



TECHNICAL APPENDIX

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OVERVIEW

In 2008, the Stuart Foundation brought together the California Partnership for Achieving Student Success (Cal-PASS) and the Center for Social Service Research Center (CSSR) at the University of California, Berkeley, to discuss a pilot study of the education outcomes for youth identified as having a foster placement episode in four California counties. The project set a precedent for Federal Education Rights and Privacy Act (FERPA) compliant data sharing between education and social services. The project partners capitalized on this data sharing opportunity to inform the field about education outcomes for foster youth.

Various stakeholders, including The California Youth Education Task Force [1], the California Department of Education [2] and the California Education Collaborative for Children in Foster Care [3], describe the challenges of data sharing between practitioners. For example, The California Education Collaborative for Children in Foster Care notes, “in California, as in most other states, systems for communicating information about foster youth between county welfare and mental health agencies and county offices of education and school districts are extremely limited” (p. 17). This study does not overcome all of the data sharing challenges in the field, as it is limited by its anonymity and available data. Therefore, it is considered a first step in breaking through data sharing barriers and adding important aggregate level data to identify systemic problems, inform policy development, and facilitate collaboration among educators and social service providers.

DATA

This study employed two primary data sources to assess education outcomes for youth aged twelve and older who had a documented foster care episode between 1998 and 2008 in four California counties. The analysis also included comparison groups of students initially matched to foster youth by age and school district attended. The primary sources of data for this study were administrative child welfare and educational records. Additionally, data were obtained from the California Department of Education (CDE) for two analyses. Several methods were utilized including descriptive, bivariate, and multivariate analyses. Below the sources of data, sample and variable creation, and analyses methods are described in greater detail.

California Child Welfare Administrative Data

The Child Welfare Services Case Management System (CWS/CMS) is a centralized statewide data system in California. Through an Interagency Agreement with the California Department of Social Services (CDSS), the Center for Social Service Research (CSSR) /Children Services Archive at the University of California Berkeley, receives quarterly extracts from CWS/CMS.

California Partnership for Student Success

The California Partnership for Student Success (Cal-PASS) is a statewide initiative that collects, analyzes, and shares student data in order to track performance in over 56 counties. The consortium currently houses up to 13 years of educational data, which include secondary institutions in addition to California Community Colleges, California State Universities, and the University of California system.

Cal-PASS is a voluntary data sharing initiative. A majority of Cal-PASS members are new, having joined within the last three years. Therefore, the last five years (2004-05 to 2008-09) are the most robust in the Cal-PASS system. When a district joins Cal-PASS, it receives a request to transfer 5 years of retrospective data. Institutions may decide not to transfer the five years of retrospective data, or transfer select files to the system. Therefore, the education data available for this project varies by content, district, and school year.

California Department of Education

Data from the California Department of Education (CDE) Annual Performance Index (API) are included in two separate analyses. Demographic data specific to school and district are used to ascertain possible differences between participating and non-participating school districts. (See Table 21 on page 34). Additionally, school quality is assessed utilizing the State Rank data (See page 39 for more detail).

DEMOGRAPHIC COMPARISON BETWEEN PARTICIPATING AND NON-PARTICIPATING DISTRICTS

For this pilot study, four California counties are identified for inclusion. Cal-PASS recruited 53 K-12 districts, 26 community college districts, and 12 universities from the four counties and surrounding areas. Comparisons between participating and non-participating districts are necessary to ensure the districts are similar and findings may be cautiously generalized to the county. Below in Table 20, the API for 48 of the 53 participating districts is compared to the remaining districts in the four counties. (Note: 5 of the participating districts did not have available 2006 API scores). The difference in mean API scores of participating and non-participating districts is not statistically significant.

The project team also compares demographic characteristics of the participating and non-participating districts for the 2006 school year (Table 21). No statistically significant differences are found between the two groups on student demographic characteristics (e.g., ethnicity, free and reduced price lunch, English learners), the percentage of emergency credentialed teachers, or the parent education level.

	Participating Districts	Non-Participating Districts	Total
Mean API	726.3	718.6	723.8
Districts	48	81	129
Schools	1,134	760	1,894
Students	669,976	342,078	1,042,054
Percent	67%	33%	100%

Difference in mean API (7.7) between participating and non-participating districts is not statistically significant at $\alpha=0.05$
 Source: CDE 2006 API Growth File

Table 21: Comparison of Participating and Non-Participating School Districts on Key Characteristics

District Characteristics	Participating Districts	Non-Participating Districts
African American	10%	10%
Native American	1%	1%
Asian	8%	5%
Hispanic	45%	46%
White	33%	32%
Free/Reduced Lunch	48%	54%
English Language Learners	21%	25%
Disability	10%	11%
Teachers with Emergency Credential	2%	4%
Parents with College Degree	20%	17%

* None of the difference were found to be statistically significant difference at $\alpha=0.05$

Source: CDE 2006 API Growth File

The ethnicity breakdown of participating and non-participating community colleges (Table 22) and UC/CSU campuses (Table 23) are also fairly similar. Other demographic comparisons are not possible for these levels.

Table 22: Comparison of Participating and Non-Participating Community Colleges

Community College Characteristics	Participating Community Colleges	Non-Participating Community Colleges
Female	53%	51%
Asian	15%	11%
Black	7%	8%
Hispanic	27%	28%
Native American	1%	1%
White	35%	37%

Source: CPEC

Table 23: Comparison of Participating and Non-Participating UC/CSU Campuses

Univeristy Characteristics	Participating Universities	Non-Participating Universities
Female	56%	56%
Asian	23%	20%
Black	5%	5%
Hispanic	19%	20%
Native American	1%	1%
White	38%	36%

Source: CPEC

DESCRIPTION OF LINKING PROCESS/COMPARISON GROUP

Youth aged 12 and older who had a documented foster placement episode between January 1, 1998 and December 31, 2008 in CWS/CMS are identified for inclusion. As of December 2008, the Federal interpretation of the FERPA law specifically disallows identifiable data sharing between state agencies [4]. Therefore, the data merge and the final dataset maintain the anonymity of the students.

A unique, non-identifiable project identification number for each foster youth is created. Sensitive data which include first and last names, date of birth, gender, and social security numbers undergoes an encryption process which creates a variable that appears as a string of numbers and letters. Cal-PASS education data are encrypted in this manner and as the process is consistent (i.e. transforms the sequences of variables in a uniform manner), this variable is used to match child welfare to education data. Education data are linked back to the child welfare data with the non-identifiable project identification number.

In addition to foster youth, education data are extracted for a group of comparison students not identified as having a foster placement episode but who are similar on several demographic and other key characteristics. One-to-one exact matching builds a valid comparison group. For each foster youth, the team searches the database for any non-foster youth sharing exactly the same profile of characteristics within the same institution. By this method, a pool of candidate matches is built for each foster youth. For foster youth with one or more candidates in their pool, a single student is chosen randomly and paired with the foster youth. The set of all non-foster youth found through this method is the comparison group.

This matching process is repeated at each educational level (e.g., 8-12, community college, and university) based on the demographic variables available at each level. As stated above, comparison students represent an exact match to foster youth on these characteristics. At the 8-12 level, the matching variables are: age, grade level, school year, gender, ethnicity, English language learner status, free or reduced price lunch status, primary disability, district or school, and state rank. Community college matching variables include age, gender, ethnicity, primary disability, and first term in community college. University matching

variables include age, gender, ethnicity, first term at university; and enrollment status.

FOSTER YOUTH SAMPLING PLAN

From the linked data, 49,239 unique youth aged 12 and older with a foster care episode from the four counties are identified in CWS/CMS. Due to education data availability, in the 8-12 analyses, only youth aged 12 to 17 in school years 2003 to 2009 are included. For the post-secondary analyses, foster youth aged 18 and older are identified and segmented based on focal school years. The community college sample

Table 24: Number of Unique Foster Youth and Comparison Students Included in Sample 1 and the Number of Unique Foster Youth in Sample 2

	Grade 8-12	Community College	University
Foster Youth (Sample 1)	4,186	7,135	7,135
Comparison (Sample 1)	6,405	7,135	415
Foster Youth (Sample 2)	9,295	7,284	418

included youth aged 18 and older in years 1996 to 2009 and the university sample uses students aged 18 and older between years 1999 and 2009. The overall sample of foster youth and comparison students included in each education segment analysis is presented in Table 24.

DEMOGRAPHIC COMPARISON FOR FOSTER YOUTH IN ANALYSES AND THOSE EXCLUDED FROM ANALYSES

As key demographic and matching variables are contained in the Cal-PASS education files, only foster youth with relevant data are included in the analyses.

8-12 Sample

For grades 8 to 12, sample inclusion is based on the presence of key variables contained in the Standardized Testing and Reporting (STAR) file. District STAR coordinators extract student demographics from the local student information system and submit them to the Education Testing Service (ETS) before the CST tests are administered. ETS then sends each district pre-filled student answer sheets with the demographic data. The STAR coordinator can fill out individual demographics on the answer sheets for students who are not enrolled when the “Pre-ID” process takes place (http://www.startest.org/faq_test-admin.html#whenpreiddue).

Of the identified 49,239 foster youth aged 12 to 17 between school years 2003 and 2008, 9,295 had information in the STAR file and relevant education outcome data. Table 25 provides estimates for the 8th to 12th grade student population in years 2003 to 2009 in the four California pilot counties. Differences in student population exist between the included pilot counties and California totals. While gender estimates are similar, the pilot counties have higher rates of Black and Asian-Pacific Islander students and lower rates of Hispanic youth than California. Both the state and pilot county estimates differ from the initial foster youth sample and students included in analyses. Much like the California child welfare population, the proportion of black students is much higher in the foster sample and the percent of Asian-Pacific Island

Table 25: 8-12 Student Population Estimates by Gender and Ethnicity for California and Pilot Counties in Relation to Initial Foster Youth Sample, and the Foster Youth Sample Included in the Analyses

		California	4 Pilot Counties	Foster Youth in Initial Sample	Foster Youth Included in Analyses
Sample/Population Size		2,485,410 *	1,330,849*	49,239**	9,295
Gender	Male	51%	52%	48%	46%
	Female	49%	48%	52%	54%
Ethnicity	White	33%	35%	38%	29%
	Black	8%	11%	25%	28%
	Hispanic	44%	39%	32%	38%
	Asian/PI	12%	20%	3%	4%
	Native American	1%	1%	2%	2%

* Average student population grade 8 to 12 from 2003-04 to 2008-09; Data Source CDE

** Foster Youth in initial sample aged 12 to 17 in school years 2003-04 to 2008-09

students much lower than the general student population estimates. These ethnic differences are reflective of the over representation of certain ethnic populations in foster care. Overall, the sample of foster youth used in the analyses are significantly different in terms of gender and the majority of ethnicities compared to the initial foster sample, the pilot counties, and the state of California.

Demographic characteristics of California, the four pilot counties, the foster youth initial sample, and the foster youth included in the community college (Table 26) and university (Table 27) analyses are investigated. For both postsecondary segments, the analyses sample is different from other populations.

Table 26: Community College Student Population Estimates by Gender and Ethnicity for California and Pilot Counties in Relation to Initial Foster Youth Sample, and the Foster Youth Sample Included in the Analyses

		California	4 Pilot Counties	Foster Youth in Initial Sample	Foster Youth Included in Analyses
Sample/Population Size		2,568,715*	480,317*	26,572**	7,284
Gender	Male	44%	44%	44%	40%
	Female	55%	55%	56%	60%
Ethnicity	White	39%	43%	40%	35%
	Black	8%	8%	26%	29%
	Hispanic	27%	26%	28%	31%
	Asian/PI	16%	13%	3%	3%
	Native American	1%	1%	2%	1%

* Average student count per academic year 1996-97 to 2008-09; Data Source CCCC

** Foster Youth in initial sample aged 18 and over in school years 1996-97 to 2008-09

Table 27: University Student Population Estimates by Gender and Ethnicity for California and Pilot Counties in Relation to Initial Foster Youth Sample, and the Foster Youth Sample Included in the Analyses

		California	4 Pilot Counties	Foster Youth in Initial Sample	Foster Youth Included in Analyses
Sample/Population Size		473,169*	103,408*	26,572**	418
Gender	Male	44%	43%	33%	40%
	Female	56%	57%	67%	60%
Ethnicity	White	36%	43%	37%	35%
	Black	5%	5%	28%	29%
	Hispanic	20%	21%	26%	31%
	Asian/PI	25%	20%	7%	3%
	Native American	1%	1%	1%	1%

* Average undergraduate enrollment per academic year 1996-97 to 2008-09; Data Source CPEC

** Foster Youth in initial sample aged 18 and over in school years 1996-97 to 2008-09

Fewer male and more female foster youth are included in the analyses compared to the initial sample. Much like the K-12 sample, fewer white and Asian foster youth are in the analyses sample, while a higher proportion of black and Hispanic foster youth are included compared to the initial foster youth sample. These same differences in the ethnicity breakdown hold true for the initial sample compared to the population in the four counties and the overall state of California.

VARIABLES

The following section provides detail about how independent and outcome variables were operationalized. As independent variables vary by school segment level, a key is provided in parentheses.

Independent Variables

Gender/Ethnicity (K12, CC, and Univ.): Nineteen original educational ethnic categories are collapsed to six primary groups: White, Black, Hispanic, Asian/Pacific Islander, Native American and ‘Other’ when applicable.

English Language Learner (ELL) Status (K12): English Language Learner status is established by the school. When students are enrolled in school, parents or guardians fill out a Home Language Survey indicating whether English is the primary language. If another language is indicated, students complete the California English Language Development Test (CELDT). The test is administered annually for students classified as English Language Learners.

Based on the above information, students are classified in one of four categories. These categories are condensed as follows: students with English as the primary language include English only and initially fluent English proficient. These students are coded ‘0’; English learner and reclassified fluent English proficient were coded ‘1’.

Primary Disability (K12, CC): The designation of a primary disability is based on a professional assessment and a student specific Individualized Education Plan (IEP). Students are reassessed minimally every three years. Primary disability includes several categories including speech language impairment, specific learning disability, emotional disturbance, and other health impairment. For analyses, primary disability is recoded to ‘0’ or no primary disability indicated, and ‘1’ when a primary disability is indicated.

National School Lunch Program (NSLP) (K12): As a proxy for socio-economic status, participation in the school free or reduced lunch program is included. Eligibility for the program is based on the official federal poverty guidelines. To qualify, family income must be at or below 185% of the current poverty guideline.

Whether due to bookkeeping error, district or school policy, or an indication of movement in and out of program eligibility, there is a substantial amount of fluctuation in this variable. Therefore, non-participation/participation is reduced to a '0' or '1' and summed for all available student level school years. If participation is indicated for any time, the NSLP variable was coded '1.' If participation is not indicated, then NSLP was coded a '0'.

Financial Aid Status (CC): Financial aid status is used as a proxy for socio-economic status at the community college level. Categories for this variable included whether a student received: 1) federal need based award; 2) other need based award; 3) federal non-need based award; 4) a scholarship; 5) other type of financial aid; and 6) did not receive financial aid. All aid categories are recoded to '0' for no financial aid received or '1' for financial aid received.

School Quality (K12): While there is much controversy as to what variable measures school quality, this study utilized a condensed scale of the California Statewide Rank (or State Rank) as a proxy. State rank is based on the Annual Performance Index (API), which measures school performance. API is calculated by converting student performance on state-wide assessment tests into points on the API scale and then averaged by school [11]. All schools that receive an API are ranked in deciles by school type based on grade level of instruction, with a rank of 10 being the highest and 1 the lowest (i.e. poor quality school; <http://www.cde.ca.gov/ta/ac/ap/documents/infoguide09.pdf>). State rank is school year specific.

The ten initial ranks are collapsed to a scale of four as follows: schools receiving a rank between 1 and 3 are coded '1' and defined as very poor; school with a rank of 4 or 5 are coded '2' as struggling; those between six and eight are coded '3' as average; and schools with a rank of 9 or 10 are coded '4' or exceptional.

Enrollment status (CC): Enrollment status categories included: 1) first-time student; 2) first-time transfer student; 3) returning student; 4) continuing student; 5) dual enrollment high school student. For the purposes on this study, enrollment status differentiates whether a student is a first-time freshman or a transfer student.

Foster Youth Independent Variables

Foster Care Spell (K12, CC, and Univ.): Each time a youth enters into a specific foster care placement episode, a 'spell' count is created. The spell continues until an exit from foster care placement is recorded. If a youth has more than one spell, the episode closest to the year of education data is included. For example, if a youth first entered care at age 2 and then again at age 11, the second spell and all data pertaining to that spell is used in analyses (e.g. removal reason, age at entry, placement numbers, etc.). For analyses, a code of '0' is recorded for youth with one documented spell or episode, and a '1' for 2 or more recorded spells.

Age at Foster Care Placement Episode Entry (K12, CC, Univ.): Age when youth entered into a foster care placement episode is grouped as follows: entry between 0 and 5; between ages 6 and 10; youth aged 11 to 13; and lastly youth who enter older than 14 years of age.

Removal Reason (K12, CC, and Univ.): While there may be a variety or mix of reasons of why a youth enters into a foster care placement episode, the primary removal reason is based on the severity of maltreatment. The hierarchy is: sexual abuse, physical abuse, neglect, and other. For example, if reasons of neglect and sexual abuse are indicated, the primary removal reason would be coded as sexual abuse.

Reason for removal and foster placement episode is condensed to four primary categories. Categories of general neglect, severe neglect, and caretaker absence/incapacity are collapsed to a neglect class. Physical abuse and sexual abuse variables are left as recorded. An 'other' removal reason category is created and included reasons such as emotional abuse or exploitation.

Foster Care Placement Episode Length of Stay (K12, CC, and Univ.): Length of stay is based on the time spent in a specific foster care placement episode or 'spell'. It is calculated by subtracting the placement

episode end date from the start date. While more robust methods for estimating length of stay for youth with no documented end date exist (i.e. event history analysis), for this pilot study a dummy end date of 12/31/2008 is inputted to derive an estimate of time spent in the placement episode.

Length of stay is reported in months and grouped as follows: less than 12 months in care, between 12 and 23 months, 24 to 35 months, and 36 months or more.

Placements within Episode (K12, CC, and Univ.): Placements within episode refers to the number of separate foster care placements a youth had within a specific foster care episode. Categories included one to two, three to four, and five or more.

Exit Type (K12, CC, and Univ.): Type of exit from a foster care placement episode is condensed to the following categories: family reunification, adoption, legal guardianship, emancipation, and other. The other category includes reasons such as other agency has jurisdiction and youth ran away from placement. Finally, for youth with no exit type or placement episode end date, a category of still in care is created.

Outcome Variables

8-12

California Standards Test: English Language Arts and Mathematics: The California Standards Test (CST), administered every year for students in grades 2 to 11, is used to determine how well students have learned specific grade relevant information (CDE, 2004). Test questions are developed under guidelines specified in the Standards for Education and Psychological Testing and are specific to grade level [5]. Test items are field tested and investigated as to their psychometric properties [6]. Reliability is established through the Kuder-Richardson formula and item response theory standard errors of measurement [7]. Together, they provide an indication of measurement precision at various levels of ability [8]. Reliability coefficients range in high .80 to low .90s, indicating an acceptable level [9]. Additionally, statewide pupil assessment review panels review test items for sensitivity issues and reliability and validity across groups of students to insure fairness and minimize bias [10].

Based on the number of questions answered correctly, students are assigned a scaled score which ranges from 150 to 600. While the scale scores on the CST's look similar year to year, they are based on composition of total students who completed the test at each grade level for the testing year and are not vertically scaled (i.e. cannot be used to show growth). At each grade level, test topic specific scale scores are converted to a proficiency level which includes far below basic, below basic, basic, proficient, and advanced.

This study utilizes a condensed indicator of student performance level for English language arts and mathematics. Topic and student level scaled scores are converted to the five proficiency levels as indicated by CDE. As it is the goal of CDE that every student achieve the performance level of proficient or above in the subjects tested, proficiency levels are further reduced with a '0' indicating that the student scored in the far below basic, below basic, or basic category and a '1' indicating that the student achieved a proficient or advanced performance.

Course: Six categories of relevant course types in English and math are identified among the four (8 to 11) grade levels. As no numerical data for course type is available, a string variable (i.e. descriptive text) of course title is queried. The challenge with this method is that there are no standardized course titles among schools (i.e. each school named relevant classes in a different manner).

Four categories of English courses are searched and included: English 9 (1,225 titles); English 10 (1,100 titles); and English 11 (755 titles). Three categories of math courses are searched and included: Beginning Algebra (3,051 titles); Intermediate Algebra (990 titles); and Geometry (1,496 titles).

For each student in which a relevant course is indicated, a variable noting success is created. If a student received a passing grade of C- or above, success was coded '1.' If a student received a grade of D or below, success is coded '0.' Individual success within category is summed by school year, with a '1' indicating that

one or more courses are passed and a '0' indicating that one or more classes are not successfully passed.

California High School Exit Exam (CAHSEE), English Language Arts and Mathematics: Students must pass both English language arts (ELA) and mathematics sections of the CAHSEE in order to earn a high school diploma. Students generally take the tests for the first time in 10th grade and can continue to take it through grades 11 and 12 until both sections are passed.

For the current study, while ELA and mathematics outcomes are investigated separately, both outcomes are operationalized the same. If students pass the test at the end of the 10th grade, the variable is coded '1'. If students did not pass by the end of the 10th grade, the variable is coded '0.'

High School Award: To investigate high school award, youth with course information in 12th grade is utilized. If youth have award information, a code of '1' is recorded and if not, a '0' is indicated. Award type is condensed into two categories: High school diploma or Graduation Equivalency Diploma (GED).

Community College

Persistence Rate: The National Center for Education Statistics (NCES) distinguishes between "persistence" and "retention" rates by using retention as an institutional measure and persistence as a student measure. The persistence rate is used in this study because enrollment events are tracked at the student level and not confined to a single institution. Students could persist at any of the participating institutions.

The persistence measure denominator is the number of students with at least one course enrollment record in one of the participating institutions in the preceding primary academic term. "Primary" terms occur in the main academic year (excluding summer term). The numerator is the number of students with at least one course enrollment record in a participating institution in the academic term of reference.

The first term of enrollment is fall or spring, with students starting in a summer term counted as starting in the fall for the purposes of this calculation. Students frequently change colleges or attend multiple colleges simultaneously. The calculation counts a student as persisting if they appear in any of the participating institutions. However, it does not reflect enrollment in non-participating institutions.

Basic Skills Enrollment: The numerator of the basic skills enrollment rate includes students who attempt at least one basic skills course. The denominator only contains students who attempt at least one class (in any term) in the subject area. These criteria are applied to control for bias that might result from including students for whom we do not observe an enrollment in a course in a particular subject.

The category "Basic Skills" has a specific definition, and is different from the "Remedial" course category in the university outcomes. Community college basic skills courses are designed for students who do not have the prerequisite skills to enter a college level course (e.g., degree applicable or transferable level course).

Degree Receipt: The Degree Receipt measure is the proportion of students who receive at least one Associate degree in relation to all students who enrolled in a community college course by fall 2007. Degree completion was coded as '1' degree completed or '0' no degree completed. Other certifications and non-degree awards are excluded from this measure.

University

Persistence: The persistence measure is the same as that at the community college level. The denominator is the number of students with at least one course enrollment record in one of the participating institutions in the preceding primary academic term.

"Primary" terms include only terms in the main academic year (summer term is recoded to the following fall term). The numerator is the number of students with at least one course enrollment record in a participating institution in the academic term of reference. Enrollment data from participating universities following the quarter system are mapped to semesters by counting winter quarters in the spring semester.

Students sometimes change universities or attend multiple colleges/universities simultaneously. The calculation counts a student as persisting if they show up in any of the participating institutions. However, it

does not reflect enrollment in non-participating institutions.

Remedial Course Enrollment: The numerator of the remedial enrollment rate counts students who attempted at least one remedial course. The denominator includes only those students attempted at least one class (in any term) in the subject area. These criteria are applied to control for bias that might result from including students for whom we do not observe an enrollment in a course in a particular subject.

Remedial course are identified according to the pre-requisites of the course and course descriptions available in university catalogs. Remedial English courses include those that are preparatory courses below first year college composition. Remedial Math courses include courses below the level of college algebra. Note that this category identified a different range of courses than the community college "basic skills" category.

Degree completion: This is the proportion of students who received at least one Bachelor of Arts (BA) or Bachelor of Science (BS) degree in relation to all students who enroll in a university course by fall 2005. Degree completion is coded as '1' degree completed or '0' no degree completed. Other award types, such as Associate Degrees, Certifications, Master Degrees, and Doctoral Degrees are excluded from this measure.

DATA PREPARATION

One of the major strengths of the current linking effort is that achievement can be explored in relation to timing of foster care spell and education outcome. Foster youth in the 8-12 analyses are divided into three categories as follows: those who had exited foster care prior to the school data; those whose foster care spell coincided with the education outcome of interest; and those whose entrance was post-school data. Table 28 depicts sample and education outcome by grade level, overall sample size, number of youth in each of the three categories, and number of students with successful outcomes in parenthesis. Additionally, chi-square estimates are included to indicate if differences in group proportions are statistically significant.

For example, there are 3,325 foster youth included in the grade 8 CST ELA investigation. Of these, 2,666 had exited foster care prior to the year of education data and of those, 520 scored proficient or above on the standardized test. The difference in proportions among the three groups who scored proficient or above is not significantly different.

Table 28: Foster Youth Sample Timing of Spell and Education Outcomes

Education Outcome		Exit Prior to School Data	In Care During School Data	Entrance After School Data	Chi square	Sig.
	Grade Level (sample size)	Number (number with successful outcome)				
Foster Youth Sample						
CST: ELA	8 (n=3,325)	2,666 (520)	419 (67)	240 (47)	2.94	ns
	9 (n=3,580)	2,945 (704)	436 (98)	199 (53)	1.30	ns
	10 (n=2,908)	2,490 (442)	322 (63)	96 (24)	3.72	ns
	11 (n=2,319)	2,091 (332)	195 (41)	33 (7)	4.01	ns
CST: Math	8 (n=3,284)	2,632 (401)	417 (961)	47 (235)	2.10	ns
	9 (n=3,538)	2,907 (292)	427 (40)	204 (20)	.20	ns
	10 (n=2,339)	2,005 (132)	254 (21)	80 (9)	.39	ns
	11 (n=1,730)	1,549 (143)	156 (14)	25 (3)	3.65	ns
Course: English	9 (n=3,298)	2,688 (1,810)	411 (285)	199 (130)	1.09	ns
	10 (n=2,339)	2,116 (1,440)	250 (168)	94 (62)	3.43	ns
	11 (n=1,567)	1,425 (1,060)	118 (91)	24 (18)	.43	ns
Course: Beg. Algebra	8 (n=1,216)	982 (722)	122 (82)	112 (79)	2.44	ns
	9 (n=3,657)	3,015 (1,664)	421 (248)	221 (117)	2.68	ns
	10 (n=2,123)	1,809 (1,071)	251 (145)	63 (39)	.10	ns
	11 (n=952)	849 (568)	89 (69)	14 (10)	4.25	ns
Course: Int. Algebra	9 (n=507)	421 (206)	59 (33)	27 (11)	1.85	ns
	10 (n=558)	482 (280)	49 (30)	27 (18)	.91	ns
	11 (n=674)	620 (452)	44 (37)	10 (8)	4.32	ns
Course: Geometry	9 (n=483)	413 (314)	42 (29)	28 (21)	1.00	ns
	10 (n=1,265)	1,093 (657)	129 (78)	43 (21)	2.22	ns
	11 (n=963)	855 (569)	92 (59)	16 (11)	.26	ns
CAHSEE: ELA	10 (n=2,835)	2,333 (1,485)	422 (249)	80 (47)	3.78	ns
CAHSEE: Math	10 (n=2,790)	2,297 (1,371)	415 (232)	78 (46)	2.08	ns
Award	12 (972)	924 (818)	47 (36)	na	4.11	ns

Table 28 Continued

Education Outcome		Exit Prior to School Data	In Care During School Data	Entrance After School Data	Chi square	Sig.
	Grade Level (sample size)	Number (number with successful outcome)				
Foster Youth Comparison Sample						
CST: ELA	8 (n=1,575)	1,335 (296)	112 (20)	128 (30)	1.29	ns
	9 (n=1,639)	1,426 (409)	116 (31)	97 (29)	3.26	ns
	10 (n=1,281)	1,159 (261)	76 (16)	46 (15)	2.70	ns
	11 (n=981)	922 (188)	43 (8)	16 (6)	2.92	ns
CST: Math	8 (n=1,547)	1,313 (253)	112 (17)	122 (24)	1.16	ns
	9 (n=1,594)	1,388 (162)	113 (9)	93 (16)	4.24	ns
	10 (n=1,082)	968 (73)	68 (3)	46 (6)	2.93	ns
	11 (n=740)	691 (39)	36 (4)	13 (2)	3.79	ns
Course: English	9 (n=837)	716 (476)	59 (34)	62 (43)	2.23	ns
	10 (n=560)	491 (326)	44 (30)	25 (19)	1.02	ns
	11 (n=356)	336 (237)	17 (13)	3 (3)	1.5	ns
Course: Beg. Algebra	8 (n=154)	123 (87)	17 (11)	14 (8)	1.23	ns
	9 (n=1,071)	931 (479)	69 (43)	71 (41)	.15	ns
	10 (n=439)	389 (205)	33 (15)	17 (11)	1.67	ns
	11 (n=185)	172 (103)	11 (8)	2 (1)	.81	ns
Course: Int. Algebra	9 (n=185)	166 (80)	12 (6)	7 (3)	.10	ns
	10 (n=135)	115 (54)	9 (7)	11 (6)	3.28	ns
	11 (n=180)	173 (101)	4 (4)	3 (3)	4.75	ns
Course: Geometry	9 (n=166)	147 (111)	7 (6)	12 (11)	1.95	ns
	10 (n=386)	343 (202)	24 (11)	19 (8)	.18	ns
	11 (n=211)	196 (126)	11 (8)	4 (3)	.51	ns
CAHSEE: ELA	10 (n=1,265)	1,128 (801)	98 (64)	39 (26)	1.68	ns
CAHSEE: Math	10 (n=1,331)	1,189 (790)	102 (71)	40 (27)	.44	ns
Award	12 (717)	682 (460)	25 (19)	na	.99	ns

* significant at .05

As the current research is exploratory and aimed at investigating what is possible in terms of the linked data, the three categories are combined in analyses. While no significant statistical differences are found among the three groups, these findings warrant further investigation. Therefore, results in this report should be viewed with caution. Future investigation which includes information such as maltreatment referrals for youth who exited or those who had yet to enter in addition to time post-pre exit may provide new understanding as to the lack of significance.

ACRONYMS AND DEFINITIONS

AB490: Assembly Bill 490—California law enacted January 1, 2004 which imposes duties and rights related to the education of foster children. Key provisions include the continuity of same school attendance regardless of placement location, the creation of an educational based liaison, and the expediency of school record transfers.

http://www.youthlaw.org/events/trainings/ab_490_ensuring_educational_rights_for_foster_youth/

ACF/AFCARS: Adoption and Foster Care Analysis and Reporting System—A federal data collection effort that provides child-specific information on foster and adoptive children. A division of the Children’s Bureau, through the Department of Health and Human Services.

http://www.ndacan.cornell.edu/ndacan/Datasets/Abstracts/DatasetAbstract_AFCARS_General.html

AFDC: Aid to Families and Dependent Children—Federal assistance program established under the Social Security Act of 1935 (originally Aid to Dependent Children, Families included in 1960). Replaced with Temporary Aid to Needy Families in 1996 which added work requirements and time limits among other stipulations.

API: Academic Performance Index—Calculated by CDE, the API is a single number, ranging from a low of 200 to a high of 1000, that reflects a school’s or a subgroup’s performance level, based on the results of statewide testing. The API is calculated by converting a student’s performance on statewide assessments across multiple content areas into points on the API scale. These points are then averaged across all students and all tests. Its purpose is to measure the academic performance and growth of schools.

<http://www.cde.ca.gov/ta/ac/ap/>

ASFA: Adoption and Safe Families Act of 1997—Signified a major federal policy shift from needs of the family to the needs of the children. ASFA outlined instances where reunification with parents is not required, designated time limits for reunification, outlined acceptable permanent exits from foster care (reunification, legal guardianship, and adoption), and streamlined procedures for the termination of parental rights. Also established national accountability standards (See CFSR).

CAHSEE: California High School Exit Examination—Students in California public schools must pass the CAHSEE to earn a high school diploma. The CAHSEE has two parts: English-language arts (ELA) and mathematics. Students must retake the examination until the ELA and mathematics parts are passed; however, students may retake only those parts not previously passed. All students are required to take the CAHSEE for the first time in grade ten. <http://www.cde.ca.gov/ta/tg/hs/>

Cal-PASS: California Partnership for Achieving Student Success-- is a private consortium consisting of a collaboration of over 8,000 K-16 institutions throughout California. Educational institutions voluntarily agree to upload data into the Cal-PASS databank and designate the terms under which the data can be shared. <http://www.cal-pass.org/>

CCCCO: California Community Colleges Chancellors Office - Administers the system of 112 community colleges across the state. <http://www.cccco.edu/>

CDE: California Department of Education-- The California Department of Education oversees the state’s K-12 public school system and is responsible for the education of more than seven million children and young adults in more than 9,000 schools. CDE is responsible for enforcing education law and regulations. <http://www.cde.ca.gov/index.asp>

CDSS: California Department of Social Services-- responsible for the oversight and administration of programs serving California's most vulnerable residents including the Children and Family Services Division (i.e. maltreatment and foster care). <http://www.dss.cahwnet.gov/cdssweb/default.htm>

CELDT: California English Language Development Test—A required state test for English language proficiency that is given to students whose primary language is other than English. Students (in kindergarten through grade twelve) whose primary language is not English, based on the Home Language Survey (HLS), take the CELDT within 30 calendar days after they are enrolled in a California public school for the first time to determine if they are English learners. <http://www.cde.ca.gov/ta/tg/el/>

CEPC: California Postsecondary Education Commission-- The Commission integrates policy, fiscal, planning, data, and programmatic analyses about issues concerning education beyond high school to the legislative and the executive branches of California government and to the general public. <http://www.cpec.ca.gov/StudentData/CollegeGoingRates.asp>

CFSR: Child and Family Services Review--Mandated through federal law Adoption and Safe Families Act (1997), CFSR and the Final Rule (2000) outlines national standards that states must achieve for compliance. <http://www.acf.hhs.gov/programs/cb/cwmonitoring/index.htm>

CSSR: Center for Social Services Research—The Center for Social Services Research (CSSR), at the University of California at Berkeley, School of Social Welfare, conducts research, policy analysis and program planning, and evaluation. <http://cssr.berkeley.edu/>

CST: California Standards Test—Developed by Californian education, the test(s) measure student's progress toward achieving State age and grade specific academic content standards. Students in grades two through eleven take a variety of subject specific tests including English language arts and math. <http://www.startest.org/cst.html>

CWS/CMS: Child Welfare Services Case Management System—CWS/CMS is the California State administrative data system for the Child Welfare System of services. <http://www.hwcws.cahwnet.gov/>

ETS: Education Testing Service - Organization that facilitates the STAR data collection and file creation. See CST and STAR.

ELL: English Language Learner--An ELL is a K-12 student who, based on objective assessment, has not developed listening, speaking, reading, and writing proficiencies in English sufficient for participation in the regular school program. **See CELDT.**

FERPA: Federal Educational Rights and Privacy Act-- FERPA (20 U.S.C. § 1232g; 34 CFR Part 99) is a Federal law that protects the privacy of student education records. The law applies to all schools that receive funds under the U.S. Department of Education. <http://www2.ed.gov/policy/gen/guid/fpco/ferpa/index.html>

IEP: Individualized Education Plan—In U.S., the Individuals with Disabilities Education Act (IDEA) requires public schools to develop an IEP for every student with a disability who is found to meet the federal and state requirements for special education. The IEP describes specifics as to how the educational program designed will meet that child's unique needs.

NCLB: No Child Left Behind-- The 2002 No Child Left Behind Act (a reauthorization of the 1965 Elementary and Secondary Education Act), is the main federal law affecting education from kindergarten through high school. <http://www2.ed.gov/policy/elsec/leg/esea02/index.html>

NSCAW: National Survey of Child and Adolescent Well-being—Longitudinal data set concerning children brought to the attention of the child welfare system. The data include information on child and family functioning and well-being, service needs and utilization, and agency- and system-level factors that are

likely to be related to child and family outcomes.

NSLP: National School Lunch Program— The National School Lunch Program, established in 1946, is a federally assisted meal program operating in public and nonprofit private schools and residential child care institutions. It provides low-cost or free lunches to children each school day.

<http://www.fns.usda.gov/cnd/Lunch/>

STAR: Standardized Testing and Reporting – the California standardized tests, which include the current California Standardized Test (CST), and previous tests such as the CAT/6. <http://star.cde.ca.gov/>

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