Is this information correct?
Assessing the burden and data quality tradeoffs of using extant data

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Dependent interviewing

- Prefilled data for survey respondents to verify
  - Earlier self-reported data or extant data
- Primarily studied in surveys
  - Measurement error and respondent burden (Jäckle 2008, Conrad et al. 2009, Lugtig and Lensvelt-Mulders 2014; Pankowska et al. 2021)
  - Best practices for using dependent interviewing (Lynn & Jäckle 2005, Sinibaldi 2021)
- Survey challenges, such as seam effects, may not be relevant to **frame** formation
  - Dependent housing unit listing can lead to frame bias (Eckman and Kreuter 2011, Eckman and Kreuter 2013)
  - Dependent rostering bias remains underexplored

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National Teacher and Principal Survey (NTPS)

- Coordinated surveys of public and private schools, principals, and teachers
  - Directed by the National Center for Education Statistics in the U.S. Department of Education's (ED) Institute of Education Sciences
  - Operations and design input from the U.S. Census Bureau
- ED's primary source of information on K-12 schools from the perspectives of teachers and administrators
- Repeated cross-sectional surveys collected every 2 to 3 years
- School Questionnaire, Principal Questionnaire, Teacher Listing Form (TLF)
  - Teacher rosters or TLFs form the sampling frame for Teacher Questionnaires

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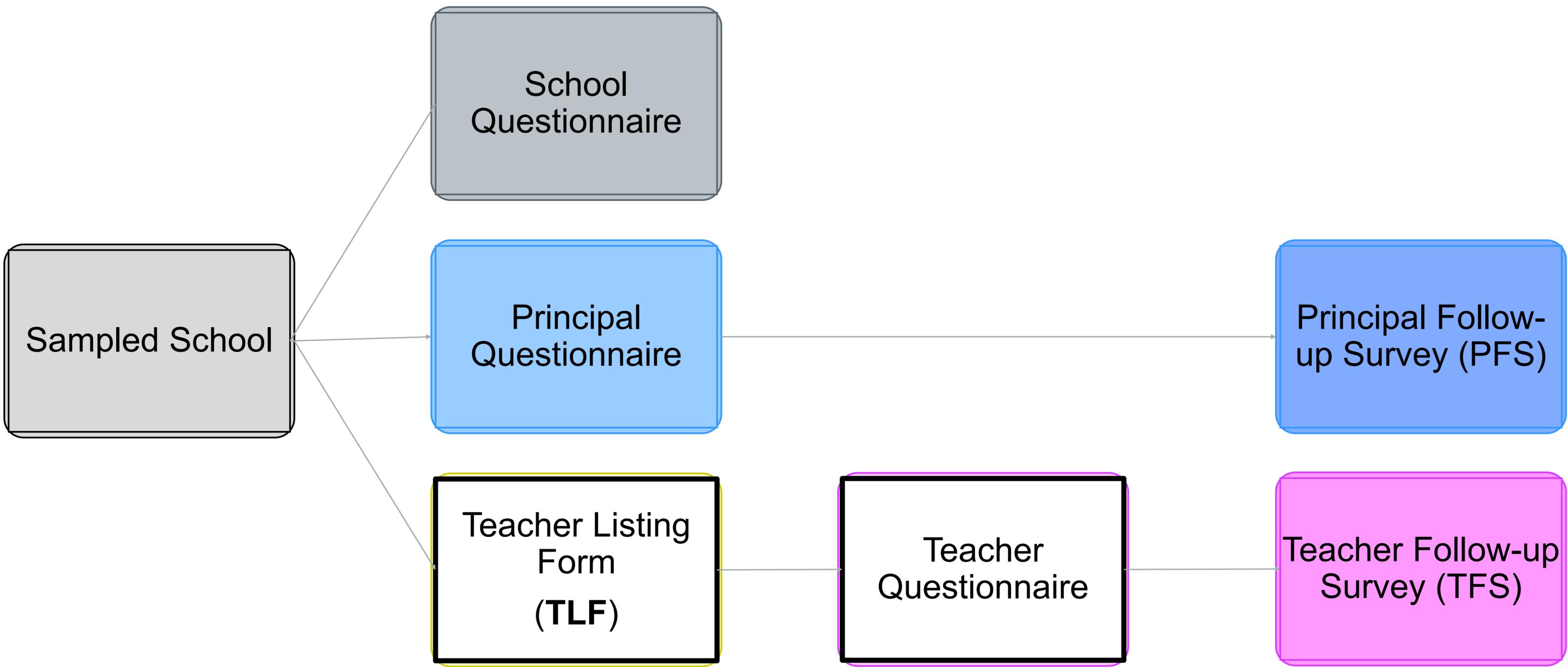
Teacher Listing Form (TLF) collection methods

- Completed by sampled schools prior to 2015-16

- Supplemental use of commercial vendor data starting in 2015-16
  - When schools did not complete TLFs and external data of sufficient quality was available, commercial data replaced the otherwise-missing TLFs

- Dependent rostering
  - In 2017-18, certain schools were provided with paper TLFs pre-populated with vendor data (not random) in order to reduce burden and increase response rates
  - Nearly all schools modified TLFs (added at least one teacher, removed at least one teacher, edited at least one teacher)
  - Highest teacher response rates when sampled from school-completed TLFs

- All TLF types implemented in 2020-21
  - Paper and online blank AND pre-populated TLFs
  - Subset of schools randomly assigned to receive blank or pre-populated TLFs; all other schools received pre-populated TLFs when possible
  - Commercial data replaced otherwise-missing TLFs

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Online and paper blank TLFs

National Teacher and Principal Survey
NTPS Respondent Portal
2020–21 School Year

United States Census Bureau

Main Menu | Contact Us | Save and Continue Later

Enter Teacher Information

Upload an Excel File

Click here for important information about the other staff that may teach at this school (e.g. itinerant teachers, substitute teachers, librarians, principals).

Click "Add Teacher" to enter the information for each teacher in your school into the table below. Once you have completed your teacher list, click on Submit.

10 teachers per page | Filter by subject | Filter by status | + Add Teacher

Teacher Name				Teacher E-mail Address	Subject(s) taught	Status (?)	Actions
First	MI	Last	Suffix				

Showing teachers 0-0 of 0

+ Add Teacher

« ‹ 1 › »

Number of Teachers
Complete: 0
Needs Review: 0
Deleted: 0

Submit

OMB No.: 1850-0598
OMB Expiration Date:

Accessibility | Security

	A	B	C	D	E	F	G
1				NTPS TEACHER LISTING FORM FOR THE 2020–21 SCHOOL YEAR			
2				Please refer to the "Teacher Listing Form Instructions" link for instructions on compiling your list.			
3						Subject Matter Taught	Second Subject Matter Taught
4						Please enter the numeric code for the appropriate response.	
5						1: Special education	1: Special education
6						2: General elementary	2: General elementary
7		Teacher's Name			Teacher's E-mail Address	3: Math	3: Math
8						4: Science	4: Science
9						5: English/Language arts	5: English/Language arts
10						6: Social studies	6: Social studies
11						7: Vocational/Technical	7: Vocational/Technical
12	First	Middle Initial	Last	Suffix		8: Other (e.g., art, music, etc.)	8: Other (e.g., art, music, etc.)
13	Example: John	R	Smith	Jr.	john.smith@example.com	2	8
14							
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24							
25							

Sheet1

PLEASE READ THE REFERENCE CARD BEFORE CONTINUING.
(A removable reference card is printed on page 4 of this booklet.)

Line Number	Teacher's Name	Teacher's E-mail Address	Subject Matter Taught
	Please list all of the full-time and part-time teachers who TEACH at THIS SCHOOL. List each teacher only once. List in the following order: First name, Middle initial (MI), Last name, suffix (if applicable). Please see the reference card for important information about itinerant teachers, substitute teachers, librarians, principals and other staff that may teach at this school. *Line Ex. is an example of a full-time art teacher. FIRST MI LAST SUFFIX	Please list each teacher's e-mail address.	Enter the numeric code that corresponds to the subject in which the teacher teaches the most classes. If the teacher teaches two or more subjects equally, enter each numeric code that applies. Enter the code for "Other" subject matter for teachers who teach art, foreign language, music, physical education, English as a second language, and any other remaining subjects. 1 - Special education 2 - General elementary 3 - Math 4 - Science 5 - English/Language arts 6 - Social studies 7 - Vocational/Technical 8 - Other (e.g., art, music, etc.)
*Ex.	Andrew M. Shaffer	ams@place.com	8
1			
2			
3			

Online and paper pre-populated TLFs

Experimental design

- Embedded in 2020-21 NTPS collection
- Schools for which vendor data were available were randomly assigned to receive dependent, pre-populated TLFs or blank TLFs
  - About 6,500 public schools and 1,400 private schools received dependent TLFs
  - About 1,200 public schools and 400 private schools received blank TLFs
  - All other schools received blank TLFs since vendor data was not available and are excluded from these analyses
- Teachers were sampled on a rolling basis as TLFs were returned (contacted November through June)
- If schools did not return a TLF after multiple contacts, teachers were sampled from vendor data in early 2021

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Research goals

- How does data quality vary between dependent and independent rostering?
  - Roster response rate
  - Number of rostered teachers
  - Percent of (sampled) rostered teachers who are ineligible
  - Percent of (sampled) rostered teachers who complete survey

- Are the advantages of dependent outweighed by disadvantages?

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Roster weighted response rates by rostering method

	Dependent roster	Blank roster
School-completed rosters (Public)	50.16%[1]	42.33%
School-completed rosters (Private)	55.82%[1]	46.84%

[1]Significantly different than the Blank roster group with α = .05

Both public and private schools who were sent dependent rosters returned those forms at **higher** rates than schools asked to complete blank rosters.

For schools that did not return rosters, teachers were sampled directly from commercial data, so the "overall" roster response rates were 100%.

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Average number of listed teachers by rostering method

	Dependent roster	**Blank roster**
School-completed rosters	40.0 Public 29.5 Private	40.3 Public 30.1 Private
Overall	42.3 Public 32.2 Private	42.9 Public 33.4 Private

No difference in the number of teachers listed on dependent rosters (after respondent editing) and blank rosters.

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Out of scope rates (weighted) for sampled teachers by rostering method

		Dependent roster	Blank roster
Public	School-completed rosters	3.62%[1]	2.96%
	Overall	5.77%	5.54%
Private	School-completed rosters	6.25%	5.29%
	Overall	9.21%	9.22%

More sampled teachers were confirmed to be out-of-scope on dependent than blank rosters (public only).

After supplementing with vendor data for TLF non-respondents, overall out-of-scope rates were **similar** due to the differential use of vendor data.

[1]Significantly different than the Blank roster group with α = .05

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Response rates (weighted) for teachers by rostering method

		Dependent roster	Blank roster
Public	School-completed rosters	70.80%	70.37%
	Overall	59.22%[1]	57.60%
Private	School-completed rosters	69.90%	69.20%
	Overall	57.43%	54.57%

[1]Significantly different than the Blank roster group with α = .05

- Teacher response rates were **similar** whether they were listed on a dependent or blank roster
- After supplementing with vendor data for TLF non-respondents, teacher response rates were **higher** when public schools were sent a dependent roster (regardless of whether they completed it).

Summary

- Expanded use of dependent TLFs increased roster AND teacher response rates without harming data quality
- Schools were more likely to complete dependent than blank TLFs
- A higher proportion of teachers from dependent TLFs were out-of-scope (with similar total numbers of teachers on both form types), but this was balanced out by the relatively lower rate of vendor data supplementation
- Sampled teachers responded at similar rates regardless of whether their school completed a dependent or blank TLF
  - This may be due to school climate or buy-in to the NTPS, or because teachers listed on school-completed TLFs had a longer data collection window in which the complete their Teacher Questionnaire
- For future collections, we plan to continue the use of dependent TLFs whenever possible in order to increase response rates and minimize the use of vendor data supplementation

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https://nces.ed.gov/surveys/ntps/