# Comparison of Estimates on School Enrollment from the ACS and the CPS

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### INTRODUCTION

This report is one in a series of reports that compares data from the American Community Survey (ACS) with data from the Current Population Survey (CPS). This report compares data on school enrollment from the 2003 ACS and the October 2003 CPS. It looks at differences that are both statistically and substantively different, and their possible explanations.

### METHODOLOGY

The tables included in this report compare the most commonly tabulated data on school enrollment from the ACS and the CPS. Comparisons consist primarily of percentage-point differences between the two distributions. Tables display the ACS and the CPS estimates, the margins of error from which the 90-percent confidence intervals of the estimates can be derived, and the difference between the two estimates. In the case of frequency distributions, the difference is calculated as the percent difference between the two estimates. In the case of relative frequency distributions, the difference is calculated as the percentage-point difference between the two estimates. An asterisk (\*) denotes statistically significant differences.

At the national level, the ACS and the CPS variances were small, resulting in many statistically significant differences between the ACS and CPS distributions. This report generally focuses on statistically significant differences of 0.5 percentage points or more. This yardstick was developed to help focus the analysis, and it can vary based on the relative size of the category. For example, for groups constituting a relatively large percentage of the population (for example, those enrolled in 1<sup>st</sup> through 4<sup>th</sup> grades), a 0.5 percentage-point difference in the estimates might

be small, while for groups constituting a smaller percentage of the population (for example, those enrolled in nursery school), a 0.5 percentage-point difference could be large. This decision is subjective, and users can apply their own standards to interpret the data presented in this report.

The remainder of this methodology section examines differences between the two surveys.

#### **Sample Frame**

The 2003 ACS surveyed a national sample of housing units, both occupied and vacant. Data were collected in a total of 1,240 of the 3,141 counties in the United States. The sample is designed to provide estimates of housing and socio-economic characteristics for the nation, all states, most areas with a population of 250,000 or more, and selected areas of 65,000 or more.<sup>1</sup>

The CPS is a monthly survey of about 60,000 households conducted by the Census Bureau for the Bureau of Labor Statistics. Like the 2003 ACS, the CPS data were collected in only a subset of counties. The survey is used primarily to produce the official monthly estimates of employment and unemployment for the nation and the states. The sample is scientifically selected to represent the civilian noninstitutionalized population. Respondents are interviewed to obtain information about the employment status of each member of the household 15 years of age and older. In the month of October, the CPS asks a detailed and extensive list of questions about school enrollment in the current and past year. There are separate questions for adults 15 years and older and for children 3 to 14 years old.

<sup>&</sup>lt;sup>1</sup> For more information on the source and accuracy of estimates from the ACS, go to http://www.census.gov/acs/www/UseData/Accuracy/Accuracy1.htm

One difference between the two survey universes is that the CPS includes a small number of individuals living at addresses that were housing units in 2000 but have since been converted into noninstitutional group quarters (e.g. emergency and transitional shelters and group homes). For the purposes of this report, all individuals with detailed household and family status of "in group quarters" (HRHTYPE = 9 and 10) were excluded from the CPS estimates.

#### Sample Size and Mode of Data Collection

The 2003 ACS interviewed a total of 572,447 households. Data were collected continuously throughout the year using a combination of mail-out/mail-back questionnaires, Computer-Assisted Telephone Interviewing (CATI), and Computer-Assisted Personal Interviewing (CAPI). Each month a unique national sample of addresses received an ACS questionnaire. Addresses that did not respond were telephoned during the second month of collection if a phone number for the address was available, and personal visits were conducted during the third and last month of data collection for a subsample of the remaining nonresponding units. The 2003 ACS achieved an overall survey response rate, calculated as the initially weighted estimate of interviews divided by the initially weighted estimate of cases eligible to be interviewed, of 96.7 percent.

The 2003 October CPS contained interviews from 55,882 households and 41 noninstitutional group quarters.<sup>2</sup> All CPS data are collected via Computer-Assisted Telephone and Personal Interviews (CATI/CAPI), with interviews conducted only one week each month. The response rate for the 2003 October CPS was 92.7 percent.

 $<sup>^{2}</sup>$  As explained in the Sample Frame section of this report, the group quarters were removed to make it comparable to the ACS.

Both the ACS and the CPS employ experienced permanent interviewers for CATI and CAPI data collection.

### **Residence Rules**

The ACS and the CPS employ different residence rules to determine which individuals in a household are eligible for interview; the ACS uses the concept of current residence, while the CPS uses a version of usual residence. This difference may contribute to variation in the universes whose social characteristics are tabulated.

The ACS interviews everyone in the housing unit on the day of the interview who is living or staying there for more than two months, regardless of whether or not they maintain a usual residence elsewhere, or who does not have a usual residence elsewhere. If a person who usually lives in the housing unit is away for more than two months at the time of the survey contact, he or she is not considered to be a current resident of that unit. This rule recognizes that people can have more than one place where they live or stay over the course of a year, and these people may affect the estimates of the characteristics of the population for some areas.

The CPS interviews everyone staying in the housing unit at the time of the interview who considers the housing unit as their usual residence or who has no usual residence elsewhere. In addition, the CPS also includes temporarily absent individuals who consider the housing unit as their usual residence.

The different residence rules result in one notable difference in the universe of the two surveys. Because the 2003 ACS excluded group quarters from the sample frame and interviewed individuals at their current residence, college students living in dormitories were not included in the ACS universe. In contrast, the CPS interviewers were instructed to include as household members any college students who were temporarily absent from the household, including those who were currently residing in college dormitories. As a result, the CPS sample universe should include more college students than the ACS sample universe.

#### **Question Wording and Reference Periods**

Differences between the ACS and the CPS in presentation and wording of questions may contribute to differences in estimates. School enrollment questions are asked differently in the CPS than in the ACS. In the CPS, the enrollment questions are a static measurement of whether a person is enrolled in a "regular" school (schooling that may advance a person toward an elementary or high school diploma, a college, university, or professional school degree) in the month of October. By comparison, throughout the entire calendar year, the ACS asks respondents whether they were enrolled in regular school at any time in the three months before the interview.

The ACS asks two questions to capture school enrollment characteristics, shown in Figure 1. These two questions ask whether a person was enrolled in school in the three months before the interview, whether they were enrolled in public or private school or college, and in what grade or level the person was enrolled. The 3-month reference period is asked in order to capture enrollment status for months when school may not be in session, particularly the summer months, June through August. Figure 1. Reproduction of the Questions on School Enrollment From the American Community Survey: 2003



The CPS data are captured in the month of October and the questions are worded to find whether respondents are currently enrolled in school. Since school is in session in October, the number of currently enrolled students measured by the CPS may be higher than that from the ACS. There may be reasons, however, why the ACS numbers might be higher than the CPS numbers, such as the longer reference period in the ACS.

The CPS asks twenty questions about the three characteristics captured in the ACS (enrollment status, public or private school enrollment, and level of school enrollment) and also other education issues. The CPS provides data regarding single-year enrollment, enrollment status and level for the previous year, whether the respondent goes to school on a full-time or part-time basis, whether they attend a 2-year or a 4-year institution, whether they are obtaining any

vocational training, what year they received their postsecondary degree, and whether they received a GED (general educational development test-based certification).

Enrollment data from the CPS have been gathered since 1947, allowing long historical comparisons. The ACS began in 1996 in a limited number of test sites and began national implementation in 2000.

#### **Item Nonresponse**

Item nonresponse occurs when a respondent or a household does not provide complete and usable information for a data item. Item allocation rates are often used as a measure of the level of item nonresponse. These rates are computed as the ratio of the number of eligible people or households for which a value was allocated for a specific item (as explained below) to the number of people or households eligible to have responded to that item.

| Item Allocation Rate<br>School enrollment | ACS<br>2.6 percent | <u>CPS</u><br>6.4 percent |
|-------------------------------------------|--------------------|---------------------------|
|                                           |                    |                           |

Item allocation rates also represent data that have been changed due to inconsistencies determined by edits (see Data Editing and Imputation Procedures for more information on editing). The higher allocation rates for grade attending in the CPS estimates are partly due to data collection problems in the CPS in 2003. In 2002 and prior, the CATI and CAPI instruments that capture the variable for grade attending, for those 15 years and older, were listed as below.<sup>3</sup>

# 2002 version of grade attending:

GRADEWhat grade or year is ... attending?<1-12> Grades 1 through 12 - Elementary<br/>through High School<21> 1st year of college (freshman)<22> 2nd year of college (sophomore)<23> 3rd year of college (junior)<24> 4th year of college (senior)<25> 1st year of graduate school<26> 2nd year or higher of graduate school<30> College, no year reported

From investigating the high allocation rates from the 2002 data, we determined that some CPS Field Representatives (FRs) confused the category <1-12> Grades 1 through 12, to mean that if a respondent said they were enrolled in 5<sup>th</sup> grade, the FR typed in "1" on the computer instead of "5" which resulted in a relatively high number of older children being enrolled in 1<sup>st</sup> grade. This problem combined with edit rules brought about more answers being allocated in the CPS.

In 2003, in order to combat this problem, the category was changed to the version shown below.

The 2003 version resulted in a relatively high number of respondents in the  $6^{th}$  grade. Therefore,

this still resulted in a high allocation rate for this category.

# 2003 version of grade attending:

### **GRADE** What grade or year is ... attending?

<A> Grades 1 through 5 – Elementary

<6-12> Grades 6 through 12 – Elementary through High School

<21> 1st year of college (freshman)

<sup>&</sup>lt;sup>3</sup> To view the technical documentation for the October Current Population Survey, go to <u>http://www.census.gov/apsd/techdoc/cps/cps-main.html</u> and click on the October files for the appropriate years.

<22> 2nd year of college (sophomore) <23> 3rd year of college (junior) <24> 4th year of college (senior) <25> 1st year of graduate school <26> 2nd year or higher of graduate school <30> College, no year reported

The final version, which alleviated this problem with the earlier versions, did not occur until

# 2004.

# 2004 version of grade attending:

### **GRADE** What grade or year is ... attending?

<A> Grades 1 through 5 - Elementary <6> 6<sup>th</sup> Grade <7> 7<sup>th</sup> Grade <8> 8<sup>th</sup> Grade <9> 9<sup>th</sup> Grade <10> 10<sup>th</sup> Grade <11> 11<sup>th</sup> Grade <12> 12<sup>th</sup> Grade <21> 1st year of college (freshman) <22> 2nd year of college (sophomore) <23> 3rd year of college (sophomore) <24> 4th year of college (senior) <25> 1st year of graduate school <26> 2nd year or higher of graduate school <30> College, no year reported

### **Data Editing and Imputation Procedures**

ACS and CPS edit and imputation rules are designed to ensure that the final edited data are as consistent and complete as possible. These rules are used to identify and account for missing, incomplete, and contradictory responses. In each case where a problem is detected, consistent, pre-established edit rules govern its resolution.

The ACS and the CPS employ two principal imputation methods: relational imputation and hot deck allocation. Relational imputation assigns values for blank or inconsistent responses on the basis of other characteristics on the person's record or within the household. Hot deck allocation supplies responses for missing or inconsistent data from similar responding housing units or people in the sample.

Both the ACS and the CPS editing procedures employ logical checking routines to produce consistency for respondents. Allocation routines using hot decks generally stratify the donors and recipients of the hot deck by their personal characteristics, primarily their age, sex, race, educational attainment and other school enrollment characteristics.

The ACS and the CPS have different editing procedures. The ACS education edit is one complete set of rules for relational imputation for both the educational attainment and the school enrollment responses. The ACS edit uses both questions to consistently impute data. The CPS's editing procedure only has editing rules for the enrollment portion of the October enrollment supplement only.

An example of some differences in the editing rules between the two surveys includes what other variables are used to impute the data. The CPS has edit rules based on the grade the respondent was enrolled in the previous year. Since the "previous year" question is not available from the ACS, this could not be a component for the ACS edit. The ACS, on the other hand, has editing rules based on the occupation the respondent indicated, but the CPS does not.

#### **Controls and Weighting**

Differences in the selection of controls and the calculation of weights between the two surveys may lead to differences in estimates. The ACS and the CPS are both weighted to account for the probability of selection and for housing-unit nonresponse.

After the initial weighting, data from the ACS and the CPS are both controlled to be consistent with independent population estimates. Data from the 2003 ACS are controlled, at the county level, to independent estimates of the household population and housing units as of July 2003.<sup>4</sup> Data from the October 2003 CPS are controlled to independent national estimates of the civilian noninstitutionalized population as of October 1, 2003. In addition, the ACS presents the responses over a 12-month period, while the CPS shows the enrollment characteristics during the interview week (October 19-25, 2003). Because the ACS controls to both the total population and the total number of housing units, the ACS files contain both person weights and housing-unit weights. The CPS does not control to the total number of housing units and, thus, the CPS files do not contain an independent housing-unit weight but instead use the weight of the householder as the weight of the housing unit.

#### RESULTS

#### **The Enrolled Population**

The three main enrollment characteristics that are covered by both the ACS and the CPS ask about the enrollment status of the respondent, whether he or she attends a public or private school, and what grade or level the respondent attends. These estimates and associated percentages are illustrated in Table 1.

<sup>&</sup>lt;sup>4</sup> For smaller counties, the 2003 ACS grouped them into weighting areas with a minimum population of 250,000.

In 2003, the ACS showed a higher proportion of the population 3 years and older enrolled in school than did the CPS (27.7 percent and 27.2 percent, respectively). These percentage differences, while small, were statistically different. As discussed in previous sections, these differences could be due to the different questions asked on the ACS and the CPS, the different residence rules, the different editing procedures, and the different methods of controlling and weighting the data.

# **Type of School**

The CPS captured more students enrolled in public school and fewer students in private school than the ACS. In the CPS, 85.1 percent were enrolled in public school and 14.9 percent were enrolled in private school. In the ACS, 84.2 percent of students were enrolled in public school and 15.8 percent were enrolled in private. These differences could be due to the varied question design: the CPS asked separate questions about enrollment and type of school, while the ACS asked about both enrollment and type in one question.

#### Level of School

A higher percentage of 9<sup>th</sup> through 12<sup>th</sup> grade students were reported being enrolled in the CPS than in the ACS (22.8 percent and 22.1 percent, respectively). The percentage-point difference of 0.7 percent was statistically different. The difference is most likely due to the ACS capturing enrollment data over 12 months and the CPS capturing data only in the month of October. This phenomenon is explained in more detail in the next section titled **Age Groups**.

The 2003 ACS did not include the group quarters population and instructed respondents to include people who had been living in their housing unit for more than two months. This rule would exclude most college students living in dormitories. The CPS, on the other hand, includes any household members, such as college students temporarily absent from the household and residing in college dormitories. These rules imply in a higher count of undergraduates in the CPS, but Table 1 shows that the ACS measured about half a million more students.

Of those enrolled, the ACS reported that 18.5 percent were enrolled in undergraduate college, while the CPS reported that 17.8 percent were enrolled. This difference may be due to the difference in the number of enrolled students recorded in the ACS and the CPS. The ACS reported 13.9 million undergraduate students enrolled, while the CPS reported 13.4 million. This difference is contrary to the outcome suggested by the residence rules for both surveys. These differences may result from the longer ACS reference period, the greater reliance on mail responses in the ACS, or the ACS potentially capturing more short-term enrollment.

The differences for students enrolled in nursery school and kindergarten, while statistically different, were below the 0.5 percentage-point difference level and therefore not discussed in detail. It is worth mentioning, however, that the differences are probably due to the ages of the children in these grades. The next section describes the age influence on enrollment characteristics between the ACS and the CPS.

## **Age Groups**

The enrollment percentages by age group differed between the ACS and the CPS. Few differences were seen in the key enrollment ages of 7 to 17 years, in contrast with variations in the youngest age groups and the older age groups.

As Table 2 shows, the ACS found a smaller percentage of children aged 3 and 4 years to be enrolled in school (44.3 percent) compared with the CPS (55.1 percent). For children aged 5 and 6 years, the ACS had 90.5 percent of children enrolled and the CPS had 94.5 percent. The 10.8 percentage-point difference for 3- and 4-year-olds and the 4.0 percentage-point difference for the 5- and 6-year-olds may be due to the way the ACS and the CPS capture the data. As discussed earlier, the ACS data were collected over 12 months in 2003, while the CPS data show enrollment in October 2003.

This fundamental difference between the two surveys explains why more students were captured in the CPS than in the ACS for the younger age groups. The CPS implements the enrollment supplement in the month of October because people who are going to be enrolled for a specific school year will most likely be enrolled in the month of October. The ACS, on the other hand, collected enrollment characteristics over the course of 12 months. For some ages, such as 3- to 6-year-old children, this approach may artificially deflate the enrolled percentage. In the ACS, for the months of January through August, a 3 year old would not be listed as enrolled who turned 3 during the school year of 2002-2003. A child who turns 3 within the school year 20022003 is eligible to be enrolled in the school year 2003-2004.<sup>5</sup> Children aged 3 could be enrolled in school from September through December 2003. However, since the ACS collects data over 12 months, many 3 year olds would be interviewed before they could technically be in school; those not enrolled from January through August and those enrolled from September through December. This likely deflates the percentage of these children who are enrolled, relative to the CPS.

As Table 2 shows, this phenomenon occurred for 3- and 4-year-olds and 5-and 6-year olds. The 3- and 4-year-olds (10.8 percentage point difference) had a higher percentage difference than the 5- and 6-year-olds (4.0 percentage point difference). This is probably due to a higher percentage of children aged 5 and 6 who were enrolled when they were 4 and 5 years old, respectively.

For the key school enrollment age groups (7 to 17 years), when school attendance is universal, this phenomenon does not occur. A child who was 7 years old in the school year 2003-2004 was 6 years old in the school year 2002-2003 and thus most likely enrolled. So the ACS still captures those who were enrolled.

The reverse occurs at the older ages. A larger percentage of the population aged 18 and 19 years reported to be enrolled in school in the ACS (67.0 percent) compared with the CPS (64.5 percent). This difference of 2.5 percent is most likely due to students who were 18 years old who were enrolled in school between January and August (because the enrollment question in the ACS asks about enrollment status in the previous 3 months) but were not enrolled from

<sup>&</sup>lt;sup>5</sup> Different school districts or school jurisdictions have different rules about enrollment eligibility based on when the child turns the appropriate school age. In some districts, a child who turns 3 by December of that school year is eligible to enroll while other districts will not allow a child to enroll unless they are 3 when the school year begins.

September through December. The ACS approach would inflate the enrollment status for 18 and 19 year olds.

For the older age groups, short-term college enrollment may explain the significant difference in enrollment rates. The ACS reported more students being enrolled than the CPS for respondents aged 25 to 29 years (15.3 percent and 11.8 percent, respectively), 30 to 34 years (8.9 percent and 6.8 percent, respectively), and 35 years and older (3.1 percent and 1.9 percent, respectively). Since the ACS collected data over 12 months, more respondents were captured as enrolled in the ACS than in the CPS for these older age groups.

## Sex

A higher percentage of women were reported as enrolled in school in the ACS than in the CPS (27.3 percent and 26.6 percent, respectively). One explanation might be a higher proportion of women 35 years and older who were more likely to be enrolled were captured in the ACS, as explained in the earlier section on age.

#### Race

In 2003, the enrolled percentages of the non-Hispanic White population (24.7 percent and 24.8 percent, respectively) and the Asian population (30.3 percent and 29.4 percent, respectively) were not statistically different between the ACS and CPS.<sup>6</sup>

<sup>&</sup>lt;sup>6</sup> Federal surveys now give respondents the option of reporting more than one race. Therefore, two basic ways of defining a race group are possible. A group such as Asian may be defined as those who reported Asian and no other race (the race-alone or single-race concept) or as those who reported Asian regardless of whether they also reported another race (the race-alone-or-in combination concept). The body of this report (text and tables) shows data using the first approach (race alone). Use of the single-race population does not imply that it is the preferred method of presenting or analyzing data. The Census Bureau uses a variety of approaches.

The ACS showed a higher proportion of Blacks and Hispanics enrolled than did the CPS. Among Blacks, 34.7 percent were enrolled in the ACS and 33.4 percent were enrolled in the CPS. For Hispanics, 33.6 percent were enrolled in the ACS and 31.6 percent in the CPS.<sup>7</sup>

### Nativity

In the ACS, 29.3 percent of the native population were enrolled in school. In the CPS, that percentage was 29.0 percent. Of the foreign-born population, a larger percentage was enrolled according to the ACS than the CPS (16.3 percent and 14.6 percent, respectively).

For the foreign-born population, language barriers may affect data collection. According to McGovern and Griffin, the percentage of completed questionnaires by selected languages showed that the majority of the data were collected by either mail-back forms or by CAPI in the ACS.<sup>8</sup> It may be easier for foreign-born individuals to complete the ACS paper form if they can ask other members in their household, neighbors, or friends to assist with the questionnaire. The

In this report, "non-Hispanic Whites" refers to people who are not Hispanic and who reported White and no other race. The Census Bureau often uses non-Hispanic Whites as the comparison group for other race groups and Hispanics.

Because Hispanics may be any race, data in this report for Hispanics overlap with data for racial groups. Based on the October 2003 Current Population Survey, 3.6 percent of the single-race Black population 3 years and older and 1.0 percent of the single-race Asian population 3 years and older were Hispanic. Based on the 2003 American Community Survey, 1.8 percent of the single-race Black population 3 years and older and 1.1 percent of the single-race Asian population.

<sup>&</sup>lt;sup>7</sup> The percentage of Blacks enrolled in school in the CPS (33.4 percent) was not statistically different from the percentage of Hispanics enrolled in school in the ACS (33.6 percent).

<sup>&</sup>lt;sup>8</sup> McGovern, Pamela D. and Deborah H. Griffin. "Quality Assessment of Data Collected from Non-English-Speaking Households in the American Community Survey." U.S. Census Bureau. <a href="http://www.census.gov/acs/www/Downloads/ACS/finalmcgovern.pdf">http://www.census.gov/acs/www/Downloads/ACS/finalmcgovern.pdf</a>

paper form allows people more time to fill out the form than does a telephone interview, where respondents may feel they have to answer the questions immediately.

The CPS collects data only by CATI and CAPI, with the majority of households contacted by CATI. If there is a language barrier, respondents may be apt to respond no to a concept that they don't entirely understand.

### **Drop Outs**

A larger proportion of persons aged 16 to 19 years reported being enrolled in the ACS (82.0 percent) than in the CPS (80.7 percent). These differences parallel the phenomenon mentioned earlier in the Age section where the 18 year olds in the ACS who were enrolled from January and August but were not enrolled from September through December.

The percentage enrolled in school but not high school graduates was statistically different between the ACS and the CPS (59.4 percent and 57.9 percent, respectively). These differences most likely arise because the ACS collects data over 12 months, while the CPS captures enrollment data for October, as discussed previously.

### **Common Core of Data**

The Common Core of Data (CCD) collected by the National Center for Education Statistics (NCES) is the Department of Education's primary database on public elementary and secondary education in the United States. Data are collected through the CCD on three levels: the school,

the local education agency, and the state. The CCD consists of five surveys completed annually by state education departments from their administrative records. Items included are: a general description of schools and school districts, including name, address, and phone number; data on students and staff, including demographics; and fiscal data, including revenues and current expenditures.

Since the CCD is a benchmark with which the public school enrollment information of the ACS and the CPS can be compared, Table 4 shows data from all three data sources. The differences between the ACS and the CPS have already been discussed so this section will discuss how those surveys differ from the CCD.

In 2003, the ACS, the CPS, and the CCD had different estimates of the number of students enrolled in public schools. The ACS estimated 47.7 million students, the CPS estimated 48.1 million students, and the CCD reported 45.8 million students enrolled in grades kindergarten through 12<sup>th</sup> grade.<sup>9</sup> Both the ACS and the CPS had about 2 million more students than the CCD.

Different modes of data collection and varying reporting times for the data could contribute to the differences between the ACS, the CPS, and the CCD. As discussed previously, the ACS is a year-round household survey, the CPS is a household survey that captures enrollment in the month of October of the survey year, and the CCD data are reported by schools, by local education agencies, and by states. The CCD reports are due to the National Center for Education

<sup>&</sup>lt;sup>9</sup> The percent difference of the number of kindergarten through 12<sup>th</sup> grade public-school students enrolled in the ACS (47.7 million students) was not statistically different from the number of students enrolled in the CPS (48.1 million students).

Statistics (NCES) by March 30<sup>th</sup> for the enrollment characteristics as of October 1 of the previous year. Revisions to the data, however, are accepted until September 30<sup>th</sup>. This prolonged data collection time could contribute to the differences seen in Table 4.

The ACS estimated 15.1 million students being enrolled in 5<sup>th</sup> through 8<sup>th</sup> grades. The CCD reported 14.7 million students. Both the ACS and the CPS reported more students (15.1 million students and 15.8 million students, respectively) enrolled in 9<sup>th</sup> through 12<sup>th</sup> grades than the CCD (13.6 million students).<sup>10</sup>

The percent distributions of students enrolled by grade level are different between the ACS and the CCD, and the CPS and the CCD. Since the CCD is not a survey, it is not subject to sampling variability and therefore the margins of error (MOE) for the CCD data are zero.

### SUMMARY

Data from the American Community Survey (ACS) on school enrollment are generally consistent with those from the Current Population Survey (CPS). The major finding of this report is the possible impact of the difference in the reference period between the two surveys. This difference being that the ACS collects data over 12 months, while the CPS uses static data captured in the month of October. The principal empirical differences noted in this paper are the

<sup>&</sup>lt;sup>10</sup> The percentage-point difference of the 5<sup>th</sup> through 8<sup>th</sup> grade public-school students enrolled in the ACS (15.1 million students) was not statistically different from the percentage-point difference of the 9<sup>th</sup> through 12<sup>th</sup> grade public-school students in the ACS (15.1 million students) and the 9<sup>th</sup> through 12<sup>th</sup> grade public-school students in CPS (15.8 million students). The percentage-point difference of the 9<sup>th</sup> through 12<sup>th</sup> grade public-school students in the ACS (15.1 million students) was not statistically different from the percentage-point difference of the 9<sup>th</sup> through 12<sup>th</sup> grade public-school students in the ACS (15.1 million students) was not statistically different from the percentage-point difference of the students in the CPS (15.8 million students).

larger proportion of 3- and 4-year-olds and 5- and 6-year-olds enrolled in the CPS, and the larger proportion of the 18- and 19-year-olds, 25- to 29-year-olds, 30- to 34-year-olds, and those aged 35 years and older enrolled in the ACS.

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