



EMS HOSA Survey and Results

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SCHOOL OF MEDICINE
BOWEN CENTER FOR HEALTH
WORKFORCE RESEARCH & POLICY

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EMS HOSA SURVEY AND RESULTS

PROJECT BACKGROUND

The Bowen Center, in partnership with the Indiana Department of Health (IDOH) and Indiana Department of Homeland Security (IDHS), is conducting an EMS Workforce Pipeline Analysis. This EMS Pipeline Analysis in its entirety will describe the size and geographic distribution of the EMS training system within Indiana. The perception of potential prospective EMS workers is critical to understanding the perceptions that may exist relating to careers in EMS.

An opportunity arose to capture the perspectives of middle and high school students at the Indiana Health Occupations Students of America (HOSA) State Conference. The Indiana HOSA is a student-led association focused on developing middle and high school students into the next generation of healthcare professionals through various healthcare experiences and opportunities¹. A survey was developed and administered to students at this event using the Qualtrics XM Platform™. The following report summarizing survey development and results.

SURVEY DEVELOPMENT

Various EMS workforce and broader career perception resources were identified and reviewed during development of the HOSA survey tool^{1,2,3,4}. Once an initial draft of questions was completed, these questions were shared with IDOH and IDHS for review and feedback. Changes were made to the survey based on this feedback and the survey questions were finalized. The finalized survey can be found attached to this report in Appendix A. In summary, the survey was broken into 4 sections: demographics, experience in high school (which asked questions about a student's plan to meet current graduation requirements), future career plans and EMS careers. Once finalized, the survey questions were input into Qualtrics and a QR code was developed for use at the conference. At the HOSA State Conference, the QR code was printed and available for students to scan at the Bowen Center booth. Students either used their personal phones to scan the QR and take the survey or used a laptop set up at the booth with the survey. Once students completed the survey, they received a small incentive (Rice Krispy treat).

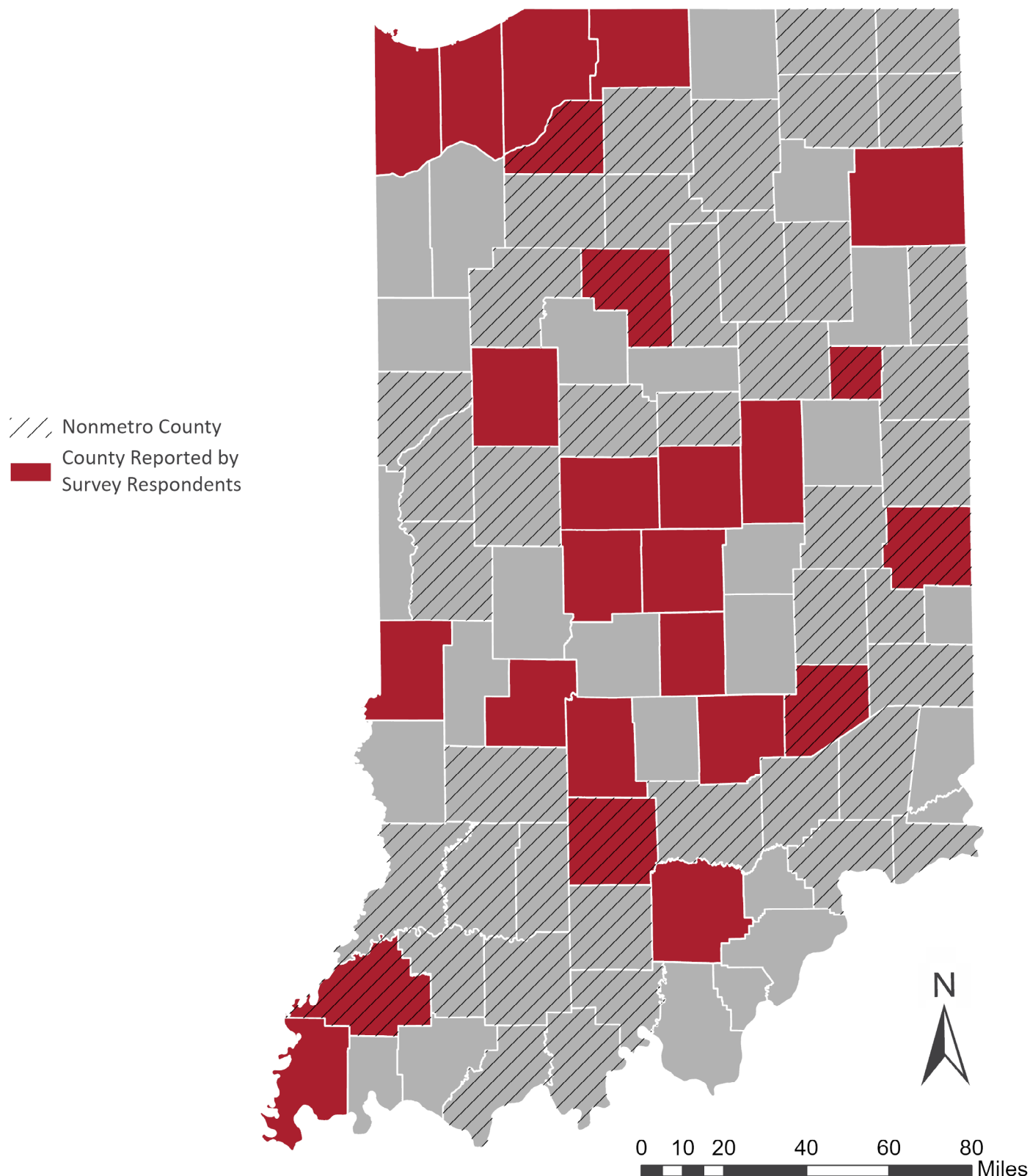
SURVEY RESULTS

The full breakdown of each question and their responses can be found in Appendix A. A summary of key questions is provided and described in the following section. There were 108 completed responses with very few questions having missing responses.

1. Crowe, R. 2018. An Assessment of Burnout among Emergency Medical Services Professionals. Available at https://etd.ohiolink.edu/apexprod/rws_etd/send_file/send?accession=osu1531751856368551&disposition=inline
2. Belotto, M. 2017. Emergency Medical Service Career Longevity: Impact of Alignment Between Preemployment Expectations and Postemployment Perceptions. Available at <https://scholarworks.waldenu.edu/cgi/viewcontent.cgi?article=4384&context=dissertations>
3. NextLevelJobs. EMT Certification Courses: How to become an EMT in Indiana. Available at <https://nextleveljobs.org/workforce-ready-grant/emt-certification/>
4. Career Clusters Interest Survey. Available at <https://cte.careertech.org/sites/default/files/StudentInterestSurvey-English.pdf>

What county are you from?

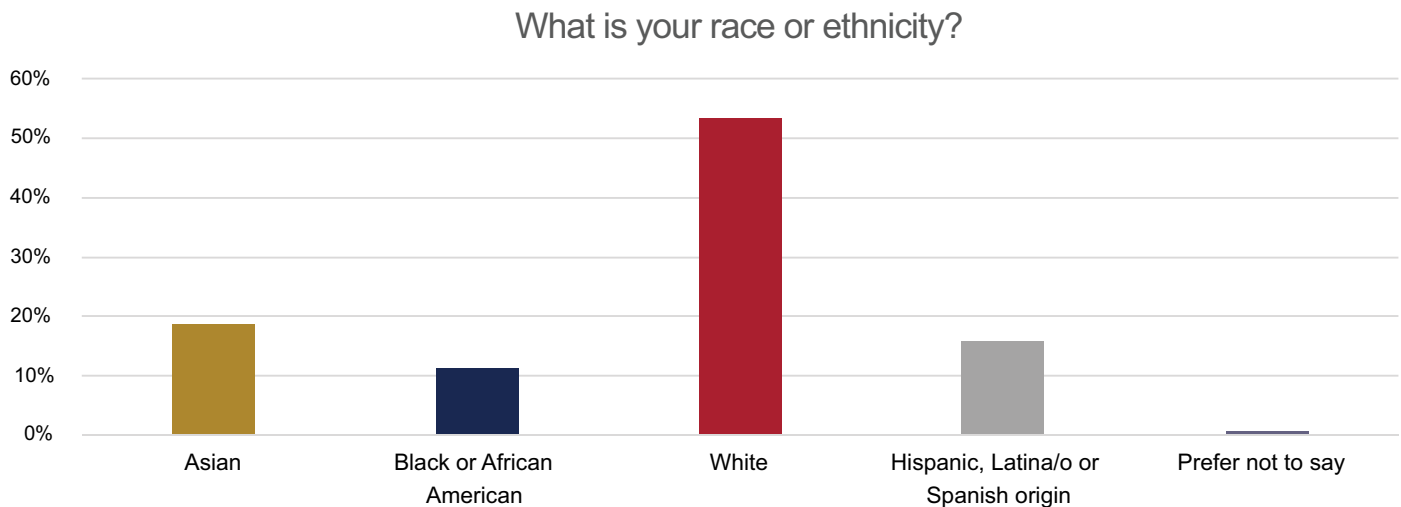
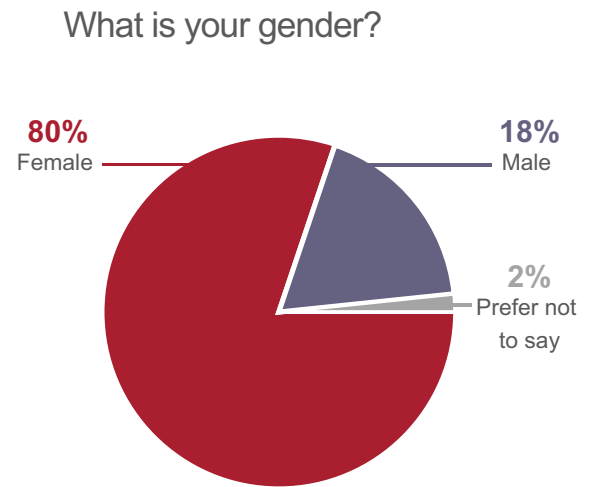
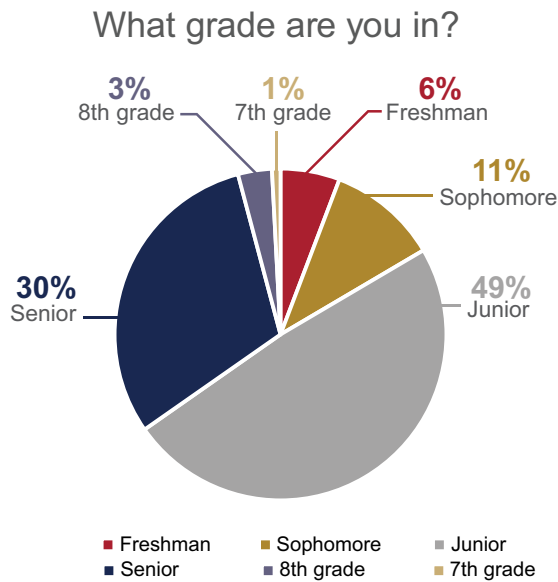
Results from the EMS HOSA Survey



Source: EMS HOSA Survey

DEMOGRAPHICS

Students were asked four demographic questions. The responses to this demographic question showed that most students were either Juniors or Seniors, primarily white and female and from 27 counties across the state of Indiana. Only 1 out of every 6 students was from a rural county.



STUDENT PLANS TO MEET GRADUATION REQUIREMENTS

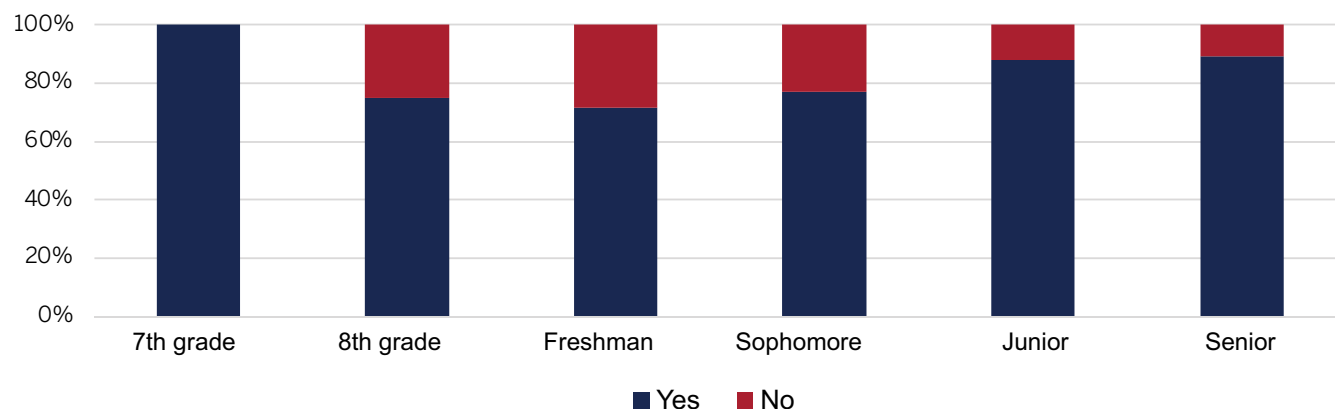
In addition to demographics questions, students were asked about their experience in high school. These questions focused on understanding students' familiarity with their individual plans to achieve the new Department of Education graduation requirements focused on employability skills and post-secondary competency areas⁵. Overall, students were familiar with these two graduation requirements and the vast majority had a plan for how they would meet these new requirements. As shown in the figures on the following page, younger students are less likely to already have a plan for their graduation requirements. Students who responded yes were asked to provide additional detail on how they planned to fulfill these requirements. A few common themes emerged with most students planning to volunteer, have a job outside of school or complete an internship or service project. Additionally, multiple students brought up Project Lead the Way. Project Lead the Way provides STEM experiences for students with a goal of helping students get experience beyond the classroom⁶. Another 6 students stated they planned to or had already completed an EMR certificate to fulfill this graduation requirement.

5. Indiana Department of Education. 2018. Graduation Pathways Panel. Available at <https://www.in.gov/doe/files/graduation-requirements.pdf>

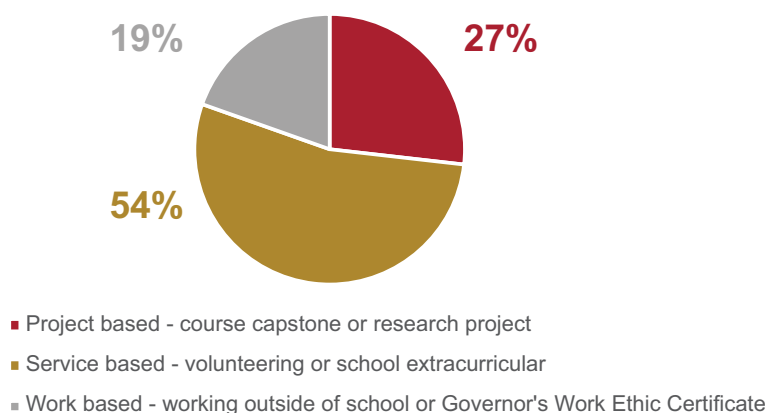
6. Project Lead the Way. Available at <https://www.pltw.org/about>

STUDENT PLANS TO MEET GRADUATION REQUIREMENTS (CONT.)

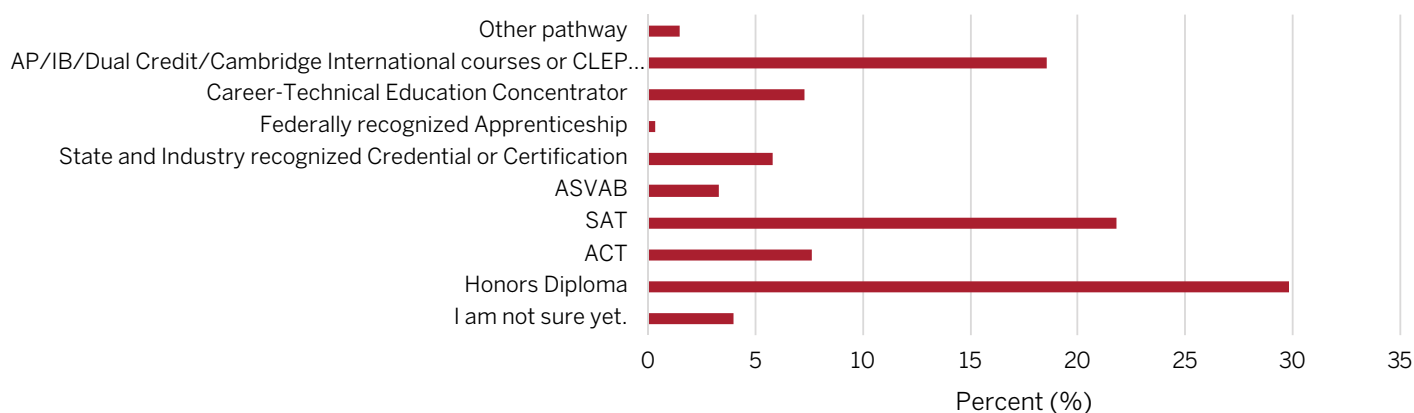
Do you have a plan to
"Learn and Demonstrate Employability Skills" by grade?



How will you Learn and Demonstrate Employability Skills?



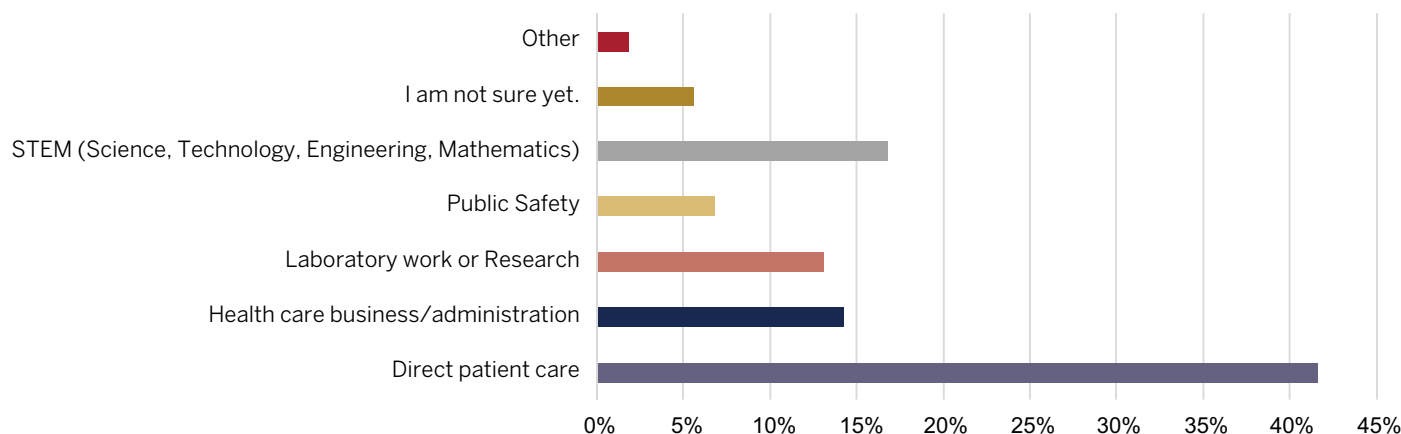
How do you plan to demonstrate
"Post-Secondary Competencies" for graduation?



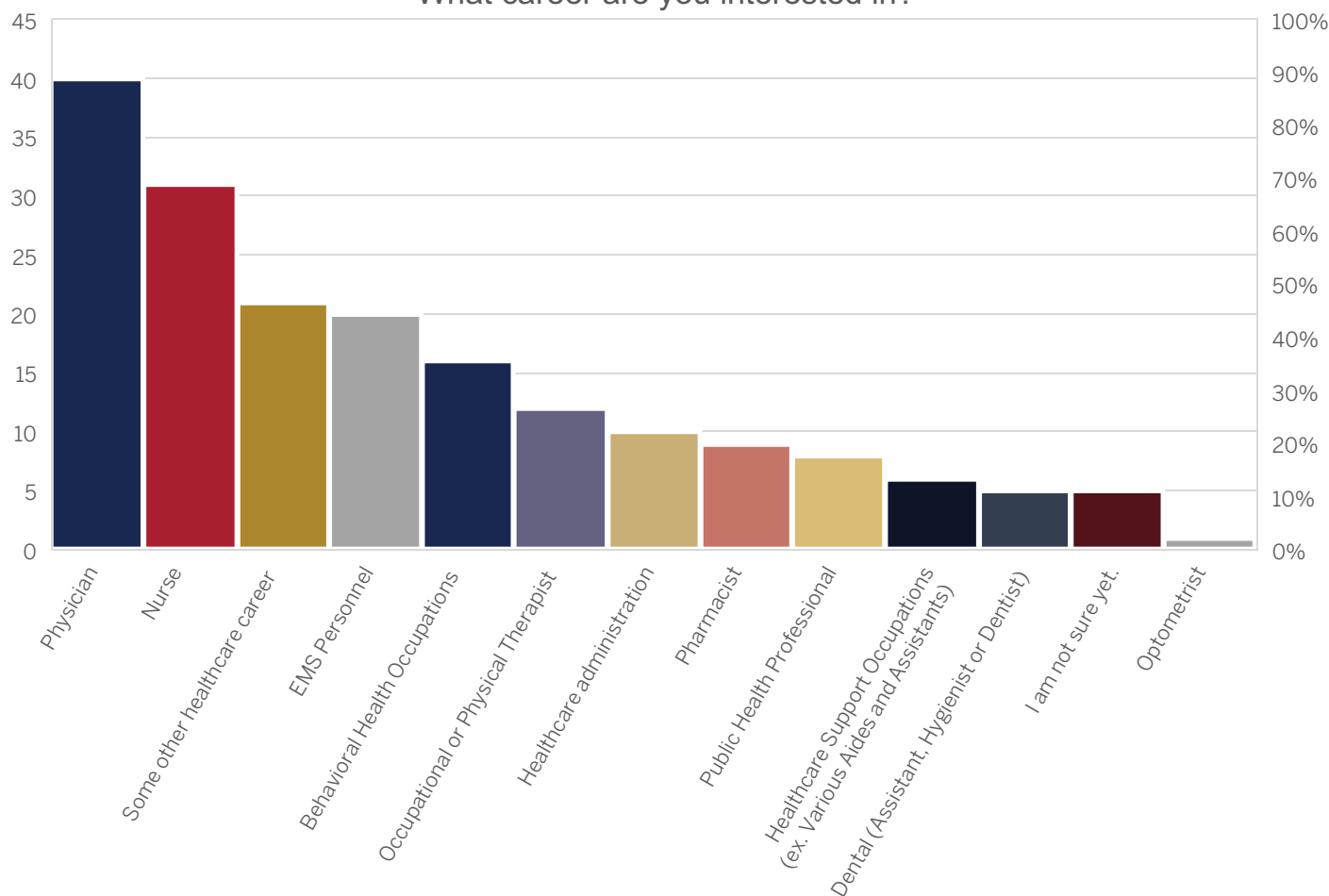
FUTURE CAREER PLANS

Students were subsequently asked questions about their career plans and interests. The goal of this section was to understand student interest in health or public service careers and other general student interests. Over 90% of students were already interested in one or more careers in health with the majority reporting an interest in becoming a physician or a nurse. Approximately 10% of students expressed an interest in becoming an EMS professional. It is important to note that most of the questions in this section were multiple response questions meaning that students could select more than one.

What healthcare field are you most interested in?



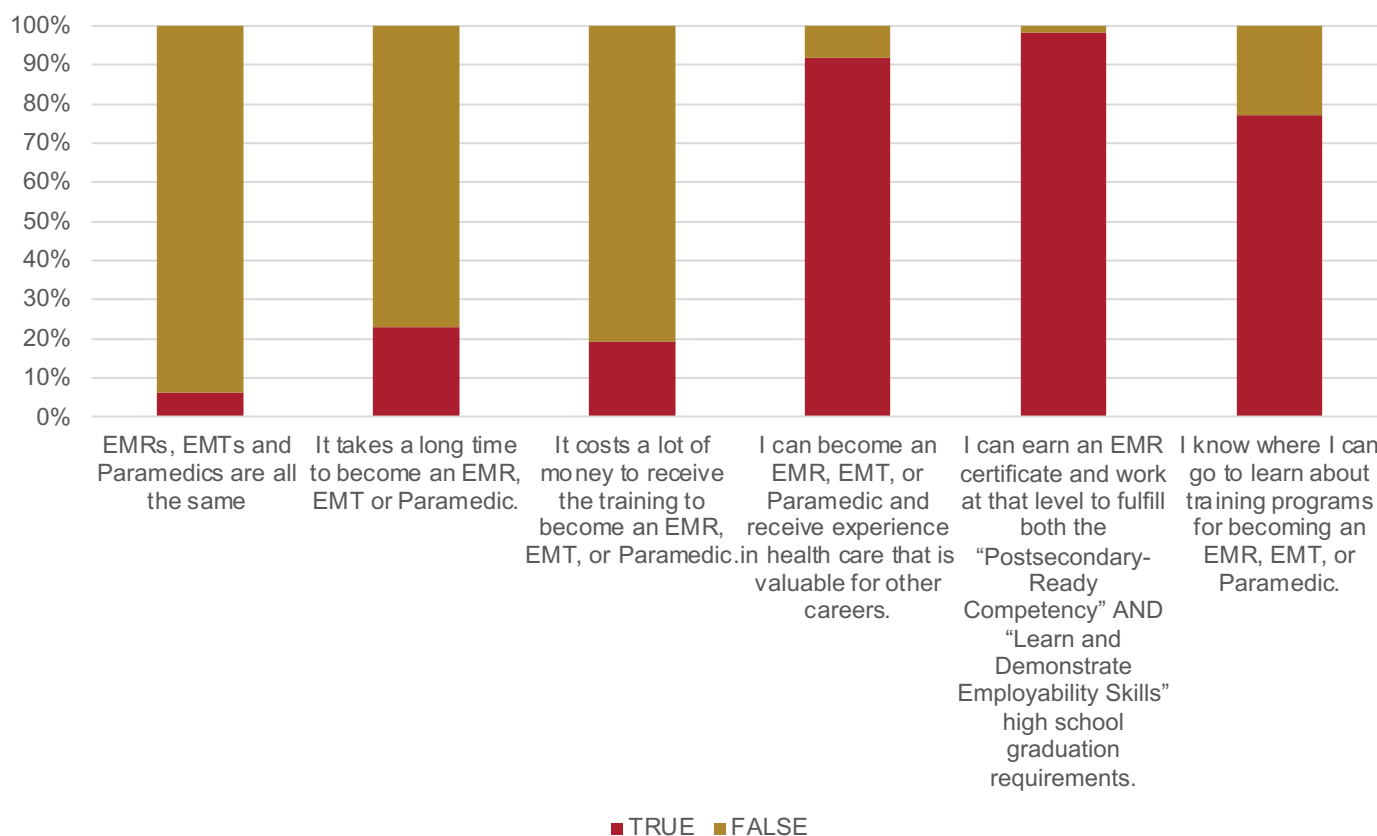
What career are you interested in?



EMS CAREERS

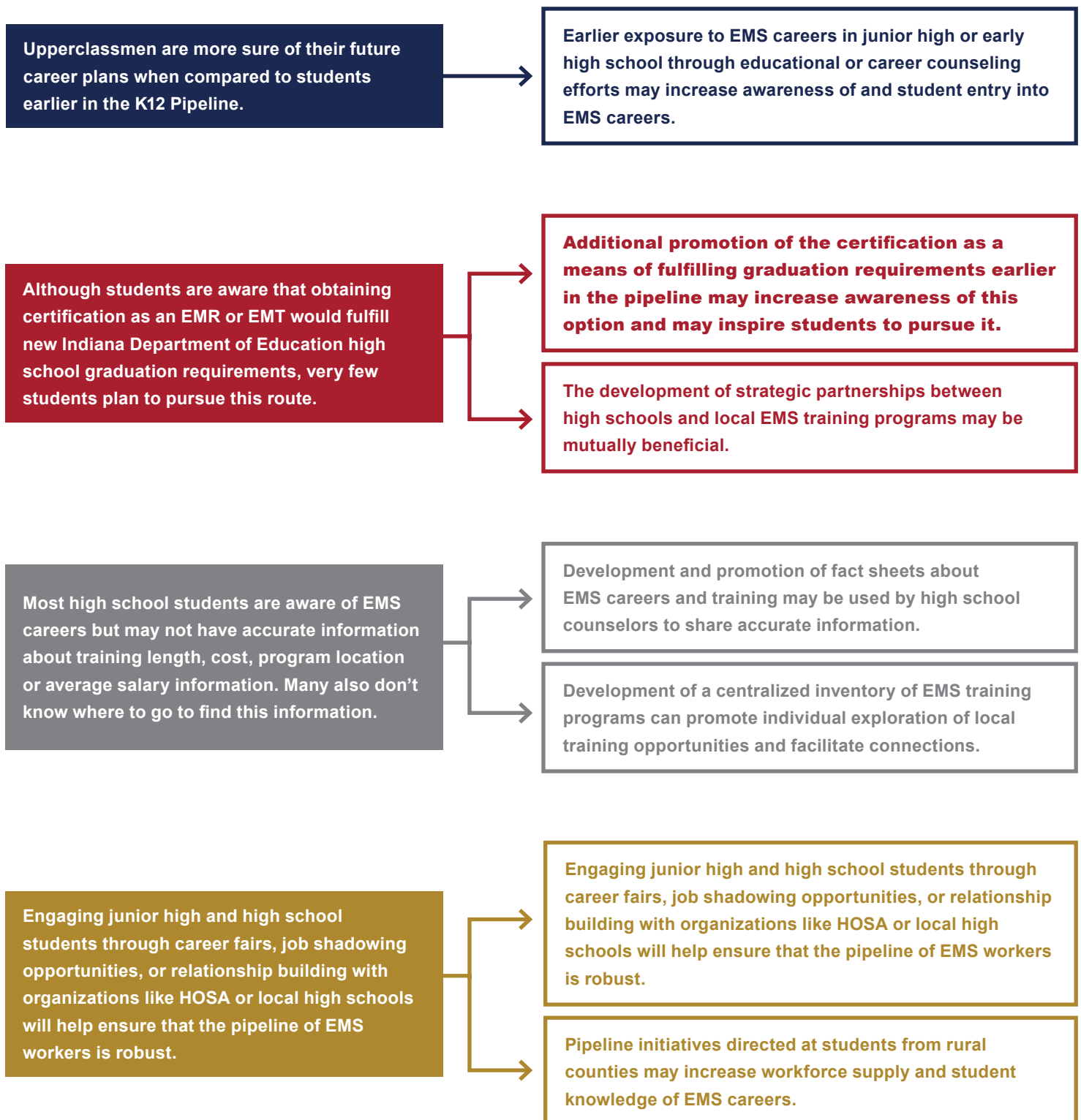
Finally, students were asked a variety of questions to understand their expectations and perceptions of EMS careers and provide them with accurate information on EMS careers. The majority of students had heard of EMS careers either through 1) knowing someone in the field, 2) general knowledge or 3) from an academic advising appointment. More than 90% of students knew that EMTs, EMRs and paramedics were different careers, reported understanding training cost and length, and knew EMS careers (EMR specifically) could serve as steppingstones to other health professions as well as satisfy two high school graduation requirements. On the other hand, over 70% of students underestimated the average Paramedic salary. A quarter of the students were also unaware of where they could go to learn about training programs to become an EMS professional.

What is your current knowledge of EMS careers?



CONCLUSIONS AND CONSIDERATIONS

Kindergarten through 12th grade represents a sizable portion of the early EMS workforce pipeline. This report presents information about students' interest in and understanding of EMS careers. Findings from this survey point to potential opportunities for strengthening the EMS workforce through marketing and pipeline initiatives and are detailed below.



EMS HOSA SURVEY: BIG TAKEAWAYS

WHO WE SURVEYED



108

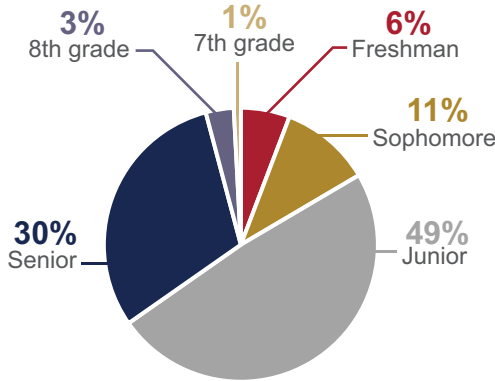
Students at a Health Occupation Students of America Indiana State Conference on April 11th, 2023



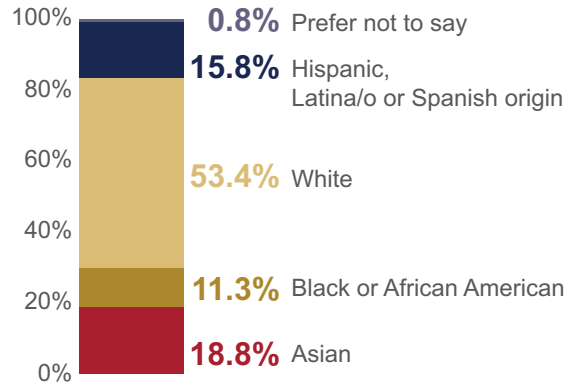
27

Indiana counties represented in student responses

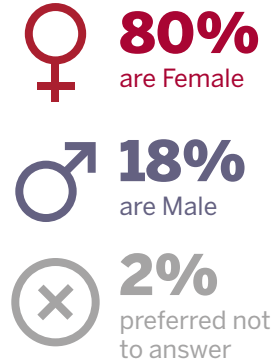
What grade were they in?



What was their race or ethnicity?



What was their gender?



WHAT WE FOUND

Upperclassmen are more sure of their future career plans when compared to students earlier in the K12 Pipeline.

Who reports knowing what specific career they are interested in?

94.9%

Juniors & Seniors

77.1%

Junior High, Freshman, & Sophomores



Of all respondents, only **18.5%** report being interested in a career in EMS.

ROOM FOR IMPROVEMENT

- Expose K12 students to EMS careers at earlier points in the pipeline (elementary, middle school).

Most high school students are aware of EMS careers but may not have accurate information about **training length, cost, program location or average salary information**. Many also don't know where to go to find this information.



97.3%

of respondents indicated they are aware of EMS careers



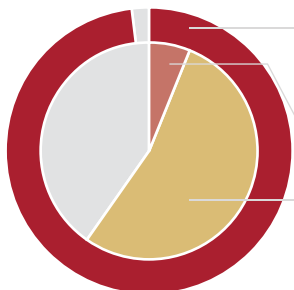
22.9%

Of students reported not knowing where to go to find more information about EMS careers

ROOM FOR IMPROVEMENT

- Engage students into EMS fields through career fairs, job shadowing opportunities, and internships.
- Targeting rural counties may support EMS workforce development in areas of greatest need.

Although students are aware that obtaining certification as an EMR or EMT would fulfill new Indiana Department of Education high school graduation requirements, **very few** students plan to pursue this route.



98.2% of students reported that they know that obtaining EMR or EMT certification would fulfill these requirements

6.2% plan to pursue that route

53.6% of students plan to complete a service-based activity through volunteering or a school extracurricular

ROOM FOR IMPROVEMENT

- Promote EMS certifications as pathways for fulfilling graduation requirements.
- Enhance partnerships between high schools and local EMS training programs to make EMS an accessible option..

Junior high and high school students are **engaged and passionate** about their **future health care careers**.

>1,300

Indiana students attended the HOSA State Conference

How did you learn about EMS careers?

30.2% Knowing an EMS personnel personally

7.6% Job fairs

18.9% Academic advisor

ROOM FOR IMPROVEMENT

- Promote fact sheets about EMS careers to various audiences (high school counselors, students)
- Develop a centralized inventory of EMS training program information for career planning.

APPENDIX A: HOSA SURVEY

This survey will be used to understand your interest in health careers, collect information from you about your perceptions of EMS careers and then provide information to you about EMS careers. It will only take 5 minutes to complete.

Before we get started, tell us a little about yourself.

Demographics

1. What grade are you in?
 - a. Freshman
 - b. Sophomore
 - c. Junior
 - d. Senior
 - e. Other [Text Box]
2. What zip code do you live in?
 - TEXT BOX
3. What is your gender?
 - a. Female
 - b. Male
 - c. Other
 - d. Prefer not to say
4. What is your race or ethnicity?

MULTI SELECT

 - American Indian or Alaska Native
 - Asian
 - Black or African American
 - Native Hawaiian/Pacific Islander
 - White
 - Some Other Race
 - Not Hispanic, Latina/o or Spanish origin
 - Hispanic, Latina/o or Spanish origin

The next section will ask you about your interest in health or public service careers.

Your Experience in High School

5. In order to graduate you are required to “Learn and Demonstrate Employability Skills.” Do you already have a plan to learn these skills through a Project-Based, Service-Based, or Work-Based Learning Experience?
 - a. Yes (move to 6)
 - b. No (skip to 8)
6. What type of experience are you going to complete to learn and demonstrate these skills?
 - a. I will be doing a project such as a **course capstone** or **research project**.
 - b. I will be involved in a service project such as a **volunteer engagement experience** or **school based extracurricular**
 - c. I will be involved in **work outside of the school** or completing a **Governor’s Work Ethic Certificate**
7. Can you please tell us a little more about the experience that you have planned?
 - TEXT BOX
8. You will also be required to demonstrate “Post-Secondary Competencies” (such as a diploma, credential, or certification). How

do you plan to demonstrate this competency?

- a. I am not sure yet.
- b. Honors Diploma
- c. ACT
- d. SAT
- e. ASVAB
- f. State and Industry recognized Credential or Certification
- g. Federally recognized Apprenticeship
- h. Career-Technical Education Concentrator
- i. AP/IB/Dual Credit/Cambridge International courses or CLEP Exams
- j. Locally created pathway

Your Career Plans

9. Do you already know what field or career you're interested in?
- a. Yes, I am interested in a career in healthcare or a health-related field (move to 10)
 - b. No (skip to 12)
10. What healthcare field are you most interested in?
- MULTIPLE CHOICE
- a. I am not sure yet.
 - b. Direct patient care
 - c. Laboratory work or research
 - d. Health care business/administration
 - e. STEM (Science, Technology, Engineering, Mathematics)
 - f. Other [TEXT BOX OPTION]
11. What career are you interested in?
- a. I am not sure yet.
 - b. Healthcare Support Occupations (ex. Various Aides and Assistants)
 - c. Nurse
 - d. Physician
 - e. Occupational or Physical Therapist
 - f. EMS Personnel
 - g. Behavioral Health Occupations
 - h. Public Health Professional
 - i. Dental (Assistant, Hygienist or Dentist)
 - j. Optometrist
 - k. Pharmacist
 - l. Some other healthcare career [TEXT BOX OPTION]

12. Are any of the below statements true?

- MULTI-SELECT

- a. I enjoy helping people.
- b. I would like to learn more about the human body, diseases, and treatments.
- c. I like work that includes practical, hands-on problems and solutions.
- d. I am interested in principles and processes for providing customer and personal services. This includes customer needs assessment, meeting quality standards for services, and evaluation of customer satisfaction.
- e. I like working with, communicating with, and teaching people of all ages from children to older adults.
- f. I like searching for facts and figuring out problems mentally.
- g. I enjoy working under pressure and can respond quickly and calmly in emergency situations.
- h. I prefer to work as a member of a team.
- i. I can follow guidelines exactly as they are written.
- j. I prioritize accuracy in my work.
- k. I care about people, their needs, and their problems.
- l. I find satisfaction in serving my community.

13. Which of these school subjects interest you?

- MULTI SELECT

- a. Biological sciences
- b. Chemistry
- c. Math
- d. Occupational health classes
- e. Language arts
- f. Psychology/sociology
- g. First aid/first responder
- h. Other [TEXT BOX]
- i. None of the above

[If respondent answered question 10 b-l] Did you know? There are some careers in emergency medical services that you can obtain before or during college. Becoming an EMT or Paramedic could provide you with experience in health care and enhance your application to a college program to become a [CODED RESPONSE TO QUESTION 10].

[Displayed for all respondents] It's important to find a career that fits with your interest and your personality. Based on your answers and your participation in this event, it may be helpful to explore healthcare careers further! By answering the following questions, you may realize that a career in EMS could be a good fit for you.

Next, let's talk about what you know about a career as an EMR, EMT, or Paramedic. Don't worry, you won't get graded, but this helps us understand what we can do better to share the facts about these jobs.

EMS Careers

14. Have you ever heard of a career as an Emergency Medical Responder, Emergency Medical Technician, or Paramedic?

- a. Yes (move to 16)
- b. No (skip to 17)

15. How did you hear about these careers?
- a. I know someone who is an EMR, EMT, or paramedic
 - b. I learned about it during academic advising through my school counselor (or related activity)
 - c. I learned about this career at a job fair
 - d. I did my own research to learn about these jobs
 - e. I learned about careers in EMS on a television show or movie
 - f. General knowledge
 - g. Other [TEXT BOX OPTION]
16. EMRs, EMTs, and Paramedics are all the same.
- a. True
 - b. False
 - EMRs, EMTs and Paramedics are all separate career options with different sets of training, skills, and services.
17. What is the average salary of an EMT
- a. \$12.00 per hour (about \$25k a year)
 - b. \$14.00 per hour (about \$30k a year)
 - c. \$17.00 per hour (about \$35k a year)
 - d. \$19.50 per hour (about \$40k a year)
 - On average, EMTs in Indiana make about \$35,650 or \$17.41 per hour.
18. What is the average salary of a Paramedic?
- a. \$14.00 per hour (about \$30k a year)
 - b. \$17.00 per hour (about \$35k a year)
 - c. \$19.50 per hour (about \$40k a year)
 - d. \$22.00 per hour (about \$45k a year)
 - The average Paramedic in Indiana makes about \$ 45,895 or \$22.06 per hour.
19. It takes a long time to become an EMR, EMT or Paramedic.
- a. True
 - b. False

Most EMR and EMT programs can be completed within 3-4 months. After gaining initial experience as an EMT, a paramedic program could also be completed within a year.

20. It costs a lot of money to receive the training to become an EMR, EMT, or Paramedic.
- a. True
 - b. False
 - On average, EMR and EMT training programs cost about \$1,500 and many students do not pay at all (costs are covered by a state grant called NextLevel Jobs). Paramedic training programs can be more costly, about \$8,000 at Ivy Tech without any financial aid.
21. I can become an EMR, EMT, or Paramedic and receive experience in health care that is valuable for other careers.
- a. True
 - b. False
 - Working as an EMR, EMT or Paramedic can provide valuable clinical and real-world patient experience with relatively low cost and time commitment before moving on to other higher cost/commitment healthcare professions training programs.
22. I can earn an EMR certificate and work at that level to fulfill both the "Postsecondary-Ready Competency" AND "Learn and

Demonstrate Employability Skills” high school graduation requirements.

a. True

b. False

- To earn an EMR certificate, you must be 14 years old or older. Once this certificate is earned, you will meet the requirements for Postsecondary-Ready Competency requirement and then if you worked as an EMR you would meet the requirements for the Learn and Demonstrate Employability Skills requirement.

23. I know where I can go to receive training to become an EMR, EMT, or Paramedic.

a. True

b. False

- There are training programs all across the state that you can find by contacting the Indiana Department of Homeland Security. Grab an information sheet from us for that contact information.

Thank you for taking the time to fill out this survey! Your time has contributed to important EMS workforce research. Please take one of our handouts for more information on EMS careers or explore these careers through the links below:

Learn more about how you can access free training to become an EMT at: <https://nextleveljobs.org/workforce-ready-grant/emt-certification/>

Learn more about careers as an EMT or Paramedic at:

<https://www.nremt.org/EMT/Certification>

<https://www.nremt.org/paramedic/Certification>

Learn more about what's required to become an EMR, EMT, or Paramedic in Indiana: <https://www.in.gov/dhs/ems/individual-certifications/#Testing>

Bring this message with you and SNAP CRACKLE POP over to our table to receive your prize for completing this survey!