



# Career Aspirations of the Agricultural Technology & Mechanical Systems State CDE Competitors

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## INTRODUCTION

- Agricultural mechanics is traditionally an important component of agricultural education (Langley, Tummons & Kitchel, 2018).
- It is important that we identify who the students are that compete in agricultural mechanics-based events (CDEs).
- Having an understanding of students who compete in the Agricultural Technology & Mechanical Systems (AGSTM) CDE, will help us address the national shortage we are facing for qualified undergraduates (Settle, et. al, 2013)
- Previous research has shown that participants enrolled in agricultural mechanics events exhibit higher interest in pursuing an agriculture career (Lund & Chumbley, 2018).
- When contacting the Texas FFA executive director, it was found that the majority of FFA students classified as white (57%) males (53%).
- The largest percentage of students identifying as white, non-Hispanic (57%).

## Objective

The objective of this study is to determine the demographics, educational goals and career goals of participants at the state Agricultural Technology & Mechanical Systems career development event (CDE).

## Methods & Procedures

- The sample population for this study was high school students participating in the state AGSTM’s CDE.
- Data was collected at the state CDE using a researcher development demographic survey.
- The eight-question survey sought information related to basic demographics, post-secondary education plans, career goals and if parents had careers in agriculture.
- A total of 141 students competed in this event with 99 completing the survey, resulting in a response rate of 70%.
- Data was examined using SPSS version 23 (SPSS, 2015).
- Participant responses were analyzed using measures of central tendency

## Results & Findings

- Participants were predominately male (90.9%), white (87.9%) in their senior year (45.5%) and were from rural communities (55.6%) and 3A (30.3%) schools.
- Females only made up 7.1% ( $n = 7$ )
- Hispanic students, made up 12.1% ( $n = 12$ ) of overall participants.
- Those students from urban and suburban areas made up 20.2% ( $n = 20$ ) each.
- Future career intentions of the students were diverse, but there was a trend of those that intended to go into engineering and the metal fabrication/welder field (14.1%)
- When asked what their primary post-secondary school choice was, the majority selected college/university (66.7%). The survey asked if parents had a career in agriculture and the majority answered no (60.6%).
- The majority of rural students expressed interest in becoming metal fabricators/welders or stating “just wanted to make money” (14.5%) . The next most prevalent career choice was general construction/ building trades (15%).

## Conclusions

- Students participating in the state agriculture mechanics CDE were found most interested in pursuing career
- More post-secondary schools especially, College of engineering could use the AGSTM CDE as an opportunity for program recruitment.
- here was an overwhelming majority of males compared to females. As previously mentioned, this is not representative the Texas FFA student population. In personal communication with the Texas FFA executive director (Ray Pianzek, Sept. 2019) the dispersion between males and females is closer to 50/50.
- We can conclude that males are more interested in the AGSTM CDE compared to females.
- We found that the majority of students did not come from an agriculture background.

## Recommendations

- A recommendation for future studies would be replicate this study in other state CDE’s in order to compare differences
- Replicate this study at the National FFA AGSTM contest to determine any difference in the competitors’ populations.
- Teachers are encouraged to train the AGSTM CDE and open the opportunities that his brings to all students.
- It is our hope that this information can be used by industry leaders to recruit and prepare the future leaders in agriculture.