Guidance for Encoding School Information for COVID-19 Public Health Reporting

1. *Intended Audience:*
   a. *IT staff of healthcare organizations submitting results from COVID-19 tests performed in a school setting to public health agencies.*
   b. *IT staff of public health agencies receiving COVID-19 test results performed in a school setting.*

2. *Background:*
   a. As more COVID-19 testing is performed in school settings (i.e., public, private, and postsecondary) and reported to local public health jurisdictions and CDC, it is important to identify the exact school setting where testing has occurred.
   b. Health Level Seven (HL7) v.2.5.1 Electronic Laboratory Report (ELR) fields currently do not have a discrete field for including a unique school identifier (ID).
   c. Guidance in this document will instruct the IT staff of organizations performing COVID-19 testing on how to encode the school ID within the existing HL7 v.2.5.1 ELR standard in a consistent manner for public health agencies to receive.
   d. This guidance is intended for organizations submitting COVID-19 test results through HL7 v.2.5.1 ELR. Subsequent guidance will be issued for submitters using other formats (e.g., CSV).

3. **Global Unique Identifiers for U.S. Schools**

The U.S. Department of Education's National Center of Education Statistics (NCES) maintains a database of global unique IDs for all public, private, and postsecondary schools in the United States.

3a. U.S. Public School NCES IDs and Examples

- For public schools, the NCES ID begins with a two-digit state Federal Information Processing Standards (**FIPS**) code, which identifies the state or territory in which the school belongs. After this, NCES adds an ID for the school district or Local Education Agency Identifier (**LEAID**), followed by a unique ID number for each school, a School Number, within the Local Education Agency (**SCHNO**). These three pieces of information create a distinctive twelve-digit identification number as follows:

- **If the SCHNO for a school cannot be found in the NCES database, use the FIPS + LEAID only.**
- **Please note that the FIPS + LEAID forms the unique identifier for the school district for the school.**

3b. U.S. Private School NCES IDs and Examples

- Private schools follow their own NCES ID convention and do not indicate state or school district.
- Private School NCES ID Examples:
  - Bosque School in Albuquerque, New Mexico
    - NCES ID: A9702291
  - Billings Christian School in Billings, Montana
    - NCES ID: 02042151
  - Daycroft Montessori School in Ann Arbor, Michigan
    - NCES ID: BB181505
- **If a private school cannot be found in the NCES database, use XXXXXXXX.**

3c. U.S. Postsecondary School IDs and Examples

- NCES has a separate identifier for postsecondary schools called Integrated Postsecondary Education Data System (IPEDS) that is 6 digits long.
- IPEDS IDs cover all types of postsecondary institutions (public and private).
- IPEDS ID Examples:
  - Red Rocks Community College in Lakewood, Colorado
    - IPEDS ID: 127909
  - Brown University in Providence, Rhode Island
    - IPEDS ID: 217156
  - University of Virginia in Charlottesville, Virginia
    - IPEDS ID: 234076
- **If postsecondary school cannot be found in the IPEDS database, use ZZZZZZ.**

4. **Rationale for Choosing ORC-21.1 for HL7 2.5.1 ELR Senders**
   a. Not all organizations are submitting HL7 messages, some are sending CSV files which do not support **ordering_facility_identifier** and **ordering_facility_id_assigner**.
   b. Organizations sending COVID-19 ELR (CELR) CSV should thus encode using **ordering_facility_name**. which maps to ORC-21.1.

5. **REQUIRED** - Encoding School Information for COVID-19 Public Health Reporting

SEG	FIELD	LEN	DT	Data Element Name
ORC	21.1	1-50	ST	Ordering Facility Name

a. Utilize ORC-21.1 – Ordering Facility Name in a specific way

b. Encode data the following way:

   o For public and private K-12 schools, **<School Name>_NCES_<NCES ID>**.

   o For postsecondary schools, **<School Name>_IPEDS_<IPEDS ID>**.

   o Follow ORC-21.1 field length guidance of 50 characters by truncating school name as necessary. **For NCES, truncate school name after 32 characters, so that the full length for the ID is available**.

c. Examples:

   o Laguna Road Elementary (public school): |**Laguna Road Elementary School_NCES_061473001796**|

   o Bosque School (private school): |**Bosque School_NCES_A9702291**|

   o Brown University (postsecondary):|**Brown University_IPEDS_217156**|

   o Thurgood Marshall Elementary School (needs truncation): |**Thurgood Marshall Elementary Sch_NCES_130123003316**|

   o Daybreak Private School (new private school not in NCES): |**Daybreak Private School_NCES_XXXXXXXX**|

6. **REQUIRED IF KNOWN** - Encoding School Information for COVID-19 Public Health Reporting

SEG	FIELD	LEN	DT	Data Element Name
ORC	21.6.1	20	IS	Assigning Authority Namespace
ORC	21.6.2	199	ST	Assigning Authority Universal ID
ORC	21.6.3	6	ID	Assigning Authority Universal ID Type
ORC	21.7	5	ID	Identifier Type Code
ORC	21.10	1-20	ST	Ordering Facility ID

a. If possible, please include the NCES or IPEDS ID in ORC-21.10 Ordering Facility ID.

b. Object Identifier (OID) for NCES is **2.16.840.1.113883.3.8589.4.1.119** and Namespace is **NCES.IES** for ORC-21.6 Assigning Authority. OID should be used for both IPEDS and NCES IDs as NCES manages both.

c. Set ORC-21.7 Identifier Type to **XX (Organization Identifier).**

d. **Do not send if NCES or IPEDS ID is unknown (i.e, XXXXXXXX, ZZZZZZ).**

e. Example:

- o Tierra Antigua Elementary (public school):
  |^^^^^NCES.IES&2.16.840.1.113883.3.8589.4.1.119&ISO^XX^^^350006001018|

7. **Finding and Downloading NCES and IPEDS Identifiers**
   a. [The NCES Global Locator Database](#) allows the user to search for specific public, private and postsecondary school identifiers.
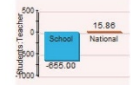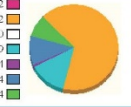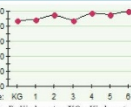
Laguna Road Elementary

🖨 Print   📄 More Information   📄 District Information

Information

Institution Name:	**Institution Type:**	
Laguna Road Elementary	Public School	
Mailing Address:	**District:**	**NCES District ID:**
300 W. Laguna RD.	Fullerton Elementary	0614730
Fullerton, CA 92835	**County:**	**NCES School ID:**
Phone:	Orange County	061473001796
(714)447-7725		

Characteristics

Locale:	Suburb: Large (21)
Type:	Regular school
Charter:	no
Magnet:	yes
Total Teachers (FTE):	-1.00
Total Students:	655
Student/Teacher Ratio:	-655.00

Enrollment by Race/Ethnicity

American Indian/Alaska Native:	2
Asian:	432
Native Hawaiian / Pacific Islander:	0
Hispanic:	89
Black, non-Hispanic:	4
White, non-Hispanic:	74
Two or More Races:	54

Enrollment by Grade

Grade Levels: KG - 06

KG: 88	4th Grade: 98
1st Grade: 89	5th Grade: 96
2nd Grade: 96	6th Grade: 100
3rd Grade: 88	

(Source: CCD Public school data 2019-2020, 2020-2021 school years)

The directory information for the school comes from the 2020-2021 school year data. The enrollment count comes from the 2019-2020 school year data.

National Center for Education Statistics
Institute of Education Sciences

Close Window ⊗

Screenshots: NCES Global Locator Site Showing Lookup of Laguna Road Elementary School

8. **Information on Private School Update Frequency on NCES**
   a. The private school listings on the NCES website are derived from the school responses to the Private School Universe Survey (PSS) and are updated whenever a new PSS file becomes available.

   b. Non-responding schools are not listed on the private school search. If they submit their information, they will be included in the next PSS. NCES numbers are assigned twice in each two-year cycle.

9. **For Public Health Agencies: Downloading NCES IDs**
   a. The Elementary/Secondary Information System allows the user to download a filtered or open list of public and private K-12 school data in CSV or Excel format to allow public health agencies to preload the data into surveillance systems as a reference table.

10. For Public Health Agencies: Downloading IPEDS IDs

a. The [Integrated Postsecondary Education System](#) allows the user to search for postsecondary schools using a variety of filters. The user can then paste data into a separate file.
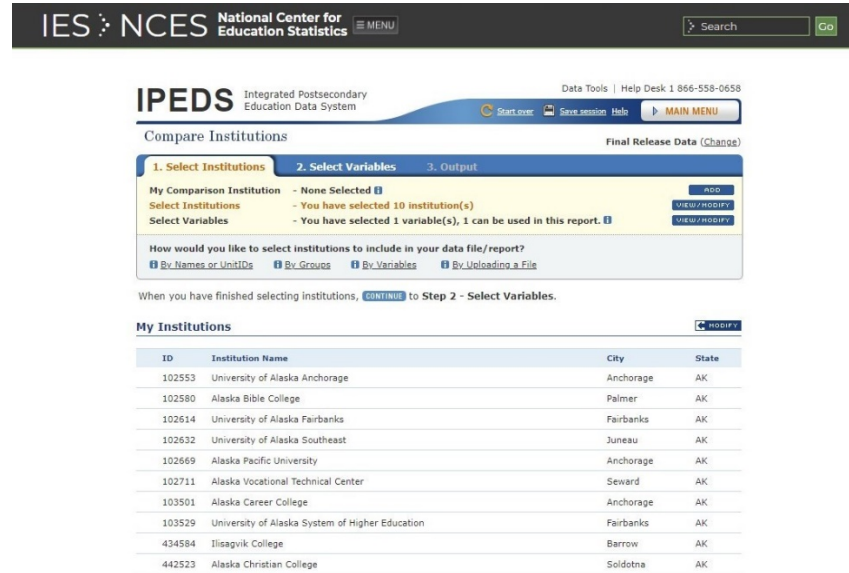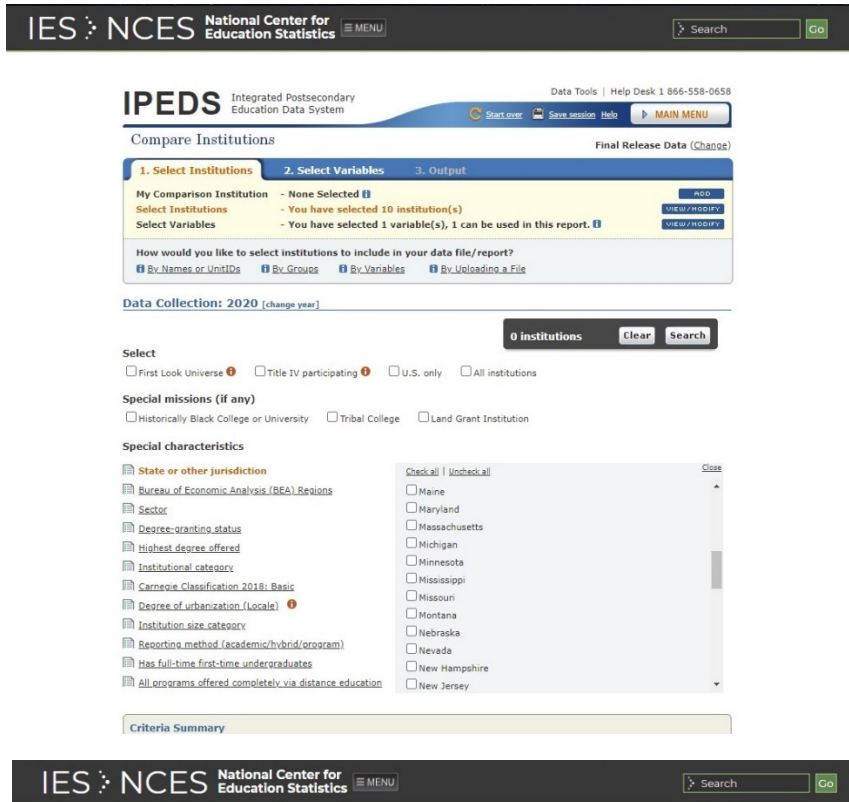
Screenshots: Integrated Postsecondary Education System Search Screen and Search Results