

## **The Role of Support and OST Structure for American Indian Student Post High-School Goals**

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## The Role of Support and OST Structure for American Indian Student Post High-School Goals

### Abstract:

Despite the fact that most American Indian students plan to complete high school and pursue higher education, graduation rates do not reflect student intent. In the context of an ecological model of positive youth development and an eye toward the cultural importance of support and relationships, an analysis of 4000 American Indian student responses from the Minnesota Student Survey shows important trends in the role of support and structure in out-of-school-time (OST) activities and their post high-school goals. American Indian students who report higher levels of teacher and school support and participate in structured OST activities are more likely to achieve in school and set higher post high-school goals. Implications for practice are offered.

### SIGNIFICANCE

The name “Minnesota” is a Dakota Sioux word meaning “sky-tinted water,” acknowledging the Mississippi river and thousands of lakes. In fact, the names of many Minnesota counties, towns, and bodies of water are based on words from Cree, Dakota, and Sioux languages. Minnesota has the 9<sup>th</sup> largest American Indian student enrollment in the country, with about 1/3 attending urban schools. In Minnesota (MDE, 2016), there are 864,185 students in public K-12 schools; and although American Indian students only make up 2.4% of the state student population, there are 21,027 enrolled in Minnesota schools. In addition, about 1,000 American Indian students attend tribal schools in Minnesota (one of 23 states with Bureau of Indian Education schools). There are four K-12 Tribal Contract Schools, including Circle of Life (White Earth Reservation), Bug-O-Nay-Ge-Shig (Leech Lake Reservation), Fond du Lac Ojibwe (Fond du Lac Reservation), and Nay Ah Shing (Mille Lacs Reservation).

In 2015, across all grades and accountability tests, 37% of American Indian students were proficient in mathematics (68% for White students), 39% were proficient in reading (68% for White students), and 30% were proficient in science (62% for White students).

The 2015 four-year cohort graduation rate of White students was 87%, compared to 52% for American Indian students. However, this varies across the state. For example, in Minneapolis, the American Indian graduate rate is 36%. In 2014, the US Department of Education (2013) ranked Minnesota 48<sup>th</sup> out of 50 states for the 4-year cohort graduation rate of American Indian students (Wyoming and South Dakota graduate 47% of their American Indian students).

Paradoxically, 99% of American Indian students report that they plan to graduate from high school (from the Minnesota Student Survey, as reported below). Having an educational goal is not enough, as only half actually complete high school. The fact that American Indian students face such educational challenges provides rationale for exploring their educational aspirations. Educational aspirations—their post high school goals and education levels youth would like to attain—predict a variety of academic outcomes, including grades, educational attainment, motivational levels, and occupational prestige (Boxer et al., 2001; Cunningham et al., 2009; Dubow et al., 2009; Erberber et al., 2015; Mello, 2008). Educational goals account for considerable variance in academic achievement through a range of mediational pathways, including youth development factors such as social competence, positive identity, and family support (Bandura et al., 1996; Carroll et al., 2009; Dubow et al., 2009; Haller & Butterworth, 1960). Positive future

expectations have promotive effects on youth development (Boxer, et al., 2011); Student's educational goal and vocational aspirations are significant predictors of both educational and vocational attainment (Mau & Bikos, 2000).

### **Theoretical perspectives**

Transculturation is a theoretical framework used to understand why and how American Indian students persevere and succeed through mainstream education systems (Huffman, 2010). Briefly, transculturation is the process by which an individual enters and interacts with another culture without the loss of native cultural identity and outcomes (Huffman, 2008). For this study, we analyze the data under several assumptions that transculturation employs for American Indian students in mainstream American education systems: that a strong cultural identity is imperative for success; that cultural exchanges are understood as an enhanced learning process and not cultural hybridity; that cultural learning results in the ability to effectively participate in more than one cultural setting.

We also rely on ecological models of youth development (Bronfenbrenner, 1994), which suggest that youth develop within and across different spheres of influence and supports, including family, peers, schools, communities, and societies. But more importantly, we ascribe to a positive youth development perspective, stemming from positive psychology (Benson, Scales, Hamilton, & Sesma, 2006). From this approach, we argue that youth have an inherent drive for positive development and that positive development is supported through nurturing relationships in multiple contexts. Moreover, communities are important delivery systems for positive youth development, particularly in American Indian communities, where the transmission of essential cultural assets are grounded in the traditions and languages of each community.

Educators and youth workers have the opportunity to promote the development of strong cultural identities as well as opportunities for cultural learning, particularly teachers and other professionals that emphasize cultural inclusion (Huffman, 2010). However, the negative side of this is also true, where we typically see lower perceived teacher support as students age through the education system (Powers, 2005). In addition, the lack of interpersonal relationships with teachers puts American Indian students at a serious academic disadvantage (Powers). Campbell (2015) provided concrete suggestions for providing a more supportive and promising educational setting for American Indian students that included the teaching of culturally relevant learning opportunities that align with students' learning goals, adapting school schedules to students' home lives, as well as prioritizing the development of students' sense of worth in contributing to their community. Similarly, with American Indian college students, teachers are the strongest influence in educational experiences, noting that students appreciate receiving positive feedback and prefer teachers that are caring and respect students (Reyhner & Dodd, 1995).

In this study, we explore the role of out-of-school time (OST) and the nature of those OST experiences. We classified OST activities based on the nature of support and structure. In this way, we investigate one aspect of this larger developmental environment and support systems for American Indian students, with respect to their involvement in OST activities, the nature of those activities, and the associations these have with their post high school goals and educational aspirations.

### **Research Question**

Do the post high-school goals of American Indian student vary as a function of teacher/school support and the characteristics of OST activities in which students participate?

## METHODS

### Data Source

The Minnesota Student Survey (MSS) is designed by an interagency team from the MN Departments of Education, Health & Human Services, Public Safety, and Corrections to monitor important trends and support planning efforts of the collaborating state agencies and local public school districts, as well as youth serving agencies and organizations. The MSS is administered every three years to students in grades 5, 8, 9, and 11. All operating public school districts are invited to participate. In 2013, the survey was administered to 162,034 students in 312 school districts.

Characteristics of OST activities were measured in the MSS. Places American Indian students go after school were defined as supervised (e.g., library, job) or unsupervised (e.g., a park, the mall). In addition, OST activities that American Indian students participate in were defined as structured (e.g., studying, music lessons) or unstructured (e.g., watching TV, texting). Then, structured OST activities also were defined as academic (e.g., tutoring, science club) or nonacademic (e.g., sports teams, Y-clubs). Additionally, the MSS provides measures of Teacher-School Support (TSS), self-reported grades, and post high-school goals (specified below).

### Participants

Participants include 3998 American Indian students in 9<sup>th</sup> and 11<sup>th</sup> grade, with 51% female; 37% in grade 11; 77% live with biological mother, 50% with biological father (including 41% who live with both); 17% in special education, and 48% free/reduced lunch. Nearly 10% have changed schools within the school year.

## RESULTS

Table 1 contains the post high-school goals reported by our nearly 4000 students. First, we explored the extent to which there may be gender differences in post-high school plans. A higher percentage of female students reported plans to attend a 4 year college or university, whereas more males reported interest in joining the military (Figure 1). Interestingly, less than 1% of both males and females do not intend to graduate (summarized in Table 1), yet the graduation rate of American Indian students was 52%.

### Support

American Indian students who reported higher TSS also reported higher grades (Figure 2). The students who reported earning mostly Ds and Fs also reported the lowest levels of TSS. Some students reported negative TSS levels. Most students reported earning Bs (37%) and Cs (28%), with fewer earning As (20%) and the remaining earning Ds, Fs, or incompletes (14%). Students who reported earning As and Bs reported substantially higher levels of TSS. Students who earn mostly Fs are the only respondents who reported negative levels of TSS on average (a mean below 10 indicates more negative levels of TSS support, where 10 is neutral).

The post high school goals reported by students are associated with different levels of perceived TSS (Figure 3). Students with plans to go to a 4 year college reported the highest levels of TSS. American Indian students who plan to go to a 2 year college reported lower levels of TSS, but similar levels as those with career or military goals. Students who did not intend to graduate reported lower perceived TSS. In fact, this was the only goal group that consistently

reported negative TSS levels. Perceived levels of support are positively associated with school grades and higher post-secondary aspirations. But most notably, those students not planning to graduate perceive very low TSS.

### **Characteristics of OST Activities**

OST activities were classified by whether they were supervised or structured, and the extent to which structured activities were academic in nature.

For OST, more students go to unsupervised settings after school overall (Figure 4). American Indian students that planned to attend a 4 year college or university were more likely to participate in supervised settings than other goal groups and slightly fewer in unsupervised settings than most other groups. Moreover, within each setting, there are minimal differences across the different goal groups. The minimal rate of participation by American Indian students in supervised OST is important to note, less than 20% on average across groups. Students who do not intend on graduating participated in slightly more unsupervised settings on average relative to all other groups.

Furthermore, American Indian students participate in more unstructured than structured OST activities (Figure 5). However, there are greater differences across goal groups for both structured and unstructured OST activities. Students with plans to attend a 4 year college or university are more likely to attend structured OST activities and less likely to attend unstructured OST activities, on average compared to most other groups. American Indian students who plan on earning a GED or do not intend on graduating had higher levels of participation in unstructured OST activities; those not planning to graduate were the least likely to participate in structured activities.

There is a minimal difference across goal groups when considering the academic nature of structured OST activities (Figure 6). Slightly more students participate in nonacademic versus academic activities. It seems that the important piece of information from this analysis is that once students participate in structured activities, it doesn't matter much whether the activity is academic in nature – as a distinguishing characteristic of post high-school goals.

## **DISCUSSION**

The characteristics of out-of-school activities in which American Indian students participate are associated with their post high-school goals. American Indian students with the highest academic goals (attend 4-year college), tend to participate in supervised activities slightly more than other goal groups, but are more likely to participate in structured activities and less likely to participate in unstructured activities than other groups.

Similarly, students who reported having the goal of attending a 4-year college reported higher levels of teacher/school support. In addition, there are strong associations between levels of support and grades. This serves as means to highlight the importance of the coexistence between teacher and school support and school achievement and high post high-school goals, as found in previous literature.

This leads us to argue that it matters less whether American Indian students go to supervised or unsupervised after-school activities (since there are smaller differences across goals groups), and it doesn't matter whether the structured activities are academic or nonacademic. What makes a difference among American Indian groups with different post high-school goals is whether those activities are structured or unstructured. Herein is a potentially

malleable target for intervention – creating settings with high levels of support, providing structured OST activities, and promoting high post high-school goals.

These ideas will be expanded upon as we return to the theoretical perspectives for more discussion in the full paper.

## References

- Bandura, A., Barbaranelli, C., Caprara, G. V., & Pastorelli, C. (2001). Self-efficacy beliefs as shapers of children's aspirations and career trajectories. *Child Development, 72*(1), 187–206.
- Benson, P.L., Scales, P.C., Hamilton, S.F., & Sesma, A. (2006). Positive youth development: Theory, research, and applications. In W. Damon & R.M. Lerner (Eds.), *Handbook of Child Psychology: Vol. 1* (6th ed., pp. 894-941). New York, NY: John Wiley & Sons.
- Boxer, P., Goldstein, S. E., DeLorenzo, T., Savoy, S., & Mercado, I. (2011). Educational aspiration-expectation discrepancies: Relation to socioeconomic and academic risk-related factors. *Journal of Adolescence, 34*(4), 609–617.
- Bronfenbrenner, U. (1979). *The ecology of human development*. Cambridge, MA: Harvard University Press.
- Carroll, A., Houghton, S., Wood, R., Unsworth, K., Hattie, J., Gordon, L., & Bower, J. (2009). Self-efficacy and academic achievement in Australian high school students: The mediating effects of academic aspirations and delinquency. *Journal of Adolescence, 32*(4), 797–817.
- Cunningham, M., Corprew, C. S., & Becker, J. E. (2009). Understanding the role of future expectations in high-achieving African-American adolescents living in urban neighborhoods. *Urban Education, 44*, 280–296.
- Dubow, E. F., Boxer, P., & Huesmann, L. R. (2009). Long-term effects of parents' education on children's educational and occupational success: mediation by family interactions, child aggression, and teenage aspirations. *Merrill-Palmer Quarterly, 55*, 224–249.
- Erberber, E., Stephens, M., Mamedova, S., Ferguson, S., & Kroeger, T. (2015). *Socioeconomically disadvantaged students who are academically successful: Examining academic resilience crossnationally*. IEA's Policy Brief Series, No. 5, Amsterdam: IEA. Retrieved at [http://www.iea.nl/policy\\_briefs.html](http://www.iea.nl/policy_briefs.html)
- Haller, A. O., & Butterworth, C. E. (1960). Peer Influences on Levels of Occupational and Educational Aspiration. *Social Forces, 38*(4), 289–295.
- Huffman, T. (2010). *Theoretical perspectives on American Indian education: Taking a new look at academic success and the achievement gap*. Lanham, MD: AltaMira Press.
- Mello, Z. R. (2008). Gender variation in developmental trajectories of educational and occupational expectations and attainment from adolescence to adulthood. *Developmental Psychology, 44*, 1069–1080.
- Minnesota Department of Education. (2016). *Minnesota report card*. Roseville, MN: Author. Retrieved at <http://rc.education.state.mn.us/>
- Reyhner, J., & Dodd, J. (1995, January). *Factors affecting the retention of American Indian and Alaska Native students in higher education*. Paper presented at the first annual Expanding Minority Opportunities National Conference, Tempe, AZ.
- US Department of Education (2013). *Common Core of Data*. Washington DC: Institute of Education Sciences, National Center for Education Statistics. Retrieved at [https://nces.ed.gov/ccd/tables/ACGR\\_RE\\_and\\_characteristics\\_2013-14.asp](https://nces.ed.gov/ccd/tables/ACGR_RE_and_characteristics_2013-14.asp)
- Wilcox, K.C. (2015). Not at the expense of their Culture: Graduating Native American youth from high school. *The High School Journal, 98*(4), 337–352.

Table 1

What is the MAIN thing you plan to do right AFTER high school?

	Frequency	Percent	Valid Percent
I don't plan to graduate from high school	30	0.8	0.8
Get my GED	70	1.8	1.8
Go to a two-year community or technical college	505	12.6	13.3
Go to a four-year college or university	2113	52.9	55.6
Get a license or certificate in a career field	174	4.4	4.6
Attend an apprenticeship program	9	0.2	0.2
Join the military	379	9.5	10.0
Work at a job	284	7.1	7.5
Other	237	5.9	6.2
Sub-Total	3801	95.1	100.0
Missing	197	4.9	
Total	3998	100.0	



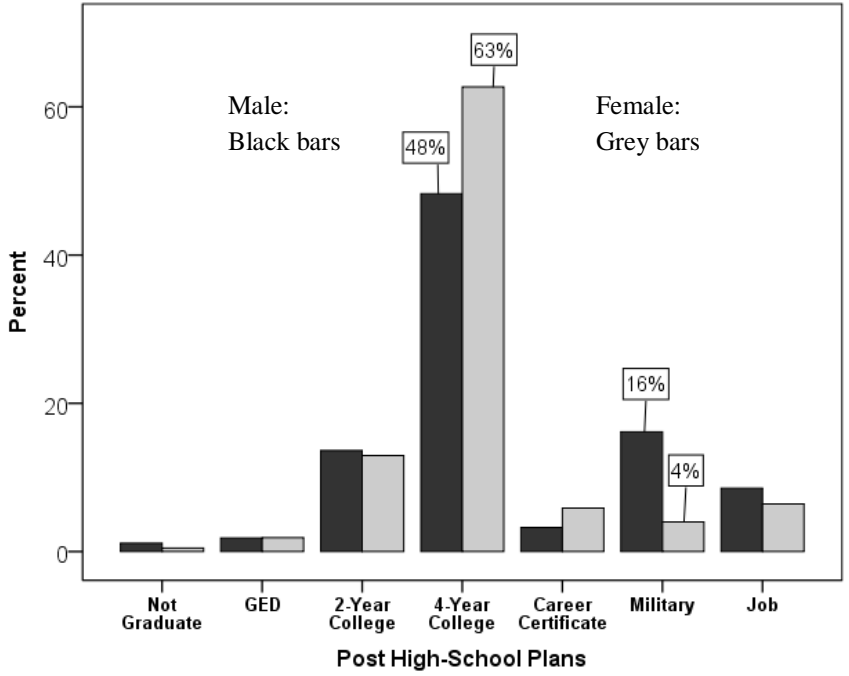


Figure 1. Post high-school plans of American Indian students by gender.

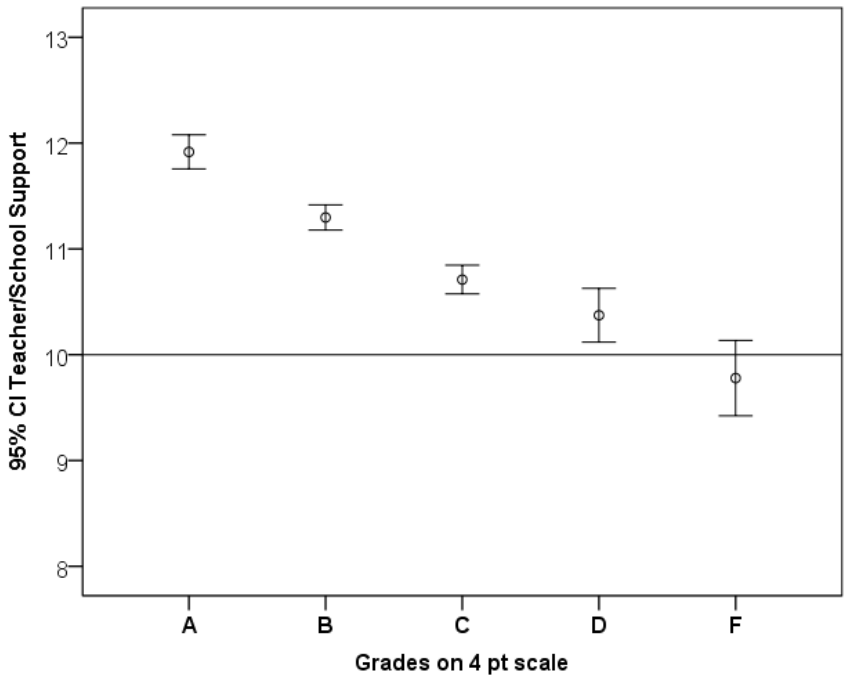


Figure 2. Teacher/school support means and 95% confidence levels for each level of typical grades reported by American Indian students (10 is a neutral level of TSS).

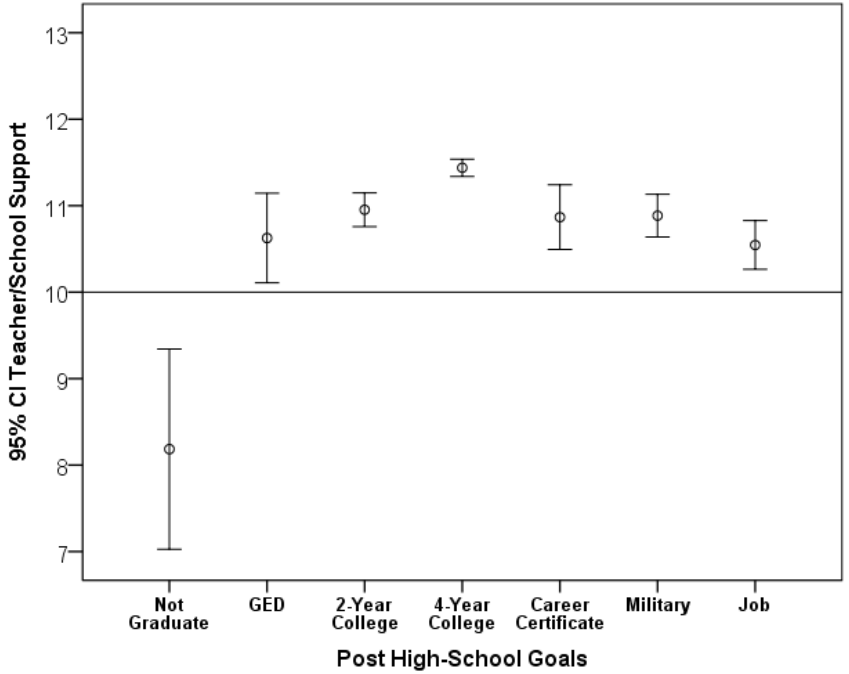


Figure 3. Teacher/school support means and 95% confidence levels for each post-high school goal reported by American Indian students (10 is a neutral level of TSS).

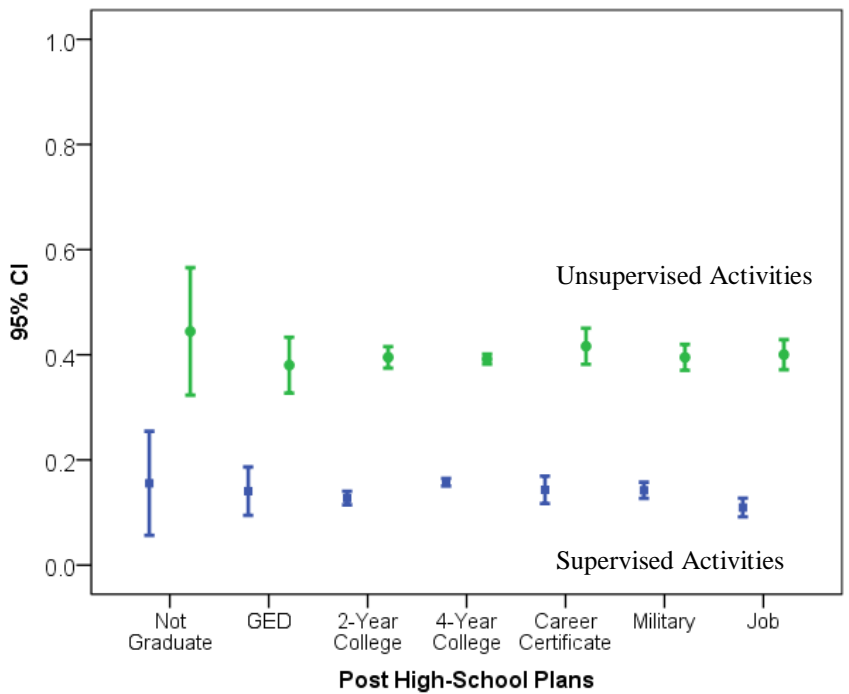


Figure 4. Proportion of students in supervised (blue, bottom row) or unsupervised (green, top row) after school activities by their post high-school goals.

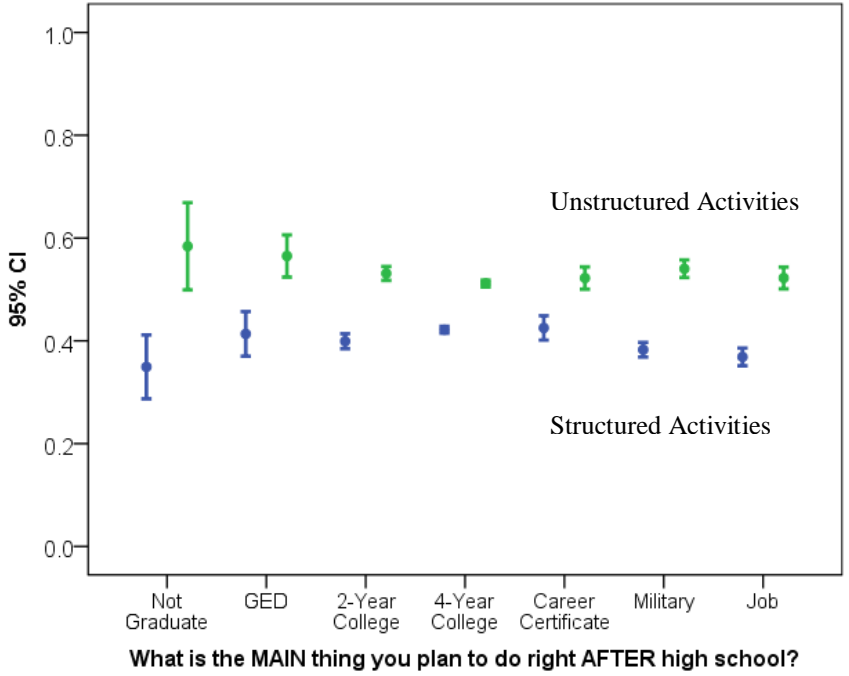


Figure 5. Proportion of students in structured (blue, bottom row) or unstructured (green, top row) after school activities by their post high-school goals.

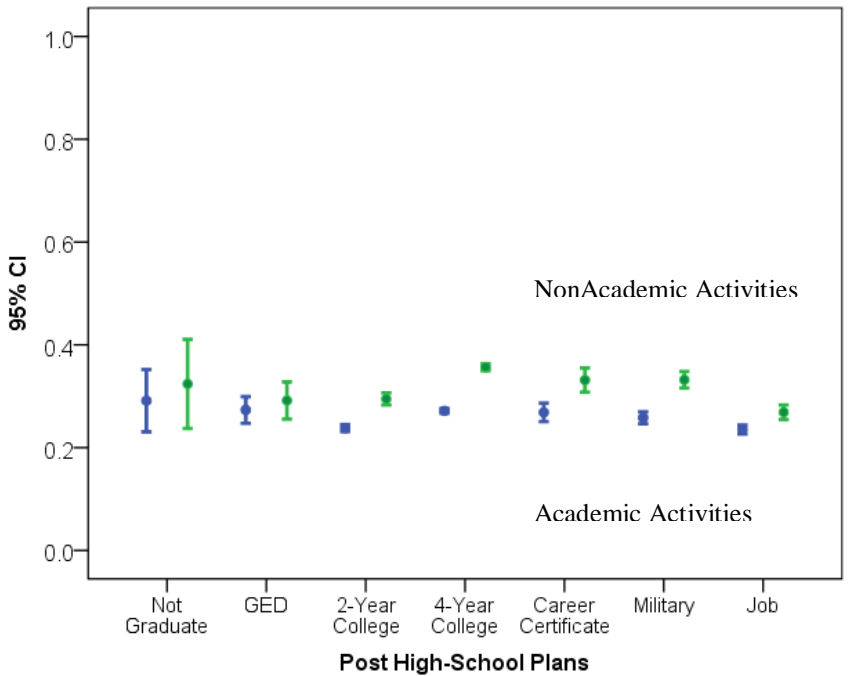


Figure 6. Proportion of students in academic (blue, bottom row) or nonacademic (green, top row) supervised after school activities by their post high-school goals.