

## **INFORMATION COLLECTION SUPPORTING STATEMENT A**

### **Investigation of Smart Toys and Additional Toys Through Child Observations**

The Consumer Product Safety Commission (CPSC) requests approval from the Office of Management and Budget (OMB) to conduct a 1-year new data collection effort. The general objective of this project is to provide the CPSC with information that can be used to help determine the intended ages for selected toys. Findings from this data collection will inform CPSC's *Age Determination Guidelines: Relating Consumer Product Characteristics to the Skills, Play Behaviors, and Interests of Children* ("Guidelines"). The *Guidelines* present age-grading information in the form of recommendations for children's toys, childcare articles, and children's products.

In 2020, CPSC staff released an update to the *Guidelines*. The revised *Guidelines* have been extensively updated based on research from the National Institute of Child Health and Human Development (NICHD) with novel and classic toys and children's observed play patterns at different ages. During the review process, several stakeholders identified categories of toys that are not addressed in the *Guidelines*, or need updates based on additional research. This research endeavor will begin to fill in the gaps identified during the review by gathering information on the physical characteristics of the selected toys (e.g., size and weight of the toy and its components) and examine whether the various characteristics of these toys are matched to the skills, play behaviors, and interests of children in a particular age group.

In-person data collection sessions will be scheduled for up to 60 children aged 2-4 years old and their caregivers, for a total of 120 participants. Legal caregivers of prospective study participants will answer a series of screening questions to determine if they meet the criteria for enrollment in the study. Children and caregivers who meet the screening criteria and are willing to participate will complete 2 in-person data collection sessions, will be enrolled in the study. Information will be gathered from children by documenting their play patterns with each toy and noting their ability to interact with selected toys from each of six toy categories (smart toys, take-apart vehicles, musical instruments, figurines, plush toys with electronic components, and manipulatives) as the manufacturer intended. Caregivers will respond to questions asking about their child's ability to interact with the toys as intended, potential purchasing decisions for the specific toys, and whether they would demonstrate how to play with the toys or some of the components.

The analysis will examine coded data from the child's interactions with the toys and caregiver's responses to questions. We will tabulate descriptive statistics on the coded metrics for each age group, toy, and caregiver responses. When possible, comparisons will be made between children's play with toys that are intended for their age, versus toys that are intended for children either older or younger. A predefined set of behaviors has been identified as demonstrating a child's ability to play with the toy as intended. Observation data coded while the child is interacting with the toy will be analyzed and summarized. Some examples of planned descriptive statistics include:

- Average play duration for different ages by each toy.
- The age group(s) of children most likely to fully play with the toy as manufacturer intended.
  - Percentage of intended behaviors observed by age for each toy.
    - Percentage of children by age who were able to successfully execute an intended behavior.
      - Percentage of children who were able to successfully execute an intended behavior after the researcher demonstrated or guided the child through the tasks.
- The number of children in each age group who were disinterested in the toy.
- The percentage of children who played with the toy in a potentially harmful manner.
- The percentage of children in each age group that expressed frustration.

With respect to the caregiver questionnaire, researchers will examine the relationship between the child’s actual behavior when interacting with the toys and their caregiver’s perceptions of the child’s abilities to interact with the toy as intended. Specifically, if caregivers:

- Believe the toy was developmentally appropriate for their child’s age group.
- Believe their child could play with the toy in a way that was intended by the manufacturer.
  - Child could execute all the behaviors needed to interact fully with the toy.
  - Child could execute all the behaviors needed to interact fully with the toy if behavior was demonstrated.
  - Child could execute behaviors needed to interact fully with the toy.
- Likelihood that they would buy the toy for their child.
- Likelihood that they would demonstrate how to interact with the toy.

Findings will provide useful information and enrich the CPSC’s understanding regarding the ages of children who are interested in these toys, which age groups can use the toys as the manufacturer intends, and caregivers’ perceptions of how their child will interact with the toys. Additionally, findings will provide useful information that manufacturers can use when determining the age recommendation for each toy, and when making decisions on how to develop, market and label these toys for children. Finally, findings may help reduce serious and fatal injuries from children interacting with toys that are not intended for their age group.

## **A. Justification**

**A.1. Explain the circumstances that make the collection of information necessary. Identify any legal or administrative requirements that necessitate the collection. Attach a copy of the appropriate section of each statute and regulation mandating or authorizing the collection of information.**

***a. Circumstances necessitating the data collection.***

1. *Consumer Product Safety Commission (CPSC) mission*

The CPSC was created in 1972 by the Consumer Product Safety Act (CPSA). The CPSC is an independent federal regulatory agency with a public health and safety mission to protect the public from unreasonable risks of injury and death from consumer products used in and around the home, in recreation, and in schools. CPSC also conducts research on consumer products and behavior to identify and address product safety hazards as well as develop efficient and effective means of bringing about safety improvements. This information collection supports the commission's strategic goal of safety.

## 2. Background

In 2021, an estimated 206,400 toy-related injuries were treated in U.S. hospital emergency rooms<sup>1</sup>. Of the 206,400 toy-related injuries, an estimated 74% happened to children 14 years of age or younger; 69% occurred to children 12 years of age or younger; and 37% happened to children 4 years of age or younger. Many injuries result from parents underestimating their child's mouthing behavior, giving toys to their child that are intended for an older age group, a child inadvertently gaining access to a toy meant for an older sibling, or a child using a toy in an unintended manner.

To identify a toy's applicable mechanical testing requirements under CPSC statutes and regulations, the CPSC Division of Human Factors first determines the intended age group (hereafter "age determinations"). Per the Small Parts Regulation 16 CFR 1501, Use and Abuse tests are required for toys intended for children under 8 years of age; test specifications vary for different age groupings (i.e., children 18 months and younger, 19-36 months, and 37-95 months). Toys intended for children younger than 3 years old also cannot possess small parts or small balls. Additionally, since 2008, relevant statutes specify lead and phthalates limitations for many products intended for children 12 years of age and younger. Thus, the regulatory requirements and any testing that is required for a toy is based on the age of the toy's intended user.

Numerous toy characteristics are considered when making an age determination. These include the physical characteristics of the toy (e.g., size and weight of the toy and its components), the cognitive requirements for using the toy as intended, the fine motor or other physical skills required to use the toy as the manufacturer intended, and the toy's theme and appearance. The *Guidelines* provide details and examples for applying each of these characteristics to different age groups.

While the *Guidelines* include extensive information about a large variety of toys, there are some toy categories that are not well covered because, in some cases, the toys are entirely new to the U.S. market since the last time the *Guidelines* were published. While smart toys are discussed in the *Guidelines*, this category of toys evolves rapidly, so what is currently in the market may not be represented in the *Guidelines*. Other toys such as figurines, interlocking building sets, and musical toys are discussed in the *Guidelines*, though not extensively. This data collection will add information about current toys in these different categories and enrich our understanding of

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<sup>1</sup> The Consumer Product Safety Commission: [Toy-Related Deaths and Injuries, Calendar Year 2021. November, 2022: Toy-Related Deaths and Injuries, Calendar Year 2021 \(cpsc.gov\)](#)

the ages of children who are interested in these toys and who possess the skills and cognitive ability to use them as intended.

The challenge is how to determine the intended age when a toy possesses characteristics that are suitable for more than one age group. Studying the ways in which toys are presented online; consumer perceptions of age suitability and self-report about the ages of children who are given or use toys; and observations of children's interest, behavior, and overall interactions with the toys can inform the content of the *Guidelines* and the age determinations made by those who rely on them.

### ***b. Legal basis for collecting data***

The Consumer Product Safety Commission (CPSC or Commission) was established in 1972 by the Consumer Product Safety Act (CPSA) “to protect the public against unreasonable risks of injury associated with consumer products,” primarily after they have entered the stream of commerce. The CPSC meets this objective by enforcing various statutes and regulations through a blend of consumer monitoring, research, investigations, safety standard-setting, and enforcement powers.

### **A.2. Indicate how, by whom, and for what purpose the information is to be used. Except for a new collection, indicate the actual use the agency has made of the information received from the current collection.**

CPSC will use the information from this data collection to inform the development/modification of age determination *Guidelines* for toy categories represented by the selected toys. The information included in the *Guidelines* will be subsequently used by various stakeholders, including CPSC staff, manufacturers, child safety advocates, and consumers of the toys.

Various stakeholders use the information contained in the *Guidelines*. Manufacturers can and should rely on the publicly available information contained in the *Guidelines* when designing toys. That is, toys should be designed and marketed for a particular age group. Other stakeholders who use the *Guidelines* include CPSC Compliance and Human Factors staff and independent consultants and testing laboratories who examine toys daily for the purpose of determining the product's intended age and what types of testing the product should undergo.

In addition, information related to the age determination of toys is important for enhancing the physical, intellectual, and socioemotional development of children. Providing children with age-appropriate toys can help them learn, develop imaginative capacities, and refine motor coordination. Interacting with age-appropriate toys provides opportunities for the child to practice different thinking skills, such as imitation, cause and effect, problem solving, and symbolic thinking, and nurtures their creativity and imagination. It also helps develop their fine and gross motor skills. Conversely, interacting with toys that are not age-appropriate may expose the child to injuries resulting from falls, choking, strangulation, burns, drowning, and poisoning. Age determinations can be used to assign an intended age during a toy's design phase and can be

used for age labeling a product accurately, thereby encouraging consumers to purchase and give a toy to a child who is most likely to interact with its features as intended.

**A.3. Describe whether, and to what extent, the collection of information involves the use of automated, electronic, mechanical, or other technological collection techniques or other forms of information technology. Also describe any consideration of using information technology to reduce burden.**

Data collection is primarily through direct human observations of children's interactions with toys and caregivers' responses to questionnaires. We will video record the child's interaction with each of the toys through cameras located at discreet locations in the lab. The video will be used as a backup reference for real time coding. That is, if researchers need to confirm coding decisions made during the sessions, they will refer to the video captured during the sessions. At the end of the sessions the video data will be saved to a secure server that will only be accessible to project staff. Observations of children's interactions and caregivers' responses to questions about the toys will be recorded on paper forms. At the end of each session, data recorded on the paper forms will be entered into a secure Access database, which will be kept on a secure server. The paper forms will be kept in a locked filing cabinet in a secured room for 3-months after the end of the study, at which time they will be destroyed.

**A.4. Describe efforts to identify duplication. Show specifically why any similar information already available cannot be used or modified for use for the purposes described in Item 2 above.**

The toys selected for this study belong to toy categories that were not addressed in the 2020 *Guidelines* or need additional information based on the research and feedback from various stakeholders. Data needed for age determination on the selected toys is currently not available. That is, there has been no objective data collected by CPSC from children ages 2 – 4 and their interactions with these toys. As such, this study is intended to obtain information that will give researchers, stakeholders, safety advocates and caregivers a better understanding of the ages of children who are interested in these toys, the fine motor or other physical skills required by the child to fully utilize the toy, and what age group can use them as the manufacturer intended.

**A.5. If the collection of information impacts small businesses or other small entities, describe methods used to minimize burden.**

There will be no impact on small businesses or other small entities.

**A.6. Describe the consequence to Federal program or policy activities if the collection is not conducted or is conducted less frequently, as well as any technical or legal obstacles to reducing burden.**

This request is for a one-time study. Numerous factors are considered when making an age determination. These include the physical characteristics of the toy (e.g., size and weight), the cognitive requirements needed to interact with the toy, the fine motor or other physical skills

required to use the toy as intended, as well as the toy's theme and appearance. The *Guidelines* provide details and examples of the cognitive and physical skills needed for each of the toy categories addressed by age group. The challenge for the analyst is how to determine the intended age. Studying the ways in which toys are marketed; consumer perceptions of age suitability for children who are given or use toys; and observations of children's interests, behavior, and overall interactions with toys can inform the content of the *Guidelines* and the age-determinations made by those who rely on them. The findings from this data collection will add information about a limited number of selected toys from six toy categories and enrich CPSC's understanding of the ages of children who are interested in these toys, as well as identify which age groups have the physical and cognitive skills to use the toys as the manufacturer intends. As previously noted, the specific toy categories investigated for this data collection include: Smart Toys, Figurines, Interlocking-Connecting Building Sets, Musical Toys, Plush Toys with Electronic Components, and Manipulatives.

Smart Toys, in particular, were identified by stakeholders as a toy category in need of greater study. While Smart Toys are discussed in the *Guidelines*, these toys evolve rapidly so it is possible that the recommendations for these toys need continuous updating. The objective of the proposed data collection is to gather information about selected toys in the above categories to better understand the ages of children interested in these toys and the ages of children who are capable of using them as intended. Additionally, we will collect consumer perceptions of age suitability and self-report about the ages of children for whom they might purchase the toy.

In addition, findings from this data collection could be used to make recommendations to policy makers, toy manufacturers, child safety advocates and consumers; and to better inform parents and caregivers regarding the age appropriateness of toys and the dangers. There are no legal obstacles to reducing the burden.

The sample size and time duration projected for the data collection represents the critical balance between the need to have rigorous and valid data, and the need to minimize the burden on participants in terms of the frequency and duration of data collected from them.

**A.7. Explain any special circumstances that would cause the information collection to be conducted in a manner inconsistent with the guidelines set forth in 5 CFR 1320.6.**

No special circumstances require the collection to be conducted in a manner inconsistent with the guidelines in 5 CFR 1320.6.

**A.8. Provide a copy and identify the date and page number of publication in the Federal Register of the agency's notice, required by 5 CFR 1320.8 (d), soliciting comments on the information collection prior to submission to OMB. Summarize public comments received in response to that notice and describe actions taken by the agency in response to these comments. Describe efforts to consult with persons outside the agency to obtain their views.**

As required by the Paperwork Reduction Act of 1995, CPSC published two notices in the *Federal Register* (See **Appendix A**), as noted below.

*a. Federal Register Notice*

CPSC published a notice in the *Federal Register* with a 60-day public comment period to announce this proposed information collection on August 7, 2023 (88 FR 52142). CPSC received one comment.

CPSC published a notice in the *Federal Register* on November 30, 2023 (88 FR 83533) with a 30-day public comment period to announce that CPSC intended to forward the request for the proposed information collection to OMB.

*b. Responses to the Federal Register Notice*

CPSC's response to the comment received is included in the 30-Day Federal Register notice.

**A.9. Explain any decision to provide any payment or gift to respondents, other than remuneration of contractors or grantees.**

No payment or gift will be provided to respondents for completing the recruitment screener. Those who qualify for data collection and choose to participate will receive a \$150 payment. Given the age of the children and attention spans, we are proposing data collection over two separate in-person sessions. Caregivers will be reimbursed \$50 at the end of the first 75-minute data collection session and \$100 at the end of the second 60-minute data collection session. The \$150 incentive amount is based upon 1) the level of effort required by the participant, and 2) researchers experience with prior studies.

Regarding the level of effort, participants must travel from various locations in the greater Washington, DC area to the testing lab in Rockville, MD to complete 2 in-person sessions totaling 135 minutes. During each session, the caregiver will complete a questionnaire and the child will interact with 4 or 5 different toys while researchers document the interactions and behaviors. While researchers will make every effort to accommodate the participant's schedule, given that data collection requires a child's participation, the sessions will occur Monday-Friday between 9AM-4PM. This schedule may require that caregivers take time off from work to participate. The \$150 incentive will offset lost work time and travel expenses.

Regarding previous research providing the basis for the incentive amount, as part of the Program for the International Assessment of Adult Competencies (PIAAC) sponsored by the Organization for Economic Co-operation and Development (OECD), the Contractor for the information collection request (Westat) was required by OMB to complete a field test respondent incentive experiment to examine the effect of increasing respondent incentives from \$35 to \$50 (see: [www.reginfo.gov/public/do/DownloadDocument?objectID=25766701](http://www.reginfo.gov/public/do/DownloadDocument?objectID=25766701)). The rationale for the

higher incentive was due to time burden associated with participating in the study, and inflation. Overall, the response rate for participants who received the \$50 incentive was 5.2 percentage points higher than for those individuals who received \$35. In addition, the overall refusal rates for the \$50 group were 6.8 percentage points lower than the \$35 group, providing evidence that higher incentive will increase response rates. Because the study was conducted between August 25, 2011, and April 3, 2012, further inflation would support the proposed \$150 incentive for the current information collection which requires the caregiver and the child to invest more than 2 hours of their time associated with travel and participation.

In addition, the \$150 incentive amount is based upon previous experience. Westat, the firm contracted by CPSC to complete the current data collection, has run studies similar in duration to the current information collection request, as detailed in the below table. Note, none of the cited studies required 2 separate data collection sessions, totaling 135 minutes participation and included 2 participants per session, one being a child. The \$150 incentive proposed for this data collection is based on the number of sessions required, the duration of each session, the number of participants (caregiver and child), cost associated with travel (e.g., increased gas prices), and the need for the caregiver to take time away from their job.

<b>Study Name</b>	<b>Year Conducted</b>	<b>Age Group</b>	<b>Duration</b>	<b>Agency</b>	<b>Incentive Amount</b>	<b>Report</b>
User Acceptance and Effectiveness of Seat Belt Speed Limiters on Recreational Off-Highway vehicles	2015	Adults only	90 minutes	CPSC	\$75	Not Published
Field Trial Focus Groups on the Feasibility of Seat belt-based Speed Limiters for Recreational Off-Road Vehicles	2016	Adults only	120 minutes	CPSC	\$75	<a href="http://www.cpsc.gov/global/research-and-statistics/injury-statistics/sports-and-recreation/atvs/westat-phase-2-final-report---user-acceptance-of-seat-belt-speed-limiter-on-rovs.pdf">http://www.cpsc.gov/global/research-and-statistics/injury-statistics/sports-and-recreation/atvs/westat-phase-2-final-report---user-acceptance-of-seat-belt-speed-limiter-on-rovs.pdf</a>



Effectiveness of Safety Devices in Reducing the Risk of Child's Access to Hazardous Cords and Loops Focus Groups	2016	Adults only	90 minutes	CPSC	\$75	<a href="https://www.cpsc.gov/s3fs-public/Window%20Coverings%20Safety%20Devices%20Contractor%20Reports.pdf">https://www.cpsc.gov/s3fs-public/Window%20Coverings%20Safety%20Devices%20Contractor%20Reports.pdf</a>
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**A.10. Describe any assurance of confidentiality provided to respondents.**

All data will be treated with sensitivity and security considerations commensurate with its level of confidential content. CPSC will not directly obtain data by intervening or interacting with participants and will not have access to identifiable private data.

For the proposed data collection, the criteria for IRB approval are: risks to participants are minimized; risks to participants are reasonable in relation to anticipated benefit; selection of participants is equitable; informed consent will be sought and documented for each adult participant and their child; data collection will be adequately monitored to ensure the safety of participants; there are adequate provisions to protect the privacy of participants and to maintain the confidentiality of data. The Contractor's Institutional Review Board (IRB) has reviewed all instruments, informed consent materials, and procedures to ensure that the rights of individuals participating in the study are safeguarded.

The Contractor holds a Multiple Project Assurance (MPA) from the Federal Office for Human Research Protections (OHRP). The contractor's Federal Wide Assurance Number is FWA00005551. The IRB registration number listed with the OHRP is IRB00000695. A copy of the IRB approval notice is included as **Appendix B**.

The proposed data collection will have no impact on respondents' privacy. The respondent's name, email address, and phone number will be collected and only used to schedule data collection sessions as needed. All procedures have been developed, in accordance with Federal, State, and local guidelines, to ensure that the rights and privacy of children and their caregivers are protected. The consent form (**Appendix C**) and video release form (**Appendix D**) must be signed by the caregiver. Given the age range of the children enrolled in the study will be 2-4-years old, caregivers will consent their child. These documents will inform the respondents that their participation and their child's participation in the research study is completely voluntary. Any participant (child or adult caregiver) may agree or refuse to participate. If a participant initially agrees to participate, they are informed that they can elect to stop at any time during the study. The caregiver will be notified that information obtained during the sessions will be

combined into a summary report so that details of individual responses and data observed from the child's interactions with toys cannot be linked to a specific child or caregiver.

All respondents will be advised that the information they provide will be treated in a secure manner and will be used only for the purpose of this research. To ensure privacy, personal identifiable information (PII) will only be collected during the screener and maintained in the password-protected recruitment database on the Contractor's secure network server, which has been configured to comply with the Federal Information Security Management Act (FISMA) of 2002. Only recruitment staff and senior project management will have access to completed screener applications and/or be able to conduct screener interviews. The screener information will be kept separate from the data collected during the session since the screener contains PII (e.g., names, phone numbers, and address). A participant ID will be assigned to each participant. An electronic list of participant names and ID numbers will be stored in a password-protected database on the Contractor's secure network server. Only the participant ID and other (non-PII) categorical variables necessary for analysis will be available outside the screener database. Within 3 months of the end of the study period, Westat will destroy the link between the ID code and the participant's personal identifiable information. No PII (names, addresses, or telephone numbers) will be delivered to CPSC.

All data collection and data management staff will be well trained in maintaining information security at all stages of the data collection and data management process. Protocols for data collection will ensure that names, contact information, and all other PII are kept secure during all stages. Completed consent forms will be stored in separate locked filing cabinets only accessible to authorized personnel. Non-PII categorical elements (gender, birthdate, etc.) will be extracted from the screener information only for use in analyzing the data collected during the session and reporting the findings.

In addition, data collection sessions will be conducted individually. That is, only one caregiver/child participant pair and the researcher(s) will be present for any given session. While the data collection protocol will be the same for all participants, this procedure will ensure that individual participants do not interact, and their privacy is maintained. As stated previously, data collection sessions will use paper forms and video cameras. Paper forms will be used by the researcher to record objective information about the child's interactions with each of the toys (See **Appendix E**). Caregivers will also be asked to complete questionnaires about each of the toys (See **Appendix F**). Video data recorded of the child interacting with the individual toys will be immediately transferred to a secure password protected server at the end of each session. The video data collected during the session will only be referred to if researchers need to confirm study protocols and verify coding decisions made during the session.

Upon completion of each session, all data collected from the caregiver and the child will be moved from paper forms to secure storage locations on the Contractor's internal network. Once the information from the paper forms have been entered in a secure database, the forms will be stored in separate locked filing cabinets only accessible to authorized personnel. This cabinet will be different from the one housing the consent forms. Data from the caregiver questionnaire will be immediately transferred to a secure database located on the Contractor's network as well.

The Contractor's network is protected by multi-layer secure access control, allowing only those staff with pre-defined access authorization to interact with the data. The network is protected by government and industry best-practice facilities and procedures to ensure confidentiality and protection of personally identifiable information from being exposed to unauthorized individuals.

The network is firewall protected from outside invasion and credential controlled internally. On-site and off-site (non-cloud) backups of data on the network are made daily and recoverable within 24 hours as a need arises. All aspects of quality assurance, data coding, analysis, and reporting are limited to authorized individuals using the same access control for these data. No personal identifying information will be contained in public use data files that may be made available from the study, and no data will be released in a form that identifies individual participants.

The results of the study will be used to develop a Final Report and will be disseminated through the publication of manuscripts on the CPSC website. Finally, study findings may also be disseminated through oral presentations at conferences. All data will be de-identified prior to analysis and the findings will be reported in aggregate. No published oral or written reports or presentations of the research will identify any participants.

**A.11. Provide additional justification for any questions of a sensitive nature, such as sexual behavior and attitudes, religious beliefs, and other matters that are commonly considered private.**

The proposed data collection does not contain any questions related to matters that are commonly considered sensitive or private. Each caregiver will be given a questionnaire that addresses characteristics of the nine toys selected for the study and whether they believe that their child could interact with the toy as manufacturers intended. The "toy centric" questions will focus on caregiver opinions on: (1) characteristics of the toy pertaining to safety, likeability, and likelihood of purchase, (2) factors that would influence their decision whether to purchase the toy, (3) age of child they would buy the toy for (and skills needed to interact with the toy), (4) ability of their own child to partially or fully use the toy as the manufacturer intends, and (5) likely response of their own children to the product (to determine if their perception is different from the observed interaction of their child with the toy).

The format of the questions will be predominantly forced choice with some open-ended for the purpose of being able to elaborate. The questions will be structured such that the main response of the caregiver (e.g., yes/no, age, rating on the scale, factors affecting the decision) is recorded, but also document any explanations offered by the caregiver.

No questions will be asked of the child. The researcher will introduce each toy to the child and document their behavior by observing them playing with the toys.

**A.12. Provide estimates of the hour burden of the collection of information on the respondents.**

CPSC estimates that 100 potential caregivers will be screened for eligibility before identifying the 60 caregivers and 60 child participants (N = 120) that are eligible to participate. The number

for eligible participants reflects 100 study participants (50 caregivers and 50 children), 4 pilot participants (2 caregivers and 2 children), and 6 back up participants (3 caregivers and 3 children). The screener will be a 15-minute questionnaire. (The screening questionnaire is provided in **Appendix G**).

CPSC plans to pilot test the study with 4 participants (2 caregivers and 2 children) with each pilot test taking place over 2 in-person sessions. The first session will take up to 75 minutes to complete and the second session will take up to 60 minutes to complete. However, because pilot testing could determine that each session time needs to be lengthened to a maximum of 80 minutes, CPSC is calculating the overall possible information collection participant burden based upon a 160-minute maximum burden. During the data collection sessions, caregivers will be asked to complete a brief questionnaire discussing the nine toys (the questions are provided in **Appendix F**; justifications for all questions are provided in **Appendix H**). While the caregiver is filling out the questionnaires, researchers will be stepping the child participant through their interactions with each of the toys.

Assuming a 15-minute completion time for the recruitment screener questionnaire, 10.68 hours for completing the pilot study, and 160 minutes per respondent for the study session, the total hour burden is 356 hours. The total estimated hourly burden is shown in Table 1.

**TABLE 1  
ESTIMATED BURDEN HOURS**

	<b>Number of participants</b>	<b>Burden per participant (hours)</b>	<b>TOTAL</b>
Recruitment	100	.25	25
Pilot Test	4	2.67	10.68
Study Participation	120	2.67	320.32
<b>Total Hourly Burden</b>	<b>–</b>	<b>–</b>	<b>356</b>

Costs associated with the burden hours for the planned collection of qualifying information by CPSC can be calculated based on mean hourly wages provided by the Bureau of Labor Statistics for All Occupations (see [http://www.bls.gov/oes/current/oes\\_va.htm#00-0000](http://www.bls.gov/oes/current/oes_va.htm#00-0000)). This source indicated mean hourly wage equals \$31.54. The total cost to respondents would be a maximum of \$11,228.24 according to the calculation below:

$$\$31.54/\text{hr.} \times 356 \text{ hours} = \$11,228.24.$$

**A.13. Provide an estimate of the total annual cost burden to respondents or record keepers resulting from the collection of information.**

There are no record-keeping costs.

**A.14. Provide estimates of annualized cost to the Federal government. Also, provide a description of the method used to estimate cost, which should include quantification**

**of hours, operational expenses (such as equipment, overhead, printing, and support staff), and any other expense that would not have been incurred without this collection of information. Agencies may also aggregate cost estimates from Items 12, 13, and 14 in a single table.**

The total cost of this collection to the federal government is \$93,345. This represents 6 months of staff time annually. This amount includes federal employee salaries and benefits. No travel costs are associated with the collection. This estimate uses an annual salary of \$126,949 (the equivalent of a GS-13, Step 5 employee, in the Washington D.C. area in 2023)<sup>2</sup> which represents 68.0 percent of the employer costs for employee compensation. The remaining 32.0 percent of employer costs are added for benefits (U.S. Bureau of Labor Statistics, “Employer Costs for Employee Compensation,” March 2023, percentage of wages and salaries for all civilian management, professional, and related employees)<sup>3</sup>, for a total annual compensation per FTE of \$186,690.

**A.15. Explain the reasons for any program changes or adjustments reported in Items 13 or 14 of the OMB Form 83-1.**

This study will result in a program change of adding 160 hours of CPSC overall burden hours.

**A.16. For collections of information whose results will be published, outline plans for tabulation, and publication. Address any complex analytical techniques that will be used. Provide the time schedule for the entire project, including beginning and ending dates of the collection of information, completion of report, publication dates, and other actions.**

The contractor will develop a Final Report that presents the findings from the data collection effort. The Report will include an Executive Summary, Background, Introduction, Methodology, Results, and Conclusions sections. In addition, the report will include discussion of lessons learned and recommendations for future research on this topic. It is important to note that individual data will not be identified in the report; data will be reported only in aggregate form as part of the findings.

The analysis will be “toy-centric” and provide an overall synopsis by age group for each toy. For toys that were manipulated for at least 15 seconds, we will tabulate descriptive statistics on the coded metrics for each age group, toy, and caregiver responses.

We will examine the extent to which the children across the predefined age groups are able to use the toys as the manufacturer intended. We will use the behavior data collected from child/toy interactions and the caregiver questionnaire responses to: (a) inform our age determinations of

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<sup>2</sup> <https://www.opm.gov/policy-data-oversight/pay-leave/salaries-wages/salary-tables/pdf/2023/DCB.pdf>

<sup>3</sup> [https://www.bls.gov/news.release/archives/ecec\\_06162023.pdf](https://www.bls.gov/news.release/archives/ecec_06162023.pdf)

the toy and whether there are discrepancies between our age determination and the manufacturer’s recommended age for a toy; and (b) a summary of caregivers’ impressions of the toys and their assessment of its age appropriateness for their child as well as the most important decision-making factors that caregivers use for each of the age groups when purchasing a toy. We will also compare whether the caregivers’ impressions are consistent with the child’s behavior.

The above analysis will be based on simple statistical techniques such as crosstabs, to test whether the levels of play differed by age categories, and t-tests and Analysis of Variance (ANOVAs) to test whether quantitative variables such as duration of play and level of interest differed by age categories.

We will tabulate and produce visual presentations using descriptive statistics, such as means and frequency plots and descriptive bar graphs of use patterns by age for toy play; final age recommendation for each toy; and analysis of any discrepancies with final age recommendations for products. For the categorical variables, examples of tabulation (or graphical representation) are the percentage of children in each age group who play with the toy as intended, the percentage of children in each age group who did not engage with the toy, and so on. For the continuous variables, the tabulation could consist of tables (or graphs) showing average play duration for boys and girls, or age categories, for the toys. Similar analyses as those conducted for the observation data will be conducted on the caregiver questionnaires. That is, the percentage of caregivers who were likely to buy the toy for their child, and percentage of caregivers who felt the toy was appropriate for their child; the percentage of caregivers who mentioned a given factor considered when purchasing, etc. The percentage of caregivers who believe that the child could use the toy as the manufacturer intended. We will tabulate and produce visual presentations of the quantitative data using descriptive statistics, such as means and frequency plots.

**Timeline:**

<b>Item</b>	<b>Quantity</b>	<b>Delivery/Performance</b>
Conduct Study	1	Begin 4 weeks following OMB approval
Initial Finding from Study	1	20 weeks following OMB Approval
Draft Final Report	1	26 Weeks following OMB Approval
CPSC provides draft on Draft Final Report	1	28 Weeks following OMB approval
Final Report	1	30 Weeks following OMB Approval

**A.17. If seeking approval to not display the expiration date for OMB approval of the information collection, explain the reasons that display would be inappropriate.**

No such approval is sought. The OMB survey number and expiration date will be displayed on the initial recruitment documents, informed consents, and the caregiver questionnaire.

**A.18. Explain each exception to the certification statement identified in Item 19, Certification for Paperwork Reduction Act Submissions,” of OMB Form 83-1.**

No exceptions to the certification statement are made.