

EXHIBIT 4

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SUPPLEMENTAL TO DATA VALIDATION REPORT: NEVADA CONNECTIONS ACADEMY, 2016 DATA

2015 DATA VALIDATION SUPPLEMENTAL

PRODUCED BY TIBERIO GARZA, PHD.

NEVADA CONNECTIONS ACADEMY 2015 DATA

The purpose of this supplemental is to include validation of 2015 data in conjunction with the *Data Validation Report: Nevada Connections Academy 2016 Data*. The same sentence structure used in illustrating data-driven statements and graduation calculations found in the previous report (i.e., *Data Validation Report: Nevada Connections Academy 2016 Data*) are the same in this supplemental. The difference between this supplemental and the 2016 Data Validation Report is the numerical differences from 2016 to 2015. The decision to add 2015 supplemental material is to provide the State Public Charter School Authority (SPCSA) with verified data from more than one year and describe year to year differences. The same data-driven sentence structures and graduation rates are provided here as to explicitly show what was examined and assessed for validity.

Thus, as a supplemental to the 2016 data validation report the following sections still align with work conducted for NCA 2015 data. The same verbiage and intention found in the following 2016 data validation report are consistent with this supplemental in describing the following sections: Purpose, Policy Compliance, Scope of Validation, Objectives. The Critical Assessment (i.e., section also found in the 2016 data validation report) of variables and calculations are all the same except that the data is from 2015, which changes the numerical outcomes but retains the same meaning. The only exception to the verbiage in the 2016 validation report is the notion of the supplemental describing 2015 data and a comparison of 2016 to 2015 data.

There is a logical structure or template NCA utilized in framing their statements and calculations as well as a logical structure in arranging the 2016 data validation report. Because NCA’s logical structure was identifiable, their logical structure (also logical presentation of information) was used to extend the same logical structure to directly address any evaluator concerns and takeaways of the 2015 data. The evaluator was the same (Dr. Tiberio Garza) and assessed 2015 data for validity and operationalized findings into the ability to replicate NCA results, given the data and definitions provided (definitions are the same from the 2016 data validation report). The same data file types were provided by NCA for 2015 when comparing data files used in the 2016 data validation report. The consistency of the same data files and structure of data-driven statements continues to demonstrate consistency on NCA’s part and fosters transparency when the evaluator examines validity and replicability in the 2015 data.

Data files provided for 2015 (e.g., the same as 2016)

- An excel file with 2015 cohort data
- A word document with 2015 statements and calculations to be validated
- A word document serving as a legend to the 2015 cohort data and methodology
- A 2015 school district data file pertaining to credit deficient categories

Table 1 is a summary of 2015 data going through assessment of background variables and replication of calculations, which was the method in validating the numerical values being proclaimed by NCA. The same process described in the previous report was used for the 2015 data.

Table 1. *Reproduced from the 2016 Data Validation Report for Assessing 2015 Data*

Description–2015 Data	Error-type examined	Results	Consensus
Background Information* (335 students)	Duplication; Missingness; Abnormal or usual entries;	Threshold limits upheld; Missing values were minimal	Accepted

Table 1. Reproduced from the 2016 Data Validation Report for Assessing 2015 Data

Description–2015 Data	Error-type examined	Results	Consensus
Graduation rate by Nevada state law	Calculation; Consistency with other calculations	42.8% graduation rate	Reached
Graduation rate by Nevada state law + not classifying 5th year grads as non-graduates	Calculation; Consistency with other calculations	45.4% graduation rate	Reached
Graduation rate by federal ACGR + not classifying students enrolling one semester or more behind as non-graduates	Calculation; Consistency with other calculations	57.2% graduation rate	Accepted
Graduation rate by students enrolled at NCA for all four years of high school	Calculation; Consistency with other calculations	83.8% graduation rate	Accepted
Cohort: Credit deficient status upon enrollment at NCA and economically disadvantaged category composition	Calculation; Consistency with other calculations	Matched estimates	Reached
Non-graduates: Credit deficiency status upon enrollment	Calculation; Consistency with other calculations	72.6% non-graduates	Reached
Non-graduates: Credit deficiency status and arrival grade upon enrollment	Calculation; Consistency with other calculations	Matched estimates	Reached
Credit deficient non-graduates: Prior school district	Calculation; Consistency with other calculations	Matched estimates	Reached
Non-graduate who enrolled for a 5th year	Calculation; Consistency with other calculations	Matched estimates	Reached
Cohort: Average length of enrollment	Calculation; Consistency with other calculations	< 1.5 years	Reached
Cohort: Students arriving in their 11th or 12th grade year one semester or more behind that were economically disadvantaged	Calculation; Consistency with other calculations	Matched estimates	Reached

Note. ¹Definitions provided specific conditions are calculating some estimates, for more information on definitions please see Appendix. *Background Information assessed a sample of 915 students and included 105 variables pertaining to demographic information, credit deficiency, enrollment, and graduates versus non-graduates. ACGR=Adjusted Cohort Graduation Rate.

After reviewing the data files, there was no indication of misrepresented data pertaining to errors in data entry. Calculations presented in Table 1 did not demonstrate any issues through replication. In assessing the evaluator to NCA data results, the calculation outcomes consistently matched.

Inferences under Evaluation

There is almost exact phrasing of the inferences provided below compared to inferences reported in the 2016 data validation report. NCA data-driven statements (the structure of the sentence is the same or nearly the same and the only difference are the numerical values):

- 2015 Graduation rate calculations
 - “2015 grad rate applying Nevada state law (42.8%)”
 - “2015 grad rate applying Nevada state law + not classifying 5th year as non-graduates (45.4%)”
 - “2015 federal ACGR + not classifying students enrolling one semester or more behind as non-graduates (57.2%)”
 - “2015 grad rate for students enrolled at NCA for all four years of high school (83.8%)”
- “2015 Cohort: Credit deficiency status upon enrollment at NCA & economically disadvantaged category composition:”
 - “49.7% of students in the 2015 cohort enrolled on track at NCA”
 - “Of those students in the 2015 cohort enrolling on track, 51.8% were economically disadvantaged students.”
 - “50.3% of students in the 2015 cohort were credit deficient when they enrolled at NCA.”
 - “Of those students in the 2015 cohort enrolling credit deficient, 69.0% were economically disadvantaged students.”
 - “Of those students arriving slightly credit deficient (less than 2.5 credits behind), 56.8% were economically disadvantaged students.”
 - “Of those students arriving at least one semester behind, but less than a year behind (at least 2.5 credits behind, but less than 5 credits behind), 71.1% were economically disadvantaged students.”
 - “Of those students arriving at least one year behind (5 or more credits), 73.3% were economically disadvantaged students.”
 - “60.5% of the entire cohort were economically disadvantaged students.”
- “2015 Non-graduates: Credit deficiency status upon enrollment at NCA:”
 - “72.6% of the non-graduates in the 2015 cohort enrolled at NCA credit deficient.”
- “2015 Non-graduates: Credit deficiency status and arrival grade upon enrollment at NCA:”
 - “81.4% of credit deficient 2015 non-graduates arrived at NCA in their 11th or 12th grade year (127 students):”
 - “1.9% (3) arrived in 9th grade”
 - “16.7% (26) arrived in 10th grade”
 - “35.3% (55) arrived in 11th grade”

- “46.2% (72) arrived in 12th grade”
- “21.2% of the 2015 non-graduates arrived in their 11th or 12th grade year at least one semester or more behind (≥ 2.5 credits).”
 - “87.9% of those students were economically disadvantaged students.”
- “80.8% of credit deficient 2015 non-graduates arrived one semester or more credit deficient (126).”
 - “19.2 arrived a few credits behind (< 2.5);”
 - “25.6% arrived one semester behind ($\geq 2.5, < 5$); and”
 - “55.1% arrived one year behind (≥ 5).”
- “2015 Credit deficient non-graduates: Prior school district”
 - “Clark County, 53.8%”
 - “Washoe County, 14.1%”
 - “Nevada Public School Districts (other than Clark and Washoe Counties), 9.6%”
 - “Charter Schools, 7.1%”
 - “Out of State, 11.5%”
 - “Other (Home, Private, Unknown, 3.8%”
- “2015 Non-graduates who enrolled at NCA for a 5th year”
 - “43.9% were successful in graduating from NCA or continuing their education at the school (graduated 5th or 6th year or still enrolled 6th year).”
 - “36.8% of these students graduated from NCA in their 5th year.”
 - “38.6% of these students graduated from NCA in their 5th or 6th year.”
 - “5.3% are still enrolled at the school (as of April 2017). Note: These are students still enrolled for a 6th year and are potential graduates.”
- “2015 Cohort: Average length of enrollment at NCA”
 - “The average length of enrollment for students in the 2015 cohort is slightly less than 1.5 years.”
- “2015 Cohort: Percentage of students arriving in their 11th or 12th grade year one semester or more behind that were economically disadvantaged”
 - “Of all students in the 2015 cohort arriving in their 11th or 12th grade year at least one semester or more behind, 73.0% of [*sic*] were economically disadvantaged students.”
 - “Of all students in the 2015 cohort arriving in 11th grade, at least one semester behind, but less than one year behind, 75.0% were economically disadvantaged students.”
 - “Of all students in the 2015 cohort arriving in 11th grade, at least one year behind, 87.9% were economically disadvantaged students.”

- “Of all students in the 2015 cohort arriving in 12th grade, at least one semester behind, but less than one year behind, 64.0% were economically disadvantaged students.”
- “Of all students in the 2015 cohort arriving in 12th grade, at least one year behind, 65.9% were economically disadvantaged students.”

The data aspect of each inference (or data-driven statement) were already assessed by the evaluator in Table 1 and were found to be reproducible. The meaning of each calculation and how it was tied to form a data-driven statement did warrant the making of such statements by NCA. I (Tiberio Garza) did not find any fault with statements made by NCA and recognized the data and information pattern used by NCA in conveying results. Such patterns can be used to assess future data results from NCA.

Comparing 2016 and 2015 Data Calculations and Inferences

NCA did make comparisons and averages between 2015 and 2016 data. What follows are NCA’s statements in quotations and Table 2 illustrating comparison values. The averaging conducted by NCA was reproducible and merely illustrates another aspect of credit deficiency. Statements made here are descriptive and not over-reaching.

“Average arrival grade and average credit deficiency for non-graduates in the 2015 and 2016 cohorts who enrolled credit deficient:”

- “83% of the non-graduates in the 2015 & 2016 cohorts who enrolled credit deficient arrived at NCA during their 11th or 12th grade years.”
- “81% of the non-graduates in the 2015 & 2016 cohorts who enrolled credit deficient arrived at NCA one semester or more behind in credits (at least 2.5 credits or 5 courses behind).”
 - “43% of these students enrolled in their 12th grade year.”

Table 2 shows differences between 2015 and 2016 data that were reproducible by the evaluator. The table was also re-created from an existing table NCA produced to represent 2015 and 2016 differences. For this supplemental the table was re-created and data was replicated to reproduce Table 2.

Table 2. Reproduced table from NCA Data

Categorization of Cohorts	2015 Cohort	2016 Cohort
Advanced diploma in 4 or less years	4	3
Standard diploma in 4 or less years	115	173
Adjusted diploma in 4 years	3	3
Diploma in 5th year (“For 2016 includes those on-target to graduate at end of year”)	21	28
Diploma in 6th year (“Still enrolled students may end up adding to this total”)	1	NA
Still enrolled at NCA (“For 2016 cohort does not include those on-target to graduate at end of year”)	3	7
Post-secondary enrollment (“without record of formal high school completion, could include adult education and/or HSE completers”)	24	13
Withdrew to adult education	19	22
HSE completers with 5 years (“Does not include students enrolling in adult education”)	18	25
Other non-graduates/drop-outs	143	171

Note. HSE=High School Equivalency, NA=not applicable.

The values in Table 2 did not depart from the data and indicated validity and reliability. The process involved ensuring the count was correct. Also, the count was depended on how NCA defined categories of cohorts, which were considered reasonable.

Conclusion (Concerns and Takeaways)

The intent of the supplemental was to merely valid NCA results through replication and evaluate inferences for any over-reaching implications not warranted by the data. Concerns were not identified while conducting this work. What diminished the evaluator’s concerns was consistency in data products, logical structure within data products, and formulation of statements and calculations across the two years. Thus, the 2015 data presented here and the comparison/averaging between 2015 and 2016 data provided by NCA demonstrates that NCA conducted responsible and ethically justified work pertaining to the data. The statements and calculations made by NCA with support from the data are valid, reliable, and trustworthy.

Data Validation Report

NEVADA CONNECTIONS ACADEMY

2016 DATA

Produced for Nevada Connections Academy in response to the State Public Charter School Authority (SPCSA), conducted by Tiberio Garza, PhD.

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Introduction

Purpose

The purpose of conducting this data validation study is to verify 2016 data reported by Nevada Connections Academy (NCA). In this validation study, NCA defines six terms with one term further defined into three categories, provides four graduation rate calculations, and statements related to credit deficiency, 5th year students, average length of enrollment, and students arriving in 11th or 12th grade. All statements made by NCA were critically assessed for validity, correctness, and connectedness to the data and the previous data validation study (i.e., *Data Validation Report: 2016 Graduation Rate Analysis*). For this study, the Center of Research, Evaluation and Assessment (CREA) has assigned Tiberio Garza, Ph.D., as the evaluator to critically assess and examine inferences made by NCA to ensure what is reported to the State Public Charter School Authority (SPCSA) as undergone review and represents valid and reliable information.

Policy Compliance

The evaluator is a UNLV faculty-affiliate of the College of Education's CREA. It is the policy of CREA to be impartial and merely report the verification of findings free from bias and influence from others. When conducting data validation as a third-party entity, strict adherence is taken to ensure credibility, reliability, and trustworthiness in

conclusions made by those working under CREA's supervision. This service provided from CREA becomes essential when governing bodies such as the SPCSA rely on the validity of information presented and conclusions made by educational agencies under the SPCSA. Thus, CREA prepares this document for the SPCSA in collaboration with NCA. It is expected that NCA be transparent and timely in fulfilling all request for data, information, and that all NCA personnel are accessible to the evaluator for further questioning pertaining to data validation. These conditions placed upon NCA are necessary for providing the SPCSA with reliable, valid, and trustworthy information for their decision-making process.

Scope of Validation

The scope of the validation study was to verify 2016 statements and calculations made by NCA. The request for data involved access to raw data files, organized data files, and helper files (i.e., documents describing variables and processes taken by NCA in producing calculations and statements). Helper files also described the meaning of data columns (or variables) present in data files and served as a reference (or legend) to foster ease in navigating through the 2016 data files. The presence of a reference document of the data and information demonstrates transparency.

A systematic approach was taken to assess 2016 data, which included checking column by column for inconsistencies, entry errors, abnormal values, or missing values that may influence results. NCA provided the following documents:

- An excel file with 2016 cohort data
- A word document with 2016 statements and calculations to be validated
- A word document serving as a legend to the 2016 cohort data and methodology
- A 2016 school district data file pertaining to credit deficient categories

Objectives

The objectives were to verify 2016 statements and graduation rates made by NCA concerning their 2016 cohort data. Two objectives served as the focus of verification for this validation study. First, data was examined and descriptive information was assessed that attested to the process NCA conducted in converting raw data to organized data. Second, NCA statements were assessed for how valid they were in relation to NCA data and previous reporting/information about the data. To verify data-driven statements made by NCA, an evaluation of NCA's statements and calculations for the SPCSA will undergo the process of validation and Dr. Garza will be assigned to ensuring all the necessary and sufficient data is critically appraised to inform SPCSA decision-making. Calculation(s) defined in this study refer graduation rates, while data-driven statements refer to statements made by NCA pertaining to numerical representation.

Critical Assessment

Variables and Calculations under Validation

Statements (i.e., data-driven) and calculations going before the SPCSA are first assessed by status of variables in the data files. In the table that follows (Table 1), Background information refers to the list of data tabs and columns to assess, which entailed the examination of 12 excel tabs of data and the specific examination of 105 data columns or variables. Overall data was first assessed for duplication, missingness, or usual entries.

After data columns were systematically assessed for common data issues (see Table 1 below) the data-driven statements and calculations were assessed. The validation process continued by examining the precision and accuracy of graduation rates and data-driven statements. Each graduation rate in Table 1 was assessed for a match with the evaluator's calculation. Two graduation rates were already examined before in a previous report and only needed to go under verification. Data-driven statement were examined in the same process (i.e., observing the same results from evaluator to NCA results). Statements were further appraised by inference that can be made concerning the data.

Summary results are illustrated in the table that follows (Table 1). The table provides the conclusion in comparing NCA's results to evaluator results, which are located in the Consensus column of Table 1. For the Consensus column there are two choices for

calculations and two choices for verification. For example, Background Information could be either Accepted or Not Accepted, since the evaluation is rooted in values and their characteristics as compared to a calculation. For reaching consensus between NCA and the evaluator related to calculations, Reached meant equal calculated values were found between NCA and the evaluator. The alternative to not getting the same value was Not Reached, which represented a major discrepancy between NCA and the evaluator's calculation.

Table 1

Description–2016 Data¹	Error-type examined	Results	Consensus
Background Information* (915 students)	Duplication; Missingness; Abnormal or usual entries;	Threshold limits upheld; Missing values were minimal	Accepted
Graduation rate by Nevada state law	Calculation; Consistency with other calculations	46.5% graduation rate	Reached
Graduation rate by Nevada state law + not classifying 5th year grads as non- graduates	Calculation; Consistency with other calculations	50.1% graduation rate	Reached
Graduation rate by federal ACGR + not classifying students enrolling one semester or more behind as non- graduates	Verification from previous data validation report	62.2% graduation rate	Accepted
Graduation rate by students enrolled at NCA for all four years of high school	Verification from previous data validation report	87.5% graduation rate	Accepted
Cohort: Credit deficient status upon enrollment at NCA and economically disadvantaged category composition	Calculation; Consistency with other calculations	Matched estimates	Reached
Non-graduates: Credit deficiency status upon enrollment	Calculation; Consistency with other calculations	73.7% non- graduates	Reached
Non-graduates: Credit deficiency status and arrival grade upon enrollment	Calculation; Consistency with other calculations	Matched estimates	Reached
Credit deficient non-graduates: Prior school district	Calculation; Consistency with other calculations	Matched estimates	Reached
Non-graduate who enrolled for a 5th year	Calculation; Consistency with other calculations	Matched estimates	Reached
Cohort: Average length of enrollment	Calculation; Consistency with other calculations	< 1.5 years	Reached
Cohort: Students arriving in their 11th or 12th grade year one semester or more behind that were economically disadvantaged	Calculation; Consistency with other calculations	Matched estimates	Reached

Note. ¹Definitions provided specific conditions are calculating some estimates, for more information on definitions please see Appendix. *Background Information assessed a sample of 915 students and included 105 variables pertaining to demographic information, credit deficiency, enrollment, and graduates versus non-graduates. ACGR=Adjusted Cohort Graduation Rate.

Across the data and data files there was no indication of values outside their normal parameters. In fact, the effort to make everything clear and transparent to the evaluator aided in examining all aspects of information (i.e., data and data-related files) for correctness. Additionally, variables or data values that were assessed for abnormality and possible error from data entry did not show any indication that such inconsistencies were occurring in the data. No presence of misrepresentation or manipulation of data or information was identified. Thus, this validation study acknowledges data provided from NCA is acceptable and can be used for inferring data-driven statements and calculations free of common data concerns that can influence what is said from the data.

Graduation rates calculated by NCA were four in number with two already verified in a previous report (i.e., *Data Validation Report: 2016 Graduation Rate Analysis*). The two graduation rates were found to match calculations from the evaluator (i.e., Dr. Tiberio Garza). The two new graduation rates were based on estimation which included the Nevada state law. Other calculations were more straight forward in examining and verifying numerical values for credit deficiency, enrollment, and students arriving during 11th and 12th grade (as depicted in Table 1).

Thus, no misrepresentation of data, graduation rates, or calculations were identified while examining NCA's data. The methodology utilized in concluding study findings was based on inter-rater reliability or the matching of NCA's results with my own (CREA's assigned evaluator – Tiberio Garza).

Inferences Evaluated

Eight data-driven statements (or inferences) with several sub-statements are shown below as the focus of inference evaluation. The stated inferences are from NCA and are statements that were examined and assessed for validity. The correctness of these data-driven statements was assessed in relation to NCA data, both in raw and organized form. Inferences (i.e., data-driven statements inferred from the data) were examined for what was being claimed and if that claim was derivable from the data. In other words, NCA inferences were examined to ensure they were not over-stating something not present in the data. Thus, inferences made by NCA were critically appraised if such statements could warrant the descriptive information conveyed.

However, inferences made by NCA are based on defined terms, which are Arrival Years, Cohort, Credit Deficiency, Credit Deficient Categories (Slightly, One semester, One year), Economically Disadvantaged, and Prior School District/Sending District. These definitions as depicted by NCA can be found in Appendix. Thus, given these definitions inferences were appraised for staying within what could be said depended on the data.

NCA data-driven statements:

- 2016 Graduation rate calculations
 - “2016 grad rate applying Nevada state law (46.5%)”
 - “2016 grad rate applying Nevada state law + not classifying 5th year grads (or students on track to graduate no more than 2 semesters late) as non-graduates (50.1%)”
 - “2016 federal ACGR + not classifying students enrolling one semester or more behind as non-graduates (62.2%)” [Verified in previous data validation report]
 - “2016 grad rate for students enrolled at NCA for all four years of high school (87.5%)” [Verified in previous data validation report]
- “2016 Cohort: Credit deficiency status upon enrollment at NCA & economically disadvantaged category composition:”
 - “50.3% of students in the 2016 cohort enrolled on track at NCA”
 - “Of those students in the 2016 cohort enrolling on track, 51.6% were economically disadvantaged students.”
 - “49.7% of students in the 2016 cohort were credit deficient when they enrolled at NCA.”
 - “Of those students in the 2016 cohort enrolling credit deficient, 70.6% were economically disadvantaged students.”
 - “Of those students arriving slightly credit deficient (less than 2.5 credits behind), 63% were economically disadvantaged students.”
 - “Of those students arriving at least one semester behind, but less than a year behind (at least 2.5 credits behind, but less than 5 credits behind), 67.7% were economically disadvantaged students.”
 - “Of those students arriving at least one year behind (5 or more credits), 76.5% were economically disadvantaged students.”
 - “61.05% of the entire cohort were economically disadvantaged students.”
- “2016 Non-graduates: Credit deficiency status upon enrollment at NCA:”
 - “73.7% of the non-graduates in the 2016 cohort enrolled at NCA credit deficient.”
- “2016 Non-graduates: Credit deficiency status and arrival grade upon enrollment at NCA:”
 - “84% of credit deficient 2016 non-graduates arrived at NCA in their 11th or 12th grade year (163 students):”
 - “2.6% (5) arrived in 9th grade”

- “13.4% (26) arrived in 10th grade”
- “46.9% (91) arrived in 11th grade”
- “37.1% (72) arrived in 12th grade”
- “52% of the 2016 non-graduates arrived in their 11th or 12th grade year at least one semester or more behind (≥ 2.5 credits).”
 - “Approximately 3 out of 4 of those students were economically disadvantaged students.”
- “80.4% of credit deficient 2016 non-graduates arrived one semester or more credit deficient (156).”
 - “19.6 arrived a few credits behind (< 2.5);”
 - “27.8% arrived one semester behind ($\geq 2.5, < 5$); and”
 - “52.6% arrived one year behind (≥ 5).”
- “2016 Credit deficient non-graduates: Prior school district”
 - “Clark County, 47.9%”
 - “Washoe County, 13.9%”
 - “Nevada Public School Districts (other than Clark and Washoe Counties), 10.3%”
 - “Charter Schools, 7.7%”
 - “Out of State, 11.3%”
 - “Other (Home, Private, Unknown, 8.8%”
- “2016 Non-graduates who enrolled at NCA for a 5th year”
 - “59.3% were successful in graduating from NCA or continuing their education at the school.”
 - “47.5% of these students graduated from NCA or are on track to graduate this spring, not more than 2 semesters late.”
 - “11.9% are still enrolled at the school (as of April 2017). Note: This group is separate from those enrolled and on track to graduate this spring.”
- “2016 Cohort: Average length of enrollment at NCA”
 - “The average length of enrollment for students in the 2016 cohort is slightly less than 1.5 years.”
- “2016 Cohort: Percentage of students arriving in their 11th or 12th grade year one semester or more behind that were economically disadvantaged”
 - “Of all students in the 2016 cohort arriving in their 11th or 12th grade year at least one semester or more behind, 72.9% of [*sic*] were economically disadvantaged students.”
 - “Of all students in the 2016 cohort arriving in 11th grade, at least one semester behind, but less than one year behind, 64.3% were economically disadvantaged students.”

- “Of all students in the 2016 cohort arriving in 11th grade, at least one year behind, 79.3% were economically disadvantaged students.”
- “Of all students in the 2016 cohort arriving in 12th grade, at least one semester behind, but less than one year behind, 65% were economically disadvantaged students.”
- “Of all students in the 2016 cohort arriving in 12th grade, at least one year behind, 73.7% were economically disadvantaged students.”

The inferences stated here are within the realm of what could be said given the data and definitions. Additionally, the level of inference or inferring was kept at a descriptive-level by NCA. In other words, NCA did not speculate or causally infer from the data – the statements had a factual depiction and did not deviate from that account. By staying in a factual depiction of the data the risk of over-speculation is not present. Inferences stated here have a detective-type of description and merely convey information for the reader. Additionally, data-driven statements and calculations were not observed to detach from the data. In general, there is consistency across data values, data files, graduation rates, calculations, and inferences made to warrant NCA findings as valid, reliable, and trustworthy.

Conclusions

Concerns

After reviewing, all provided 2016 data from NCA conveyed interconnectedness between data values, calculations computed, and data-driven statements proclaimed. Examining the relational aspect across variables, calculations, and inferences was used to identify inconsistencies in data. However, data and data files were acceptable and calculations were correctly replicated by the evaluator, which alluded to sound data collection/entry and computation – this is a good outcome. As for inferences made, they did not over-state and maintained their connection to data.

In producing this document, NCA did comply with CREA’s evaluation in being transparent and providing accessibility to NCA personnel in asking follow-up questions. Follow-up questions were asked for further clarification of the process NCA undertook to provide all documentation, data files, calculations, and inferences proclaimed. No concerns were identified through interactions with NCA in answering questions for this study nor were concerns found in replicating NCA results.

Takeaways

NCA provided data with very detailed documentation attesting to their process in producing calculations and how the data was put together. This action to make their process and calculations transparent and clear is in line with allowing replicability, which are best practices for allowing others to follow what was done.

CREA assigned Dr. Tiberio Garza to assess and examine NCA's 2016 data. Dr. Garza assessed NCA's 2016 data for validity and possible errors related to data entry or misrepresentation. After examining all NCA's data files and calculations, the conclusion is NCA's inferences are based on valid and reliable data, which warrants attention to inferences proclaimed in this document.

Appendix

Definitions

Arrival Year**	<p>“refers to the appropriate grade level based on the data of enrollment when the student first enrolls at NCA. Some students will enroll, withdraw, and then re-enroll, but the arrival year is based on the initial enrollment. All students in the 2016 cohort entered high school in the 2012-2013 school year, thus:</p> <p style="padding-left: 40px;">9th grade arrival: Initial enrollment 2012-2013 10th grade arrival: Initial enrollment 2013-2014 11th grade arrival: Initial enrollment 2014-2015 12th grade arrival: initial enrollment 2015-2016 5th year: Initial enrollment: 2016-2017”</p>
Cohort	<p>“refers to all students that state identified as being part of the 2016 graduation cohort, that is the students classified as graduates or non-graduates. It doesn’t include students classified as transfer-out.”</p>
Credit Deficiency	<p>“refers to a student having less than the expected credits upon initial enrollment at NCA. The actual credits earned are based on the information obtained from the student’s incoming transcript. The expected number of credits is based on the year and semester a student arrives at NCA. For example, a student arriving 9th grade, 2nd semester would be expected to have already earned 2.5 credits, while a student arriving 11th grade, 1st semester would be expected to have earned 11 credits.”</p>
Credit Deficient Categories	<p>“We have categorized credit deficient students into three categories:</p> <p>Slightly: The student is less than 2.5 credits deficient</p> <p>One Semester: The student is at least one semester credit deficient, but not a full year (credits deficient is ≥ 2.5, but < 5)</p> <p>One Year: The student is at least one year credit deficient (credits deficient is ≥ 5)”</p>
Economically disadvantaged	<p>“means that the student was given the characteristics of Ever FRL by the state which means the student was reported as qualifying for the federal free and reduced lunch program at least one year during high school”</p>
Prior School District/Sending District	<p>“refers to the district where the student was enrolled prior to enrolling at NCA”</p>

Note. **=“Students with credit deficiency may not have earned enough credits to academically be considered at this grade level, but it is the grade level that matches the student’s grade for an on-time 4-year graduation.”