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Title Slide: Introduction to the NCES Longitudinal Studies: 1972-2020

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This module introduces users to the National Center for Education Statistics (NCES) longitudinal studies from 1972 through 2020. It provides users with basic information about the objectives, target populations, data collection years, and data sources for each of the studies.

The module also provides a broad overview of the topics for which data are available for analysis for each study to help users answer the fundamental question: “Which NCES longitudinal data are for me?”

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In response to the Congressional mandate for NCES to “collect and disseminate statistics and other data related to education in the United States” and the need for policy-relevant, nationally representative longitudinal samples of students at all levels of education, NCES has conducted, and continues to conduct, longitudinal studies. The figure on the screen shows the NCES longitudinal studies from 1972 through 2020. The studies are categorized as early childhood and elementary, secondary, and postsecondary studies.

The NCES longitudinal studies all have complex study designs that include base-year data collections with periodic follow-up data collections. The data collection timing, target populations, data collection methods, data sources, and topics available for analysis vary depending on the study. In the slides that follow, the objectives, target populations, data collection topics, and data sources for which data are available for analysis for each of the NCES longitudinal studies shown here will be summarized.

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NCES longitudinal study data provide information on students and schools across all levels of education. The early childhood and elementary studies present a picture of childhood development and educational experiences ranging from birth through children’s elementary school years and into the middle grades. The secondary studies provide information about students and schools to determine what America’s students know and can do in various subject areas, as well as the factors related to educational attainment and later workforce participation. The postsecondary studies follow the experiences of cohorts of undergraduates as they progress through their postsecondary education and as students complete their degrees and make the transition into the next phase of their lives.

Additional information about each study can be accessed on the study’s corresponding NCES webpage. The survey-specific training modules contained within the Distance Learning Dataset Training (DLDT) system also discuss these topics and surveys in detail and address questions about how to effectively use each of the NCES longitudinal

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datasets for analytic purposes. These modules can be accessed from the DLDT landing page on the NCES website. Click on the corresponding underlined studies to be taken to detailed information about the series of datasets within the module. At the end of each section of the module, click the “Return to List” button to return to this slide or the “Exit” button to exit the module completely. Otherwise the module will automatically advance to the next slide.

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Early childhood and elementary studies include the Early Childhood Longitudinal Study, Birth Cohort (or ECLS-B), the Early Childhood Longitudinal Study, Kindergarten Class of 1998-99 (or ECLS-K), the Early Childhood Longitudinal Study, Kindergarten Class of 2010-11 (or ECLS-K:2011), and the Middle Grades Longitudinal Study of 2017-18 (or MGLS:2017).

The early childhood and elementary study at the lowest level of education shown on the graph is the ECLS-B, for which the first round of data were collected in 2001, followed by four follow-up data collections, ending in 2007. The ECLS-K data collection began in the 1998-99 school year and concluded in 2007. The ECLS-K:2011 began during the 2010-11 school year, and its final data collection was conducted in 2016. The MGLS:2017 is anticipated to begin its national data collection during the 2017-18 school year.

For these early childhood and elementary studies, it should be noted that the number of icons on each line does not always correspond to the number of data collection rounds. Some icons represent multiple collections, and one data collection round is represented by multiple icons if the data collection spans multiple calendar years.

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The early childhood and elementary studies present a picture of childhood development and educational experiences ranging from birth through children’s elementary school years and into the middle grades. These studies examine child development, school readiness, early educational experiences both in and outside of school, and cognitive, social, emotional, and physical growth.

More information about the early childhood and elementary studies can be accessed by clicking the underlined screen text.

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The Early Childhood Longitudinal Study, Birth Cohort (or ECLS-B) was conducted with a nationally representative sample of children who were born in the United States in 2001. The data from the study can be used to make statements about these children as they age over time. About 11,000 children participated in the base year of the study.

There are a few limitations about the target population to note as they may impact some analyses.

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First, the target population does not include children born to mothers younger than age 15. Children were sampled for the study from birth certificate information provided by states, and there were some concerns about sharing birth certificate information for children with very young mothers so these children were excluded from the study.

Second, the target population does not include children who died or moved abroad prior to the first data collection, which occurred when children were about 9-months-old.

Third, the target population does not include children who were adopted prior to the first data collection. Since the information used to contact and recruit families for the study was obtained from birth certificates, it contained information about the children's biological parents. Logistically, it would have been difficult to find adoptive parents at that time.

If children of young teenage mothers, children born with severe health problems related to higher rates of infant mortality, or adopted children are an area of interest in your research, these limitations should be considered.

Another issue to keep in mind is that as the study progressed, the study population excluded children who died or permanently moved abroad.

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The ECLS-B study collected a great deal of information on many different topics over time. While many of the same or similar questions were asked in multiple rounds of data collection to enable analyses of change across the course of the study, there are differences in the exact sets of questions asked in each round. These differences occurred because the questions needed to be both appropriate for and relevant to the children's age at the time of data collection.

Data were collected from the children, their birth certificates, their mothers and fathers, their nonparental care providers, and their kindergarten teachers to better understand how children's cognitive, social, emotional, and physical development are related to the characteristics of and experiences in their home, nonparental child care, and school environments.

For more information about the ECLS-B, click on the corresponding underlined screen text.

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The Early Childhood Longitudinal Study, Kindergarten Class of 1998-99 (or ECLS-K) was the first early childhood longitudinal study conducted by NCES. Though the ECLS-K is first and foremost a study of children who were in kindergarten in the United States in the 1998-99 school year, the data are nationally representative of several groups. In addition to being representative of children in kindergarten in 1998-1999, both those who were in kindergarten for the first time and those who were kindergarten repeaters, the base-year data are also representative of kindergarten teachers and schools

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educating kindergartners in the 1998-1999 school year. About 21,000 children participated in the base year of the study.

After the base year, freshening of the sample resulted in the study being nationally representative of children in first grade in the U.S. during the 1999-2000 school year. Data collections after the first-grade round were not representative of children in the target grades because the sample was not freshened. That is, the sample did not include children who entered the U.S. school system after first grade. Therefore, the data are not representative of third-graders, fifth-graders, or eighth-graders. They are representative of children who were kindergartners in 1998-99 or first-graders in 1999-2000 during the later data collection years, when most of the students were in third grade, fifth grade, and eighth grade. The data are not representative of schools or teachers in any year after the base year.

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Similar to the ECLS-B, the ECLS-K collected information on many different topics over time. In order to enable analyses of change across the course of the study, many of the same or similar questions were asked in multiple rounds of data collection. There are differences, however, in the exact sets of questions asked in each round because the questions needed to be both appropriate for and relevant to the children's age at the time of data collection. Data were collected from students, their parents, their teachers, and their school administrators to better understand student's cognitive, social, emotional, and physical development; their academic progress and performance; and their home and school environments.

More information about ECLS-K can be accessed by clicking the corresponding underlined screen text.

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The Early Childhood Longitudinal Study, Kindergarten Class of 2010-11 (or ECLS-K:2011) is a study that includes a nationally representative sample of students in kindergarten or 5-year-olds being educated in ungraded settings in the United States in the 2010-11 school year. About 18,200 children participated in the base year of the study. Similar to the ECLS-K, in addition to being representative of children in kindergarten, both those who were in kindergarten for the first time and those who were kindergarten repeaters, the base-year data are also representative of schools educating kindergartners in the 2010-11 school year. Also, the study does not have data representative of schools in later rounds. Unlike the ECLS-K, the ECLS-K:2011 does not have data representative of kindergarten teachers nor of first-graders. The ECLS-K:2011 is not representative of an entire grade of students after kindergarten. They are representative of children who were kindergartners in 2010-11 during the later data collection years, when most of the students were in first grade, then in second grade, and so on.

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Similar to the ECLS-B and the ECLS-K, the ECLS-K:2011 included multiple measures to obtain comprehensive data on children's development and experiences. In order to enable analyses of change across the course of the study, many of the same or similar questions were asked in multiple rounds of data collection. Additionally, to facilitate analyses comparing the ECLS-K and ECLS-K:2011 cohorts, many of the same items and measures were included in both of these studies. Data were collected from students, their parents, their teachers, their school administrators, and their kindergarten before- and after-school care providers to better understand children's cognitive, social, emotional, and physical development, as well as their home, classroom, school, and before- and after-school care environments. More information about ECLS-K:2011 can be accessed by clicking the corresponding underlined screen text.

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The Middle Grades Longitudinal Study of 2017-18 (or MGLS:2017) will be the first NCES longitudinal study to follow a nationally representative sample of students as they enter and move through the middle grades. The study is scheduled to begin collecting data from a nationally representative sample of students enrolled in sixth grade in the 2017-18 school year, with follow-up collections in winter through spring of 2019 and winter through spring of 2020.

The data collected through repeated measures of key constructs will provide a rich descriptive picture of the experiences and lives of all students during these critical years and will allow researchers to examine associations between contextual factors and student outcomes.

Because mathematics and literacy skills are important for preparing students for high school and are associated with later education and career opportunities, the study is placing a focus on student growth in these areas and on their instruction.

In addition, the study is designed to produce reliable estimates for students in three focal Individuals with Disabilities Education Act (or IDEA) disability categories: specific learning disability, autism, and emotional disturbance. More information about MGLS:2017 can be accessed by clicking the corresponding underlined screen text.

This concludes the early childhood and elementary studies section of the module. To return to the NCES Longitudinal Study Data slide to make another selection, click the "Return to List" button. To exit the module completely, click the "Exit" button, or you will automatically be advanced to the next slide within the module.

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Now let's focus on the secondary studies. The NCES secondary studies include the National Education Longitudinal Study of 1988 (or NELS:88), the High School Longitudinal Study of 2009 (or HSLs:09), High School and Beyond (or HS&B), the

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Education Longitudinal Study of 2002 (or ELS:2002), and the National Longitudinal Study of the High School Class of 1972 (or NLS-72).

NELS:88 comprises a base year and four follow-up data collections, ending in 2000. The HSL:09 began in 2009 and is ongoing. The HS&B longitudinal study of 1980, comprises a base year and four follow-up data collections, ending in 1993. ELS:2002 comprises a base year and three follow-up data collections, ending in 2012. The first secondary longitudinal study conducted by NCES began in 1972 with the National Longitudinal Study of the High School Class of 1972 (or NLS-72), and included a base year and five follow-up data collections, ending in 1986.

The secondary studies include high school and postsecondary transcript collections, signified by rectangle and triangle icons, respectively. Rolling data collections are represented by a filled-in circle. Additionally, several studies are ongoing and have data collections planned for a future year, as noted by an open circle.

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The secondary longitudinal studies provide information about students and their educational contexts during the secondary school years. These studies describe what America's students know and can do in various subject areas, and track their growth through the high school years and beyond.

More information about secondary studies and programs can be accessed by clicking the corresponding underlined screen text.

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The National Education Longitudinal Study of 1988 (or NELS:88) contains nationally representative samples of about 24,600 eighth-graders and the 1,060 or so eighth-grade schools they attended in 1988. The sample was freshened in 1990 and 1992, when students were sophomores and seniors in high school, so there are three overlapping cohorts. The sophomore cohort and senior cohort are each a freshened sample.

The sophomore cohort was formed by adding a small sample of sophomores who may have been in the sample schools during 1990 but were not eighth-graders in the sample schools in 1988. This freshening formed a nationally representative sample of 1990 high school sophomores. In 1992, this process was followed again to freshen the sample, creating a senior cohort.

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Across its rounds of data collection, NELS:88 contains a vast amount of data collected, from many different sources, about the students' experiences. Data were collected on students' academic growth and school experiences, high school completion and college enrollment, work experiences, and family background. In addition to these data collected directly from the sampled students, data were collected from parents, teachers, and school administrators about topics such as school programs and

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services, school climate and student engagement, and teacher background and classroom instructional practices.

More information about NELS:88 can be accessed by clicking the corresponding underlined screen text.

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For the High School Longitudinal Study of 2009 (or HSLs:09), the target population at the school level was defined as regular public schools, including public charter schools, and private schools providing instruction in both the 9th and 11th grades, in the 50 states and the District of Columbia. Schools with only grades 10, 11, and 12 were excluded from HSLs:09.

The target population of students was all ninth-grade students who attended the study-eligible schools in the fall 2009 term. It is important to note that there is only one cohort for HSLs:09, because the sample was not freshened after the base year.

HSLs:09 began with a sample of more than 25,000 ninth-graders, from 944 schools.

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The HSLs:09 survey design includes data collections from students, parents, teachers, school counselors, and school administrators to provide rich contextual information about students' experiences. The primary goal of HSLs:09 is to measure students' academic, social, and interpersonal development.

The study allows researchers to examine the relationships between mathematics achievement and students' choices about, access to, and persistence in both mathematics and science courses in high school, and thereafter in the STEM pipelines in postsecondary education and careers. In this way, the mathematics assessment serves not just as an outcome measure, but also as a predictor of readiness to proceed into STEM courses and careers.

Additionally, HSLs:09 focuses on students' educational decision-making processes. Generally, the study asked students about when, why, and how they made decisions about high school courses and postsecondary options and career planning. The questions covered what factors, from parental input to considerations of financial aid for postsecondary education, entered into those decisions. Questionnaires also focused on factors that motivated students for STEM course-taking and careers.

More information about HSLs:09 can be accessed by clicking the corresponding underlined screen text.

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High School and Beyond (or HS&B) began with two nationally representative samples of students in 1980, one of high school sophomores and one of high school seniors. The samples included 30,030 high school sophomores and 28,240 high school seniors

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attending 1,015 high schools in the study's base year in 1980. Only a subsample of each cohort, 14,825 sophomores and 11,995 seniors, was followed longitudinally.

It is important to note that the cohorts did not overlap; separate samples of sophomore and senior cohorts were drawn.

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HS&B data were collected from students, schools, teachers, and parents to better understand student academic growth and school experiences, work experiences, family background, and school programs and services.

More information about HS&B can be accessed by clicking the corresponding underlined screen text.

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The Education Longitudinal Study of 2002 (or ELS:2002) began with a base year sample of approximately 17,500 sophomores sampled from about 750 high schools in 2002. A feature of the ELS:2002 survey design is the inclusion of two longitudinal cohorts of students resulting in two nationally representative cohorts: one of 2002 high school sophomores and one of 2004 high school seniors.

The ELS:2002 cohorts overlap. The senior cohort is a freshened sample that was formed by adding a small sample of seniors who may have been in the sample schools during 2004 but were not sophomores in 2002. This freshening formed a nationally representative sample of 2004 high school seniors in the sampled schools.

While the sophomore and senior cohorts can be looked at separately, they are both comparable to sophomore and senior cohorts in NLS-72, HS&B, and NELS:88. Additionally, the ELS:2002 design was such that students who dropped out after their sophomore year were followed.

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ELS:2002 collected a wealth of information across data collection rounds from multiple sources, including students, parents, teachers, school principals, and school transcripts. Each round of data collection covered different topics, depending on the stage in the sample member's education when the collection took place. The base-year and first follow-up data collections provide analysts with data across areas related to secondary education experiences, including student background and student experiences both inside and outside the classroom.

The ELS:2002 second follow-up focuses on the post-high school experience of sampled students. Additionally, there were three main content areas for the third and final follow-up of ELS:2002 data collection: education, employment, and finances and family.

More information about ELS:2002 can be accessed by clicking the underlined screen text.

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The National Longitudinal Study of the High School Class of 1972 (or NLS-72) is a study of students who were high school seniors in the spring of 1972. It began with a nationally representative cohort of about 16,700 seniors. A supplementary sample of 4,450 young adults who had been high school seniors in 1972 was added during the first follow-up in October of 1973.

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To provide longitudinal data about the critical transitions experienced by cohorts of students from secondary school, through college, and into their adult lives, NLS-72 collected data from a variety of sources and on many topics. To obtain information about factors that influence these transitions, data were collected about students' educational motivations, experiences, and achievement; about the curriculum paths followed by the students; and about other relationships and activities inside or outside of school. Data were collected from students, parents, teachers, principals, and school transcripts.

More information about NLS-72 can be accessed by clicking the corresponding underlined screen text.

This concludes the secondary studies section of the module. To return to the NCES Longitudinal Study Data slide to make another selection, click the "Return to List" button. To exit the module completely, click the "Exit" button or you will automatically be advanced to the next slide within the module.

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The postsecondary longitudinal studies include the Beginning Postsecondary Students Longitudinal Study (or BPS) and the Baccalaureate and Beyond Longitudinal Study (or B&B). BPS and B&B follow students through their postsecondary studies and into the workforce. These studies have multiple cohorts, each of which is shown as a separate line on the graph, as well as multiple data collections.

The first BPS began in 1990 and followed students through 1994. Subsequent studies began in academic years 1995-96, 2003-04, and 2011-12 and followed students for 6 years. The B&B followed multiple cohorts with data collections beginning in academic years 1992-93, 1999-2000, and 2007-08. B&B generally follows students for 10 years, an exception being the 2000 cohort, which was only followed one year later.

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The postsecondary surveys collect information on cohorts of undergraduates as they progress through their postsecondary education and as students complete their degrees and make the transition into the next phase of their lives. These surveys provide information about how postsecondary education is financed, postsecondary persistence and attainment, workforce outcomes, and postsecondary institutions and their students and staff.

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It should be noted that both the BPS and B&B cohorts draw their base year samples from the National Postsecondary Student Aid Study (or NPSAS), which examines the characteristics of students in postsecondary education, with a special focus on how they finance their education.

More information about the postsecondary surveys and NPSAS can be accessed by clicking the corresponding underlined screen text.

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The target population for the Beginning Postsecondary Students (or BPS) Longitudinal Study is first-time beginning postsecondary students. That is, the target population is students who enroll in postsecondary education in a given academic year for the first time since completing their high school requirements, including a high school equivalency test. BPS includes students who are not direct entrants to postsecondary education from high school. In addition, after the first BPS cohort, students who earn postsecondary credits prior to completing their high school requirements are eligible to participate in BPS.

Sample sizes for the BPS study range from 15,000 to 25,000 students. In the most recently completed BPS study, BPS:04/09, the starting cohort included 18,640 eligible sample members. The final BPS:04/09 cohort included approximately 16,680 students, with 16,120 who responded to all three waves of student interviews.

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BPS collects data from student interviews, institutional student records, undergraduate transcripts, the Department of Education's Central Processing System, the National Student Loan Data System, and the Integrated Postsecondary Education Data System (or IPEDS) administrative records, as well as external administrative records from the National Student Clearinghouse and college testing services.

These data are collected to address student persistence, progress, and attainment after entry into postsecondary education and, for students who enter the workforce, issues concerning their early labor market experiences. The topics covered include student demographics and characteristics, education expectations, degrees or certificates earned, postsecondary experiences, workforce outcomes, enrollment histories, and college financing.

More information about BPS can be accessed by clicking the underlined screen text.

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The target population for the Baccalaureate and Beyond (or B&B) Longitudinal Study is students who have graduated with a baccalaureate degree within a given year, regardless of when those students began their postsecondary education. For instance, the 2007-08 B&B includes a sample of more than 15,000 students who graduated with a bachelors' degree between July 1, 2007 and June 30, 2008.

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B&B data are collected from student interviews, bachelor's degree granting institutions, Department of Education data systems, and other administrative records to understand students' transitions from postsecondary education and into the workforce.

Similar to the BPS, data for the B&B include student demographics and characteristics, education expectations, degrees or certificates earned, postsecondary experiences, workforce outcomes, enrollment histories, and college financing and debt.

More information about B&B can be accessed by clicking the corresponding underlined screen text.

This concludes the postsecondary studies section of the module. To return to the NCES Longitudinal Study Data slide to make another selection, click the "Return to List" button. To exit the module completely, click the "Exit" button or you will automatically be advanced to the next slide within the module.

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This module introduced users to the NCES longitudinal studies from 1972 through 2020. It provided users with basic information about the objectives, target populations, data collection years, and data sources for each of the studies. It also highlighted the broad topics for which data are available for analysis within each study.

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Important resources that have been provided throughout the module are summarized on this slide for your reference. You may now click the "Exit" button to return to the landing page.