

# Documentation for the School Attendance Boundary Survey (SABS): School Year 2013-2014



# Documentation for the School Attendance Boundary Survey (SABS): School Year 2013-14

June 2015

**Tai Phan**  
National Center for  
Education Statistics

NCES 2015-118  
U.S. DEPARTMENT OF EDUCATION



**U.S. Department of Education**

Arne Duncan  
*Secretary*

**Institute of Education Sciences**

Ruth Neild  
*Deputy Director for Policy and Research*  
*Delegated Duties of the Director*

**National Center for Education Statistics**

Peggy G. Carr  
*Acting Commissioner*

**Administrative Data Division**

Ross Santy  
*Associate Commissioner*

The National Center for Education Statistics (NCES) is the primary federal entity for collecting, analyzing, and reporting data related to education in the United States and other nations. It fulfills a congressional mandate to collect, collate, analyze, and report full and complete statistics on the condition of education in the United States; conduct and publish reports and specialized analyses of the meaning and significance of such statistics; assist state and local education agencies in improving their statistical systems; and review and report on education activities in foreign countries.

NCES activities are designed to address high-priority education data needs; provide consistent, reliable, complete, and accurate indicators of education status and trends; and report timely, useful, and high quality data to the U.S. Department of Education, Congress, states, other education policymakers, practitioners, data users, and the general public. Unless specifically noted, all information contained herein is in the public domain.

We strive to make our products available in a variety of formats and in language that is appropriate to a variety of audiences. You, as our customer, are the best judge of our success in communicating information effectively. If you have any comments or suggestions about this or any other NCES product or report, we would like to hear from you. Please direct your comments to:

National Center for Education Statistics  
Institute of Education Sciences  
U.S. Department of Education  
1990 K Street NW  
Washington, DC 20006-5651

**June 2015**

The NCES World Wide Web Home Page address is <http://nces.ed.gov>.  
The NCES World Wide Web Electronic Catalog is <http://nces.ed.gov/pubsearch>.

This publication is only available online. To download, view, and print the report as a PDF file, go to the NCES World Wide Web Electronic Catalog address shown above.

**Suggested Citation**

Phan, T., (2015). *Documentation for the School Attendance Boundary Survey: School Year 2013-14* (NCES 2015-118) U.S. Department of Education. Washington, DC: National Center for Education Statistics. Retrieved [date] from <http://nces.ed.gov/pubsearch>.

**Content Contact**

Tai Phan  
(202) 502-7431  
[Tai.Phan@ed.gov](mailto:Tai.Phan@ed.gov)

## **Acknowledgments**

The author of the first collection of the School Attendance Boundary Survey would like to thank school district and state officials who provided boundaries for this project, which will increase the understanding of educational geography at the local level.

I. Introduction .....	1
II. User's Guide.....	3
A. Survey Methodology.....	3
B. Guidelines for Using the School Attendance Boundary Survey Data File .....	8
III. Appendices	
A. Record Layout of Attribute Table.....	A-1
B. Lessons Learned.....	B-1
C. SY 2013-14 Response Rate Tables .....	C-1
D. SY 2013-14 Coverage Map .....	D-1
E. Glossary of Terms .....	E-1

## I. Introduction

The School Attendance Boundaries Survey (SABS) is a voluntary survey conducted biennially by the U.S. Department of Education's (ED) National Center for Education Statistics (NCES). The U.S. Census Bureau was the data collection agent. SABS was designed to collect school attendance boundaries for schools with grades kindergarten through twelfth in the 50 States and the District of Columbia for the school year (SY) 2013-14. A school attendance boundary (also referred to as a catchment area) is a geographic area from which the students are eligible to attend a local school. Typically, a local school district (also referred to as a local education agency (LEA)) determines the school attendance boundaries for schools within its district. This document describes the SABS methodology used to produce the public-use data file.

### *Background*

Although there has been long-standing interest in school attendance boundaries, these geographic areas have not been available at a large scale until relatively recently. A brief history follows:

In early 2000s, Dr. Salvatore Saporito and his team from The College of William and Mary began collecting school attendance boundaries from the largest 100 school districts. Dr. Saporito integrated population data from the Census Bureau and NCES administrative data from the SY 1999-2000 Common Core of Data (CCD) to allow for demographic and economic analysis for individual school areas within the 100 districts.

In 2003, the U.S. Department of Agriculture (USDA) Food and Nutrition Service (FNS) collaborated with the Census Bureau to develop school area estimates using microdata from the Census 2000 long-form for the number of students in Philadelphia who were eligible for the National School Lunch Program. FNS used these estimates to compare to their administrative data collection and to assist with program administration.

In 2008, Dr. Saporito extended his school attendance boundary initiatives by proposing a project to collect SY 2009-10 K-12<sup>th</sup> grade school attendance boundaries. The project was funded by the National Science Foundation (NSF) and resulted in the one-time creation of the School Attendance Boundary Information Systems database (SABINS). This database contains grade-specific attendance boundaries from over 500 districts from 13 regionally diverse metropolitan areas (Atlanta, GA; Bakersfield, CA; Hartford, CT; Houston, TX; Kansas City, MO; Miami, FL; Milwaukee, WI; Orlando, FL; Philadelphia, PA; Tampa Bay, FL; Tucson, AZ; Washington, DC; Virginia Beach, VA), three entire states (Delaware, Minnesota, and Oregon), and school districts that had readily available digital boundary data. More information about the SABINS project can be found at [www.sabinsdata.org](http://www.sabinsdata.org).

During the SABINS collection, FNS and the National Academy of Sciences (NAS) collaborated with the Census Bureau to create custom estimates of free, reduced, and full price lunch populations from the American Community Survey (ACS) based on eligibility guidelines of the National School Lunch Program. The NAS study relied on school attendance boundaries from five districts from the SABINS collection to develop and evaluate the experimental estimates.

Once SABINS completed their collection of the SY 2009-10 boundaries, NCES worked with the Census Bureau to develop a custom tabulation of 2006-10 ACS data based on the school attendance areas. In 2011, the SABINS team served as advisors to NCES's survey of the largest 600 school districts in the CCD. One intention of this partnership was to establish NCES as the primary data steward for future school attendance boundary surveys. The boundaries were assembled and associated with attributes from CCD. These files are available for download from the School Attendance Boundary Survey website at: <http://nces.ed.gov/programs/edge/geographicSchoolBoundary.aspx>.

In 2013, NCES launched the School Attendance Boundary Survey (SABS) to collect school attendance boundaries from the SY 2013-14. NCES plans to conduct SABS every two years with the next collection beginning in November 2015.

### ***Purpose of Survey***

The purpose of this survey is to collect digital geographic school attendance boundaries for regular schools in the 50 states and the District of Columbia for the SY 2013-14. Prior to this survey, a national network of attendance boundaries was not freely available to the public. The geography of school attendance boundaries provides new context for researchers who were previously limited to state and district level geography.

### ***Data Uses***

The NCES mapping system, known as MapED, is an online mapping application that provides downloadable school attendance boundaries at the national level at no cost. The data files are provided as shapefiles and can be used with any Geographic Information System (GIS) software<sup>1</sup>. Data from SY 2009-10 can also be viewed and downloaded from MapED (<http://nces.ed.gov/programs/maped/>).

By providing the public with a mapping system that contains school and school district boundary information for regular public schools, it is possible for school personnel, researchers, and policy makers to examine relationships between schools in the same district or across the nation. Visual presentation of the school catchment areas may facilitate planning for the delivery of education services. These data may also help researchers to examine the effects of education policy at the school level.

Additionally, because students are assigned to schools on the basis of residence address, the boundaries may be used to examine high school feeder patterns to compare characteristics of elementary and middle schools that feed into low and high-performing high schools. It is important to note that geographic relationships do not always reflect functional relationships. For example, some districts use address-based attendance boundaries for elementary and middle schools, but allow students to choose which high school they attend. In other instances, a large number of students may attend an open enrollment middle school outside of their attendance

---

<sup>1</sup> GIS is a system designed to capture, store, manipulate, analyze, manage, and present all types of spatial or geographic data. In the case of SABS, GIS lets users visualize and analyze school boundaries in ways that were previously impossible.



boundary, but then transition to their neighborhood high school. A high school feeder pattern based on geography is irrelevant in both of these examples. However, despite these limitations, these data provide new opportunities for researchers to examine the spatial relationships between schools.

Federal, state, and local agencies may use these boundaries to visualize social and demographic characteristics across school boundary areas. Finally, this collection provides the opportunity for all reporting school districts to integrate their local school-level data, like test scores or teacher characteristics, with digital boundaries to show distributions of characteristics.

### ***Congressional Authorization***

NCES is authorized to collect this information by law under the Education Sciences Reform Act of 2002 (20 U.S. Code Section 9543).

In accordance with the Paperwork Reduction Act, NCES obtained approval for this collection in June 2013 from the Office of Management and Budget (OMB) under OMB control number 1850-0897.” The following could be used as a footnote or in a references section as a reference to the public documents: [http://www.reginfo.gov/public/do/PRAViewICR?ref\\_nbr=201303-1850-003](http://www.reginfo.gov/public/do/PRAViewICR?ref_nbr=201303-1850-003)

## **II. User’s Guide**

### **A. Survey Methodology**

District and school level criteria were used to create the SABS universe. For a district to be included in the survey, it had to meet the following criteria: (1) included in the Census Bureau’s SY 2013-14 School District Review Program (SDRP); (2) defined as a regular school district<sup>2</sup> on the SY 2013-14 Common Core of Data<sup>3</sup> (CCD); and (3) have at least one qualifying school within the district.<sup>4</sup>

Schools within qualifying districts had to meet the following criteria: (1) Currently open; (2) not a charter school; (3) not a magnet school; (4) have students; (5) have at least one grade greater than prekindergarten; and (6) defined as a regular school by the SY 2013-14 CCD<sup>5</sup>. In some instances, magnet, charter, and other non-regular schools were included in the survey because the student population was drawn from a typical address-based attendance boundary. Otherwise, magnet, charter, special education, vocational education, and alternative schools were excluded by default because these schools typically accept students based on factors other than home

---

<sup>2</sup> A regular school district is defined as District Type = 1-Regular Local School District.

<sup>3</sup> The SY 2013-14 CCD provisional 1a file was used.

<sup>4</sup> Type 2 districts were not included in the survey, except for New York City. A type 2 district definition is a local school district component of a supervisory union sharing a superintendent and administrative services with other local school districts. There are 694 type 2 districts out of 18,786. We did not include them because many of them do not utilize geographic attendance zones. They are also very difficult to research/locate online. New York City (NYC) is a single school district in the SY 2013-14 SDRP collection, but its schools are distributed among NYC’s 32 geographic school districts in the CCD and these districts are not classified as District Type = 1-Regular Local School District. New York City is the largest school district in the U.S. and its school attendance boundaries are available digitally. Its inclusion is an exception to the district universe criteria for SABS.

<sup>5</sup> A regular school is defined as a School Type = 1- Regular School

address. Some schools defined as “regular” did not maintain typical attendance boundaries, but rather, allowed students from all over the district to attend. In these cases, the ‘Open Enrollment’ attribute was updated to reflect this information.

NCES used a custom online tracking application to monitor the data collections and track the progress of school districts through each of the processing steps. The application also allowed NCES to document contact and communication with school districts.

### ***Survey Data Collection***

The SABS data were collected over a web-based self-reporting system, through e-mail, and mailed paper maps. The web application provided instructions and assistance to users via a user guide, a frequently asked questions document, and instructional videos. The web application was designed to minimize response burden, improve data quality and timeliness, and reduce follow-up questions about data inconsistencies. Boundaries supplied outside of the online reporting system typically fell into one of six categories: a digital geographic file, such as a shapefile or Keyhole Markup Language (KML) file; digital image files, such as jpgs and pdfs; narrative descriptions; an interactive web map; Excel or pdf address lists; and paper maps.

The SY 2013-14 survey attempted to collect the school attendance boundaries for all schools as defined in the Survey Methodology. School districts were contacted directly and invited to participate in the survey. In most cases, the district provided the data directly to the SABS staff, but in some instances, the data were provided by the local county or a private consulting firm. Delaware, Minnesota, and Oregon provided statewide data sets.

### ***Reference Period***

The data reported is for the SY 2013-14.

### ***Survey Response Rate***

#### ***District Response***

There were a total of 12,810 regular school districts in the 50 states and the District of Columbia in the 2013-2014 SABS. The unit response rate among these school districts was 90.2 percent.

#### ***School Response***

Within the 12,810 regular school districts, there were a total of 80,059 schools. The unit response rate among these schools was 85.6 percent.

### ***Data Collection***

This survey file contains final data in the 50 states and the District of Columbia. A list of the school districts that were in the SABS universe but did not report is included with the data file.

The SABS survey opened for collection on November 18, 2013 and closed on July 3, 2014. Data were collected by the Census Bureau’s Economic Reimbursable Surveys Division and the National Processing Center. The data were processed by Sanametrix on behalf of NCES. The initial letter announcing the survey was mailed to the school district superintendents on October 29, 2013.

Two types of school districts were identified: de facto and non-de facto. De facto districts were defined as districts where each grade was served by only one school. As a result, the school district boundary was used to create school attendance boundaries for all regular schools in the district. Conversely, non-de facto districts contained more than one school for at least one grade between kindergarten and twelfth. School attendance boundaries were not collected from de facto districts because school district boundaries are collected as part of the SY 2013-14 SDRP and are available from the Census Bureau's 2014 Topologically Integrated Geographic Encoding and Referencing System (TIGER/Line). A letter was mailed to all de facto districts informing them about the survey and of their status. Non-de facto districts were mailed a key holder packet on November 12, 2013, containing instructions on how to report their boundaries. There were 7,879 de facto districts and 4,931 non-de facto districts.

Three main types of data were collected: Image files (paper maps or digital), digital geographic files, and boundaries drawn in a web-based tool.

### ***Processing the School Boundaries***

#### *Image files (paper maps or digital)*

Paper maps were scanned and saved as jpg files. Digital image files, such as pdfs, were converted to jpg files using Adobe Acrobat Pro.

The digital images were georeferenced using the 2013 TIGER/Line files (<https://www.census.gov/geo/maps-data/data/tiger-line.html>). The boundaries were then digitized using the georeferenced image. Each school was drawn as a unique feature. While most school boundaries followed the geographies captured in the TIGER/Line file, such as roads and railways, this was not always the case. In instances where the boundaries differed from TIGER/Lines, ESRI's Imagery base map was used to identify and ensure that housing units were not intersected. ESRI's World Imagery provides 0.3 meter resolution imagery in the continental United States.

#### *Geographic Information System files*

GIS files were projected into USA Contiguous Albers Equal Area Conic USGS and imported into a geodatabase. All processing steps were performed on the school boundaries while stored in a feature class.

#### *Boundaries drawn using online tool*

The online boundary collection tool, known as the School Mapper, allowed school district personnel to draw school boundaries electronically. The application was populated with the CCD<sup>6</sup> school data including: the names and locations of the schools in the district, high and low grade, and school level. The School Mapper was also pre-populated with boundaries from the SY 2009-10 or SY 2010-11 collections, where applicable. In these instances, the users were asked to review each boundary and make necessary updates.

---

<sup>6</sup> The SY 2012-13 provisional CCD school file was used because the SY 2013-14 was not available at the time of the opening of the collection. During processing, the data was updated using the 2013-14 CCD provisional 1a file.

Once all boundaries were drawn, the School Mapper allowed users to save, download or revise their school boundary file. The school boundary files were saved in a geodatabase.

### ***Attribute Association***

School boundaries submitted as shapefiles and other GIS formats were delivered with a wide variety of attributes and field names. A custom GIS tool was used to incorporate the attributes provided by the district into the SABS table schema (see Appendix A). These boundaries were then associated with attributes from the CCD using another custom GIS tool.

Boundaries drawn in the School Mapper did not require the two steps described above because the school names in the application were pulled directly from the CCD.

### ***Quality Assurance Procedures for all File Types***

After the initial steps listed above, all of the school boundary data were processed using the following quality assurance steps.

#### ***Verify School Completeness by District***

The purpose of this step was to identify duplicate, missing, and extra schools within the school boundary feature class as it compared to the survey universe.

- *Identify Duplicate Schools* – Each school must be represented by a single feature in the database. Duplicate features for a single school were merged into one, thus, saving the largest extent of the duplicated records.

In rare instances, a single school might maintain multiple boundaries based on grade. For example, a K-8 school might maintain one small boundary for K-6<sup>th</sup> and a second, larger boundary for 7-8. If the duplicate was a result of multiple boundaries served by the same school then the MultiBdy attribute was updated to a value of '1.' The shapefile provided is the largest extent of the duplicate boundaries. The unique boundaries are available in a supplemental file upon request.

- *Identify Missing Schools* - Each school listed in the collection universe must have a feature in the database or be determined to be out of scope for the collection universe.

Analysts performed research, which included visiting the district web page and/or calling the district contact, to determine why each missing school was not included in the geodatabase. Many missing schools were open enrollment, thus the district did not deliver an attendance boundary. Valid open enrollment schools were added to the database with an attendance boundary coincident to the district boundary. The open enrollment status of each attendance boundary was recorded in the open enrollment attribute in the feature class. In instances where the missing school was an error, the correct boundary was collected from the district and incorporated into the dataset.

- *Identify Extra Schools* - Schools that were not in the collection universe, but were reported with a boundary were saved in the database.

Some magnet, charter, and other non-regular schools maintain address-based attendance boundaries. If provided by the district, these boundaries were saved in the database even though they were not required. In other cases, the file provided by the district included boundaries for closed schools. NCES confirmed the status of the school and corrected the boundaries.

### *Spatial Check for Missing Grades*

This step used the CCD and a single district feature class to ensure every geographic area was covered by every grade. First, it identified geographic areas that were not covered by a specific grade. Then, analysts examined and rectified coverage in the feature class.

### *Geometry Review and Editing*

School attendance boundaries were clipped to the extent of the corresponding school district boundary in order to match the SY 2013-14 SDRP collection. Respondents were encouraged to contact their SDRP representative if they determined there was an error in the district boundary. Valid unassigned areas within responding districts were covered by a feature called 'Unassigned.' In some instances, the districts provided coverage for one school level, but not the other. In these cases, the 'sname' field should be combined with the 'sLevel' field to determine which grades are missing coverage.

The geometry cleanup process below not only ensured compliance with SDRP boundaries, but it also eliminated gaps and accidental overlaps. The reduction of these two errors provided cleaner data to users for geospatial analysis.

- *Clip to District Boundary* – The school boundaries were clipped to the district boundaries<sup>7</sup> to ensure that the school boundaries did not extend beyond district lines.
- *Union Process* – Once clipped, all school level feature classes were combined into a single feature class. The new feature class consisted of a new set of polygons that were created from the geometric union of the input features. This process automatically eliminated the gaps and overlaps in the features and ensured that the lines between school level, such as elementary and middle, coincided as they were intended.

A tolerance setting of 30 feet or less was used as a parameter, which moved vertices of adjacent polygons within the tolerance to meet at a mid-point. A threshold of 30 feet was used because it is the width of a typical small street. Digitized districts and districts that delivered their data in a union were an exception to this rule. They were always processed with a tolerance setting of 0 feet.

---

<sup>7</sup> 2014 TIGER/Line representing the SDRP collection of 2013-2014 school district boundaries.

- *Eliminate Slivers* – The union of multiple school levels often created slivers. Slivers are geographic areas that should be coincident across grade levels, but are not. Slivers were frequently seen along freeways and rivers. For example, an elementary school boundary may follow the western edge of a river, but the overlapping middle school may follow the center of the river. It is clear that these two boundaries were intended to follow the same line so the sliver created between the central and western lines is merged with the larger boundary. SABS defined slivers as features less than 10,000 square feet. Census blocks and imagery were used to identify the appropriate steps for dealing with a sliver. Areas with residences were left as is. Slivers without residential areas, such as rivers as described in the example above, were merged with neighboring boundaries as appropriate. In some cases, features larger than 10,000 square feet were identified as slivers and merged with nearby features. This type of sliver frequently appeared as long, narrow, unassigned areas adjacent with the district boundary.
- *Unassigned Areas* – All areas that were not covered by a school attendance area were labeled “unassigned.” Airports, parks, and water bodies typically fell into this category.

### **Data Confidentiality**

Separate laws (see <http://nces.ed.gov/statprog/confproc.asp>) govern the protection of the confidentiality of individually identifiable information collected by NCES – the Privacy Act of 1974, the Education Sciences Reform Act of 2002, the USA Patriot Act of 2001, and the E-Government Act of 2002. These laws require NCES to ensure that the confidentiality of respondents is maintained.

NCES releases data to the public for statistical purposes only. Procedures for disclosure avoidance were used in preparing public-use data for release.

## **B. Guidelines for Using the School Attendance Boundaries Survey Data File**

The files included in the SABS 2013-14 download are as follows:

1. **SABS\_1314.shp** contains one boundary per school. If there are duplicate boundaries for a school, the largest extent of the boundaries is assigned to the school. The shapefile includes metadata in Federal Geographic Data Committee (FGDC) format. Supporting files for this shapefile include:
  - i. **SABS\_1314.prj** - The .prj file specifies the spatial coordinate system applied to the features. It identifies how the features are referenced and centered relative to an ellipsoidal representation of the earth. The file is provided in USA Contiguous Albers Equal Area Conic USGS. The SABS dataset was processed in.
  - ii. **SABS\_1314.sbn** - The .sbn file is a binary spatial index file. It provides an index that supports the link between geometry features.
  - iii. **SABS\_1314.shx** - The .shx file provides an index that supports the link between feature geometry and table attributes.

- iv. SABS\_1314.dbf - The .dbf file is a table that provides attributes (fields) for each feature. The .dbf table contains a unique record for each feature identified in the .shp file.
2. District\_Nonresponse.xls contains a list of all of the in-scope districts that did not respond to the survey.

The Record Layout (Appendix A) is the guide to the attribute table.

The SABS provides all collected school boundaries in a single shapefile. A shapefile stores both spatial and associated tabular attribute information and can be used by a wide variety of GIS software. These shapefiles contain overlapping features. These visual overlaps can be remedied through definition queries based on attributes provided in the shapefile, such as high and low grade. In some instances, valid overlaps between school boundaries exist within the same school level<sup>8</sup> (i.e., middle school level). For example, some districts allow certain neighborhoods to choose between two schools for the same grade. In this instance, the school boundaries for the two schools of the same level overlap. This overlap is valid and reflects the complexity of the data.

If a school district operates schools with inconsistent grade spans, it may cause the appearance of gaps, or visual “holes”, when looking at a particular level of school (i.e., middle school level). For example, a district may choose to use an extended K-8<sup>th</sup> elementary school to serve 6<sup>th</sup>-8<sup>th</sup> grades in one part of the district, while the remainder of the district is served by middle schools that only provide 6<sup>th</sup>-8<sup>th</sup> grades. This functional inconsistency creates a visual gap in middle school geographic coverage, but it does not mean that school areas are missing from the NCES database or that the area is not served by a school for a particular grade. It simply means school areas may be displayed in a way that does not result in a seamless layer. There is no perfect way to show these data because of the complexity of the geographies. Using codes that are consistent with other NCES programs (e.g. CCD school level variable - sLevel) is the most inclusive way to display data.

Users can apply a definition query based on the sLevel (school level) attribute to examine one school level at a time. Users can also select and export features based on the sLevel attribute to create individual school level shapefiles. The sLevel attribute is based on a formula created by the CCD. The same logic can be applied using the gshi (high grade) and gslo (low grade) attributes.

In some instances high and low grade reported by districts differed from the data supplied by the CCD. The SABS shapefile reflects the grades provided by the CCD.

Users may find that the district-wide boundaries used for open enrollment schools hinder the typical identification and analysis used for neighborhood-based attendance boundaries. If this is the case, users may select, delete, export, or use a definition query to remove school boundaries based on the school's open enrollment status (attribute OpenEnroll).

---

<sup>8</sup> The school levels are defined by CCD as the following: 1-Primary (low grade: PK through 3<sup>rd</sup> ; high grade: PK through 8<sup>th</sup> ); 2-Middle (low grade: 4<sup>th</sup> through 7<sup>th</sup> ; high grade: 4<sup>th</sup> through 11<sup>th</sup> ); 3-High (low grade: 8<sup>th</sup> through 12<sup>th</sup> ; high grade: 12<sup>th</sup> only); 4-Other (a configuration not falling within the other three categories).

The SABS dataset was processed in USA Contiguous Albers Equal Area Conic USGS. The spatial accuracy of the data is dependent upon the information provided to NCES. The XY resolution of the dataset is 0.001 meters.

Please note, the SABS dataset is intended for research purposes only and reflects a single snapshot in time. School boundaries frequently change from year to year. To verify legal descriptions of boundaries, users must contact the school district directly.

### ***Record Identifier***

Features in SABS used identifiers from the CCD; LEAID represents districts and NCESSCH represents schools. The NCESSCH field is used as the unique ID field in the SABS\_1314.shp.

In a few rare cases, boundaries were provided by the district, but the CCD did not contain a corresponding NCESSCH. These were typically new schools so a temporary ID was created using the following format: LEAID followed by '9999' then 5. The final digit auto-incremented, when necessary.

SABS data, therefore, can be linked to a broad range of CCD institutional data using these identifiers.



**Appendix A**  
**Record Layout for Attribute Table**

Page intentionally left blank

Variable	Data Type	Length	Attribute Source	Description
SrcName	Text	100	SABS	School name as provided by the district.
ncessch	Text	12	SY 2013-14 CCD Provisional 1a File	12 character school ID provided by the CCD.
schnam	Text	255	SY 2013-14 CCD Provisional 1a File	School name as recorded in the CCD.
leaid	Text	7	SY 2013-14 CCD Provisional 1a File	7 character school ID provided by the CCD.
updateDate	Date		SABS	Date the boundary was last updated.
gslo	Text	2	SY 2013-14 CCD Provisional 1a File	Low grade as recorded in the CCD.
gshi	Text	2	SY 2013-14 CCD Provisional 1a File	High grade as recorded in the CCD.
Defacto	Text	3	SABS	District de facto status. No/Yes.
stAbbrev	Text	2	SY 2013-14 CCD Provisional 1a File	State abbreviation.
sLevel	Text	1	SY 2013-14 CCD Provisional 1a File	School level as provided by the CCD: 1 = Primary 2 = Middle 3 = High 4 = Other
openEnroll	Text	1	SABS	District's open enrollment status: 0 = not open enroll, 1 = open enrollment. 2 = Misreported in CCD

## Appendix A – Record Layout of Attribute Table

Variable	Data Type	Length	Attribute Source	Description
MultiBdy	Text	1	SABS	Boundary that differ by grade attributes: 1 = Yes 0 = No
SHAPE_Length	Numeric		SABS	
SHAPE_Area	Numeric		SABS	
OBJECTID	ObjectID		SABS	

**Appendix B**  
**Lessons Learned**

Page intentionally left blank

## **Appendix B– Lessons Learned**

### **Communication**

- Coordinate with other surveys to reduce impact on respondents. SABS was originally scheduled to open on August 1, 2013, but it was identified that the SDRP was scheduled to open during the same period. Because the two surveys are similar, and could possibly rely on the same respondent, the SABS staff was concerned that district personnel would be overly burdened or confused by our request for information. The SABS opening date was moved to November 12, 2013.
- The SABS staff did not begin to edit the data until the survey had closed. This meant that there was a large gap in time, frequently many months, between the data submission and our questions. This led to difficulties when clarification was required because respondents changed roles, forgot what they submitted, or were unable to find information on boundaries from the previous school year. For the next survey cycle, submissions will be processed as they are received before the survey close out date.
- Many questions related to the vintage of the data provided. The year of the survey will be listed multiple times in all future correspondence with the districts in an effort to reduce the number of clarifying emails.
- The SABS staff sent a letter to all of the de facto districts at the beginning of the survey to inform them of their status as de facto and they were asked to contact the SABS staff if this was incorrect. That letter caused a lot of confusion with the districts, and in turn, caused staff to expend a lot of time following up with the districts. For the next survey cycle, the SABS staff plan to provide a more detailed explanation of the de facto designation. The definition will be included in our frequently asked questions on our web site and with the help desk.
- When providing technical support to districts with six schools or less, NCES staff should first confirm the de facto status of the district. Staff within de facto districts were frequently confused by the request for school boundaries because it is not a concept used by their district. Confirming de facto status up front will save time and reduce confusion.

### **Technical**

- Reports in the tracking application will be revised in the next collection to include additional filters. These filters will allow SABS staff to extract only what is required and will reduce the need to run multiple reports.
- Additional logic will be added to the tracking application to reduce the number of user data entry errors.
- For future collections, two new flags will be added to the tracking application: Data is Unusable and District on Hold. These two status flags will allow SABS personnel to follow up with problem districts quickly.
- District personnel frequently requested an email confirmation following the upload of their data. This functionality will be added to the application for future collections. This will save staff time in manually having to send confirmations.

## **Appendix B– Lessons Learned**

- The School Mapper was successfully tested on the development server, but slight changes between development and production meant some bugs were not caught before respondents began using the application. In the future, the SABS staff will test the application in production before opening the survey to the respondents.
- The 2013-14 CCD was not released in time to use in the School Mapper so the application was initially populated with the 2012-13 CCD. The number of changes related to school data requested by the respondents was greater than anticipated. Halfway through the collection the ability for the respondents to move school points and add/delete schools was added. This ensured that the universe corresponded with the 2013-14 CCD.

### **Methodology**

- When staff received paper maps they were logged into the tracking application, but the corresponding LEAID was not written on the physical map. This made it more time consuming when the time came to scan the maps. In next collection, this step will be done when the paper maps are logged into the tracking application.



**Appendix C**  
**SY 2013-14 Response Rate Tables**

## Appendix C – SY 2013-14 Response Rate Tables

Table C-1. Number and percentage of responding school districts, by type, and state/jurisdiction: SY 2013-2014

State/jurisdiction	Total regular school districts <sup>1</sup>	Total regular responding school districts <sup>1</sup>	Percent response	De facto		Non-de facto	
				Number	Percent response	Number	Percent response
United States	12,810	11,559	90.2	7,879	100.0	3,680	74.6
Alabama	134	101	75.4	39	100.0	62	65.3
Alaska	53	46	86.8	23	100.0	23	76.7
Arizona	208	193	92.8	114	100.0	79	84.0
Arkansas	237	223	94.1	182	100.0	41	74.5
California	930	815	87.6	412	100.0	403	77.8
Colorado	178	162	91.0	121	100.0	41	71.9
Connecticut	166	133	80.1	80	100.0	53	61.6
Delaware	16	16	100.0	3	100.0	13	100.0
District of Columbia	1	1	100.0	0	0.0	1	100.0
Florida	67	54	80.6	4	100.0	50	79.4
Georgia	179	164	91.6	78	100.0	86	85.1
Hawaii	1	1	100.0	0	0.0	1	100.0
Idaho	114	105	92.1	70	100.0	35	79.5
Illinois	854	813	95.2	599	100.0	214	83.9
Indiana	287	259	90.2	125	100.0	134	82.7
Iowa	345	330	95.7	278	100.0	52	77.6
Kansas	286	276	96.5	210	100.0	66	86.8
Kentucky	173	148	85.5	70	100.0	78	75.7
Louisiana	68	50	73.5	5	100.0	45	71.4
Maine	178	143	80.3	118	100.0	25	41.7
Maryland	24	23	95.8	0	0.0	23	95.8
Massachusetts	238	189	79.4	112	100.0	77	61.1
Michigan	506	463	91.5	312	100.0	151	77.8
Minnesota	329	328	99.7	235	100.0	93	98.9
Mississippi	148	124	83.8	67	100.0	57	70.4
Missouri	518	495	95.6	421	100.0	74	76.3
Montana	409	399	97.6	376	100.0	23	69.7
Nebraska	248	235	94.8	200	100.0	35	72.9
Nevada	17	16	94.1	0	0.0	16	94.1
New Hampshire	11	10	90.9	5	100.0	5	83.3

See notes at end of table.

## Appendix C – SY 2013-14 Response Rate Tables

Table C-1. Number and percentage of responding school districts, by type, and state/jurisdiction: SY 2013-14—Continued

State/jurisdiction	Total regular school districts <sup>1</sup>	Total regular responding school districts <sup>1</sup>	Percent response	De facto		Non-de facto	
				Number	Percent response	Number	Percent response
New Jersey	545	475	87.2	340	100.0	135	65.9
New Mexico	89	82	92.1	50	100.0	32	82.1
New York	704	574	81.5	418	100.0	156	54.5
North Carolina	115	95	82.6	13	100.0	82	80.4
North Dakota	172	166	96.5	153	100.0	13	68.4
Ohio	612	532	86.9	384	100.0	148	64.9
Oklahoma	516	508	98.4	474	100.0	34	81.0
Oregon	196	196	100.0	120	100.0	76	100.0
Pennsylvania	520	436	83.8	222	100.0	214	71.8
Rhode Island	32	22	68.8	6	100.0	16	61.5
South Carolina	80	68	85.0	19	100.0	49	80.3
South Dakota	151	120	79.5	97	100.0	23	42.6
Tennessee	134	108	80.6	33	100.0	75	74.3
Texas	1,024	969	94.6	762	100.0	207	79.0
Utah	41	32	78.0	3	100.0	29	76.3
Vermont	5	5	100.0	3	100.0	2	100.0
Virginia	130	113	86.9	34	100.0	79	82.3
Washington	295	279	94.6	181	100.0	98	86.0
West Virginia	55	38	69.1	2	100.0	36	67.9
Wisconsin	423	382	90.3	287	100.0	95	69.9
Wyoming	48	44	91.7	19	100.0	25	86.2

<sup>1</sup>District Type = 1-Regular Local School District

SOURCE: U.S. Department of Education, National Center for Education Statistics, School Attendance Boundary Survey (SABS), 2013-14.

## Appendix C – SY 2013-14 Response Rate Tables

Table C-2. Number and percentage of responding schools, by type, and state/jurisdiction: SY 2013-14

State/jurisdiction	Total regular public schools	Total regular responding public schools	Percent response	Type of School							
				Primary Schools		Middle Schools		High Schools		Other Schools	
				Number	Percent response	Number	Percent response	Number	Percent response	Number	Percent response
United States	80,059	68,502	85.6	40,300	84.8	13,252	85.9	12,897	87.5	2,053	87.3
Alabama	1,355	807	59.6	423	58.8	156	59.8	158	58.1	70	68.0
Alaska	419	347	82.8	144	94.7	35	97.2	42	95.5	126	67.4
Arizona	1,350	1,217	90.1	804	91.2	177	88.1	213	89.5	23	79.3
Arkansas	996	892	89.6	445	87.6	189	93.1	227	90.1	31	93.9
California	7,553	6,469	85.6	4,484	85.2	1,049	85.3	896	88.3	40	88.9
Colorado	1,485	1,156	77.8	678	76.1	202	76.8	212	80.9	64	92.8
Connecticut	892	607	68.0	369	66.0	131	73.2	100	70.9	7	53.8
Delaware	164	164	100.0	102	100.0	37	100.0	24	100.0	1	100.0
District of Columbia	96	96	100.0	75	100.0	11	100.0	7	100.0	3	100.0
Florida	2,867	2,694	94.0	1,682	94.9	459	95.0	366	93.4	187	85.0
Georgia	2,168	1,981	91.4	1,151	91.3	437	91.2	353	91.5	40	95.2
Hawaii	258	258	100.0	173	100.0	38	100.0	38	100.0	9	100.0
Idaho	581	520	89.5	295	88.1	101	91.8	97	91.5	27	90.0
Illinois	3,704	3,456	93.3	2,136	93.6	691	92.5	601	93.5	28	84.8
Indiana	1,733	1,490	86.0	887	85.3	293	86.7	284	87.1	26	89.7
Iowa	1,330	1,207	90.8	620	88.1	260	92.2	285	94.7	42	97.7
Kansas	1,292	1,177	91.1	645	90.2	215	91.5	280	92.7	37	92.5
Kentucky	1,224	1,014	82.8	593	81.7	186	83.8	180	83.7	55	90.2
Louisiana	1,102	809	73.4	464	73.2	154	74.0	137	74.1	54	72.0
Maine	561	354	63.1	217	63.1	60	58.8	66	64.7	11	84.6
Maryland	1,269	1,261	99.4	852	99.4	221	99.5	178	98.9	10	100.0
Massachusetts	1,453	1,087	74.8	704	75.6	198	71.2	170	74.6	15	93.8
Michigan	2,535	2,146	84.7	1,169	82.3	441	86.8	454	87.6	82	93.2
Minnesota	1,412	1,406	99.6	786	99.6	233	99.1	354	99.7	33	100.0
Mississippi	883	687	77.8	338	77.5	156	79.2	149	76.8	44	78.6
Missouri	2,042	1,860	91.1	1,040	89.9	330	89.7	445	94.7	45	95.7
Montana	820	785	95.7	401	94.6	216	94.7	168	100.0	0	0.0
Nebraska	960	870	90.6	497	89.1	123	90.4	250	94.0	0	0.0
Nevada	549	532	96.9	349	97.8	102	96.2	75	94.9	6	85.7
New Hampshire	54	47	87.0	30	85.7	9	90.0	8	88.9	0	0.0

See notes at end of table.

## Appendix C – SY 2013-14 Response Rate Tables

Table C-2. Number and percentage of responding schools, by type, and state/jurisdiction: SY 2013-14—Continued

State/jurisdiction	Total regular public schools	Total regular responding public schools	Percent response	Type of School							
				Primary Schools		Middle Schools		High Schools		Other Schools	
				Number	Percent response	Number	Percent response	Number	Percent response	Number	Percent response
New Jersey	2,242	1,669	74.4	1,068	73.4	337	77.3	254	75.1	10	76.9
New Mexico	723	641	88.7	381	88.4	144	89.4	111	88.8	5	83.3
New York	4,274	3,411	79.8	1,760	76.4	640	80.4	747	83.5	264	94.3
North Carolina	2,296	2,003	87.2	1,153	87.3	422	87.6	402	86.3	26	96.3
North Dakota	462	419	90.7	234	90.0	31	79.5	151	94.4	3	100.0
Ohio	3,123	2,490	79.7	1,288	76.8	578	83.3	572	83.0	52	83.9
Oklahoma	1,736	1,630	93.9	864	92.1	316	94.3	436	97.3	14	93.3
Oregon	1,099	1,099	100.0	655	100.0	199	100.0	207	100.0	38	100.0
Pennsylvania	2,805	2,228	79.4	1,306	78.7	419	76.7	472	83.4	31	91.2
Rhode Island	243	153	63.0	99	62.3	30	65.2	23	62.2	1	100.0
South Carolina	1,065	873	82.0	510	81.0	201	83.4	149	83.7	13	81.3
South Dakota	649	469	72.3	216	66.9	126	77.3	126	77.8	1	100.0
Tennessee	1,659	1,379	83.1	803	83.0	268	84.5	268	82.7	40	80.0
Texas	7,180	6,298	87.7	3,561	86.3	1,443	87.5	1,019	91.0	275	96.5
Utah	808	605	74.9	397	74.6	103	75.7	88	74.6	17	77.3
Vermont	12	12	100.0	8	100.0	2	100.0	2	100.0	0	0.0
Virginia	1,780	1,623	91.2	1,024	90.9	310	91.4	275	91.7	14	93.3
Washington	1,895	1,698	89.6	1,008	88.8	314	90.5	310	90.1	66	95.7
West Virginia	694	471	67.9	306	68.0	83	69.7	70	68.6	12	52.2
Wisconsin	1,875	1,639	87.4	933	86.5	314	86.0	344	89.8	48	98.0
Wyoming	332	296	89.2	173	89.2	62	89.9	54	88.5	7	87.5

SOURCE: U.S. Department of Education, National Center for Education Statistics, School Attendance Boundary Survey (SABS), 2013-14.

## Appendix C – SY 2013-14 Response Rate Tables

Table C-3. Number and percent of school districts, by open enrollment, mode of collection, type of collection and state/jurisdiction: SY 2013-14

State/jurisdiction	Total regular non-de facto school districts <sup>1</sup>	Open enrollment for regular school district <sup>1</sup>		Mode of collection						Type of Collection					
		Number	Percent response	Web		E-mailed		Mailed		Geospatial file		Image file		Drawn	
				Number	Percent response	Number	Percent response	Number	Percent response	Number	Percent response	Number	Percent response	Number	Percent response
United States	4,931	372	7.5	2,432	49.3	703	14.3	173	3.5	914	18.5	1,100	22.3	1,294	26.2
Alabama	95	6	6.3	35	36.8	13	13.7	8	8.4	14	14.7	20	21.1	22	23.2
Alaska	30	6	20.0	12	40.0	5	16.7	0	0.0	2	6.7	4	13.3	8	26.7
Arizona	94	7	7.4	53	56.4	16	17.0	3	3.2	13	13.8	26	27.7	31	33.0
Arkansas	55	12	21.8	20	36.4	6	10.9	3	5.5	5	9.1	13	23.6	11	20.0
California	518	33	6.4	278	53.7	78	15.1	14	2.7	106	20.5	142	27.4	118	22.8
Colorado	57	10	17.5	22	38.6	7	12.3	2	3.5	14	24.6	11	19.3	6	10.5
Connecticut	86	2	2.3	41	47.7	6	7.0	4	4.7	12	14.0	12	14.0	27	31.4
Delaware	13	0	0.0	0	0.0	13	100.0	0	0.0	13	100.0	0	0.0	0	0.0
District of Columbia	1	0	0.0	1	100.0	0	0.0	0	0.0	1	100.0	0	0.0	0	0.0
Florida	63	5	7.9	28	44.4	16	25.4	1	1.6	28	44.4	9	14.3	8	12.7
Georgia	101	7	6.9	58	57.4	18	17.8	3	3.0	26	25.7	28	27.7	25	24.8
Hawaii	1	0	0.0	1	100.0	0	0.0	0	0.0	0	0.0	0	0.0	1	100.0
Idaho	44	3	6.8	25	56.8	7	15.9	0	0.0	4	9.1	12	27.3	13	29.5
Illinois	255	10	3.9	155	60.8	35	13.7	14	5.5	25	9.8	74	29.0	104	40.8
Indiana	162	14	8.6	82	50.6	29	17.9	9	5.6	17	10.5	33	20.4	69	42.6
Iowa	67	12	17.9	23	34.3	15	22.4	2	3.0	6	9.0	24	35.8	10	14.9
Kansas	76	12	15.8	37	48.7	14	18.4	3	3.9	5	6.6	24	31.6	24	31.6
Kentucky	103	6	5.8	43	41.7	18	17.5	11	10.7	9	8.7	30	29.1	33	32.0
Louisiana	63	4	6.3	26	41.3	12	19.0	3	4.8	7	11.1	18	28.6	16	25.4
Maine	60	7	11.7	13	21.7	5	8.3	0	0.0	2	3.3	6	10.0	10	16.7
Maryland	24	0	0.0	15	62.5	8	33.3	0	0.0	13	54.2	7	29.2	3	12.5
Massachusetts	126	12	9.5	54	42.9	8	6.3	3	2.4	15	11.9	14	11.1	36	28.6
Michigan	194	25	12.9	88	45.4	29	14.9	9	4.6	11	5.7	50	25.8	64	33.0
Minnesota	94	4	4.3	89	94.7	0	0.0	0	0.0	88	93.6	0	0.0	1	1.1
Mississippi	81	4	4.9	35	43.2	9	11.1	9	11.1	6	7.4	20	24.7	26	32.1
Missouri	97	2	2.1	53	54.6	15	15.5	4	4.1	17	17.5	28	28.9	27	27.8
Montana	33	8	24.2	7	21.2	6	18.2	2	6.1	3	9.1	10	30.3	2	6.1
Nebraska	48	8	16.7	21	43.8	4	8.3	2	4.2	4	8.3	8	16.7	14	29.2
Nevada	17	3	17.6	9	52.9	4	23.5	0	0.0	3	17.6	4	23.5	5	29.4
New Hampshire	6	3	50.0	2	33.3	0	0.0	0	0.0	1	16.7	0	0.0	1	16.7

See notes at end of table.

## Appendix C – SY 2013-14 Response Rate Tables

Table C-3. Number and percent of school districts, by type, mode of collection, type of collection and state/jurisdiction: SY 2013-14—Continued

State/jurisdiction	Total regular non-de facto school districts <sup>1</sup>	Open enrollment for regular school district <sup>1</sup>		Mode of collection						Type of Collection					
		Number	Percent response	Web		E-mailed		Mailed		Geospatial file		Image file		Drawn	
				Number	Percent response	Number	Percent response	Number	Percent response	Number	Percent response	Number	Percent response	Number	Percent response
New Jersey	205	8	3.9	101	49.3	23	11.2	3	1.5	14	6.8	34	16.6	79	38.5
New Mexico	39	4	10.3	18	46.2	9	23.1	1	2.6	8	20.5	9	23.1	9	23.1
New York	286	10	3.5	106	37.1	33	11.5	7	2.4	53	18.5	41	14.3	52	18.2
North Carolina	102	3	2.9	59	57.8	17	16.7	3	2.9	56	54.9	15	14.7	8	7.8
North Dakota	19	5	26.3	7	36.8	1	5.3	0	0.0	1	5.3	2	10.5	5	26.3
Ohio	228	17	7.5	95	41.7	27	11.8	9	3.9	19	8.3	43	18.9	67	29.4
Oklahoma	42	3	7.1	20	47.6	11	26.2	0	0.0	2	4.8	17	40.5	12	28.6
Oregon	76	1	1.3	73	96.1	2	2.6	0	0.0	75	98.7	0	0.0	0	0.0
Pennsylvania	298	10	3.4	161	54.0	34	11.4	9	3.0	37	12.4	63	21.1	104	34.9
Rhode Island	26	2	7.7	10	38.5	3	11.5	1	3.8	3	11.5	4	15.4	7	26.9
South Carolina	61	2	3.3	35	57.4	10	16.4	2	3.3	20	32.8	13	21.3	14	23.0
South Dakota	54	11	20.4	7	13.0	4	7.4	1	1.9	1	1.9	4	7.4	6	11.1
Tennessee	101	15	14.9	47	46.5	9	8.9	4	4.0	14	13.9	17	16.8	29	28.7
Texas	262	17	6.5	143	54.6	42	16.0	5	1.9	59	22.5	72	27.5	59	22.5
Utah	38	1	2.6	23	60.5	5	13.2	0	0.0	10	26.3	3	7.9	14	36.8
Vermont	2	0	0.0	1	50.0	1	50.0	0	0.0	1	50.0	1	50.0	0	0.0
Virginia	96	1	1.0	57	59.4	19	19.8	2	2.1	33	34.4	20	20.8	24	25.0
Washington	114	12	10.5	52	45.6	28	24.6	6	5.3	24	21.1	30	26.3	30	26.3
West Virginia	53	0	0.0	29	54.7	6	11.3	1	1.9	1	1.9	11	20.8	24	45.3
Wisconsin	136	13	9.6	52	38.2	22	16.2	8	5.9	13	9.6	40	29.4	29	21.3
Wyoming	29	12	41.4	10	34.5	1	3.4	2	6.9	0	0.0	6	20.7	7	24.1

<sup>1</sup>District Type = 1-Regular Local School District

SOURCE: U.S. Department of Education, National Center for Education Statistics, School Attendance Boundary Survey (SABS), 2013-14.

Page intentionally left blank

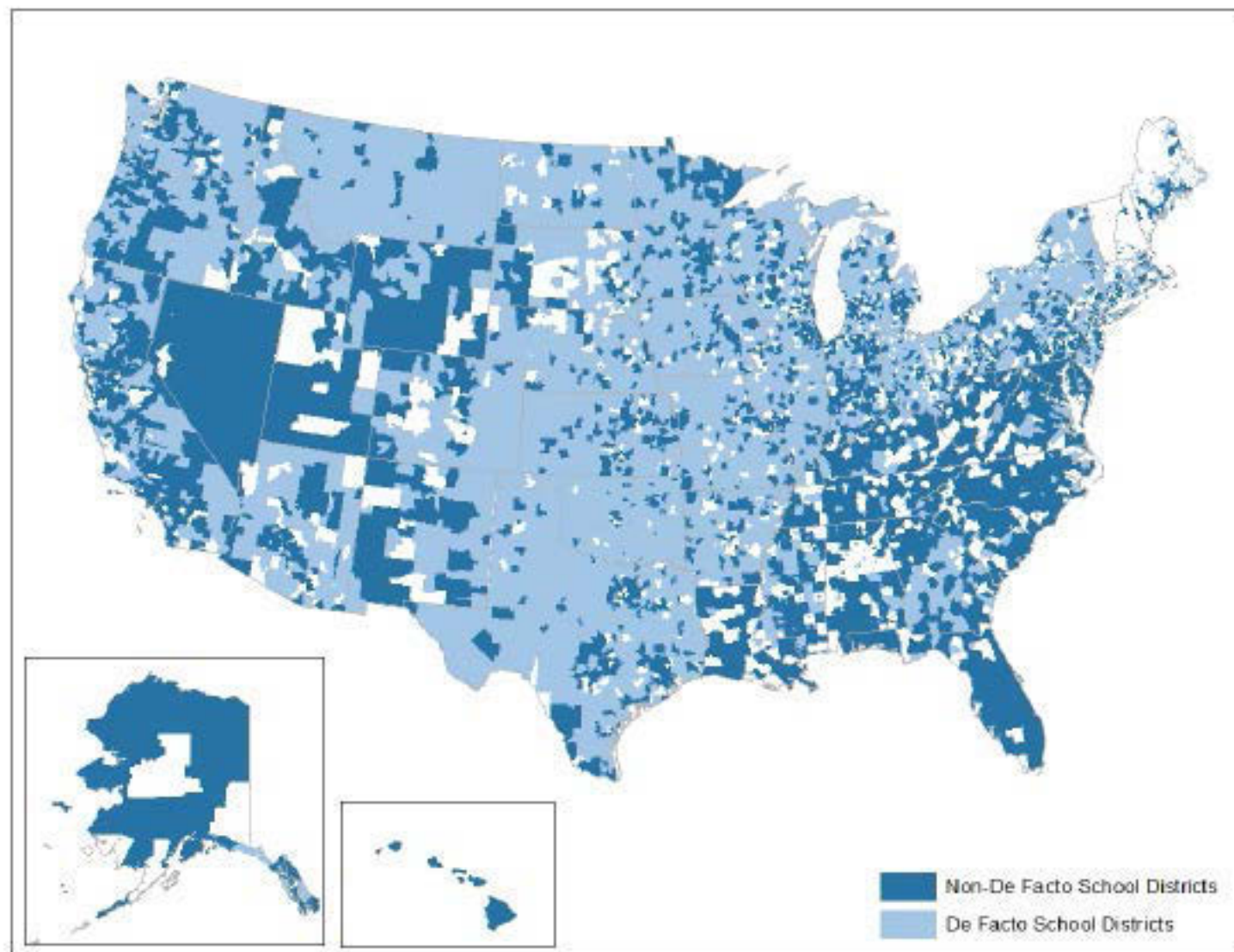


**Appendix D**  
**SY 2013-14 Coverage Map**

Page intentionally left blank

## Appendix D– 2013-2014 Coverage Map

Figure 1: Coverage map for the 2013-2014 SABS collection



SOURCE: U.S. Department of Education, National Center for Education Statistics, School Attendance Boundary Survey (SABS), 2013-14.

Page intentionally left blank

**Appendix E**  
**Glossary of Terms**

## **Appendix E– Glossary of Terms**

Page intentionally left blank

## Appendix E– Glossary of Terms

- **De facto district:** defined as districts where each grade is served by only one school. As a result, the school and district boundaries are coincident.
- **Charter School:** A school providing free public elementary and/or secondary education to eligible students under a specific charter granted by the state legislature or other appropriate authority, and designated by such authority to be a charter school.
- **Feature Class:** A feature class is a collection of spatial records with the same geometry type, attribute information, and spatial reference.
- **Geodatabase:** A geodatabase is the native data structure for ArcGIS and is the primary data format used for editing and data management. Geodatabases contain GIS files like feature classes. **GIS:** GIS is a system designed to capture, store, manipulate, analyze, manage, and present all types of spatial or geographic data.
- **Magnet School or Program:** A special school or program designed to attract students of different racial/ethnic backgrounds for the purpose of reducing, preventing, or eliminating racial isolation (50 percent or more minority enrollment); and/or to provide an academic or social focus on a particular theme (e.g., science/math, performing arts, gifted/talented, or foreign language).
- **Shapefile:** A shapefile stores both spatial and associated tabular attribute information and can be used by a wide variety of GIS software.
- **School District:** An education agency or administrative unit that operates under a public board of education
- **School:** an institution that provides educational services and:
  - Has one or more grade groups (prekindergarten through 12) or is ungraded;
  - has one or more teachers;
  - is located in one or more buildings;
  - has assigned administrator(s);
  - receives public funds as its primary support, and
  - is operated by an education agency.
- **School Attendance Boundary:** A school attendance boundary (also referred to as a catchment area) is a geographic area from which the students are eligible to attend a local school.
- **Vocational School:** A public elementary/secondary school that focuses primarily on providing formal preparation for semiskilled, skilled, technical, or professional occupations for high school-age students who have opted to develop or expand their employment opportunities, often in lieu of preparing for college entry.