuals are employed in occupations primarily serving children birth through kindergarten entry.

The recently conducted National Survey of Early Care and Education (NSECE) provides new information corroborating the feasibility and also the importance of specifying the proposed age range of birth through kindergarten entry (National Survey of Early Care and Education Project Team, 2013). The NSECE sampled a large and nationally representative set of ECCE centers, including a full range of center sponsorship, funding and auspices. The director or other lead respondent from each employing center was asked to indicate the age range of children enrolled in each classroom, and all staff serving that classroom were described by their roles and responsibilities. The NSECE also sampled large numbers of home-based providers of ECCE, also asking about the ages of children they served.

Weighting for probability of selection, the NSECE estimated approximately one million center-based employees responsible for children age 0-5 and not yet in kindergarten (National Survey of Early Care and Education Project Team, 2013). This is higher than the BLS estimate that in 2012 there were 965,640 individuals employed as either Childcare Workers or Preschool Teachers in center-based settings or private households (US Department of Labor, Bureau of Labor Statistics, 2013). It should be noted that the BLS Childcare Worker category includes those caring only for school-age children and some in private households, amplifying the apparently small difference. At the same time, it is likely that

the NSECE sampling methodology captured centers that were not included in the BLS estimate. For example, Sommers (2012) noted that BLS data for the industry Child Day Care Services does not include programs operating in schools, and as a result their employees are not included. Such programs and their employees were included in the NSECE and accounted for about six percent of workers.

The NSECE also estimated about 1,035,000 individuals in home-based settings paid to provide ECCE services to children age 0-5 and not yet in kindergarten (National Survey of Early Care and Education Project Team, 2013). Individuals were only included if they regularly provided ECCE for at least 5 hours a week, so the number is somewhat lower than would be estimated by applying standard federal definitions, which do not apply a threshold for number of hours. The number estimated to be paid for education and care of children 0-5 and not yet in kindergarten in the NSECE is substantially higher than the BLS estimate of 431,000 paid home based ECCE workers. The BLS and Census require individuals to self-identify as self-employed workers. Many individuals may fail to do so because they do not consider ECCE their primary employment, or may be concerned about tax, regulatory, immigration or other consequences of identifying this source of income. The NSECE sampling of households was designed specifically to overcome expected under-reporting of home-based ECCE workers in BLS and Census data.

The NSECE findings have several important implications for addressing the issue of incomplete and inconsistent age specification in the current SOC definitions for ECCE occupations. The NSECE findings demonstrate that:

- The specification of serving children age 0-5 and not in kindergarten is feasible, since it was easily understood by respondents and did not result in substantial missing data;
- The number of employees identified as working with this age group looking across center- and home-based settings is large enough to justify identification as an occupational category;

- The residual number of employees providing care or instruction to school-age children is large enough that they cannot be treated as ‘noise’ and would invalidate analyses of data for ECCE employees if not separated out.

Inclusion of all Settings in Which Early Childhood Care and Education is Occurring Across Definitions

The SOC classification principles and coding guidelines make clear that the assignment of a worker to an occupation should be based on the nature of the work performed. It should not be assigned based on the location the service is provided, unless it is clear that work of a different nature occurs in that setting. The current SOC ECCE definitions violate these principles and guidelines by defining occupations differently for individuals with similar responsibilities in different settings. Teachers and caregivers in centers, schools and in home-based settings all provide a combination of education and routine caregiving. Yet educational activities are used to define Preschool Teachers, Except Special Education and caregiving activities are used to define Childcare Workers. The current definitions provide illustrative examples that suggest that the occupation occurs only in specific types of settings. Thus, the current definition for Preschool Teachers, Except Special Education, notes the illustrative examples of Head Start Teacher, Nursery School Teacher, and Pre-Kindergarten Teacher. The possibility that education occurs in home-based early care and education settings or in full day center-based child care settings not labeled as Head Start, preschool or prekindergarten is not acknowledged in these illustrative examples.

The new data from the NSECE make it clear that it is feasible to include all paid early childhood workers, including those working in home-based settings, in data collection. As noted above, the NSECE estimates that about 1,035,000 individuals are paid to provide ECCE services in home-based settings to children age 0-5 and not yet in kindergarten. Yet BLS occupational data currently result in an estimate of fewer than 500,000 working in home-based settings across the categories of Childcare Workers and Preschool Teachers. Incomplete articulation of the settings in which ECCE occupations can take place in

the current SOC definitions may well be contributing to the substantial underestimate of the numbers of ECCE workers providing paid education and care in home-based settings.

The same issue pertains to the role of Education Administrators, Preschool and Childcare Center/Program. The title and illustrative examples focus only on formal center-based settings. Yet some home-based ECCE settings have relatively large numbers of children and multiple staff members, one of whom may have primary responsibility and spend a majority of her/his time in planning, directing and coordinating activities and attending to financial and budgetary matters. It is important to remember that there is variation in the size and number of staff members in such settings. NSECE data are not yet available providing a national picture of the number of home-based ECCE settings with paid assistants. In the interim, we can turn to state workforce studies. For example, in one such study of licensed family child care providers in California in 2006, Whitebook and colleagues (2006) found that over a third (35.7 percent) had one or more paid assistants (20.9 percent of such providers had one paid assistant; 14.8 percent had two or more paid assistants). The percent of licensed home-based providers with a paid assistant rose to nearly two thirds (66.5 percent) in larger family child care homes, licensed to care for 14 children.

In sum, the classification principles and coding guidelines for the SOC indicate that the work performed and level of responsibility, and not the setting, should be the determinants of the occupation assigned, bearing in mind that cross-tabulations with industry will yield data specific to such categories of settings as schools, community-based centers and homes. It is important to note that cross-tabulation with NAICS categories currently distinguishes those who are self-employed in the home from those working in other settings, and that capability would remain under this proposal. To get a comprehensive picture of the early childhood care and education workforce and its characteristics requires providing definitions that focus on the work performed and make clear the full range of settings in which this work occurs.

Differentiating Among Levels of Responsibility

The current definitions for occupations in the ECCE workforce include teachers or caregivers, and education administrators. They do not acknowledge the further level of assistant or aide. This is a serious gap from two perspectives. First, the SOC major group for Education, Training and Library Occupations includes the occupation Teacher Assistant (25-9041). Thus, this level of responsibility is acknowledged as occurring in educational settings. Yet no specific age range is provided for this occupation. If a key goal is to be able to develop an accurate picture of the size and characteristics of the workforce working with young children prior to kindergarten entry, it would seem essential to define a Teacher Assistant occupation specific to the birth through kindergarten entry period.

Second, data collected very recently for the National Survey of Early Care and Education, in its workforce survey, demonstrate that distinguishing an assistant/aide occupation is feasible. As noted above, the NSECE sampled a large and nationally representative set of ECCE centers, including a full range of center sponsorship, funding and auspices. The director or other lead respondent from each employing center was asked to indicate the age range of children enrolled in each classroom, and all staff serving that classroom were described by role and responsibility. Categories of responsibility included Lead Teacher; Teacher or Instructor; Assistant Teacher; and Aide. When weighted for probability of selection, staff responsible for children ages 0-5 and not in kindergarten were: Lead teacher = 447,000 (45%); Teacher or Instructor = 212,000 (21%); Assistant Teacher = 225,000 (22%); and Aide = 111,000 (11%). These findings indicate that the proposed categories were easily understood by the respondents and yielded sufficiently large numbers of employees to justify having more specific occupations.

The NSECE also revealed differences in educational qualifications among individuals with the differing levels of responsibility in the proposed definitions. Similarity in the educational attainment of Lead Teachers and Teachers or Instructors suggests the possibility of grouping these categories, and the

same pattern is found for Assistant Teachers and Aides. More specifically, the share with a bachelors or professional degree was 43% of Lead Teachers and 38% of Teachers/Instructors, but 22% of Assistant Teachers and 26% of Aides. Thus, combining Lead and Full Teachers into one category and Assistant Teachers and Aides into another is consistent with the distribution of formal educational qualifications in recent national data. Conversely, the NSECE data strongly suggest that the current distinction between Childcare Worker and Preschool Teacher does not reliably indicate level of professional preparation or responsibility. More specifically, in the NSECE, most center-based teachers and caregivers were certified, regardless of whether they were employed in school-based or community-based settings. Similarly, the majority (55%) of center teachers and caregivers with four year college degrees were employed in community-based programs, while only 10% were employed in school-sponsored programs. An additional 35% of staff with four year college degrees were in Head Start or prekindergarten programs not sponsored by schools.^{vi}

As we have noted, state level data also suggest the presence of assistants or aides in home-based care, especially large family child care homes. Analyses providing a description of roles and responsibilities of those providing education and care for young children in home-based setting, parallel to those we have summarized above for center-based settings, will be possible with NSECE data once the data becomes available for public use. It seems reasonable to assume that differing levels of responsibility will emerge from the analyses of home-based settings as they have for center-based settings.

Including differing occupations for the levels of Assistant/Aide, Lead/Full and Director/Owner, and making clear that these occupations are found across all ECCE settings, whether home-based, community center-based, or school-based, would permit the collection of data that would be simultaneously more comprehensive and more differentiated.

IV. Proposal for Revised Definitions

In order to address these issues, we propose to revise the definitions for the ECCE occupations in the SOC so that they:

- Include both educational and caregiving activities in the listing of work activities, and use titles for the occupations that reflect both teaching and caregiving;
- Differentiate among three levels of responsibility: Assistant /Aide; Lead/Full Teacher/Caregiver and Director/Owner;
- Clearly state that each of these occupations can occur in home-based, center-based and school-based settings;
- Specify the age range as birth to entry into kindergarten, making clear that the ECCE occupations include education and care for infants and toddlers, and at the same time, avoiding the articulation of an upper age (such as age five), as kindergarten entry can sometimes occur beyond age five;
- Use the term “for pay or profit” to refer to monetary remuneration through salary or wages or through payments in the forms of fees or charges;
- Eliminate the current distinction between “Childcare Workers” and “Preschool Teachers,” which does not reliably reflect teaching and caregiving duties, level of responsibility or level of professional preparation.

Addressing the problems with the current definitions and using these new guidelines, we propose three definitions for ECCE occupations that involve working directly in the education and care of young children, other than those whose work focuses specifically on children with special needs. The three proposed definitions follow:

(1) Early Childhood Lead/Full Teacher/Caregiver

Educates and cares for children between birth and kindergarten entry for pay or profit. Educational responsibilities include guiding early learning and organizing activities to support

cognitive and social-emotional development, as well as physical development and health. Care responsibilities include dressing, feeding, cleaning, and overseeing child safety. Education and care of young children may take place in a preschool, pre-kindergarten, Head Start program, day care center, child care center, other child development facility, school, business, family child care home, or other private household.

(2) Early Childhood Assistant/Aide to Teacher/Caregiver

Assists in the education and care of children between birth and kindergarten entry for pay or profit. Serves in a position for which the Early Childhood Lead/Full Teacher/Caregiver has ultimate responsibility for the design and implementation of education and care of children, including in a preschool, pre-kindergarten, Head Start program, day care center, child care center, other child development facility, school, business, family child care home, or other private household.

(3) Early Childhood Director/ Owner/Home-Based

Education and Care Operator

Primary responsibility and majority of time involve planning, directing, or coordinating the education and care of children between birth and kindergarten entry, as well as program enrollment and finances. Serves as director or administrator in an early care and education setting including a preschool, pre-kindergarten, Head Start program, day care center, child care center, other child development facility, school, business, family child care home or other private household that involves being paid for the education and care of the children.

We further propose to place the occupational categories of Lead/Full Teacher/Caregiver and Assistant/Aide to Teacher/Caregiver in the SOC Education, Training, and Library Occupations major group. Incorporating ECCE occupations within the Education Training and Library Occupations major

group would reflect current research that early education and care is the first step in a continuous progression in physical, social and cognitive growth and learning to which teachers and caregivers at all points in development, from early childhood through secondary school, are contributing.

V. Identification of Key Subgroups Through Joint Use of NAICS and SOC

The following table illustrates how the proposed occupational categories for those working in ECCE could be combined with current NAICS categories to identify the major industry sectors in which each occupation is employed. [See Appendix D for current distributions of occupations by selected industries].

It can be seen that while the occupational definitions would be consistent across all industries, it will be possible to identify workers by the sector in which they are employed, such as schools, community-based centers or homes. Since wages, hours worked and benefits offered and received are collected by BLS from employers, it would be possible to compare these key data for the ECCE employees in different sectors. Since Census also applies these same industry categories, such data as age, education, and race/ethnicity of workers could be compared for each combination of occupation and industry.

Industry or Sector Where Employed (NAICS)	Occupation of Early Childhood Employees		
	Early Childhood Lead/Full Teacher/Caregiver	Early Childhood Assistant/Aide to Teacher/Caregiver	Early Childhood Director/Owner/Home-Based Education and Care Operator
Educational services, public and private (schools)			
Child day care services			
Health Care Services			
Religious, grantmaking, civic, professional, and similar organizations			
Government			

VI. Recurrent Data Collection in the Federal Statistical System and Time Series Continuity

For some critical issues, it is necessary to track the number and characteristics of employees in ECCE occupations and their compensation over time. For example, documenting change during times of recession and of economic growth in overall numbers employed in ECCE occupations, as well as their hours and wages, may be particularly important to understanding how these occupations function in different economic contexts. Similarly, it may be informative to policymakers and the public to track how the level of educational attainment of employees varies under different economic circumstances or following major changes in state or national policy – such as the growth of public pre-kindergarten. Projections of future employment, which require consistent trend analysis, help inform potential entrants into the ECCE occupations and those responsible for planning for education, training and ongoing professional development of those in the ECCE workforce. Trends may vary in different regions or localities, requiring large samples drawn from many small areas.

A proposed new classification principle, Classification Principle #10, introduced with a request for public comment in the Federal Register Notice of May 22nd, 2014, would underscore the importance of retaining time series continuity. The proposed wording for the new classification principle (on which the Office of Management and Budget is requesting public comment) would be: “10. To maximize the comparability of data, time series continuity is maintained to the extent possible.”

As noted in the introduction to this White Paper, we place a high priority on being able to track changes over time in the number and characteristics of those working in occupations involving the education and care of young children, as well as other occupations. If the revisions to the occupational definitions proposed in this White Paper are accepted, it will be possible to track changes in the size of the overall ECCE workforce through time series analyses of data collected before and after acceptance of the new definitions, by combining all relevant occupations under both the old and revised

definitions.^{vii} By using both NAICS and SOC classifications, it will also be possible to track change over time in whether those working in ECCE occupations are in public and private school settings as opposed to other community-based settings (such as child care centers).

While it will be possible to track change in the ECCE workforce as aggregated across specific detailed occupations, and as this aggregate is crossed with NAICS classifications, going forward it would not be possible to track changes over time for the detailed occupations as currently defined. As has been discussed, there are serious issues with the current definitions for detailed occupations for those working in the education and care of young children. These issues raise questions about whether the current detailed occupations are sufficiently distinct and non-overlapping, especially for the occupations Preschool Teacher and Childcare Worker. Such definitional problems call into question the meaning and interpretation of time series analyses carried out at the detailed occupation level. Given these issues, we feel that time series analyses at the aggregate level, and as this aggregate is considered in relation to NAICS categories, would provide the most valuable data related to the nature of occupations and cyclical and secular employment trends. Going forward, definitions for detailed occupations that are sufficiently clear and distinct and that reflect the nature of the work performed will help to assure clarity in the interpretation of time series analyses at the detailed occupation level. Thus, we feel the proposed changes to definitions for ECCE occupations would be in keeping with the proposed new classification principle in that time series continuity would be maintained *to the extent possible*.

VII. Recurrent Data Collection in the Federal Statistical System in Relation to Data on the Early Care and Education Workforce Available from the New NSECE

Much essential data about the ECCE workforce has been provided through periodic surveys and program evaluations, of which NSECE is the latest and most comprehensive (see summary of relevant studies in Maroto & Brandon, 2012). While such studies can provide valuable in-depth information, they

are conducted at irregular intervals, and since each has a particular focus, it is difficult to maintain consistency of definitions across studies. They are normally only representative at the national level, since providing data at the state or local level would be prohibitive in cost.

Two of the values of the federal data system, as noted in the Introduction, are that it provides consistent information from multiple sources conducted at regular and frequent intervals and that a considerable amount of data are made available for states, localities or smaller units (see Sommers, 2012 for further details). For example:

- Employers report employment, hours and wages by occupation on a monthly and annual basis;
- Information on offering, participation and cost of health and retirement benefits is reported regularly by employers in the National Compensation Survey;
- Information about the number and characteristics of employees in each occupation is published annually as part of the American Community Survey;
- American Community Survey data are collected by small areas, below state and county to census blocks and tracts; and
- Employment and wages are reported annually for each state as part of the Occupational Employment Statistics series.

Thus, though periodic surveys providing in-depth information about the ECCE workforce, such as the new NSECE, are extremely valuable, the recurrent data collection of the federal occupational statistical system, that provides estimates not only at the national and state but also local levels on a regular basis, are also of critical importance. Strengthening ongoing data collection regarding the ECCE workforce through addressing problems with occupational definitions in the SOC should therefore be a high priority.

VIII. Anticipating Progress While Acknowledging the Limitations That Would Remain
With the Proposed Changes in Definitions

This proposal for revising definitions would result in improved capacity in ongoing federal data collection regarding occupations to arrive at an accurate estimate of the numbers working in occupations involving the education and care of children between birth and kindergarten entry, recognizing that these functions and activities differ from those for school-age children. The revised definitions would distinguish occupations in light of work performed and not by location of the education and care. The definitions would add a level of responsibility - assistant or aide - that is widely acknowledged by ECCE programs and in other national data. The proposed definitions would eliminate erroneous assumptions that those working in child care do not educate and those working in pre-kindergarten or preschool do not provide caregiving.

While these would be substantial improvements, it is important to acknowledge limitations with the proposed changes. As noted by Sommers (2012), some of the difficulty in identifying home-based early childhood workers lies not with the occupational definitions but with their incomplete or inconsistent application by different federal agencies in data collection and coding. Thus, for example, reflecting paid home-based early childhood workers in Census data may require additional clarifications or prompts to Census takers or respondents to capture the substantial numbers reflected in NSECE but not in current Census counts.

Another important limitation that must be acknowledged is that the very substantial number of individuals providing education and care for young children on a regular basis but not being paid for this work would not be included in the ECCE occupational definitions, and thus their numbers and characteristics cannot be assessed. This is not so much an issue with the proposed revisions to the definitions, as fundamental to the definition of an occupation in the federal statistical occupational system. Other data collection will be required to document the numbers regularly providing such education and care unpaid.

By clarifying that the early care and education workforce involves those educating and caring for young children between birth and entry into kindergarten, the proposed revised definitions will separate out a residual group of those primarily working with older children outside of school hours. Many of these workers add work in out-of-school-time settings to regular positions as teachers. The federal statistical occupational system will categorize these individuals as teachers in elementary, middle or secondary school either because their work as teachers is seen as requiring a higher level of skill or because their schedule for teaching exceeds their schedule for work in out of school time settings. However, there is also a substantial number for whom work focuses specifically on school-age children during out-of-school-time hours.

There are important parallels between those working in early care and education and with school-age children during out-of-school-time. At the same time, however, there are reasons to be cautious about simply creating parallel definitions for the out-of-school-time workforce and the early care and education workforce.

A review conducted by the National Afterschool Association (Cole, 2011), focusing on state requirements for the qualifications for those working with school-age children during out-of-school-time hours with funds from 21st Century Learning Centers or the Child Care and Development Fund, points to parallels with the early care and education workforce. For example, this review suggests that those working with school-age children during out-of-school-time hours are seen as both educating and caring for children, with different funding streams emphasizing one or the other to a greater extent. Further, the review found that staff levels recognized by states included the role of program director or administrator, and "frontline staff" including lead teachers (sometimes called group leaders) and teachers or caregivers. However, Kane and Peters (2009) identified widespread inconsistency in both job titles and job responsibilities across programs for school-age children beyond school hours (Kane &

Peters, 2009). Their review of existing job titles and definitions resulted in a set of proposals for how to work towards greater consistency.

It appears that active and productive discussions are currently occurring towards distinguishing different occupations involving work with school-age children during out-of-school-time hours. Parallel review of the definitions for out-of-school-time workers who are not teachers is called for to complement the review of definitions undertaken for the early childhood care and education workforce described here. Such a review is beyond the scope of the workgroup convened by the Administration for Children and Families to focus on the definitions for the early care and education workforce, and should be conducted by those with expertise in out-of-school-time programs. However, if the SOC Policy Committee would find it productive, the present workgroup could facilitate the formation of a parallel workgroup to focus on definitions for occupations involving work with school-age children beyond school hours. To help assure alignment across definitions for the Early Childhood Care and Education Workforce and the out-of-school-time workforce, we would suggest some representation from the present workgroup (the Workgroup on the Early Childhood Workforce and Professional Development) in a newly formed workgroup to focus on definitions for the out-of-school-time workforce.

Finally, as noted above, if the proposed new categorization and definitions are adopted, with the changes, it would not be possible to conduct time series analyses at the level of detailed occupations using the prior categorization and definitions. However, given the problems with the current categorization and definitions for detailed occupations and the overlap especially across the key occupations of Preschool Teacher and Childcare Worker, we feel that time series analyses conducted with data before and after the definitional changes would best be conducted using data that aggregates across ECCE occupational categories rather than at the level of detailed occupation.

These limitations would need to be balanced against the advantages of having a set of occupational categories and definitions that would identify the entire ECCE workforce, that would

address the problem of overlap in tasks performed across occupational categories, and that would provide for differentiation by level of responsibility.

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Appendix A

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Appendix B

Classification Principles for the 2010 Standard Occupational Classification

Chart 1. 2010 SOC Classification Principles

1. The SOC covers all occupations in which work is performed for pay or profit, including work performed in family-operated enterprises by family members who are not directly compensated. It excludes occupations unique to volunteers. Each occupation is assigned to only one occupational category at the lowest level of the classification.

Note that the Federal Register Notice of 5/22/14, Volume 79, Number 99, p 29621, indicates proposed revisions to the SOC Classification Principles. In the proposed revisions, the wording to classification principle #1 would be changed by replacing the word "lowest" with the words "most detailed" in the last sentence. The proposed wording for principle #1 would be:

The SOC covers all occupations in which work is performed for pay or profit, including work performed in family-operated enterprises by family members who are not directly compensated. It excludes occupations unique to volunteers. Each occupation is assigned to only one occupational category at the most detailed level of the classification.

2. Occupations are classified based on work performed and, in some cases, on the skills, education, and/or training needed to perform the work at a competent level.

Note that the Federal Register Notice of 5/22/14, Volume 79, Number 9, p 29621, indicates proposed revisions to the SOC Classification Principles. In the proposed revisions, the wording to classification principle #2 would be changed to delete the last four words: "at a competent level." The proposed wording for principle #2 would be:

Occupations are classified based on work performed and in some cases, on the skills, education, and/or training needed to perform the work.

3. Workers primarily engaged in planning and directing are classified in management occupations in Major group 11-0000. Duties of these workers may include supervision.

Note that the Federal Register Notice of 5/22/14, Volume 79, Number 99, p 29621, indicates proposed revisions to the SOC Classification Principles. In the proposed revisions, the wording to classification principle #3 would be revised to clarify that managers direct "resources." The proposed wording for principle #3 would be:

Workers primarily engaged in planning and the directing of resources are classified in management occupations in Major group 11-0000. Duties of these workers may include supervision.

4. Supervisors of workers in Major groups 13-0000 through 29-0000 usually have work experience and perform activities similar to those of the workers they supervise, and therefore are classified with the workers they supervise.

5. Workers in Major group 31-0000 Health Care Support Occupations assist and are usually supervised by workers in Major group 29-0000 Health Care Practitioners and Technical Occupations. Therefore, there are no first-line supervisor occupations in Major Group 31-0000.

6. Workers in Major group 33-0000 through 53-0000 whose primary duty is supervising are classified in the appropriate first-line supervisor category because their work activities are distinct from those of the workers they supervise.

7. Apprentices and trainees are classified with the occupations for which they are being trained, while helpers and aides are classified separately because they are not in training for the occupation they are helping.

8. If an occupation is not included as a distinct detailed occupation in the structure, it is classified in an appropriate "All Other," or residual, occupation. "All Other" occupations are placed in the structure when it is determined that the detailed occupations comprising a broad occupation group do not account for all of the workers in the group. These occupations appear as the last occupation in the group with a code ending in "9" and are identified in their title by having "All Other" appear at the end.

9. The U.S. Bureau of Labor Statistics and the U.S. Census Bureau are charged with collecting and reporting data on total U.S. employment across the full spectrum of SOC major groups. Thus, for a detailed occupation to be included in the SOC, either the Bureau of Labor Statistics or the Census Bureau must be able to collect and report data for that occupation.

Note that the Federal Register Notice of 5/22/14, Volume 79, Number 99, p 29621, indicates proposed revisions to the SOC Classification Principles. In the proposed revisions, a new principle would be added to emphasize the importance of maintaining time series continuity. The proposed wording for SOC Classification Principle # 10 would be:

10. To maximize the comparability of data, time series continuity is maintained to the extent possible.

Source: Standard Occupational Classification Manual 2010, Office of Management and Budget.

Appendix C

Coding Guidelines for the 2010 Standard Occupational Classification

Chart 2. 2010 SOC Coding Guidelines

1. A worker should be assigned to an SOC occupation code based on work performed.
2. When workers in a single job could be coded in more than one occupation, they should be coded in the occupation that requires the highest level of skill. If there is no measurable difference in skill requirements, workers should be coded in the occupation in which they spend the most time. Workers whose job is to teach at different levels (e.g., elementary, middle, or secondary) should be coded in the occupation corresponding to the highest educational level they teach.
3. Data collection and reporting agencies should assign workers to the most detailed occupation possible. Different agencies may use different levels of aggregation, depending on their ability to collect data.
4. Workers who perform activities not described in any distinct detailed occupation in the SOC structure should be coded in an appropriate "All Other" or residual occupation. These residual occupational categories appear as the last occupation in a group with a code ending in "9" and are identified by having the words "All Other" appear at the end of the title.
5. Workers in Major groups 33-0000 through 53-0000 who spend 80 percent or more of their time performing supervisory activities are coded in the appropriate first-line supervisor category in the SOC. In these same Major groups (33-0000 through 53-0000), persons with supervisory duties who spend less than 80 percent of their time supervising are coded with the workers they supervise.
6. Licensed and non-licensed workers performing the same work should be coded together in the same detailed occupation, except where specified otherwise in the SOC definition.

Source: Standard Occupational Classification Manual 2010, Office of Management and Budget

Appendix D
Current ECCE Occupations by Industry Category
(From Maroto and Brandon, 2012)

	Occupation: Childcare Worker (includes ECE and School-age)		Occupation: Preschool Teacher		Childcare Workers + Preschool Teacher	
	2008		2008		2008	
	Number of Employees in this Industry (thousands)	Percent of Occupation in this Industry	Number of Employees in this Industry (thousands)	Percent of Occupation in this Industry	Number of Employees in this Industry (thousands)	Percent of Occupation in this Industry
Total employment, all workers:						
Self-employed + wage and salary employment	1,301.9	100.0	457.2	100	1,759.1	100.00
Self-employed and unpaid family workers {Includes unincorporated family child care and paid family, friend and neighbor care if they self-identify}	424.0	32.6	7.0	1.5	431.0	24.5
Total wage and salary employment {Includes employees of establishments or organizations such as community-based centers, Head Start programs, public preschools, legally incorporated formal family child care, hospitals, sports clubs, or hotels)	877.8	67.4	450.2	98.5	1,328.0	75.5
Industry where employed:						
Wage and salary employees only	Occupation: Childcare Worker (includes ECE and School-age)		Occupation: Preschool Teacher		Childcare Workers + Preschool Teacher	
Wage and Salary Employment for Selected NAICS Industry Categories; Excludes Self- employed individuals	2008		2008		2008	
<i>Note: total of rows is less than total wages and salary employment above, since some industries with small employment are omitted.</i>	Number of Employees in this Industry (thousands)	Percent of Occupation in this Industry	Number of Employees in this Industry (thousands)	Percent of Occupation in this Industry	Number of Employees in this Industry (thousands)	Percent of Occupation in this Industry
Transportation and warehousing (School and employee bus transportation)	11.6	0.9	-----	-----	11.6	.66

Educational services, public and private	147.7	11.3	66.3	14.5	214.0	12.2
Health care and social assistance	334.2	25.7	317.3	69.4	651.5	37.0
Health care	57.3	4.4	2.8	0.6	60.1	3.4
Residential care facilities (mental retardation, mental health, substance abuse, other)	49.5	3.8	0.5	0.1	50.0	2.8
Social assistance	276.9	21.3	314.5	68.8	5591.4	33.6
Individual, family, community, and vocational rehabilitation services	23.2	1.8	17.4	3.8	40.6	2.3
Child day care services	253.7	19.5	297.1	65.0	550.8	31.3
Arts, entertainment, and recreation (including fitness and recreation centers)	34.9	2.7	0.7	0.2	35.6	2.0
Amusement, gambling, and recreation industries	34.8	2.7	0.6	0.1	35.4	2.0
Accommodation (hotels, motels) and food services	1.0	0.1			1.0	0.06
Other services (except government and private households)	77.9	6.0	58.5	12.8	136.4	7.75
Religious, grant making, civic, professional, and similar organizations	77.5	6.0	58.5	12.8	136.0	7.73
Government	17.6	1.4	5.5	1.2	23.1	1.31
Private households	246.5	18.9	0.3	0.1	246.8	14.03
<i>Source: Bureau of Labor Statistics, Employment Projections, 2009.</i>						

ⁱThe Federal Register Notice of May 22nd, 2014 notes a proposed wording change to SOC Classification Principle #1, requesting public comment on this change. The revision to the wording would change the last sentence in Classification Principle #1. At present, the wording for Principle #1 is: "The SOC covers all occupations in which work is performed for pay or profit, including work performed in family operated enterprises by family members who are not directly compensated. It excludes occupations unique to volunteers. Each occupation is assigned to only one occupational category at the lowest level of the classification. " The proposed change would revise the last sentence to: "Each occupation is assigned to only one occupational category at the most detailed level of the

classification.” This revision to the wording would not change our understanding of the implications of the Classification Principles for the categorization and definitions of ECCE occupations.

ⁱⁱ The Federal Register Notice of May 22nd, 2014 notes a proposed wording change to SOC Classification Principle #2, requesting public comment on this change. At present, the wording for Principle #2 is: “Occupations are classified based on the work performed and, in some cases, on the skills, education, and /or training needed to perform the work at a competent level.” The proposed change would revise this principle to read: “Occupations are classified based on work performed and in some cases, on the skills, education, and/or training needed to perform this work.” This revision to the wording would not change our understanding of the implications of the Classification Principles for the categorization and definitions of ECCE occupations.

ⁱⁱⁱ The Federal Register Notice of May 22nd, 2014 notes a proposed wording change to SOC Classification Principle #3, requesting public comment on this change. At present, the wording for Principle #3 is: “Workers primarily engaged in planning and directing are classified in management occupations in Major Group 11-0000. Duties of these workers may include supervision.” The proposed change would revise this principle to read: “Workers primarily engaged in planning and the directing of resources are classified in management occupations in Major Group 11-0000. Duties of these workers may include supervision.” This revision to the wording would not change our understanding of the implications of the Classification Principles for the categorization and definitions of ECCE occupations. It would help to further specify that the word “directing” in ECCE occupations would need to involve the directing of resources. This is an important clarification but not one that would alter our categorization or definitions for ECCE occupations.

^{iv} As indicated in the note immediately above, in proposed revisions to the Classification Principles, the term “directing” would be further specified as pertaining to the directing of resources in Classification Principle #3.

^v Tables summarizing these analyses are available upon request.

^{vi} Please note that the data in this paragraph are unpublished NSECE data provided only for intragovernmental use.

^{vii} We note that because the current detailed occupation for Childcare Worker does not provide a specific age range, the aggregate data would include some who are primarily providing out-of-school-time education and care for school age children. In time series analyses, following the revisions of occupational classifications and definitions for those working in ECCE occupations, it would be possible to provide an aggregate figure both with and without these occupations.