## ATTACHMENT A: TABLES AND FIGURES

Table B2.1. Overview of APEC- II Study Design

| Research Questions/Key<br>Outcomes  | Samples (Completed Sample<br>Sizes)   | Data Collection  | Analysis Methods   |  |  |  |
|---|---|--|--|--|--|--|
| Objective 1: Generate National Estimates of Erroneous Payments Due to Certification Error   |   |  |  |  |  |  |
| <ul> <li>(1) Estimate Erroneous         Payments from         Certification Error     </li> <li>Amount of             overpayments,             underpayments, sum of             gross overpayments             and underpayments</li> <li>Erroneous-payment             rate</li> </ul> | Nationally representative cross-sectional sample of certified students (n=3,835) and denied applicants (n=585) drawn from 130 SFAs and 390 schools                | In-person household surveys Record abstractions  - Application data - Participation data - Change in certification and enrollment data                                   | Descriptive tabular analysis. Separate estimates for NSLP and SBP  90% confidence interval of ±2.5% around the estimate of the percentage of erroneous payments  Conduct comparisons with APEC  Combine estimates of error due to certification and noncertification error |  |  |  |
| <ul> <li>(2) Estimate Certification</li> <li>Error by Source of Error</li> <li>Total certification error rate</li> <li>Administrative error rate</li> <li>Household reporting error rate</li> </ul>   | Nationally representative<br>cross-sectional sample of<br>certified students (n=3,835)<br>and denied applicants<br>(n=585) drawn from 130<br>SFAs and 390 schools | Record abstractions<br>(see above)   | Descriptive tabular analysis  Separate estimates for NSLP and SBP  Conduct comparisons with APEC   |  |  |  |
| (3) Estimate Certification Error Rate for Directly Certified Students and How It Relates to Implementation Method   | Nationally representative sample of directly certified students (subsample of certified-free students)  | Record abstractions<br>In-person<br>household surveys  | Descriptive tabular analysis  Separate estimates for NSLP and SBP  |  |  |  |
| Objective 2: Generate National Estimates of Erroneous Payments Due to Non- Certification Error  |   |  |  |  |  |  |
| Estimate Erroneous Payments from Non- certification Error  - Dollar amounts and error payment rates - Gross and net error - Separately for cashier error and three types of aggregations error; total error   | Nationally representative<br>sample of school districts<br>(n=130) and schools<br>(n=390)   | <ul> <li>Observe cashier transactions</li> <li>Verify point-of-sale meal counts</li> <li>Review of meal count records</li> <li>Review of reimbursement claims</li> </ul> | Descriptive tabular analysis  Separate estimates for NSLP and SBP  Conduct comparisons with APEC   |  |  |  |

| Research Questions/Key<br>Outcomes   | Samples (Completed Sample Sizes)   | Data Collection   | Analysis Methods                    |  |  |  |  |
|--|--|---|-------------------------------------|--|--|--|--|
| Objective 3: Refine Existing Estimation Models for Updating Annual Estimates of Erroneous<br>Payments Based on Extant Data |  |   |                                     |  |  |  |  |
| Annual Estimates of<br>Erroneous Payments<br>(certification and non-   | Nationally representative sample of students certified for free and reduced-price                  | Data collected from school districts and households in SY           | Regression modeling and estimation  |  |  |  |  |
| certification error)   | meals and denied applicants from study districts   | 2012-13   | Separate models for<br>NSLP and SBP |  |  |  |  |
| Amount of overpayments  Amount of underpayments  | District-level data on all districts in United States  | Extant data on<br>districts (from FNS-<br>742 and other<br>sources) | Model validation                    |  |  |  |  |
| Gross total sum of overpayments and underpayments  |  | ,   |                                     |  |  |  |  |
| Objective 4: Explore Altern  | atives for Generating State- Le  | evel Estimates of Erro  | neous Payments                      |  |  |  |  |
| Create and Validate Models for Generating Annual Estimates of  | Not applicable   | Extant data on<br>districts (from FNS-<br>742 and other<br>sources) | Regression modeling and estimation  |  |  |  |  |
| Erroneous Payments at the<br>State Level   |  |   | Separate models for<br>NSLP and SBP |  |  |  |  |
|  |  |   | Model validation                    |  |  |  |  |
| Produce Separate Estimates of Erroneous Payments for LEAs Participating in the Community Eligibility Option                |  |   |                                     |  |  |  |  |
| Estimate Erroneous Payments Due to Certification and Non- certification Error  | 45 SFAs; 135 schools; 2,160 students (directly certified, certified by application, paid students) | State/local SNAP participation lists                                | Descriptive tabular analysis        |  |  |  |  |
|  |  | Collect non-<br>certification error<br>data                         | Separate estimates<br>NSLP and SBP  |  |  |  |  |

APEC = Access, Participation, Eligibility, and Certification study of 2007

LEAs = local education agencies

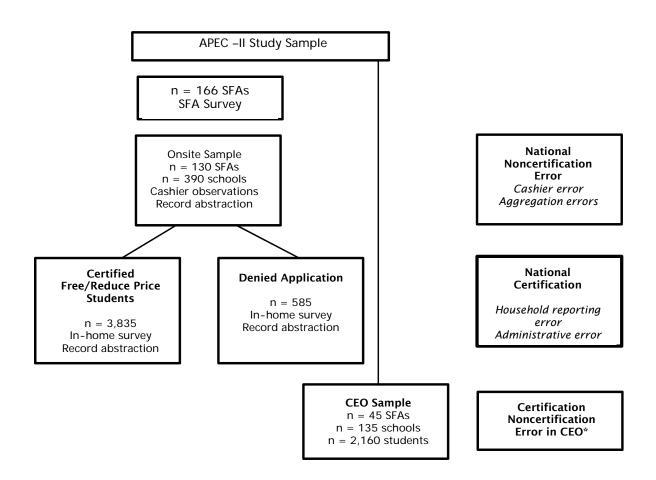
NSLP = national school lunch program

SBP = school breakfast program

SFA = school food authorities

SNAP = supplemental nutrition assistance program.

Figure B2.1. Summary of APEC- II Study Samples (National and CEO Completed Sample Sizes)



CEO = Community Eligibility Option; SFA = school food authorities.

<sup>\*</sup>Data collection related to noncertification error will be limited to a subset of 15 SFAs and 45 schools in the CEO sample.

Table B2.2. Overview of Data Collection

| Instrument and Team<br>Conducting the Data<br>Collection                     | Respondent/Data<br>Source (Mode)  | Sample, Response<br>Rate, Expected<br>Completes   | Instrument<br>Components  | Key Data Elements  |
|--|---|---|---|--|
| School Food Service<br>Authority Survey (SFA<br>Director Survey)<br>(Westat) | SFA director (self-<br>administered<br>questionnaire)   | Main sample: 130<br>CEO sample: 45<br>Response rate: 95%<br>Completes: 166                                  | For SFA and sampled schools: district and school characteristics, student enrollment, certification status and method certified, meals served, direct certification procedures, and other relevant information  | For SFA and sampled schools: number of enrolled students, number of applicants, number of certified students by certification status and method certified, number of meals by reimbursement type, characteristics of certification and verification procedures |
| Student Sampling—<br>non-CEO Schools<br>(Mathematica)                        | SFA director<br>(in person)   | n.a.  | Lists of free,<br>reduced-price, and<br>denied applicant<br>students and directly<br>certified students in<br>up to 390 schools   | Student name,<br>contact information,<br>certification status,<br>method certified,<br>date certified, school<br>attending   |
| Student Sampling—<br>CEO Schools<br>(Mathematica)                            | LEA/SFA director<br>(Telephone)   | n.a.  | Lists of enrolled<br>students; lists of<br>free, reduced-price,<br>and paid students<br>and directly certified<br>students in 45<br>districts and 135<br>schools  | Student name,<br>certification status,<br>method certified,<br>date certified, school<br>attending   |
| Household Survey<br>(Mathematica)  | Parent/guardian<br>(in person)  | Free/Reduced: Main sample: 4,794  Denied Applicant: Main sample: 731  Response rate: 80%  Completes: 4,420  | Household size and composition; student participation in SBP and NSLP; income sources and amounts received for each household member aged 16 or older (from visual verification of pay stubs or other documentation); and participation in SNAP, TANF, and FDPIR; participation in homeless, runaway, or migrant programs | Household income;<br>family size; NSLP and<br>SBP participation;<br>perceptions of meal<br>programs;<br>participation in SNAP,<br>TANF, and FDPIR  |
| Record Abstraction<br>(Westat)   | No respondent (obtain copies of records or in-person abstraction from applications and direct certification documents onto abstraction forms) | Free/Reduced: Main sample: 3,835  Denied Applicant: Main sample: 585  Response rate: 100%  Completes: 4,420 | Student's identifying information, household composition and income, qualifying program participation, and certification decision and reason for approval or denial   | Student and<br>household<br>identification<br>information, number<br>in household, income<br>of household<br>members, household<br>program<br>participation,<br>verification<br>information  |

| Instrument and Team<br>Conducting the Data<br>Collection                  | Respondent/Data<br>Source (Mode)   | Sample, Response<br>Rate, Expected<br>Completes  | Instrument<br>Components   | Key Data Elements   |
|---|--|--|--|---|
| Meal<br>Claiming/Counting<br>(a) Records and Other<br>Reviews<br>(Westat) | SFA director; school<br>food service manager<br>(in person)  | Records for a target day, week, or month, as appropriate  Main Sample: 390 CEO sample: 45  Response rate: 100%  Completes: 435 Schools   | Meal counts by reimbursable meal category for sampled schools and SFAs by target day, week, or month   | Errors in transcribing and totaling data from individual cash registers, errors in reporting meal counts to SFAs, errors in reporting claims to state agencies for meal reimbursement   |
| Meal Claiming/Counting (b) Cashier Transactions Observation (Westat)      | Cashier<br>(in person)   | Main Sample: 19,500 lunch transactions; 19,500 breakfast transactions  CEO Sample: 2,250 lunch transactions; 2,250 breakfast transactions  Response rate: 100%  Completes: same as sample <sup>a</sup> | For sampled "trays/transactions," foods and amounts selected; recipient (student or nonstudent); how cashier classified meal (reimbursable or nonreimbursable) | Cashier error: incorrectly classify meal as reimbursable when it is not; incorrectly classify meal as nonreimbursable when it is  |
| Extant Data<br>(Mathematica)  | <ul><li>(1) CCD (not applicable)</li><li>(2) Census data (not applicable)</li><li>(3) Administrative data from FNS and other agencies (not applicable)</li></ul> | n.a.   |  | Locale, enrollment, percent certified for FRP lunch, grade span of district, Title I status of schools, poverty rates, income levels, verification results, eligibility determinations made, NSLP /SBP certification rates, NSLP /SBP participation rates |

 $<sup>^{\</sup>circ}$  50 lunch transactions and 50 breakfast transactions per school covering target day during week from each sampled school.

n.a. = not applicable.

CCD = Common Core of Data; CEO = Community Eligibility Option; FDPIR = Food Distribution Program on Indian Reservations; FNS = Food and Nutrition Service; LEA = local education agency; NSLP = National School Lunch Program; SBP = School Breakfast Program; SFA = school food authorities; SNAP = Supplemental Nutrition Assistance Program; TANF = Temporary Assistance to Needy Families program.