



NEBRASKA CAREER EDUCATION
DATA AND RESEARCH



12-13



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Nebraska Career Education Data + Research

The following pages provide a summary of information about Nebraska Career Education students and the Nebraska Career Education system (NCE) more generally. All data was collected through the Nebraska Student and Staff Record System (NSSRS) using information reported for the 2010-2011 school year, Nebraska Department of Education (NDE) Curriculum Reports, and a series of statewide surveys of Nebraska educators and the general public. Our objective in presenting this information is threefold:

- to identify just who the Nebraska Career Education student really is and how he/she might differ from (or resemble) the average Nebraska student;
- to provide a review of federal student performance indicators associated with the Carl D. Perkins Career and Technical Education Act of 2006;
- and, to provide an empirical assessment of Nebraska school counseling programs, Nebraska Career Education programs, and the perceptions of career education across the state.

Just who are Nebraska Career Education Students?

As the following pages show, demographically, CTE Concentrators closely resemble the average Nebraska high school senior (12th grade student).

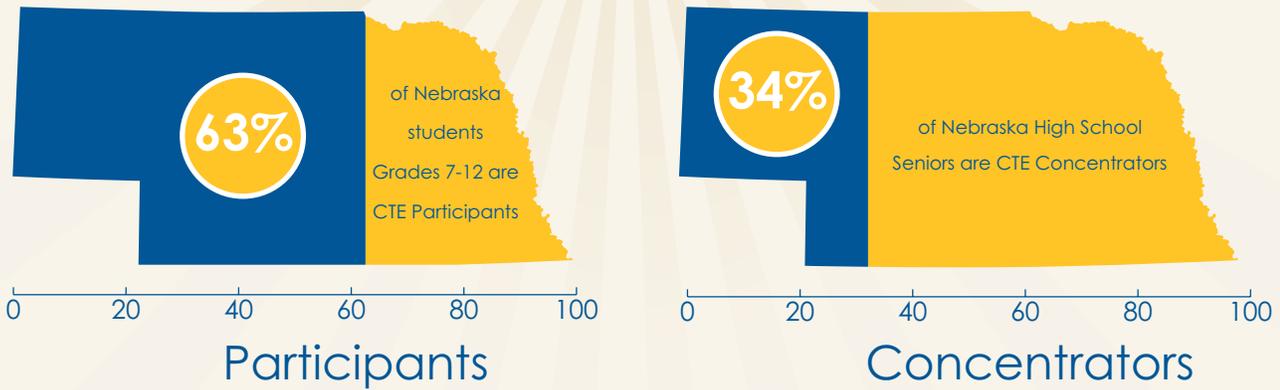
Beyond demographics, we find that, relative to all Nebraska high school seniors, a greater percentage of Nebraska CTE Concentrators:

- Take honors or Advanced Placement (AP) coursework
- Complete high school with a diploma

Further, Nebraska CTE Participants drop out of school at lower rates than the average Nebraska student in grades 7-12. Moreover, this difference is exaggerated when dropout status is examined across ethnicity.

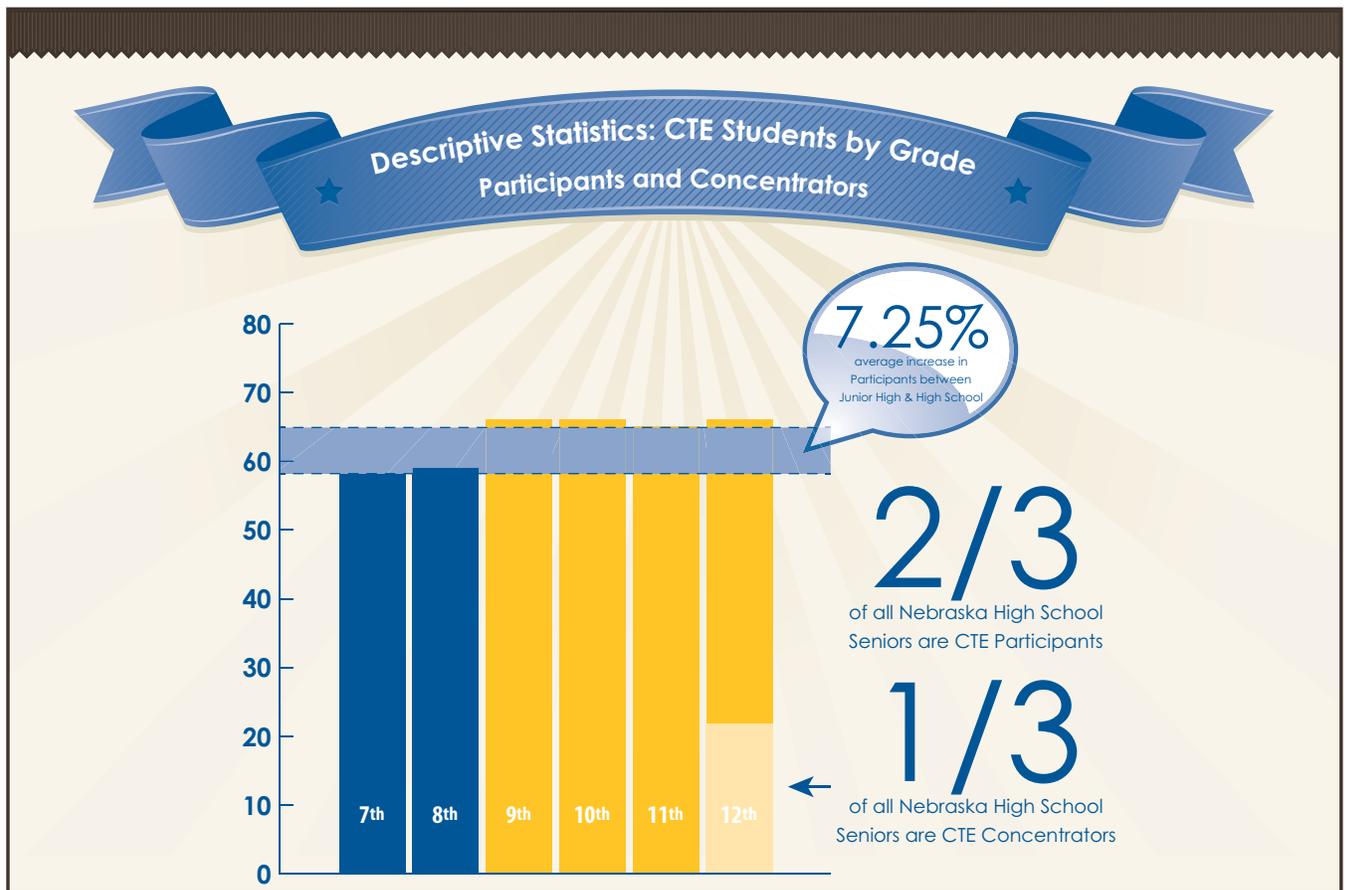
Learn more at: www.education.ne.gov/nce/DRAW/index.html

Descriptive Statistics: CTE Students Participants and Concentrators



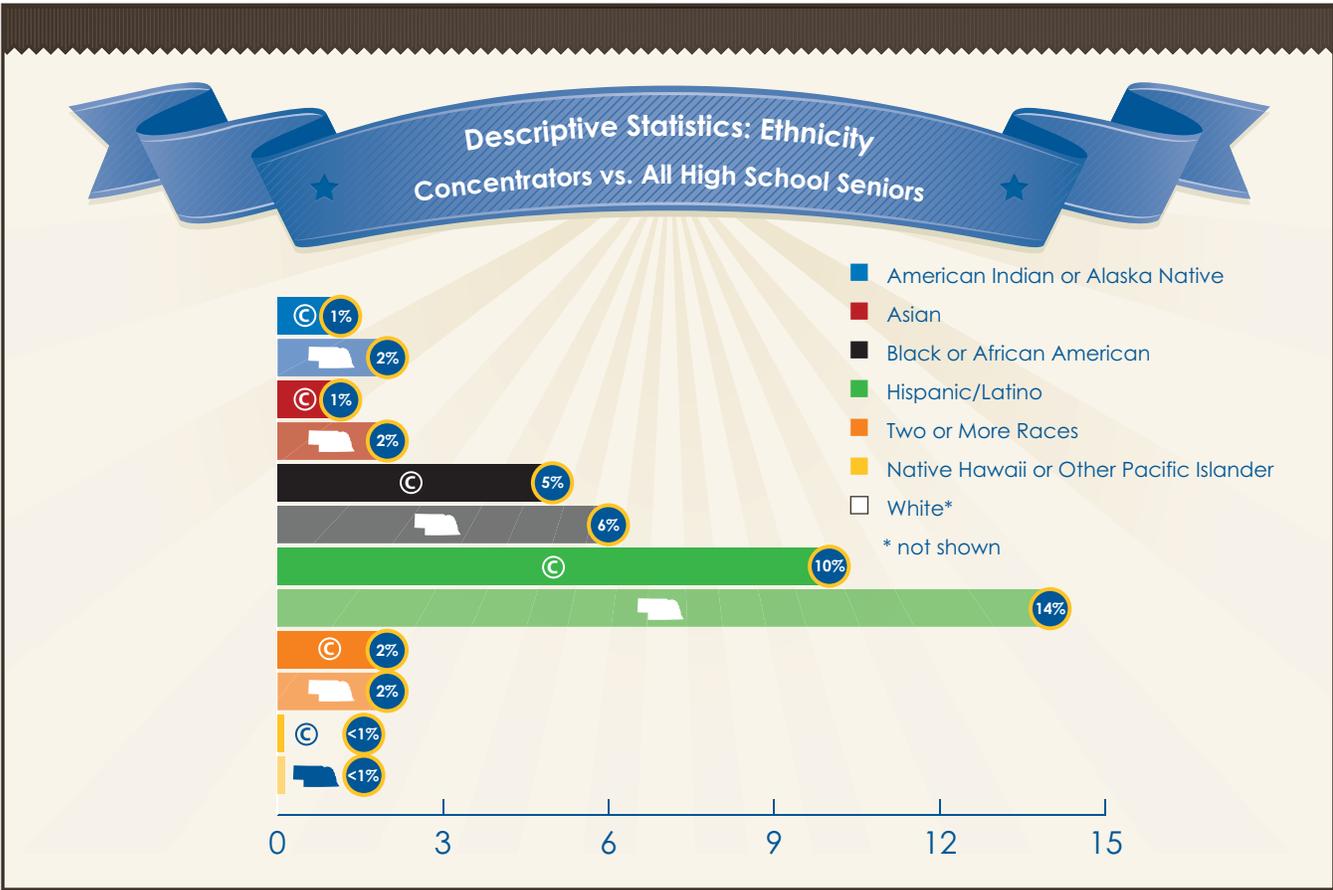
CTE Students

- In the 2010-2011 school year, 63 percent of Nebraska students in grades 7-12 were identified as CTE Participants (taking at least one CTE semester-course during the 2010-2011 school year).
- In the same year, 34 percent of Nebraska high school seniors were identified as CTE Concentrators (taking at least three CTE semester-courses throughout their high school academic career within a single Career Education program).



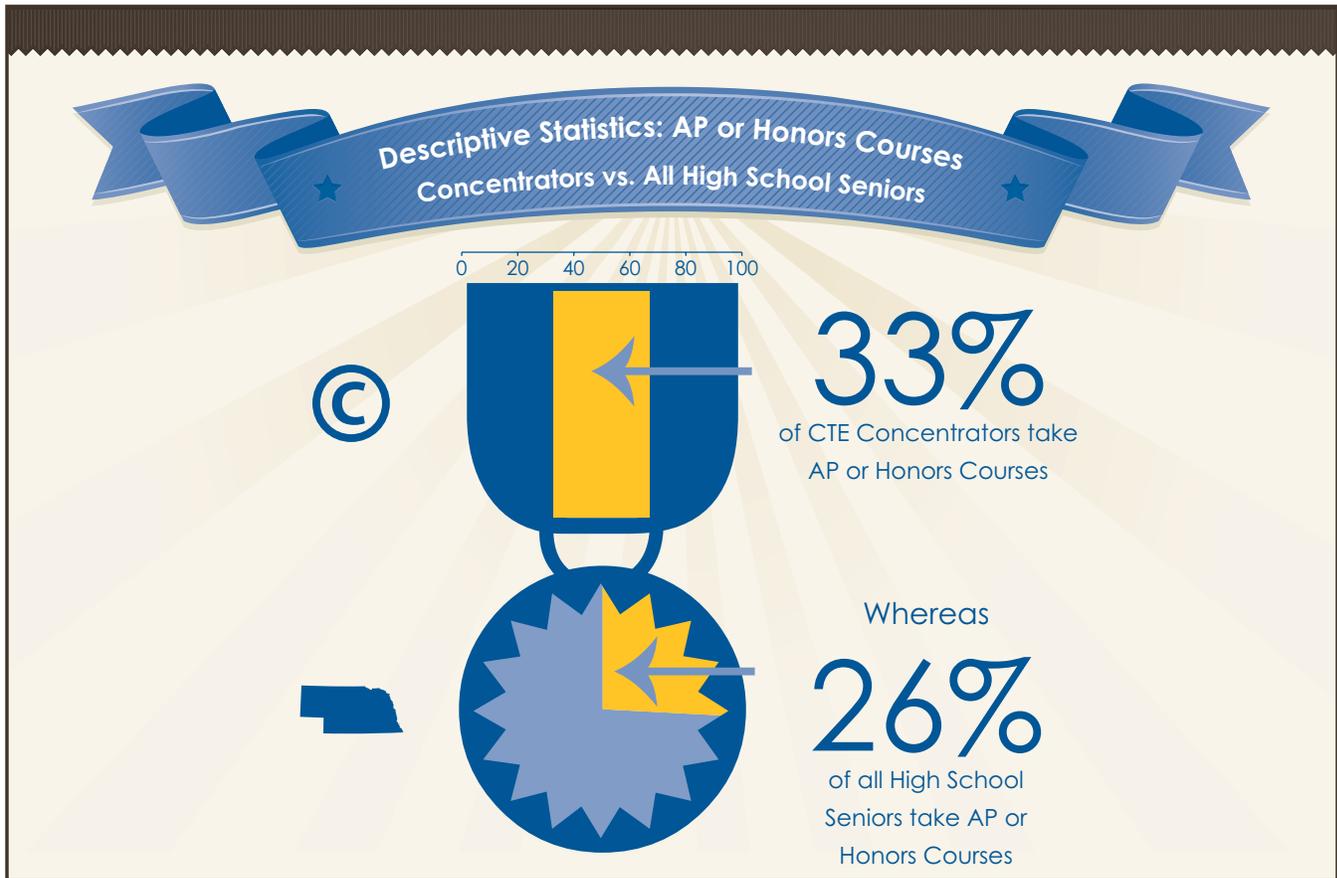
CTE Students by Grade

- About 58 percent of Nebraska junior high students (7-8th grades) were classified as Career Education Participants.
- About 66 percent of Nebraska high school students (9-12th grades) were classified as Career Education Participants.
- This reveals an average increase in Career Education participation of seven and one-quarter percent between junior high and high school students.
- In addition, slightly more than one third of all Nebraska high school seniors were identified as Career Education Concentrators.



Ethnicity

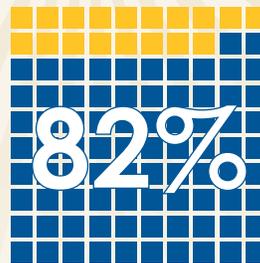
- Two percent of Nebraska high school seniors are identified as American Indian or Alaska Native students compared to approximately one percent of Nebraska Career Education Concentrators.
- Asian students account for one percent of CTE Concentrators and two percent of all high school seniors.
- Five percent of Black (not Hispanic) students are Career Education Concentrators whereas six percent of all high school seniors are Black.
- Students of Hispanic ethnicity make up ten percent of Career Education Concentrators compared to fourteen percent of Nebraska high school seniors.
- Native Hawaiian or Pacific Islander students represent less than one percent of Nebraska high school seniors, as well as less than one percent of Career Education Concentrators.
- White (not Hispanic) students account for 75 percent of all high school seniors whereas 80 percent are CTE Concentrators.



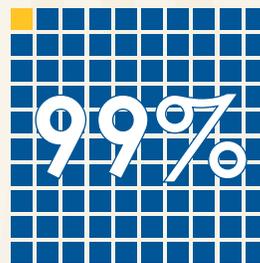
AP or Honors Courses

- Of the CTE Concentrators in Nebraska, 33 percent take AP or Honors courses whereas 26 percent of all high school seniors take similar advanced coursework. This finding reveals a seven percentage point difference in advance course-taking between these two populations of students - one of the largest distinctions identified between the average Nebraska senior and Nebraska Career Education Concentrators.
- Put another way, the odds of participating in AP or Honors courses are 1.6 times greater for CTE Concentrators than non-concentrating students.

Descriptive Statistics: Completer with Diploma All High School Seniors vs. Concentrators



Whereas

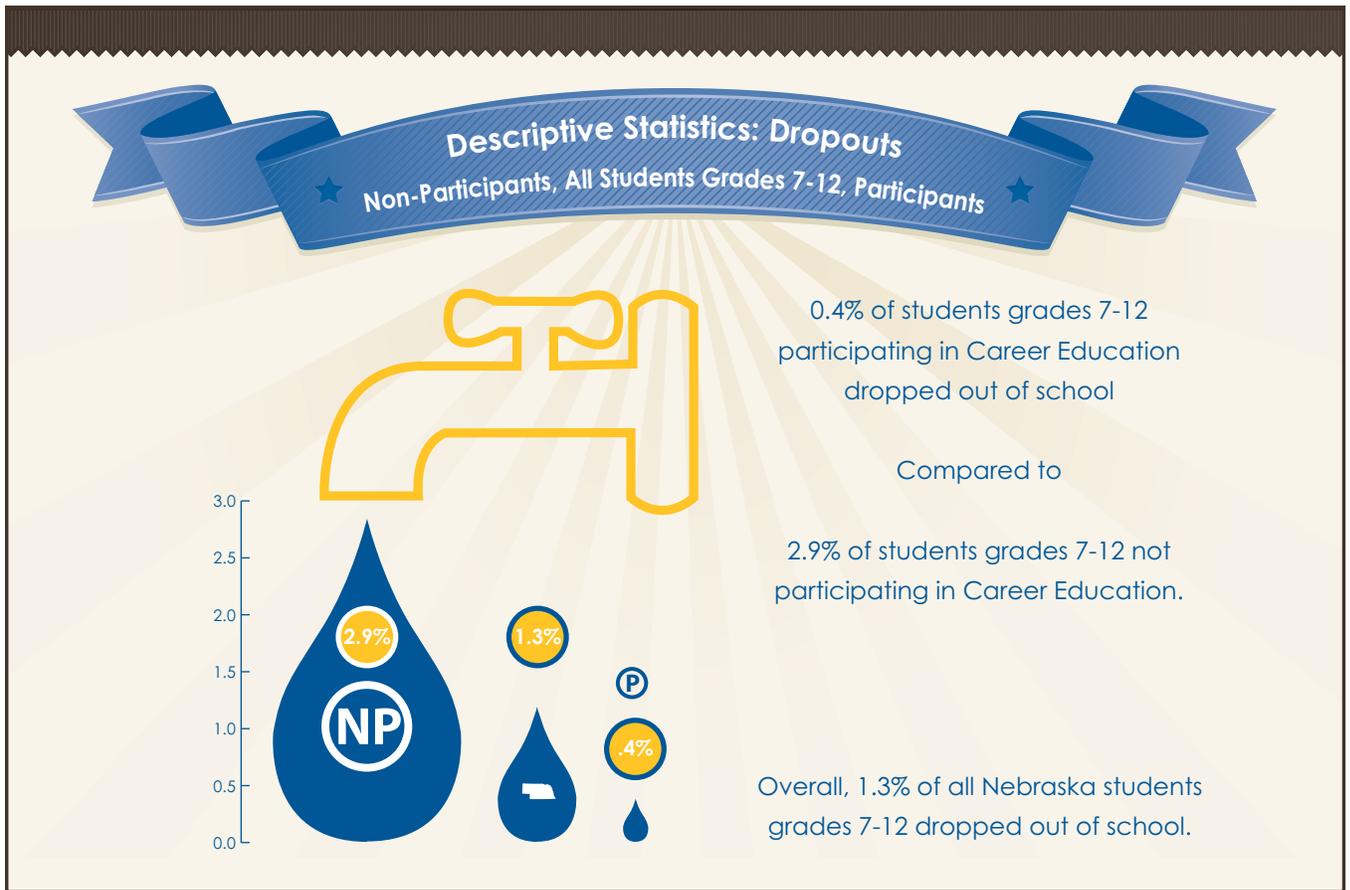


of Nebraska high school seniors completed an approved program of study and met district/system requirements for a high school diploma

of CTE Concentrators completed an approved program of study and met district/system requirements for a high school diploma

Completer with Diploma

- 82 percent of Nebraska high school seniors completed an approved program of study and met district/system requirements for a high school diploma compared to 99 percent of Career Education Concentrators. This finding reveals a 17 percentage point difference between the two groups.
- Put another way, the odds of completing high school with a diploma are 25.6 times greater for CTE Concentrators than students not concentrating in CTE.
 - This finding represents the largest deviation identified between Career Education students and the average Nebraska high school student when examining the 2010-2011 NSSRS data.

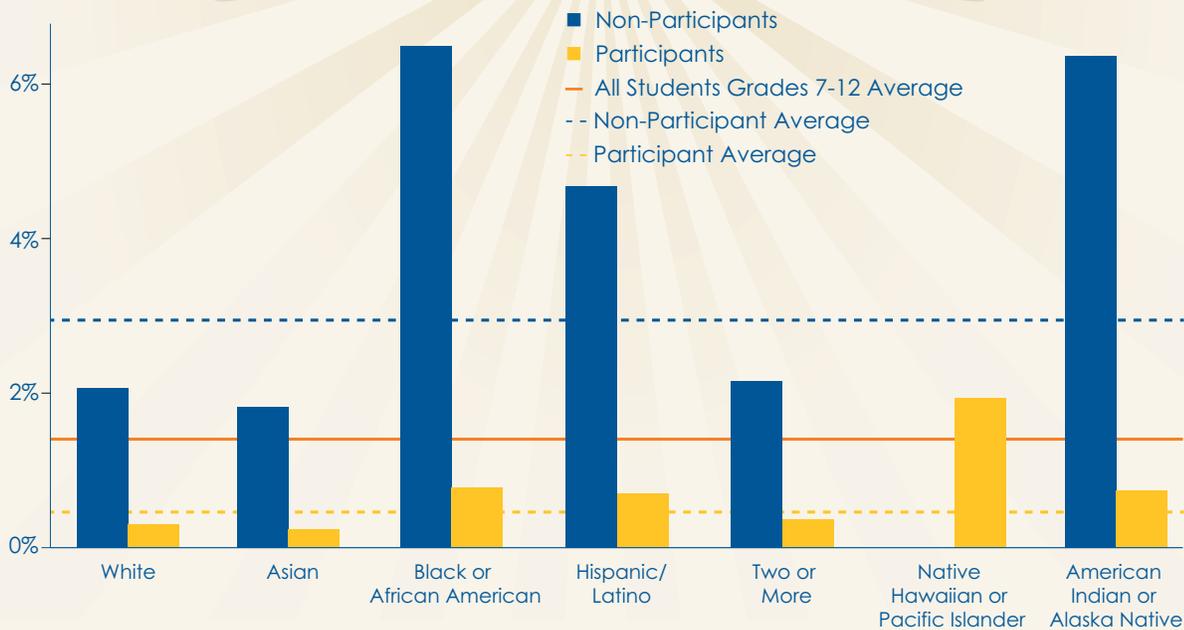


Dropouts

Dropout percentages for students in grades 7-12 during the 2010-2011 school year are as follows:

- Participants (students taking at least one CTE semester-course during the academic year) = 0.4 percent, Non-Participants = 2.9 percent, and overall = 1.3 percent of all Nebraska students in grades 7-12 (Participants and non-participants combined) were identified as dropouts.
- This reveals a 2.5 percentage point deviation in the average dropout percentage between CTE Participants and non-participating students.
- In other words, the odds of being classified as a dropout are 7.4 times greater for students not participating in CTE than CTE Participants.

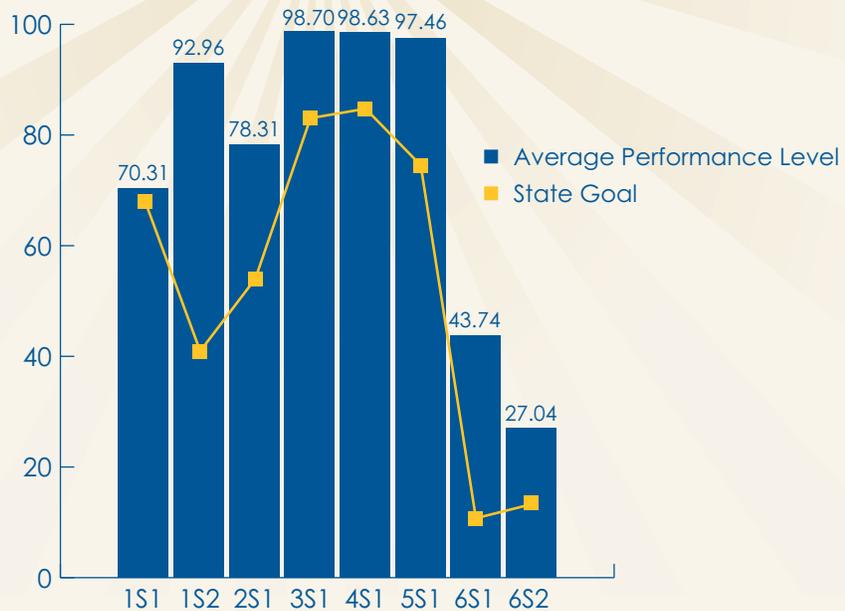
Descriptive Statistics: Dropouts by Ethnicity Non-Participants vs. Participants



Dropouts by Ethnicity

- The overall dropout percentage for all students in grades 7-12 was 1.31% during the 2010-2011 school year.
- Among students not participating in CTE, dropout percentages disaggregated by ethnicity are as follows: White = 2.07%, Asian = 1.83%, Black or African American = 6.49%, Hispanic/Latino = 4.68%, two or more = 2.16%, Native Hawaiian or Pacific Islander = 0%, American Indian or Alaska Native = 6.36%.
 - Overall, the dropout percentage for all students in grades 7-12 not participating in CTE is 2.88%.
- Among CTE Participants, dropout percentages disaggregated by ethnicity are as follows: White = 0.30%, Asian = 0.24%, Black or African American = 0.78%, Hispanic/Latino = 0.71%, two or more = 0.37%, Native Hawaiian or Pacific Islander = 1.94%, American Indian or Alaska Native = 0.74%.
 - The overall dropout percentage for all CTE Participants is 0.40%, revealing a difference of 2.44% in the average dropout percentage between non-participants and CTE Participants.
- Deviations in the dropout percentages of these two groups are exaggerated when further examined by ethnicity. This difference is largest among Hispanic students where non-participating students have a dropout percentage of 6.49% while CTE participants have a dropout percentage of 0.71%. This finding reveals a difference of 5.71% in the dropout percentage between these two groups of Hispanic students in Nebraska.

★ 10-11 Secondary Average Performance ★

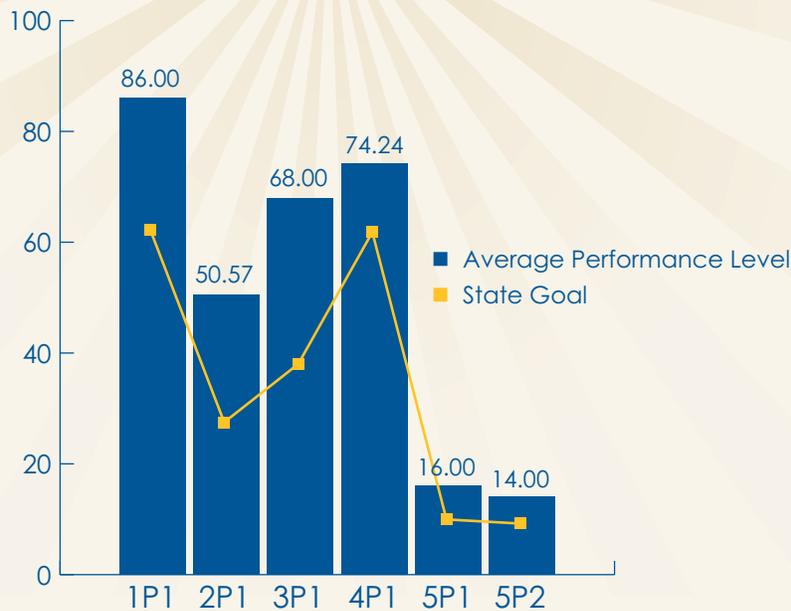


10-11 Secondary Average Performance

Nebraska's average Perkins performance among secondary students for the 2010-11 school year is depicted in this combination bar/line chart. The bars represent the average statewide performance for each Perkins core indicator while the line indicates Nebraska's respective federally negotiated performance goals for the 2010-11 school year. As shown in the figure above, for each measure of performance, Nebraska exceeded the negotiated goals. For the indicator measuring nontraditional participation (6S1), Nebraska exceeded the federal goal by more than 30 percentage points. Over all indicators, Nebraska exceeded federal goals by an average of nearly 26 percentage points.

| Performance Measure | State Goal (%) | State Avg Performance |
|----------------------------------|----------------|-----------------------|
| 1S1 Academic Reading | 68.00 | 70.31 |
| 1S2 Academic Math | 41.00 | 92.96 |
| 2S1 Technical Skill Attainment | 54.00 | 78.31 |
| 3S1 Completion | 83.00 | 98.70 |
| 4S1 Graduation Rate | 84.70 | 98.63 |
| 5S1 Post School Placement | 74.50 | 97.46 |
| 6S1 Nontraditional Participation | 10.75 | 43.74 |
| 6S2 Nontraditional Completion | 13.25 | 27.04 |

10-11 Postsecondary Average Performance



10-11 Postsecondary Average Performance

Nebraska's average Perkins performance among postsecondary students for the 2010-11 school year is depicted in this combination bar/line chart. The bars represent the average statewide performance for each Perkins core indicator while the line indicates Nebraska's respective federally negotiated performance goals for the 2010-11 school year. As shown in the figure above, for each measure of performance, Nebraska exceeded the negotiated goals. For the indicator measuring student retention (3P1), Nebraska exceeded the federal goal by nearly 29 percentage points. Over all indicators, Nebraska exceeded federal goals by an average of more than 17 percentage points.

| Performance Measure | State Goal (%) | State Avg Performance |
|----------------------------------|----------------|-----------------------|
| 1P1 Technical Skill Attainment | 62.50 | 86.00 |
| 2P1 Completion | 27.75 | 50.57 |
| 3P1 Student Retention | 38.25 | 68.00 |
| 4P1 Student Placement | 62.00 | 74.24 |
| 5P1 Nontraditional Participation | 10.25 | 16.00 |
| 5P2 Nontraditional Completion | 9.50 | 14.00 |

Longitudinal Analysis of CTE Programs in Nebraska: A 30-Year Evaluation of the NDE Curriculum Report

The Nebraska Department of Education's Curriculum Report was established during the 1979-1980 school year to validate compliance with Rules 10 and 14, i.e. Instructional Units and Percent of Teachers teaching in their Endorsed Area. However, with the development of the Student Grades Template as part of the Nebraska Student and Staff Record System (NSSRS), the need for the annual Curriculum Report was eliminated and the report was discontinued following the 2010-2011 academic year.

The Curriculum Report was used to collect information from schools such as course codes, minutes per session, and sessions per year in order to determine the number of “instructional units” offered by a school. Officially, an instructional unit is defined as “15 clock hours (900 minutes) of classroom instruction in a course offered in the secondary school.”

In this study, career education program information was extracted from NDE Curriculum Report data collected between the 1982-1983 (the earliest year of digitized information available) and 2010-2011 school years.¹ Data from over a nearly 30-year period was analyzed yielding the aggregate number of high schools that reported offering 1) at least 40 instructional units, and 2) at least one, but not more than 39 instructional units in CTE programs for each school-year. As such, taken as a whole, this analysis describes the relative ebb and flow of “full-time” and “part-time” CTE programs in Nebraska since 1982.

The chart to the right (top) offers a graphic depiction of Communication and Information Systems (CIS) programs in Nebraska over a nearly 30-year period.² Each bar represents the aggregate number of high schools statewide that reported offering at least 40 instructional units in CIS for that particular school-year. As such, overall, this chart depicts the increase in “full-time” CIS programs in Nebraska.³

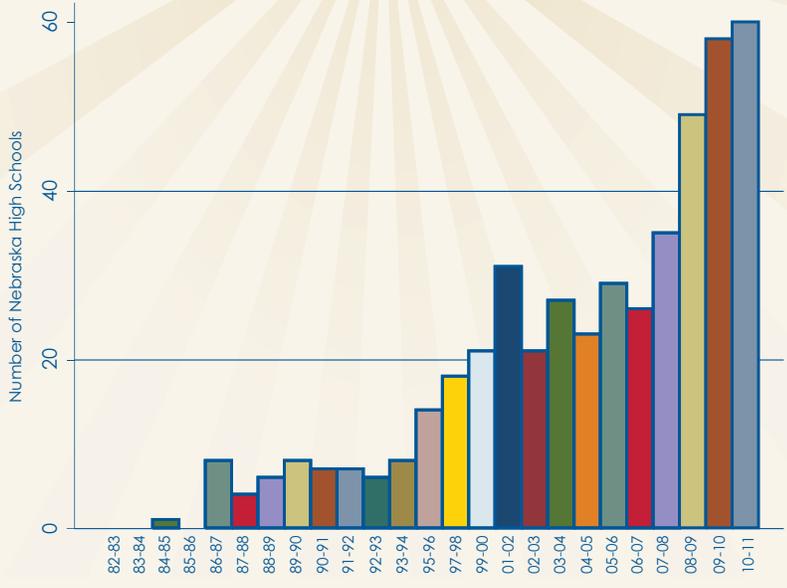
The second chart to the right (below) provides a summary of Health Sciences (HS) programs in Nebraska over a nearly 30-year period. Each bar represents the aggregate number of high schools statewide that reported offering at least one, but not more than 39 instructional units in HS for that particular school-year. As such, taken as a whole, this shows the substantial increase in “part-time” HS programs in Nebraska.⁴

For more findings across career clusters, please visit:

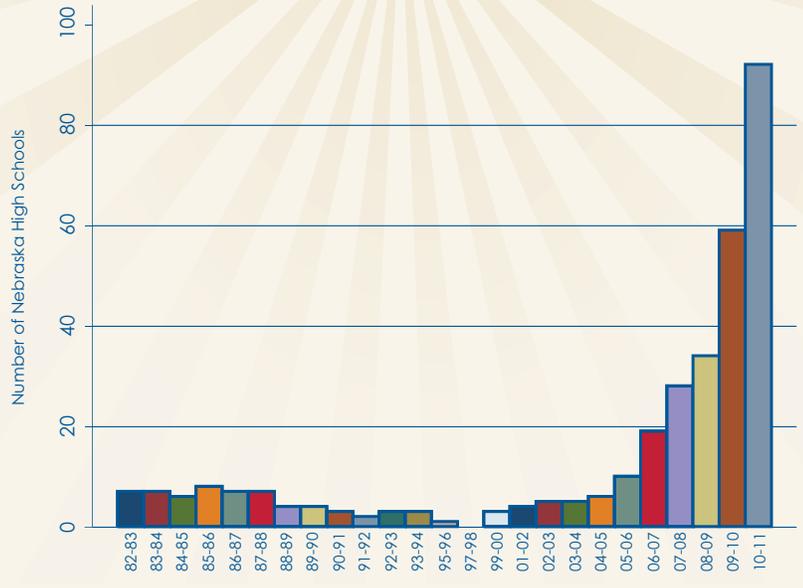
www.education.ne.gov/nce/DRAW/Clusters_Fields.html

1. Information is not presented for school years 1994-1995, 1996-1997, 1998-1999, and 2000-2001 as the Curriculum Report was not collected by the Nebraska Department of Education during these years.
2. For the purposes of this report, a CIS program is understood as any amalgamation of courses with NDE Course Codes beginning 27xxx for the academic years 1982-1983 through 2010-2011.
3. The term “full-time” is used in this study for descriptive parsimony when referring to Nebraska high school's that reported offering at least 40 instructional units within the CIS career field during a given school year. It does not reflect an official designation of career education programs by the Nebraska Department of Education.
4. The term “part-time” is used in this study for descriptive parsimony when referring to Nebraska high school's that reported offering at least one, but not more than 39 instructional units within the HS career field during a given school year. It does not reflect an official designation of career education programs by the Nebraska Department of Education.

Nebraska Career Education Programs: > or = 40 Instructional Units
Communication and Information Systems



Nebraska Career Education Programs: < 40 Instructional Units
Health Sciences



Examining the Perceptions of CTE in Nebraska

Survey of Educators (February 2010)

This report contains the findings of the survey: "Examining the Perceptions of Career and Technical Education (CTE) in Nebraska." The purpose of the survey was to measure the perceptions of Nebraska Educators regarding CTE in Nebraska. The results of the study were intended to inform standards revisions in Nebraska Career Education. The survey was administered to Administrators, Math and Science Teachers, Counselors and CTE Instructors in Nebraska during November and December, 2009. Over 1,000 Nebraska Educators participated in the survey. The relatively large sample size allows for multiple comparisons to be made of various groups of educators in the state.

Results show, in general, Nebraska Educators are positive about the current state of CTE in Nebraska. The results also show, however, that there are some important differences in how different groups of educators feel about the ability of CTE to prepare students for life after high school. In general, CTE Teachers and Administrators are more positive about CTE, while Math and Science Teachers and Counselors tend to be more ambivalent. Because Math and Science Teachers and Counselors tend to be most ambivalent, the findings suggest that it would be beneficial to follow up with these groups regarding their attitudes toward CTE. In addition, the results of the survey point to a number of areas where it might be beneficial to conduct further statistical analyses so that a greater understanding of these between-group differences might be obtained.

To view the full report and research summary, please visit:

www.education.ne.gov/nce/DRAW/Perceptions_Edu.html

Examining the Perceptions of CTE in Nebraska

Survey of General Public (July 2010)

This report presents the findings of the survey: "Examining Public Perceptions of Career and Technical Education (CTE) in Nebraska." The purpose of the survey was to inform possible revisions to CTE standards in Nebraska. Thus, the results provide a snapshot of public perceptions of CTE among a randomly selected portion of the public in Nebraska.

This survey was conducted during March, April and May, 2010. Both landline and cell phone users were surveyed. Of the 535 respondents, 447 (84%) were landline users, while the other 88 (16%) were cell phone users. The response rate for landline users was 33.9% and was 17.7% for cell phone users. The margin of error for this study is 4.23%. The mean age for the entire sample was 55; the mean age for landline users was 57 and the mean age for cell phone users was 44. Respondents were primarily female (59%) and white (95%). Respondents were roughly evenly split between rural (52%) and urban (48%) areas of the state; urban areas were defined as Douglas, Lancaster and Sarpy Counties, and rural areas were defined as any other county. Finally, 29% of respondents indicated that they had children in school in Nebraska. Where possible, researchers worded questions to allow for comparisons to responses to a similar survey that was administered to Nebraska educators in late 2009; these comparisons are included within this report.

In general, the results showed that the public had positive attitudes toward CTE and its applicability in the current economy. For example, nearly 84% of respondents agreed that, "CTE classes teach students the basic skills necessary for employment" and nearly 70% of respondents disagreed with the statement, "CTE courses are easy." The public also appeared to view CTE as dynamic and engaging for students. For instance, nearly 68% of respondents agreed that, "The content of CTE classes keeps up with changes in careers and technology." Additionally, over 80% of respondents agreed that, "CTE classes engage students and get them excited about learning." Participants were also queried about their opinions regarding the intellectual rigor of CTE courses and the responses were again positive: nearly 70% of respondents agreed that CTE classes stress academic achievement as much as technical skills and over 90% agreed that CTE is just as important as subjects such as math, English, and social studies.

To view the full report and research summary, please visit:

www.education.ne.gov/nce/DRAW/Perceptions_Pub.html



Nebraska School Counseling State Evaluation Study (Spring 2010)

In cooperation with the University of Massachusetts Amherst, a statewide evaluation of Nebraska school counseling programs was recently conducted to address the following questions:

1. Do school counseling programs in Nebraska high schools contribute significantly to students' educational outcomes?
2. What aspects of school practice contribute the most to students' educational outcomes?
3. Based upon these results, how might school counseling practice in Nebraska be improved?

This study found evidence that school counseling programs in Nebraska high schools contribute significantly to students' educational outcomes, including:

- Suspension Rate
- Discipline Incidence Rate
- Attendance Rate
- Math Proficiency
- Reading Proficiency
- Technical Career Skills
- Program of Study Completion

School counseling programs are effective in helping to achieve important student educational outcomes when they: engage in systematic planning and evaluation, focus school counselor efforts on the professional work of school counseling, enable counselors to spend most of their time in work that directly benefits students, intentionally address educational attainment for all students, possess resources to support professional development, are integrated into the academic work of the school and coordinate with parents. While the findings cannot assure that given practices are causally related to improvements in student outcomes, this evaluation model identifies practices that are likely to result in improvements in student outcomes.

This study assesses the contribution school counseling programs have on student educational outcomes after controlling for demographic differences among schools. Actual school-level outcome data and demographic data were obtained from the Nebraska Department of Education. School counseling practices and programs were collected through an internet-based survey of high school counselors and principals. The survey response rate was 48.9% (115) for counselors and 26.0% (68) for principals. Due to low participation of principal responses, results are based on counselor surveys only.

For additional resources visit:

www.education.ne.gov/CARED/research.html



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This project was funded through the Carl D. Perkins Career and Technical Education Act of 2006, administered through the Nebraska Department of Education. However, the contents do not necessarily represent the policy of the United States Department of Education, and you should not assume endorsement by the Federal Government.



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