

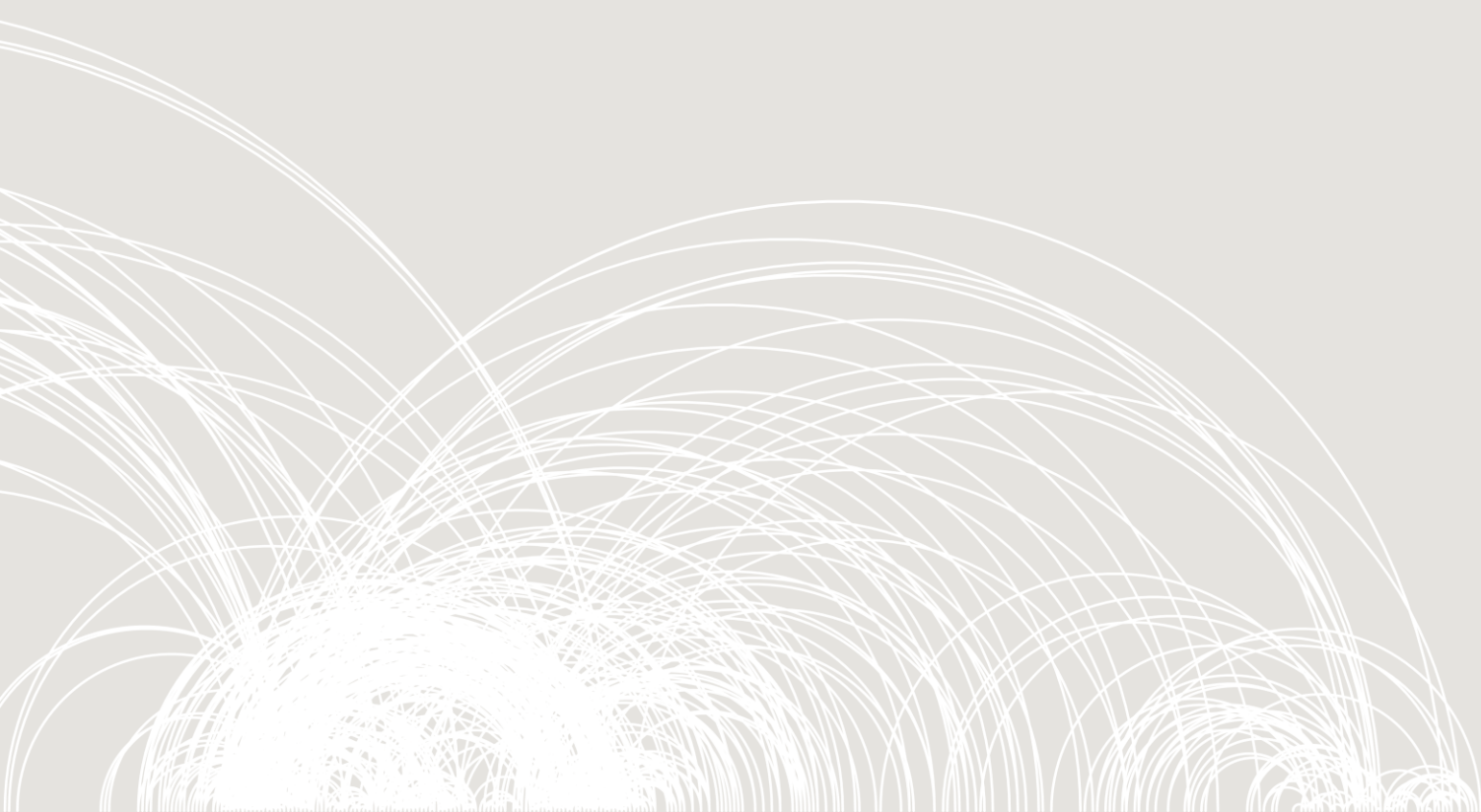
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CONTENT PANEL FINAL REPORT

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Introduction

In conjunction with a Needs Assessment for a National Longitudinal Survey of Youth, 2026 Cohort (NLSY26), NORC at the University of Chicago convened four content panels on content areas specified by the Bureau of Labor Statistics (BLS) to inform the questionnaire design of an NLSY26. This report describes the content panels' work process, summarizes the recommendations of the panels, connects the content panel work to the Content and Measurement Objectives (CMO) report produced as part of the Needs Assessment, and looks ahead to other activities that may be useful to the BLS in constructing an NLSY26 design.

Four content panels were charged with evaluating the scientific value of potential content for a NLSY26 cohort, drawing on past NLSY surveys as well as other national and international studies. Their respective domains were Family Background and Early Childhood Retrospectives, K-12 Schooling and Cognition, Health and Environmental Outcomes, and Department of Defense Initiatives and Assessments. The panels were given wide latitude in identifying key research themes in their respective fields that should inform survey content and design, broadly conceived, in a future NLSY26 survey.

The content panels were composed of experts in various subject areas to ensure that emerging ideas, best practices, and relevant examples were brought forward for consideration for an NLSY26. Experts from four broad content domains were convened with the goal of providing the Bureau of Labor Statistics (BLS) with an assessment of relevant and timely research issues, content and survey design recommendations, comparability to prior NLSY cohorts, and potential alternative data sources that could widen the scope of the NLSY26 while decreasing respondent burden. Each panel produced a final report that summarized their recommendations and provided justification for their inclusion on the grounds of scientific value. Those reports are included as appendices to this document.

The scope for each panel is listed below.

Family Background and Early Childhood Retrospectives. The Family Background panel defined its scope as youths' childhood experiences prior to recruitment into the sample, as well as information on parents' background. This panel covered educational experiences prior to kindergarten.

K-12 Schooling and Cognition. The Schooling panel focused on cognitive skills and kindergarten through 12th grade educational experiences (e.g., disciplinary actions, special education, school social environment, and school structure and resources) important for understanding labor market outcomes.

Health and Environmental Outcomes. The Health panel focused on identifying environmental factors and health, both physical and mental, that influence early childhood, educational development and later life outcomes.

Department of Defense Initiatives and Assessments. The goal of the DoD Initiatives panel was to explore synergies between DoD assessment initiatives and updating norms for the ASVAB and other assessments, and to identify research community interest in measurements of cognition and related areas.

Framing the Work of the Content Panels

The panels were asked to prioritize topics in their content areas, but otherwise encouraged to make recommendations without regard to constraints. In general, if something had previously been done in an NLSY or in another large-scale survey, panelists could consider it feasible to be recommended for an NLSY26. Similarly, panels were instructed to develop their recommendations with no specific time budgets, data collection budgets, or technological constraints specified. This meant that panels began their work with blank slates regarding the likely ages of the initial sample, whether or not parent interviews might be included, what the interview mode and length could be, and other key features of the design.

Readers may also note that the content panels do not cover all expected domains of an NLSY26 questionnaire, with employment, household composition and migration, income/assets, and family and relationship formation, and criminal activity/experience with the correctional system as example omitted areas.

Thus, the purpose of the content panels was to identify, in the designated content domains, priority topics that would be valuable to include in an NLSY26 based on today's research literature and current expectations of data availability from other sources. The absence of constraints offered the panels the opportunity to be creative and urge innovation, and to provide BLS with a written record of strong ideas, whether those ideas are implemented from the start in an NLSY26, options for co-innovation with other funders during the course of an NLSY26, or seeds planted for yet a next cohort in the future of the NLS program.

As a corollary, the content panel reports do not provide complete direction for viable questionnaires for the NLSY26. While these reports do identify *what* topics the panel believes should be covered in the NLSY26 and *why* they should be covered, the content panel scope of work did not necessarily specify many of the other critical elements that would round out the design of early round NLSY26 questionnaires, such as *whom* to ask (what ages, under what circumstances, whether youth or parent, etc.), *when* (which rounds) to ask, and *how* to ask (specific items, mode, etc.). In the final section of this report, we discuss some of those later critical elements and other open questions whose answers will influence the structure and details of NLSY26 questionnaires.

Report Structure

The report is divided into five sections. We begin by describing the content panel process including panel composition, selection and recruitment, the background materials provided to the panels, and how the panels created their reports. The next section highlights key

recommendations from each panel. The third section details topical or recommendation overlaps across panels. The fourth section discusses areas of overlap in the recommendations that emerged from the content panels relative to those highlighted in the Content and Measurement Objectives (CMO) report. This report concludes by discussing the implications of these recommendations on the design of the NLSY26, identifying remaining issues for exploration by the BLS, and developing a single set of recommendations from the content panels including challenges in determining the content of the final questionnaire. This report includes the final report from each content panel as an appendix: Appendix A Report from Family Background and Early Childhood Retrospectives Content Panel; Appendix B Report from K-12 Schooling and Cognition Content Panel; Appendix C Report from Health and Environmental Outcomes Content Panel; and Appendix D Report from DoD Initiatives Content Panel.

Content Panel Process

The objective for selecting and recruiting the content panel chairs and members was to create a balanced and diverse blend of experts to help guide the content development for the NLSY26 cohort surveys. For each panel, NORC created a group comprising both federal and non-federal experts and with representation across race, gender, and disciplinary backgrounds. Panels included experts from core disciplines of interest for the NLSY such as economics, psychology, or sociology; along with methodological experts in survey methodology given the importance of understanding the measurement best practices and challenges facing longitudinal surveys. Each panel included at least one labor economist to retain the historical labor market focus of the NLSYs. The panel members had varying degrees of experience with previous NLSY cohorts, supporting both continuity in the NLSY program as well as innovation from other perspectives.

Each panel included a chair who is an expert in the given content area. Content panel chairs set the agenda, led discussions, and organized the development of the reports. The content panel members, as noted above, were selected to ensure representation of different backgrounds and perspectives and included experts from academic institutions and federal agencies. At least one federal representative was included on each panel to provide context and insight from a federal perspective.

Recruitment took place over two months. The content panels first had chairs identified in consultation with BLS and then BLS, NORC and the chairs collaborated on choosing the rest of the content expertise panel members. For each panel, NORC developed an initial list based on our own search for experts, BLS' suggestions, and the content panel chairs' recommendations. The team then sorted potential members into groups, based on the desired sequence of recruitment. In some cases, when necessary, NORC also reached out to recruited panelists to ask for their suggestions on other potential members from their networks. Recruitment for each panel stopped when the desired size of 4-5 members was reached. NORC sent an initial recruitment

email, which was sometimes followed up with a note from the respective panel chair to establish a more personal connection with the individual.

In addition to the content panel chairs and members, each content panel meeting included coordinators from NORC and CHRR to host the meetings, take notes, and provide administrative support; a NORC survey methodologist knowledgeable about mixed-mode data collection and other questionnaire design issues to answer questions and provide guidance to the panel when needed; and representatives from BLS to answer questions and provide context from past NLSY cohort surveys. The DoD Initiatives panel also had a DoD representative participate in each meeting.

The final content panel chairs and members are listed below, as are the individuals who served as representatives to the DoD Initiatives panel:

2.1. Family Background and Early Childhood Retrospectives

- Katherine Magnuson (Chair), University of Wisconsin- Madison
- Steven Alvarado, University of Notre Dame
- Ariel Kalil, University of Chicago
- Lisa Gennetian, Duke University
- Regina Bures (Federal Representative), NICHD

2.2. K-12 Schooling and Cognition

- Kenneth Dodge (Chair), Duke University
- Arya Ansari, Ohio State University
- Dania V. Francis, University of Massachusetts- Boston
- Susanna Loeb, Brown University
- Gail Mulligan (Federal Representative), NCES

2.3. Health and Environmental Outcomes

- Matthew Neidell (Chair), Columbia University
- Jonathan Colmer, University of Virginia
- Michal Engelman, University of Wisconsin- Madison
- Gilbert Gee, University of California- Los Angeles
- Ambarish Vaidyanathan (Federal Representative), CDC

2.4. Department of Defense Initiatives and Assessments

- Judith Hellerstein (Chair), University of Maryland
- Joseph Altonji, Yale University
- Andrew Ho, Harvard University
- Joseph Lee Rodgers, Vanderbilt University
- Paul Sackett, University of Minnesota
- Dan Segall, PDRI

- Michael Walker, Educational Testing Service
- DoD Representatives
 - Sofiya Velgach
 - Mary Pommerich
 - Pamela Baumer
 - Ping Yin
 - Gregory Manley

The content panels received informational materials on previous NLSY cohorts including summaries of the sample sizes, ages, modes, rounds, and field periods; topical brochures and guides; and the questionnaires. Coordinators for each panel also assembled lists of articles from the NLS bibliography site that used NLSY data for Family Background and Early Childhood Retrospectives, K-12 Schooling and Cognition, or Health and Environmental Outcomes research as well as a spreadsheet cross referencing the list of topics curated during content panel meetings with whether the topic was included in one of the previous NLSY cohort surveys.

Each content panel met at least four times over about a two-month period. The first meeting served as a kickoff meeting hosted by the chair where members introduced themselves and reviewed their responsibilities and expectations as content panel members. Three technical meetings followed, with the exception of the health and environmental outcomes panel which met for a fourth technical meeting as they developed their report. During the technical meetings, the panel chairs and members brainstormed and prioritized topics to include in the NLSY26 cohort surveys, coordinated writing assignments for the reports, and reviewed and revised sections of the draft reports. NORC provided the panels a report template that NORC had drafted and BLS had revised and approved.

In addition to the kickoff and technical meetings, content panel chairs attended two meetings with the Needs Assessment Oversight Committee where they reviewed each content panel's topics and recommendations and chairs received suggestions and guidance from the OC members. Finally, NORC hosted a joint content panel convening as an opportunity for all content panel chairs and members to come together and discuss several important topics regarding the NLSY26. These topics included survey mode, frequency of longitudinal data collection, ideal recruitment age range, the parent survey, sample size, and oversamples to consider.

Prioritizing Topics

As part of the development of reports, content panels curated a list of prioritized topics related to their content panel area. Although each panel (with the exception of the DoD Initiatives panel) ranked topics using a high, medium, and low scale, the considerations and judgement for each level in the scale as well as the methods to arrive at a consensus differed across panels.

The Family Background panel developed recommendations and rankings in an iterative process, beginning with brainstorming a list of content topics that the panel thought were important in light of social and demographic trends and research findings since the fielding of the NLSY97. The panel assessed the list by comparing it to the content and survey design elements of the

NLSY97. The panel also added some topics to the list which had not been brought up during the brainstorming session but seemed worthy of inclusion and/or discussion. This list of topics was given preliminary rankings of “high,” “medium,” and “low” by the panel chair based on the panel’s conversation and circulated to the panel via email for feedback. Then, during a later meeting the proposed content recommendation rankings were discussed and revised. Finally, recommendations for study design were discussed in detail and ranked. The recommendations and rankings reflect the consensus opinion of the Family Background panel.

The K-12 Schooling and Cognition content panel concluded that five domains should be included in an NLSY26 and then prioritized topics/measures within those domains based on combined judgment of the centrality of a measure to the domain, prior empirical findings that the construct is predictive of adult outcomes, theoretical plausibility that the construct plays a causal role in a child’s development, and a cursory benefit-cost analysis of the importance of the variable versus the time and dollar cost of data collection. Decisions were made by consensus rather than vote.

The Health and Environmental Outcomes content panel curated a list of recommendations through an active brainstorming session and then individually provided priority rankings for each topic. The rankings were summarized and split into high, medium and low priority. Several considerations went into prioritizing topics. One consideration was how closely the topic related to labor market outcomes. Another consideration was how health and environment topics related to inequities and emerging trends with unknown but potentially substantial labor market consequences. A third consideration related to the ease of data collection, with a focus on participant burden. A final consideration focused on the quality of data collection, exploiting new technologies when available while also recognizing their potential cost to use. While few topics met all criteria, the high priority topics were either particularly important for one of the criteria or met multiple criteria.

Given its distinct scope, the DoD Initiatives panel’s ranking process for topics and survey design recommendations differed from the other panels. This panel focused on leveraging potential synergies between BLS and DoD in the collection of measures of cognition, personality, other abilities (e.g., mechanical), and career interests of youth. The panel’s recommendations were split into two groups: recommendations specific to meet DoD purposes and recommendations specific to meet BLS purposes. Recommendations specific to meet DoD purposes related to sampling of two groups for the creation of national norms on DoD assessments.

Recommendations specific to meet BLS purposes related to administration of various assessments to the main NLSY26 panel to support research into educational and labor market outcomes.

Adjustments and Lessons Learned

Given the size of each panel and compact time period, it was challenging to find meeting dates and times that worked for everyone over the course of each panel’s work. Relatedly, the series’ cadence varied to some degree across panels, with some panels having more meetings than

others, or in some cases, more evenly spaced meetings. This sometimes led to undesirably long gaps between successive meetings; for example, the significant gap between the content panel kickoff and the first substantive DoD Initiatives panel meeting seemed to result in some loss of continuity in the panel's work and required some additional start-up costs when the panel reconvened. To foster continuity, NORC and the chairs made sure to maintain a thread of communication with panelists via email in between consecutive meetings and send prior meeting minutes and other materials in a timely fashion to enable members to refresh their memory and prepare for the upcoming discussion.

When panels began their work, they were given several informational materials that described the coverage of their content area within the current NLSY cohorts. Panels were encouraged to think about the types of data that have been collected historically within the NLSY program and what of that they would retain, as well as make recommendations for any new areas of data collection. However, as the panels' discussions began to unfold, NORC and BLS recognized the need for providing panels with more explicit guidance about the 'base case' parameters to anchor their work. Although these issues (e.g., starting age range) were not settled, establishing the baseline case was deemed necessary to ensure that while being innovative, panelists were also accounting for certain assumptions and constraints that would likely shape at least the first few waves of data collection for the new cohort. These base case parameters were rooted in the design of the NLSY97 cohort. Accordingly, NORC and BLS submitted detailed guidance to the panels on these base case parameters, including explicitly requesting that the panels indicate in their respective reports how their recommended high priority topics were addressed (or not) in the NLSY79 or NLSY97. Additionally, panel chairs were given an opportunity to discuss the application (or lack thereof) of the base case parameters to their respective content area during a meeting with NORC, BLS, and the Needs Assessment Oversight Committee, and ask any clarifying questions.

With the exception of the DoD Initiatives panel, which had a narrower scope, the remaining three panels focused much of their meetings on discussing content area recommendations rather than survey design recommendations. While some considerations about survey design certainly emerged during the content discussions, they were not as explicit of a focus for the panels compared to identifying content areas and sub-areas for the new cohort to focus on. Recognizing this gap, NORC and BLS decided to use the joint panel convening as an opportunity to bring members of all four panels together for a discussion of six key survey design decisions for the new cohort, namely:

- (1) survey mode for youth interviews,
- (2) frequency of longitudinal data collection,
- (3) ideal age range at cohort recruitment,
- (4) whether, with whom and how many times to field a parent survey,
- (5) initial cohort sample size, and
- (6) populations to be oversampled.

Base cases were presented for each of these six domains for discussion purposes, and participants were asked to brainstorm the relative pros and cons of these base cases, both generally and for their content area. Several valuable recommendations on survey design parameters emerged from this joint convening, which were described within a summary that NORC developed and circulated to panels to use as relevant in the drafting their respective reports. This summary was also submitted to BLS.

Summary of Key Recommendations from Each Panel

Summary Across All Four Content Panels

Exhibit 1 lists, by content panel, each of the ‘high priority’ recommendations to emerge from the individual content panel reports and indicates whether that content or survey design recommendation was included in the NLSY97.

Exhibit 1. High Priority Content Panel Recommendations

Recommendation for NLSY26	NLSY97 Coverage (Yes if in Youth Interview)
Family Background and Early Childhood Retrospectives	
Parent citizenship status and interactions with ICE	No
Family Structure and Stability: Continue NLSY97 calendar approach	Parent survey
Parent and family gender identity and sexual orientation information	No
Parental SES - Income and Education	Yes
Welfare Program Participation	Yes (Items asked about youth participation if youth was "independent")
Parental Assets and Debt	Yes
Parent Employment/Unemployment/Occupation	Parent Survey (Continue NLSY97 calendar approach in NLSY26)
Parents’ perceptions of neighborhood quality	No (Youth were asked about gangs in neighborhood and interviewer made neighborhood assessment in NLSY97)

Home Residence and Residential Addresses in Childhood (Homelessness, Stability, and Possible Movement In Response to Natural Disasters)	Parent Survey (NLSY97 asked parents about hard times and "residential mobility"; recommend more detail (see above on address linking))
Parent/Household Criminal Justice Involvement	Yes (NLSY97 youth are asked retrospectively about being charged (or convicted); NLSY97 parent survey asks explanations for a parental separation of 3 months or more and incarceration is one possible response)
COVID Disruptions to Family (Family Member Death, Parental Work Disruptions).	No
Administrative Data on Family (UI, Tax Records, CPS)	No
Child Welfare Involvement	No (NLSY97 parent survey asks for an explanation for a parental separation of 3 months or more and foster care is one possible response)
NLSY97 categories need updating on early development delays and health or other early intervention services (i.e., Mental retardation, but not other IDs)	Yes
Quality of Parent's Co-Parenting and Romantic Relationships	Yes
NLSY97 Parents also asked about their own physical/emotional/health issues affecting youth respondent	Parent Survey
Parent and Youth Experiences of Discrimination	No
Parental Mental Health	No
Parent's Expectations of the Child's School and Work	Parent Survey
Youth Autonomy and Control	Yes
Parental Closeness/Relationship with Youth	Yes
Parental Time Allocation to Youth Wellbeing	No
Household Composition	Yes
Parental Views on Returns on Investments in Children	No
Birth Outcomes	No

K-12 Schooling and Cognition	
Need new measures for directly measured skills. Consider sub-scales of intelligence tests, vocabulary, mathematics, short-term memory, and problem-solving	Yes
Grades: From school records Recommends self-report of grades should be M/L priority	Yes
Annual end-of-course scores on achievement test	Yes
SAT/ACT scores	Yes
Directly measured and other reported social cognitive skills and social information processing	Yes
Directly measured and other reported self-regulation and executive function	Yes
Standard instrument for parent report of child social competence	No
School disciplinary records	Yes
STEM attitude and aspirations	No
Educational aspirations	No
New instrument for attitudes and aspirations	
Self-report measures of social behavior (risky behaviors, bullying and victimization-in-school experiences)	Yes
Attain career pathways, including course taking, advanced curricula, vocational education, and STEM from records	Yes
Advanced curricula from records	Yes
Harassment and bullying self-reporting	No
Experiences with teachers/adults self-reporting	Yes
Parental reflection on early childcare and education	No
Early education: Parent report	Yes
Dual language at home: Parent report	No
Social media experiences	No
Annually getting more detail on afterschool and summer programs	Yes

Early life development, Adverse Childhood Experiences (ACEs)	No
Annually updating family composition	Yes
Macro events: From central office	No
Diverse high school pathways from school records	Yes
Postsecondary pathways self-reporting	Yes
Civic participation from self-report and voting records	Yes
Mental health and substance abuse	Yes
Health and Environmental Outcomes	
Standard measures of physical health	Yes
Biomarkers of physical health	No
Disabilities of physical health	Yes
Physical injuries	Yes
Oral health	Yes
Experience with illness of COVID-19	Yes COVID supplement
Exposure to protocols of COVID-19	Yes
Mental health measures	Yes
Stress exposure	Yes
Subjective well-being	Yes
Diagnosis and treatment of mental health	Yes
Social media experience	No
Technology experience	Yes
Experiences (with climate experiences/natural disasters) with environmental exposures	No
Measures of exposure to heat/pollution	No
Healthcare Usage	Yes
Substance use	Yes
Sexual activity/fertility	Yes
Discrimination, oppression experiences	No
Relevant dimensions of social determinants	Yes
Department of Defense Initiatives	
Extend age range to 18	No
Administer ASVAB when respondents are in 10-12 th grade	No
Second Administration of ASVAB/AFQT prior to age 24	No

Repeat ASVAB/AFQT at later ages (e.g., 30 or 40)	No
DoD shares AFQT and FYI scores with BLS	No
Administer Big 5 Personality Test like TIPI (rather than TAPAS) in first round	Was done in later round
Screen for DoD-specific sub-samples during screening	Yes

Family Background and Early Childhood Retrospectives Panel

Relevant Emerging Research Themes, Social Trends and Policy Changes

The Family Background panel reviewed key social trends and research themes that have emerged since the 1997 cohort that would bear on NLSY26 content related to family background and childhood retrospective. Shortly upon convening, the panel explicitly defined their scope as covering any content related to a childhood retrospective (i.e., information gathered about the youth respondent prior to the recruitment of the sample) as well as content in the parent survey(s). The panel notes the increasing complexity of family life and a shift away from traditional family structures. In particular, the retreat from marriage and the rise of co-habitation as normative contexts for childbearing are emphasized. These trends have resulted in more children living across multiple households during childhood. Capturing the greater complexity of family structures and living arrangements will be a key challenge for the NLSY26.

The increasing complexity of family life has been shaped in part by trends in immigration, immigration enforcement and incarceration since the NLSY97 was first fielded. The panel notes that immigration enforcement became much stricter following the tragic events of September 11, 2001, with implications for family structure and stability. The panel also asserts that incarceration can have profound effects on the family and child development. Incarceration rates continued to rise during the 2000s, and although they peaked in 2009, the US incarceration rate remains among the highest in the world.

Another key trend since the start of the NLSY97 has been the greater awareness and acceptance of LGBTQ+ status, including an increasing number of youths identifying as lesbian, gay, bisexual, transgender, queer or other non-heterosexual and non-cis gender identities.

Since the NLSY97 was first fielded, there have been significant technological advances that have impacted youths across a variety of contexts. The panel is particularly concerned with the ascendance of social media and related technology in children's lives. Differences in children's exposure to social media and other technologies in childhood—such as parental restrictions on social media use—may have important implications for later labor market and other (e.g., health-related) outcomes.

Lastly, the disruptions to early childhood education, and potentially other aspects of family life, caused by the COVID-19 pandemic may have influenced the NLSY26 cohort's human capital accumulation and labor market outcomes.

Content Recommendations

Information Collected in Parent Survey

The panel recommends expanding the (self-reported) information collected from, and about, parents. In addition to carrying forward information on parents from past NLSY cohorts related to socioeconomic status (i.e., educational attainment and income), parental assets and debt, and employment status and occupation, a number of new areas of data collection are recommended. These include parents' immigration and LGBTQ+ status, their involvement in the criminal justice system and in public assistance programs. The panel agreed that, as in past NLSY cohorts, parents' physical health, including work-limitations, should be captured, but that more information should be collected on parents' mental health.

Another area of data collection that the panel would like to see added centered on parents' assessments of their relationship with their spouse (or co-parent) and their children. These would include information about the quality of their relationship with their co-parenting partner, closeness to and expectations of their children, as well as (time and monetary) investments in their children, in addition to their expectations for returns on those investments.

Youth Retrospective

The Family Background panel asserted that information collected in the youth's childhood retrospective should include their involvement in the child welfare system¹, encounters with the criminal justice system, and participation in public assistance programs. Items capturing the youths' autonomy and control and closeness to parents are also prioritized by the panel. In keeping with the panel's emphasis—shared by the education panel—on developmental factors outside of traditional academic measures.

The Family Background panel stresses the importance of tracing family structure and stability through the youth's early years, a key component of which is to collect information on the home residence, or residences, in which youths lived throughout their years as children. The panel envisions that this information would be used to geocode the youth's various residences to allow researchers to link to outside data sources to gain additional contextual information on neighborhoods in which the youth was raised.

The panel agrees that BLS should *not* carry forward survey items on parents' religiosity and civic engagement, as these factors have not been strongly linked to labor or later life outcomes in the research literature.

¹ Items covering participation in public assistances program had only been ask of "independent youth" in the NLSY97.

Survey Design Recommendations

The Family Background panel concludes that the amount and detail of family and child background data should be expanded relative to previous NLSYs.

The panel agrees that it would be desirable for BLS to move beyond a mother-centric parent survey and consider interviewing multiple caregivers when these are present (including a non-resident parent). The panel also suggests that BLS explore including a parent interview in more than one survey round.

Similar to the other panels, the Family Background panel strongly encourages BLS to explore replacing, or supplementing, survey items with administrative records. To this end, the panel emphasizes the role of administrative records in measuring adults' employment and earnings as well as receipt of government benefits. In addition, the Family Background panel suggests that BLS explore obtaining consent to link to vital birth records to get more accurate data on birth parent names, gestational age and weight at birth of the youth respondent, as well as any children that the youth respondent may have.

K-12 Schooling and Cognition Panel

Relevant Emerging Research Themes, Social Trends and Policy Changes

The Schooling panel identify four research themes in the K-12 schooling area (with cognition being a fifth theme):

1. Academic skills
2. Socio-emotional skills
3. In-school learning experiences
4. Out-of-school learning experiences and educational outcomes

The panel defined the scope of their discussion as a group through several brainstorming and discussions.

Content Recommendations

The panel had enriching discussions for each research theme, and details of the recommendations are provided in Exhibit 1. This section is not an exhaustive list of all recommendations but summarizes a few main takeaways, emphasizing recommendations the panel places with high priority. Firstly, the panel places importance on collecting directly measured test data for both academic and socio-emotional skills (e.g., skills such as reading comprehension, delay of gratification, and social problem-solving skills). The panel advocates for more updated tests for this cohort, which tends to reduce assessor bias, and can be measured either during an in-person interview or remotely through an online assessment.

The panel recommends linking the NLSY cohort with school administrative data to capture important variables (e.g., absenteeism, school grades, and disciplinary events) when possible. For example, the panel prioritized the measurement of different career pathways, including course taking, advanced curricula, vocational education, and student exposure to STEM courses. The panel also suggests collecting information on school-based academic support services, including tutoring and special education placements (IEP) for both remediation and giftedness.

The panel also discussed several emerging topics that have gained importance since the design of the NLSY97. For example, the panel discussed widespread and more intense security measures at school, and the growing importance to capture objective indicators of a school's security practices (e.g., metal detectors, surveillance camera, locker checks, school resource officers), indicators of school safety itself (injuries, homicides, suicides) from school district measures, and a child's personalized fear about threats and actions to protect students. Additionally, the panel also places a high priority on capturing social media experiences and exposure to macro events (COVID-19, natural disasters) as essential topics to capture for the new cohort.

Survey Design Recommendations

The most significant design recommendation is to interview younger children. The NLSY97 began participation at ages 12-16, with an extended screener and a single parent interview collecting retrospective information about the child's prior life experiences. The panel recommends recruiting multiple cohorts in year one that starts at ages 6, 9, 12, 15, 18, and 21. The panel suggested including at least one cohort at age 6 or younger. The panel also recommended possibly staggering emphasis on data collection across a child's age so that identical constructs are not measured annually but, rather, biennially, so that more constructs can be included.

Health and Environmental Outcomes Panel

Relevant Emerging Research Themes, Social Trends and Policy Changes

In preparing their report, the Health panel focuses on defining important trends that would be unique to the NLSY26 cohort, such as COVID-19, climate change, their digital environment, rise in mental health conditions, and social determinants of health—especially as it relates to our understanding of how rising social, economic, and environmental inequalities impact health. The panel also emphasizes the innovations in the collection of health data since the NLSY97 was first fielded, such as the use of sensors, smart phone apps, and collection of biomarkers from respondents. The panel asserts that these data collection methods, along with the administrative record linkages, could reduce respondent burden, and thus improve survey response rates and long-term respondent retention.

Content Recommendations

The Health panel's discussion of content recommendations covers two broad categories: health outcomes and health determinants (or inputs).

Health Outcomes

Physical health is a major content area of emphasis, with the panel recommending an overall health assessment as well as directly collecting standard measures of physical health, such as height, weight, waist circumference, blood pressure, and forced respiratory volume (FEV), a standard measure of lung capacity. The panel stresses the importance of *objective* measurement in addition to *subjective* measures of overall health, as well as the importance of regular measurement to track health over time. Beyond standard measures, the panel recommends that questions prioritize subjective physical well-being, presence of disability (including vision and hearing loss), and injuries, as well as new measures not previously collected that may nonetheless be informative, such as oral health, school absences and biomarkers.

A content area that the panel would like to see expanded in an NLSY26 was the measurement of mental health and well-being. The panel recommended collecting information on standard mental health measures, subjective well-being, stress exposure, and diagnosis and treatment for mental health conditions. Since their measurement has changed considerably over time, the panel encourages using the latest tools available to facilitate data collection and improve its validity.

Health Determinants

The panel set forth several new content areas related to health inputs for the NLSY26, including environmental exposures, COVID-19, social determinants of health, and digital experience.

Considerable progress has been made in measuring environmental exposures, and the panel recommends utilizing new, low-cost sensors to improve exposure assignment for this cohort. In addition, an increased focus on behavioral responses to environmental risk episodes along with a greater understanding of attitudes toward the environment is recommended.

COVID-19 exposure will be a unique feature of this cohort. Collecting information on exposure to COVID-19 protocols during school (hybrid schooling, mask wearing, etc.) as well as any experiences with illness, whether for the child or a family member, will help to define this cohort's experience with COVID-19 and its impacts on health outcomes.

Social determinants of health such as income, education, working conditions, food insecurity, housing stability and amenities, neighborhood characteristics, and more are now understood to play a more central role in affecting the health of an individual.

Social media and other online activities are another factor that has changed considerably over time in terms of both the number of interactions and the kinds of interactions. Much is unknown about how this may affect the health of youth.

Other determinants of health that the panel considered were risky behaviors, sexual activity and fertility, healthcare access and usage, as well as lifestyle factors—such as physical activity and sleep—that can impact respondent health. Lastly, the Health panel advocated for collecting information on parents’ physical and mental health to facilitate investigation of intergenerational links.

Survey Design Recommendations

Two important methodological issues arose during panel discussions – there is a desire for collecting more objective data and for collecting some data outside the primary annual interview.

First, panelists recommend collecting more direct, objective measures related to health, including direct measures of standard health markers (instead of self-reported), use of wearable sensors as well as in-home sensors, as well as collecting biomarkers. Recall error and other personal biases are a major concern for data quality in surveys. Finding ways to collect data that limits these concerns is essential for improving measurement bias. Examples arose around taking physical health measurements directly and taking photographs of particular information. For example, asking subjects to self-report their body weight can lead to inaccurate measures; having interviewers use scales to directly measure subjects’ weight would greatly improve the accuracy of this variable.

The second topic centered on off-survey data collection. Prior NLSY surveys have been administered on an infrequent basis (annually or biennially), and as such often miss important events during intervening periods. In the NLSY26, subjects could be briefly contacted at additional time periods to collect information at more regular intervals. Such data could be collected through an app designed for this survey or text messages. For example, data on mental health, including self-reported happiness, could be asked on a more periodic basis through simple questions; the use of wearable sensors to track activity patterns is another.

Auxiliary Data Sources

Panelists favor linking to external sources to improve the availability and objectivity of data while decreasing the interview burden. They suggest including at least state-level location data in public-use files so researchers can match states with policy effects, but they are also interested in identifying neighborhood location so researchers can map to environmental data sets. Given the focus in this panel on environmental exposures, it would be useful for the BLS to offer more detailed location information so that researchers could link subjects to external sources, such as air pollution and temperature. Current NLSY data sets only provide—in the restricted use files—county of residence as well as zip code and census tract, which can provide an inaccurate measure of exposure given that environmental exposures are measured at much finer spatial resolution.

Department of Defense Initiatives and Assessments Panel

Relevant Emerging Research Themes, Social Trends and Policy Changes

The DoD Initiatives panel, comprised of federal and non-federal subject matter experts, is providing BLS with high-level recommendations about leveraging potential synergies between BLS and DoD in the collection of measures of cognition, personality, other abilities (e.g., mechanical), and career interests of youth via DoD assessments. Within this tight focus, the panel asserts unanimously from the outset that ASVAB scores, and particularly the AFQT sub score, are highly valuable and reliable for a wide range of research uses. The panel similarly asserts the value to the research community of personality assessments and interest assessments in career outcomes. Hence, the panel did not put significant efforts into exploring research issues or social trends that would inform decisions about recommended topics.

Content Recommendations

As the focus of the panel was on existing DoD assessments, the content recommendations focused more on the appropriate ages and conditions for administration. There was wide agreement that three DoD assessments should be administered to various samples under the umbrella of the NLSY26 effort:

1. The Armed Services Vocational Aptitude Battery (ASVAB), which is used by DoD for military enlistment purposes and within a school-based Career Exploration Program for 10th-12th graders.
2. The Tailored Adaptive Personality Assessment System (TAPAS), which is given to potential DoD enlistees.
3. The Find Your Interest (FYI) inventory, a measure of career interests currently used with students in the Career Exploration Program.

To meet both DoD's interests in developing national norms and the general research interests of BLS and the user community, the panel assumes that several samples would be needed. First, during screening the NLS program should draw a sample of enlistment-age youth, who would take the ASVAB and TAPAS for DoD norming purposes. This sample would mirror the Enlistment Testing Program (ETP) in the NLSY97. A second sample of 10th-12th graders, similar to the Student Testing Program in the NLSY97, would complete the ASVAB and FYI, again for DoD norming purposes. Depending on the timing of sample recruitment versus ASVAB administration and the ages of the NLSY26 main sample, a number of older NLSY26 main sample respondents may fall into the ETP age range.

The panel's discussion of appropriate tests and timing for the main NLSY26 sample is more nuanced. Given a baseline assumption that the cohort would be the same ages as the NLSY97 at sample selection, panel members were concerned that administration of the ASVAB might not be age-appropriate in round 1, particularly for the younger members of the sample. One recommendation to address this issue is to administer the ASVAB twice, timed so that

respondents would take it when they were in 10th-12th grade, and readministering the ASVAB to the NLSY26 cohort between ages 20 and 24, and again at about age 30. A second possibility is to conduct a reliability study assessing the appropriateness of administering the ASVAB to 12-15-year-olds. Whichever option is chosen would also include administration of the FYI, although the validity and utility of the FYI for youth below grade 10 has not been established.

Similarly, the panel is concerned that the TAPAS is not appropriate for administration to NLSY26 main cohort members, due to their younger ages and the military focus of the TAPAS. However, recognizing strong research interest in a measure of personality, the panel recommended using the Ten-Item Personality Inventory (TIPI) rather than TAPAS for the NLSY26. TIPI has been administered to NLSY97 respondents, although it was used in a later round of the survey.

A final high-priority recommendation, and a key difference from the NLSY97 pattern, was for periodic re-administration of the ASVAB to the NLSY26 sample. Retesting with the full ASVAB between ages 20-24 and again around age 30 would benefit DoD by supporting research into changes in scores across ages when the test is used in the military for enlistment and reclassification purposes; this would benefit the research community as well. Retesting again at age 40, potentially using only the AFQT subtests, would provide further possibilities into research on cognitive changes in adulthood. Similarly, the panel recommends re-administration of the TIPI to the NLSY26 sample on the same schedule.

Exhibit 2 summarizes the key recommendations of the DoD Initiatives panel for assessment timing.

Exhibit 2. DoD Initiatives Panel Key Recommendations Summary

Recommendations for NLSY26					NLSY97 Comparison
	ASVAB	TAPAS	TIPI	FYI	
Age 18-23	2026	2026			ETP
10 th – 12 th grade	2026			2026	STP
Main NLSY26 cohort	2026 (older members); 2028-29 (younger members); re-administered before age 24, around age 30, and around age 40 (perhaps AFQT only)		2026	Concurrent with ASVAB	ASVAB and Interest Finder: Full sample in round 1 (ages 12-17) TIPI: round 12

Survey Design Recommendations

The DoD Initiatives panel also addresses several methodological issues related to test administration. These are briefly summarized as follows:

The panel recommends careful consideration of on-site testing vs. a remotely proctored test; research in this area is limited, so BLS and DOD may want to conduct an experiment testing both administration modes.

The panel recommends offering a participation incentive as was done in the NLSY97; additional research or experimentation may be needed to determine the optimal amount.

Although accommodations for testing (e.g., extended administration time, reading assistance) would not be offered to the enlistment sample, these should be offered to student and main cohort sample members with 504 plans, and a variable documenting accommodations should be included in the dataset.

BLS should consider reporting scores to respondents in some form, to encourage future participation in the survey.

BLS and DoD should execute appropriate data sharing agreements in advance of test administration to ensure that all relevant data are available to researchers (with appropriate confidentiality protections).

DoD offers several additional assessments, including tests of coding speed, cyber knowledge, complex/abstract reasoning, and mental counters (working memory). BLS should monitor the development and use of these assessments and consider whether they may be appropriately included in the NLSY26.

Given the panel's tight focus on DoD assessments, there is little discussion of larger survey design issues. The main consideration is age at sample selection. The panel generally supports the baseline assumption of a sample of 12-16-year-olds, mirroring the NLSY97. However, members did note that extending the top age of the sample to 18, and possibly even oversampling older respondents, would provide a larger group of respondents old enough for ASVAB assessment concurrent with round 1. This would benefit researchers by providing a larger pool of scores for early research rather than requiring them to wait several years for the bulk of the scores.

Overlap and Differences in Recommendations Across the Panels

This section covers overlap in content and survey design recommendations across panels, highlighting points of agreement as well as differences across panels in these areas of overlap. In

general, the panels' recommendations skew more heavily toward adding or expanding rather than dropping or limiting content areas relative to the content of the NLSY97 questionnaires. Indeed, BLS and NORC asked the content panels to prioritize topical areas, but specifically not to work within any constraints. Given concerns over respondent burden, it is unlikely that BLS will be able to accommodate each panel's recommendations for content expansion in full. In highlighting those content areas given high priority by multiple panels, this section presents BLS with guideposts in setting their own survey content and design priorities for the NLSY26.

Content Recommendations

Early Life Development

Both the Family Background and Schooling panels agree on the importance of going beyond the 'proximal antecedents' of respondents' labor market and later life outcomes, and advocate collecting more information on early childhood life, experiences, and influences that have increasingly been shown to be important determinants of individuals' human and social capital accumulation. Consequently, both panels call for expanded content on youth development prior to the start of the panel. In fact, the Schooling panel felt so strongly about capturing accurate information on childhood factors that they recommended staggering the starting age of the new cohort so that the survey would capture contemporaneous information on childhood experiences and early family life for at least part of the sample. The Family Background panel relied instead on expanding retrospective data collection from both parents and the youth respondent to capture critical information on the youth's early family life. The Schooling panel was concerned that relying solely on retrospective data collection would result in recall error that would compromise the quality of information collected on early life.

Apart from early childcare and education, both the Family Background and Schooling panels agreed on the importance of tracking family structure and stability during the respondents' childhood prior to the survey. In fact, this content area was emphasized by three of the panels (Family Background, Schooling, and Health). In connection with early life development, the Family Background panel was interested specifically in any delays and interventions in the youth's early development.

Physical and Mental Health

Mental Health—a topic that received relatively short shrift in the NLSY97—was a point of emphasis across the Family Background, Schooling, and Health panels. The Health panel reviewed several aspects of mental health, ranging from the youth's subjective assessment, standard mental health measures, any mental health-related diagnoses, and information on stress

exposures that might influence mental health.² The Family Background and Health panels both advocate for including content that measures the parents' as well as the youth's mental health.

The Schooling panel identified mental health to be important for both educational and employment outcomes and important for later life outcomes. The panel suggested that mental health can be measured through self-report and identified an existing questionnaire to capture students' mental health and distress. The panel also suggested that it is important to collect data on service utilization.

Physical Health was also mentioned in the Family Background, Schooling, and Health panels. Noting that many conditions are genetic or driven by lifestyle, the Health panel was interested in some measures of both parents' physical health and health history. This recommendation meshes with the Family Background panel's recommendation to collect information on parents' physical health history as well as the youth's health history in childhood.

Socio-emotional Skills

The Family Background and Schooling panels agree on the importance of expanding content related to the youth's socio-emotional skills. The Family Background panel emphasizes measurement of youth autonomy and control, while the Schooling panel stresses measuring the youth's self-regulation and executive functioning via a direct test. The measurement of these content areas, however, will have considerable overlap. And while the Schooling panel's recommendation generally applies to the contemporaneous collection of this information during the youth's adolescence, their recommendation to lower the starting age of the sample suggests that they share the Family Background panel's prioritization of collecting information on the development of these skills as early as possible. Similarly, the DoD Initiatives panel suggests measuring personality factors using an established scale (i.e., the TIPI).

Adverse Childhood Experiences (ACEs)

Family Background, Schooling, and Health panels raised adverse childhood experiences (ACEs) as a potential new content domain in the NLSY26, although each emphasized slightly different aspects. The Health panel was concerned with ACEs in connection with stress exposures as well as the social determinants of health, highlighting the role of income, education, food insecurity, housing stability, as well as discrimination experienced by the youth respondent. These recommendations align with a host of high priority content recommendations from the Family Background panel. These include collecting retrospective information on income and education from parents, receipt of public assistances (such as SNAP and housing assistance), as well as family and residential stability (including information on neighborhood quality) through the youth's childhood. Relatedly, the Family Background panel assigned high priority to collecting information on the youth's LGBTQ+ status, which ties into measurement of potential

² The Health panel also noted that measurement in this area has evolved considerably since the NLSY97, so new scales and assessment tools should be employed.

discrimination (in this case due to sexual orientation), a topic emphasized by both the Health and Schooling panels.

The Schooling panel also placed a great deal of weight on content related to ACEs (including abuse, trauma, and hardship) in the youth's early development, and recommended that information in this domain be solicited from both parents and the youth respondent. The panel also highlighted that data collection on family formation and membership across ages, parents' marriage and divorce status, members of the household, adoption, foster care, and other out-of-home placements are all important. Although the Family Background panel also discussed ACEs, that panel assigned the full set of indicators to medium priority, although some individual ACEs indicators are high priority for the Family Background panel as well.

Technology and Social Media

The rapidly changing and pervasive role of technology—and, in particular, the social media or 'digital experience' of youth—is a content area raised in Family Background, Schooling, and Health panels. Both the Health and Family Background panels are interested in the possible connection of social media to youth mental health. The interest of the Health and Family Background panels extends to youths' access to high-speed internet as well as parental reports of limitations on screen time for the youth. While the Health panel prioritizes measuring digital experiences with social media as well as Wi-Fi, computer, phone and other devices, the Family Background panel did not assign technology as a high priority content area for the parent survey or childhood retrospective. The Schooling panel also identified the increased use of social media, video games and technology as a high priority area that affects in-school and out-of-school learning experiences.

Immigration and Dual Language

The Family Background and Schooling panels both recommend expanding the type of information collected from immigrant families in the NLSY, with Family Background emphasizing the need to collect information on immigration as well as any encounters with Immigration and Customs Enforcement (ICE), while Schooling stressed the need for information on the languages spoken in dual-language households.

Criminal Activity

The Health and Family Background panel reports both discuss the collection of criminal activity and encounters with the criminal justice system. The Health panel's interest in criminal activity is in the broader context of 'risky behaviors' and extended to disciplinary action that the youth may have been subject to in school. In the context of health-related content area, the Health panel assigns collection of youth's criminal activity a low priority. The Family Background panel's interest in criminal justice involvement extends to parents and possibly other family members and was rated by the panel as a high priority.

Civic Participation

The Schooling panel recommends collecting information on the civic participation of the youth, whereas measurement of civic participation—at least of the parent—is a content area assigned ‘low’ priority by the Family Background panel.

Capturing Growth

Both Schooling and DoD Initiatives panels emphasize the need to capture the growth of the youths’ skillsets as they age. The Schooling panel proposed multiple cohort design where different age groups are included in the sample, and the DoD Initiatives panel suggests readministering the ASVAB to the NLSY26 cohort between ages 20 and 24, and again at about age 30.

COVID-19

COVID-19 was highlighted as a potential new topic in the NLSY26 by the Health, K-12, and Family Background panels, though their specific content recommendations differed somewhat. The Health panel emphasized information on COVID-19 protocols in the youth’s school and experience with illness by the youth or any family member, with an eye toward measuring possible long-term health outcomes. The K-12 panel similarly recommended measuring the effects of the pandemic on education outcomes, in-school learning experiences, and social interactions. The Family Background panel was chiefly concerned with COVID-related disruptions to the family, such as a parent’s loss of a job.

Survey Design Recommendations

Age Range for New Cohort

Both the Schooling and DoD Initiatives panels address the issue of possibly departing from the starting age range of the NLSY97. As mentioned above, the Schooling panel proposes a substantial departure from previous NLSY cohorts by advocating for both expanding and staggering the starting ages of youth respondents. In other words, including respondents ranging in age at the time of the first survey round from six to 21 years of age. The DoD Initiatives panel, on the other hand, put forward a more modest proposal of possibly extending the upper limit of the starting age range to 18 (from the base case of 12-16) in order to yield a larger group of respondents eligible for the ASVAB in the first round of the survey.

Administrative Records

The Family Background, Schooling and Health panels all agreed that, where possible, administrative records should be used to collect more accurate information from respondents. Both the Family Background and Schooling panels, for example, saw scope for administrative

records being used to collect information on the youth's early life and education. Administrative records could play an important role in collecting the detailed education history that the panels deemed scientifically important and that might otherwise be reported—by either youth or parents—with a fair degree of error. The Family Background panel further suggested collecting detailed address information on each one of the youth's childhood residences to allow these to be geocoded for potential linkage to outside data sources. The Health panel emphasized the potential advantages of linking electronic health records (EHRs) to improve information in health-related content areas. In addition to EHRs, the Health panel also proposed a significant departure from previous NLSYs by pushing for more direct—and objective—measurement of health through sensors and biomarkers.

Comparison of Content Panels' Recommendations with CMO Report

It is worth noting a few key differences in the structure of the content panels and the CMO. First, given their focus on specific topical areas, the content panel recommendations are often more detailed than the CMO. A corollary of this is that the CMO also considers more cross-cutting survey design issues than the content panel reports. The above section draws out some of these considerations from the content panels, but the CMO is by construction more focused on details of survey design.

In addition, because the CMO is constructed with the mission of BLS as a key consideration, the content of the CMO report more closely aligns with that mission and the measurement of labor market activity.

Content Recommendations

Below, we highlight more specific similarities and differences between the content panel reports and the CMO that will have implications for the design of the NLSY26.

Similarities in Content Recommendations

On the whole, the content recommendations from the content panels align very well with those in the CMO. There are a number of areas in which the CMO and content panels strongly aligned in suggesting the following as a priority for the NLSY26:

- *Racial/Ethnic Measurement and Disparities:* Given the increasing diversity of the U.S. population, both the CMO and content panels suggest an emphasis on accurate measurement of race and ethnicity along with a focus on enabling research investigating racial and ethnic disparities.

- *LGBTQ+ Status:* Both the CMO and content panels suggest that the NLSY26 will need to provide more nuanced measures of sexual orientation and gender identity than prior cohorts.
- *Social Media:* Given the increase in technology since the last NLSY cohort was fielded, the content panels and CMO both indicate that the interaction of respondents with technology, and especially their use of social media, would be very important measurements for an NLSY26.
- *Health:* Both the health content panel and the CMO indicate a number of areas where the measurement of health could be expanded on for the NLSY26. In addition, a consistent theme across the content panels and CMO is the importance of mental health and having high-quality and consistent measurements of mental health concepts.
- *COVID-19:* The COVID-19 pandemic will have had profound impacts, and the content of the NLSY26 should be designed to enable research on the life course impacts of the pandemic.
- *Retrospective Measures:* Both the CMO and the content panels are clear about the value of retrospective information that allows researchers to understand the circumstances of a respondent's life, particularly related to retrospective health information and information on family resources. However, the K-12 content panel did express concern about relying heavily on retrospective reports—from either the youth respondent or a parent—to collect information on early childhood experiences.
- *Repeated Measures of Skills Over Time:* The DoD Initiatives panel suggests that repeated measurements of cognitive assessments such as the ASVAB would be a benefit to the research community, which echoes the conclusions in the CMO that repeated measures of cognitive assessments more generally will serve to increase the value of the NLSY26.

Differences in Content Recommendations

While there are not many differences in content recommendations, a few differences between the content panels and CMO are worth noting. This includes the recommendation by the Family Background and Schooling panels to expand the type of information collected from immigrant families in the NLSY, as well as the emphasis from the Schooling panel on the need for information on the languages spoken in dual language. We note that these recommendations do not conflict with the results of the CMO but were instead not emphasized by the CMO in the same way as they are throughout the content panels.

In addition, some topical areas are more heavily emphasized by the content panels or the CMO. Examples of topics that are more heavily emphasized in the content panels include the emphasis on ACEs and Social Determinants of Health in the Family Background and Health panels. Likewise, because the CMO is more focused on labor market behavior, the CMO also discusses in greater detail new developments related to the changing nature of work such as gig work and automation.

As a general point, the CMO also provides a specific recommendation that the distribution of administration times across domains would need to shift in the NLSY26 relative to the NLSY97 and discusses options for accounting for this such relying on alternative data sources to expand the content that can be gathered, reducing coverage of all domains, reducing the depth/granularity of coverage in some domains, or reducing the frequency of coverage in some domains. The content panels did not discuss these topics in such detail, in large part reflecting their explicit charge to not consider the constraints that will be faced in survey questionnaire design. During the actual design of the NLSY26, survey designers will need to negotiate between the needs of researchers in different subject areas and decide how much survey time can be allocated to each domain.

While the CMO noted that no topics previously covered in the NLSYs emerged during the Needs Assessment as candidates for omission (or deprioritization), the content panels do identify several topics from the NLSY97 that they believe are less critical for a NLSY26. Exhibit 3 collects topics, by content panel, which were covered in the NLSY97 but were not assigned high priority by the respective panel.

Exhibit 3. NLSY97 Topics Not Assigned High Priority

Topic	Priority
Family Background and Early Childhood Retrospectives	
Type of Housing	Medium
Youth Witnessing/Experiencing Violence Before Age 12	Medium
Early Care and Education	Medium
Adverse Childhood Events (ACEs)	Medium
Grandparent Residence	Low
Parent Religiosity	Low
Civic Engagement/Participation	Low
K-12 Schooling and Cognition	
STEM grades in specific course	Medium
School attendance with excused and unexcused absences	Medium
Work habits need more detail; time-use survey	Medium
Self-reported perceptions of courses and pathways	Medium
Collect individual experience with academic support services and school-level availability from school ID	Medium
Collect school-level average achievement for peer effects	Medium
School security/sense of safety	Medium
Self-reporting on videogames and related technology	Medium
Self-report on financing of post-secondary education	Low
Health and Environment Outcomes	
Physical Health: Lifestyle	Medium

Vision and hearing health	Medium
Prescription usage	Medium
Physical Health: School absences	Medium
Health Insurance and access	Medium
Environmental Exposures: ACEs	Low
Vaccinations	Low
Risky Behaviors: Criminal activity	Low
Risky Behaviors: Discipline	Low
Physical, mental health history of parents	Low
Time use diary	Low

Survey Design Recommendations

On the whole, the general recommendations related to survey design are similar in between the CMO and the content panels. Nonetheless, for two particular cases, there are some differences in recommendations and emphases that are worth noting.

Age Range for New Cohort

As discussed earlier, the Schooling panel recommends a marked departure from prior NLSY cohorts in using cohorts distributed across ages 6, 9, 12, 15, 18, and 21. The CMO recommends instead following the precedent of the NLSY97 and using ages 12-16 for initial sample member age. This latter recommendation from the CMO comes largely from stakeholder engagement activities and a desire to align the NLSY26 with the mission of BLS. While it is true that during these activities some participants suggested that moving the age range lower provides more ability to obtain information about early life determinants of labor market success, other stakeholders noted that given the focus of the NLSY on labor market outcomes, too early of an age range will mean that there is more time before the cohort reaches the labor market. In addition, the DoD Initiatives panel strongly advocates for cohort starting ages no younger than in the NLSY97.

Administrative Data and Direct Measurements

The use of administrative data is emphasized strongly throughout the content panels, with three of the panels recommending the use of administrative records where possible (the DoD Initiatives panel does not comment). The CMO also recommends that BLS should pursue administrative data as much as possible but noted that the initial rounds of the NLSY26 are safest if designed without assuming linked data will be complete and adequate. Nonetheless, both the CMO and the content panels agree that the NLSY26 should prioritize opportunities for researchers to link to other data sources, and a key activity for the design of the NLSY26 will include engaging agencies to provide access to data and seeking parental consent for linkages in early rounds.

The CMO suggests that direct measures such as environmental sensors and biomarkers could serve as a useful complement to traditional survey collection but did not emphasize these collection modes as much as the Health panel which pushed for more direct measurement of health through sensors and collection of biomarkers.

Conclusion

In reviewing the four content panel reports, there are two things that are clearly true. First, the needs of all groups in the research community cannot be met within the survey time and budget constraints that will inevitably face an NLSY26. Across almost every domain, measurements are becoming more complex: employment arrangements, romantic partnerships, post-secondary schooling, even gender and even without the new data demands that have come about from better understanding of human development, the job of describing the patterns of respondents' lives is much harder than before. Adding to this complexity in the measurement of important concepts, the user base of the NLSY program has diversified enormously from the early days when the vast majority of users were labor economists working on a limited number of labor market concepts. Serving this diverse user community will be important for the NLSY26, and further adds to the complexity of survey design.

We close this synthesis of the content panels' work with a few focused observations about the interplay across reports, then suggest concrete next steps for BLS's preparation for a new cohort, and finally identify some recommendations for the design of the NLSY26.

Specific Implications Across Content Panel Reports

We note three specific implications for survey design when looking across the four content panel reports.

Measures of Cognitive Ability

The CMO notes widespread interest in repeated and modernized measures of cognitive ability for a new cohort. The DoD Initiatives panel report agrees on the need for repeated cognitive measures and proposes a cognitive measurement program that would be a significant improvement over what has been done to date for the NLSY79 and NLSY97 cohorts, including repeated administrations of the ASVAB (or at least the AFQT) over many years. The report, however, also recommends that NLSY26 respondents take the ASVAB only in its validated age range, which begins in 10th grade. Given the realities of survey data collection in the 21st century, it seems likely that the proposed assessment schedule could leave hundreds of NLSY26 respondents without any cognitive measures, either due to non-response after the initial round of sample recruitment, or because of non-response to the separate testing effort even among interview participants.

BLS may want to consider embedding a short cognitive assessment tool within the first-round main interview to ensure that virtually all sample members have at least some cognitive measures. NCES's Middle Grades Longitudinal Study includes an example of such a tool.

Comprehensive Event Histories

Various content panels noted the importance of selected comprehensive event histories, such as a complete residential history, or an enumeration of every K-12 school attended. By omission, the content panels seem to suggest that comprehensive histories are not necessary in many other areas. This could be an opportunity for substantially reducing questionnaire length and complexity, as well as data processing costs and data analysis challenges for researchers.

Specifically, within some boundaries, the NLSY79 data files attempted to comprehensively document sample members' entire work lives. The NLSY97 design expanded this ambition to address many of the pressing research questions of the mid-1990s. The newer study attempts to comprehensively enumerate all full and half-siblings of the respondent, track longitudinally any person living in the youth's household at the time of an NLSY97 interview across subsequent interviews, track longitudinally spouses/cohabitation partners/individuals with whom childbearing occurs, enumerate every term of enrollment in any regular school or post-secondary institution since sample recruitment, etc. This attempt at comprehensiveness requires significant interview administration time, adds data processing costs, and complicates use of data files. To date, the published literature shows limited benefits of this comprehensive approach beyond the apparent use of monthly arrays in many key domains.

Language of Administration

The Family Background panel, in particular, noted the increased ethnic and linguistic heterogeneity of young Americans. While the NLSY79 and NLSY97 both have included Spanish-language interviewing, an NLSY26 may require additional languages of administration, at least for parents, screening, and/or early rounds of youth interviews. An Asian oversample would likely make additional languages of administration even more helpful.

Next Steps

The Needs Assessment Oversight Committee identified several important next steps for BLS to consider in moving toward an NLSY26 design. We note three that relate most directly to the content panel reports:

Statistical Analysis Regarding Feasible Oversamples

While the CMO and content panels identify the benefits of oversampling a variety of populations, the costs of oversampling have not yet been specified. These include the financial costs of finding and recruiting sample members from selected populations, design effects/statistical inefficiency for the full sample resulting from implementing oversamples, estimated sample sizes and analytic value of implementing oversamples (especially of potentially

transitory characteristics such as disability or household income), and financial costs of retaining oversamples over time (if any).

Survey Methodology Considerations

Survey methodology entered into content panel deliberations primarily in the context of alternative modes of data collection. Additional important questions include how to design questionnaires that can support high response rates and accurate data; for example, how long should questionnaires be, what are the current best practices in question wording, and how to optimize questionnaire content that respondents will perceive as relevant and non-threatening. If questionnaires might be self-administered via web in future rounds, BLS may want the initial questionnaires to be appropriate for self-administration as well to avoid mode effects and non-comparability of items when mode flexibility increases.

Administrative Preparations

The content panels were universal in their endorsement of administrative data linkages. Recommendations also include additional supplementary activities like ASVAB testing and collection of health-related biomarkers or sensor data. There are likely many legal, statutory, and other administrative issues to be resolved for these recommendations to be feasible. Moreover, if these recommendations are not feasible, it is likely that alternatives (whether survey-based or otherwise) would be important to identify so that the original research objectives can still be achieved. Even if these recommendations are feasible, their implications for questionnaire length, data collection technology, ordering of data collection components (screening, parent interviews, youth interviews, testing, parental consent and youth assent for data linkages, etc.) are likely to be significant and rigid and so should be known as early as possible in the survey design process.

Developing a Single Set of Recommendations from these Panel Reports

The four content panel reports represent enormously valuable thinking about four key content areas to be included in the early round questionnaires for an NLSY26. Considering the body of work from the full Needs Assessment together with these reports suggests some overarching insights for moving toward a design for the new cohort.

Applying the Insights of the CMO to Prioritize Content

As we note in the section above comparing the content panels' recommendations with the CMO Report, the four panel reports and the CMO all align closely in their recommendations for designing a new cohort. Both the panel reports and the CMO took an approach of determining the research need and value without regard to feasibility or other constraints. Even so, the insights of the CMO can be directly applied to the content panel recommendations for further prioritization of content. The CMO describes the specific data gap that an NLSY26 could fill:

- nationally representative longitudinal data
- across multiple life domains

- with adequate sample sizes within birth cohorts
- for studying labor market outcomes
- including constructs such as mental health status, cognitive ability, and expectations or perceptions that are not be found in administrative data
- with comparisons possible to earlier NLSY cohorts.

Similarly, the 13 design and content considerations articulated in Section 2 of the CMO can further guide how to develop an NLSY26 design using the recommendations from the content panels. Most relevant might be a balancing of content-related considerations with design and user-related considerations that represent some of the issues of feasibility and constraints. In the former category are considerations that encourage alignment with the mission of BLS, cross-cohort comparisons, coverage of contemporary issues, and otherwise meeting the needs of researchers but not unnecessarily duplicating other data sources (#1,6,8,9,10,11). In the latter categories are considerations that note necessity of accurate, reliable and unbiased measurement, maintaining long-term response rates and representativeness of data, and minimizing costs to the government (#5,7,13).

Incorporating Flexibility

The Needs Assessment Oversight Committee encouraged BLS to build a flexibility structure that might allow researcher-initiated efforts (and funds) to supplement the core work of the NLSY26. These efforts could include linkages to administrative data as well as primary data collections outside of the annual youth interview. The NLS program already has the beginnings of a flexible model, since some data linkages are possible through restricted-use data access, and data collection efforts like the NLSY79 Child and Adult Young samples and the NLSY97 Post-secondary Transcript study were externally funded and researcher-initiated.

All of the content panels endorsed use of administrative data for collecting accurate data while minimizing added respondent burden. In addition, the Health panel suggested using sensors, biomarkers and other methods of directly measuring health and health inputs rather than relying on self-reported data. The Family Background panel noted the potential value of multiple parental interviews, either in a single round or across multiple rounds.

If BLS can design an NLSY26 structure that allows researchers to initiate and find funding for this type of supplement to a core NLSY26 data file, the NLSY26 may be able to achieve more than what is feasible within the initial set of resources. Of course, flexibility would need to abide by statutory/regulatory requirements such as from OMB or for data security, maintain respondents' privacy and confidentiality protections, and cautiously broker respondent burden to maximize long-term cooperation in the study.

Considering Data Dissemination

Three issues of data dissemination are particularly relevant to the work of the content panels. The first pertains to what will be in the public use files versus only accessible to researchers able to implement complex and restricted data linkages. For example, multiple content panels emphasized the importance of understanding parental financial resources, and the value of

administrative data in collecting these data accurately. It will be important for BLS to consider what should be available in public use data about parental finances. Can a variable be made available from linked administrative data (given legal, timing and other restrictions)? If not, should a questionnaire item collect at least one weaker self-reported parental finance construct for public use?

The second data dissemination issue harks back to the listening sessions and user survey, where the importance of ease of use in data search and analysis came up repeatedly. Although created variables and data file structures matter, questionnaire design can be the first determinant of ease of use, albeit at the cost of comprehensiveness, minimizing respondent burden and other valuable survey objectives. Thinking about the types of analyses that researchers will conduct can greatly facilitate wise choices about questionnaire design.

The third issue is about the standards for completeness. An influential contribution of the NLSYs has been to re-field the non-interview respondents, and the program's success re-interviewing attriters is a major reason for the continued high response rates of both the NLSY79 and NLSY97. In many cases, if questions are asked in one round's interview, those questions are repeated in subsequent rounds to recover missing data from non-responders. An important question for designs that look to administrative data linkages or other supplemental collections will be what is considered adequate coverage from these external sources, versus when attempts will be made to use survey data to compensate for missing data from those external sources. This may be especially relevant when respondents' missing data from external sources are likely to be systematically different (for example, not covered by the social security system, unable to participate in a web survey, or unwilling to install a sensor).

Consider the specific example of collecting parental income information from administrative records. Some parents will decline to provide consent for such linkage, while others will provide consent, but they will not be covered in the administrative data or there may be difficulties matching their records. In these situations where administrative data on parental income will not be available for the NLSY26 data files, would questionnaires need to be designed so that the youth (or their parent) would be asked to provide parental income information by survey self-report while the same information would be secured for the remainder of the sample from administrative records? Given possible concerns about the comparability of survey reports with administrative data, if BLS plans to recover any gaps in administrative data from survey data, then a comparison sample might be appropriate to estimate the comparability of the information from the two types of sources, when both are available. This comparison sample would thus be comprised of respondents for whom the same data elements are collected from both the survey questionnaire and administrative records.

Efforts to minimize missing information would improve data availability, but would likely complicate questionnaire design, processing and access. A question for BLS might be what level of missing data it is willing to accept as part of the NLSY data files and at what cost in response burden, processing effort, and ease of data use. The implications for questionnaire content and ease of data file use are significant if the traditional standards of completeness continue to be upheld; on the other hand, the completeness and the representativeness of the existing cohorts

have contributed to the esteem that researchers have for the NLSYs. A one-size-fits-all approach across all types of missing data may not be appropriate, but clear intent will be very helpful for producing consistent data and manageable questionnaire and data files.

Understanding Inequality

Much of the input gathered during the Needs Assessment and embedded in the content panel reports is concerned with ensuring that the NLSY26 can enable research on inequality in US society and its vast interconnections with labor market outcomes, human capital accumulation, physical and mental health. We re-iterate the strong urging of the research community that BLS keep a keen focus on how the NLSY26 can help researchers understand the causes and consequences of inequality over the life course.

Appendix A: Report from Family Background and Early Childhood Retrospectives Content Panel

Appendix B: Report from K-12 Schooling and Cognition Content Panel

Appendix C: Report from Health and Environmental Outcomes Content Panel

Appendix D: Report from DoD Initiatives and Assessments Content Panel