

# Factors Affecting Persistence of Undergraduate Students in Fisheries and Wildlife Programs

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# WHAT'S HAPPENING?

## Why are we doing this?



<http://gilroygarlicfestival.com/>



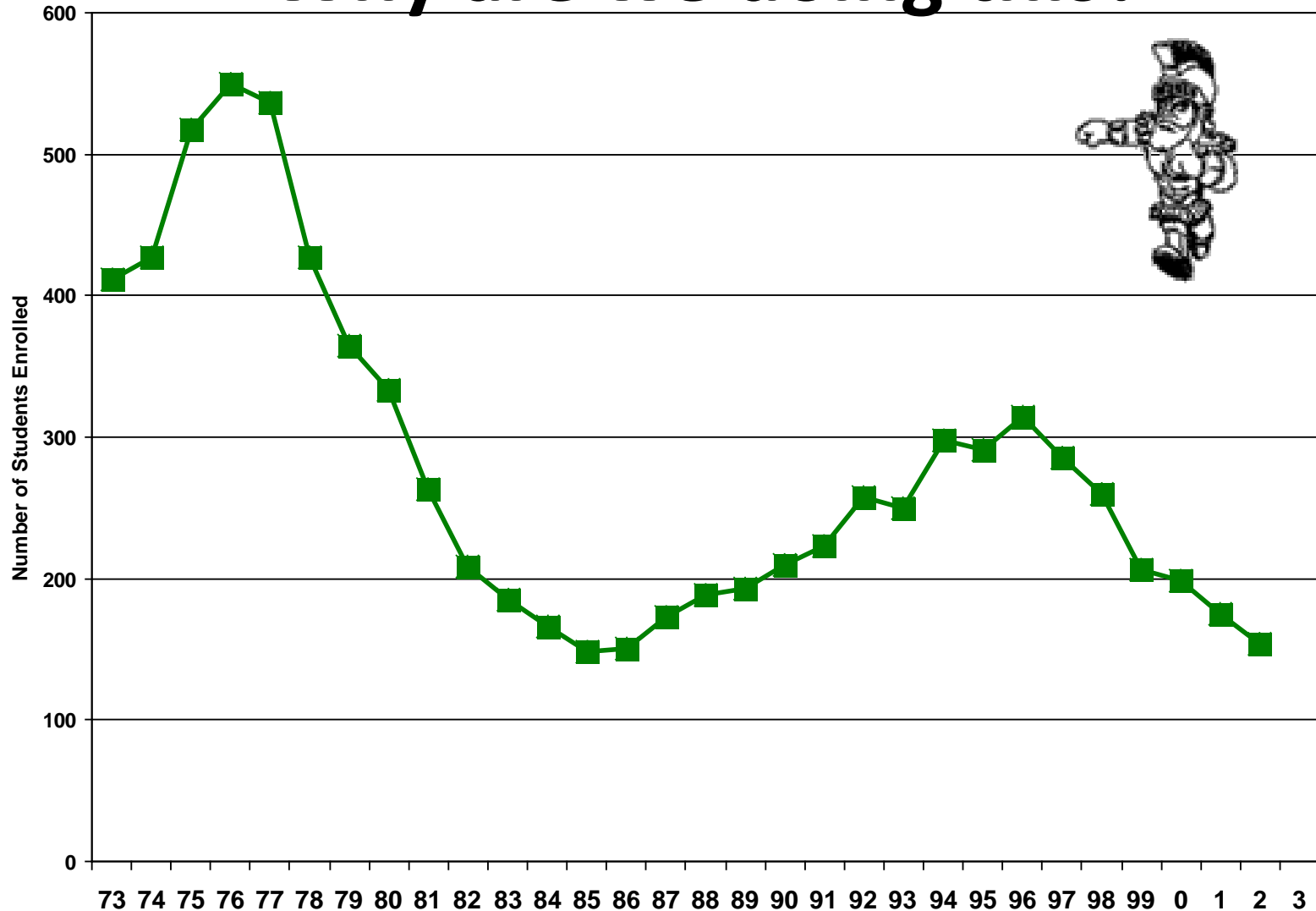
<http://www.sitkawild.org/>



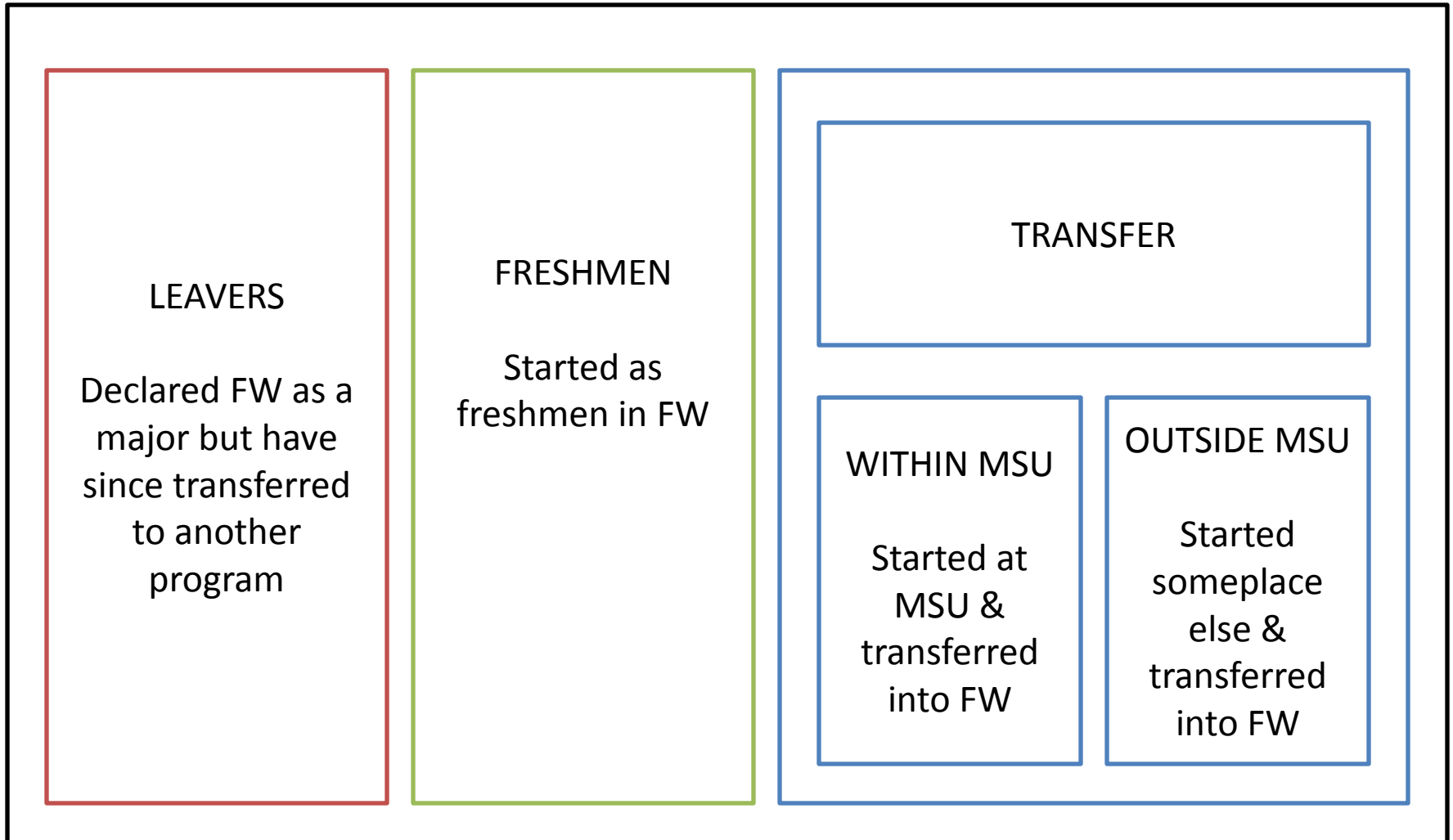
<http://www.indianpath.org/>

# WHAT'S HAPPENING?

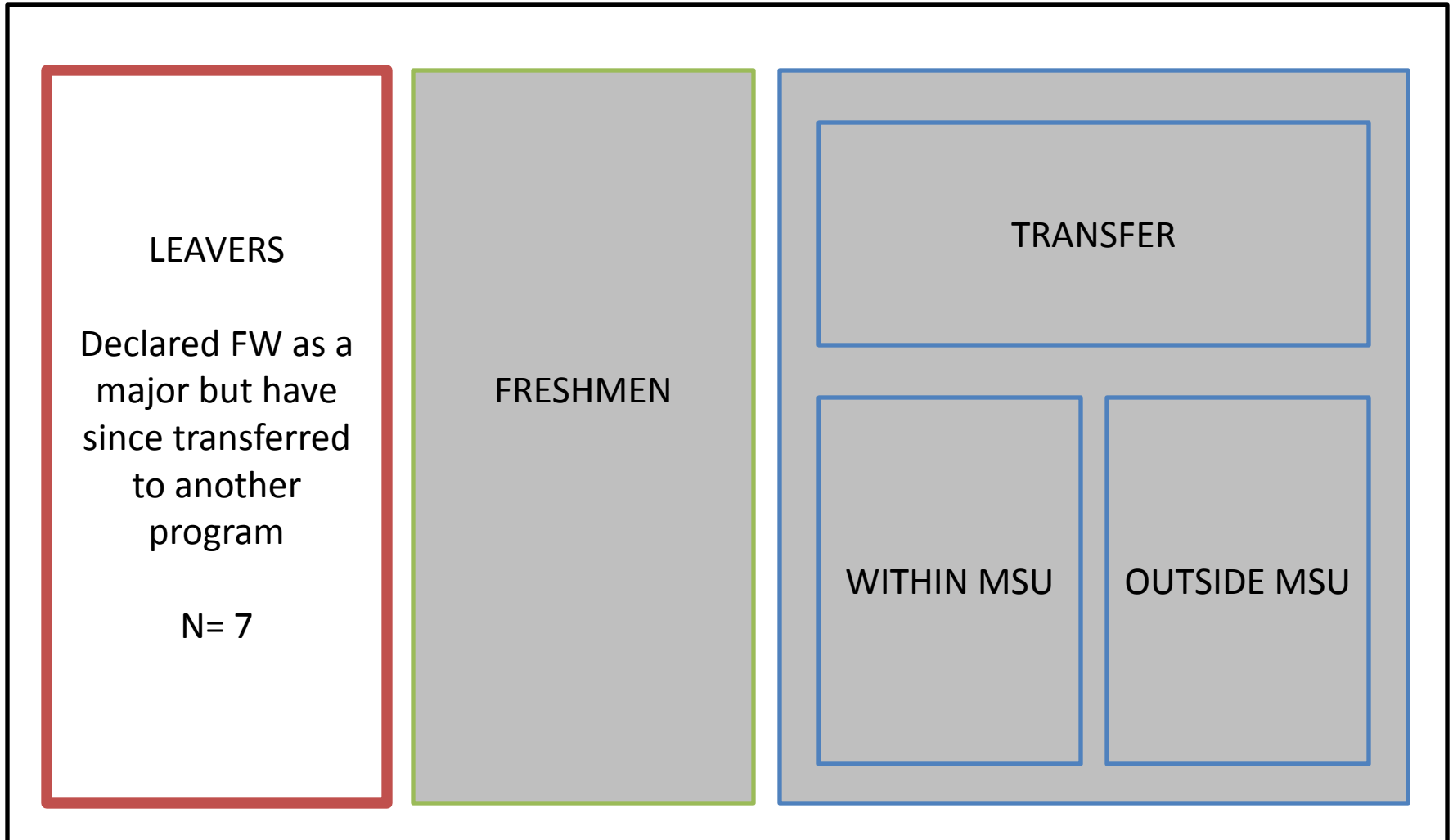
## Why are we doing this?



# LARGER STUDY



# LARGER STUDY



# STUDY GROUP = LEAVERS

- Individual semi-structured interviews
  - 7 former students
  - Currently enrolled; at one time declared FW as their major
- 13 questions focused on:
  - Motivation
  - Reasons for leaving
  - Experiences in program

***\$25 gift card***

# FACE TO FACE INTERVIEWS

- Video recorded and transcribed
  - MSU IRB #: x09-1037
- Data analysis: three step process

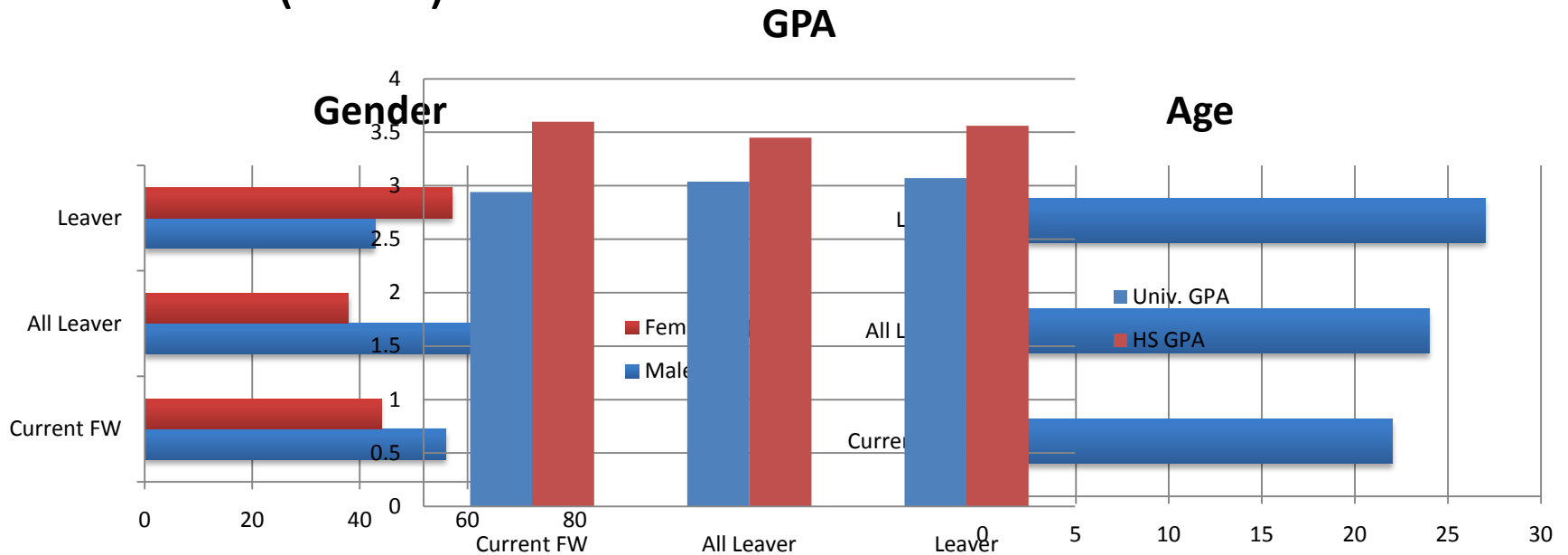
# CODING

- Independently coded by 4 researchers
  - Deductively (based on existing literature)
  - Inductively (emergent based on answers)
- After coding
  - All 4 researchers compared findings and reached consensus on 7 overarching themes
- Independently recoded based on 7 themes identified
  - Again compared findings and reached consensus on final code



# DEMOGRAPHICS

- Average current FW ( $n = 135$ )
- Average “leaver” ( $n = 29$ )
- Leaver ( $n = 7$ )



# RESULTS

Theme	N	%
Engagement		
<p>Face to face engagement with faculty and peers including hands-on active participation (e.g., social groupings, research)</p>		

# RESULTS

Theme	N	%
Engagement	26	19.0

Number of Coded Response = 137

# RESULTS - Engagement

*“I really like hands-on and we only went out a couple of times on campus where we went out and did some shocking in the river. So maybe more hands-on stuff and something that would be directly related to a job that I could get.”*

# RESULTS

Theme	N	%
Engagement		
Employment		

Job prospects (positive or negative) and factors affecting those attitudes towards job availability (e.g., earning potential)

# RESULTS

Theme	N	%
Engagement	26	19.0
Employment	25	18.2

Number of Coded Response = 137

# RESULTS - Employment

*“After getting into the introductory class, you kind of hear every day that when you graduate, don’t expect to get right into a job, and expect to volunteer or go out-of-state first. And as a freshman, that is exactly what I DIDN’T want to hear! Living in Michigan is where I would like to be, and volunteering after graduation... I am getting an education so I can get a degree and get a job, not volunteer.”*

# RESULTS

Theme	N	%
Engagement		
Employment		
Academic Rigor		
Student preparation for major and academic challenges they faced (e.g., pace, prerequisites, programmatic expectations)		



# RESULTS

Theme	N	%
Engagement	26	19.0
Employment	25	18.2
Academic Rigor	25	18.2

Number of Coded Response = 137

# RESULTS – Academic Rigor

*“Everything was fine except for the math and science because those are my really weak points and there was a lot of science requirements.”*

# RESULTS

Theme	N	%
Engagement		
Employment		
Academic Rigor		
Awareness of Discipline		

Student familiarity with discipline (or lack thereof) and how they became familiar with discipline

# RESULTS

Theme	N	%
Engagement	26	19.0
Employment	25	18.2
Academic Rigor	25	18.2
Awareness of Discipline	24	17.5

Number of Coded Response = 137

# RESULTS - Awareness

*“No. I did that whole Day at State thing and I think my dad and I came here and talked to Jim Schneider. But other than that, I just looked at some pamphlets in the office.”*

# RESULTS

Theme	N	%
Engagement		
Employment		
Academic Rigor		
Awareness of Discipline		
Programmatic Experience		

Student experience while in FW (positive and negative) including interactions with peers and faculty while in program

# RESULTS

Theme	N	%
Engagement	26	19.0
Employment	25	18.2
Academic Rigor	25	18.2
Awareness of Discipline	24	17.5
Programmatic Experience	22	16.1

Number of Coded Response = 137

# RESULTS - Experience

*“They were all small classes so there was kind of a close relationship in those classes compared to a lot of the other ones. I know there is an FW club and they pushed us to get into that a lot and they seemed like they had a pretty close group too.”*



# RESULTS

Theme	N	%
Engagement		
Employment		
Academic Rigor		
Awareness of Discipline		
Programmatic Experience		
Programmatic Quality		

Student perception of quality of instruction and other academic experiences while in FW

# RESULTS

Theme	N	%
Engagement	26	19.0
Employment	25	18.2
Academic Rigor	25	18.2
Awareness of Discipline	24	17.5
Programmatic Experience	22	16.1
Programmatic Quality	18	13.1

Number of Coded Response = 137

# RESULTS - Quality

*“I’d say they are probably comparable, I mean once you get into the classes that are directly related to your major it seems like all the instructors are pretty good, from what I have found anyway.”*

# RESULTS

Theme	N	%
Engagement		
Employment		
Academic Rigor		
Awareness of Discipline		
Programmatic Experience		
Programmatic Quality		
Motivation		

Student reasons for being interested in FW including past connections that encouraged them to pursue FW

# RESULTS

Theme	N	%
Engagement	26	19.0
Employment	25	18.2
Academic Rigor	25	18.2
Awareness of Discipline	24	17.5
Programmatic Experience	22	16.1
Programmatic Quality	18	13.1
Motivation	15	10.9

Number of Coded Response = 137

# RESULTS - Motivation

*“Growing up I was always into outdoor activities...hunting, fishing, camping, that kind of thing. So my interests were there already. I could see that it was about something I would like to work with too, so that kind of drew me to it.”*

# WHAT ELSE DID WE LEARN?

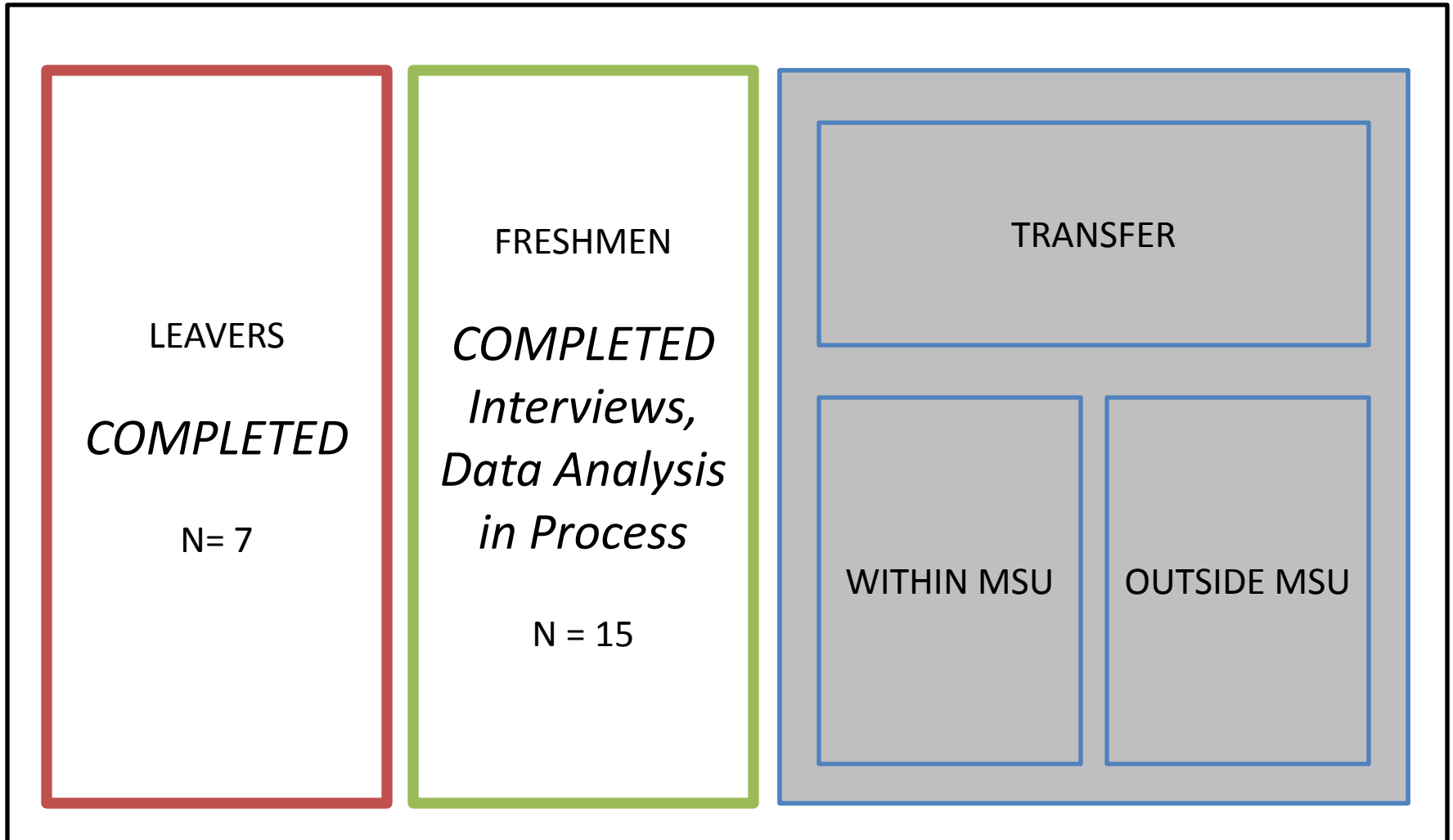
- Value of quality information online
- Need for good advising
- Lack of connection to discipline between freshman and junior years

# WHAT DOES THIS ALL MEAN

- Need to do a better job:
  - More clearly defining FW
    - Students, campus advisors
    - AND it is about science and math
  - Making information available to students through many multi-media avenues (technology is our friend)
- Creating sense of community



# NEXT STEPS



# TEASER

- Job Trends
  - Not afraid of job prospects
  - Not intimidated by career earning potential
  - Passion takes precedence, things will work out, I am confident in my abilities,
    - “My Grandpa always said that if you do something you love, you’ll never work a day in your life.”

# TEASER

- Curriculum Trends
  - Students feel supported in the department
  - Small group sizes highly valued
    - professors know individual student names
    - advisors constantly sending out information on jobs
  - Feel very connected to fellow students, to professors, and to advisors

# FULL RESULTS



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# THANK YOU!

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# LEAVERS QUESTIONS

- When did you begin to think about switching from FW as a major?
- Can you identify any one thing that made you decide to change majors?
- What are 5 things you felt could be improved about the curriculum of FW?
- How do you feel about the quality of instruction available in FW?
- What did you think of the pace of courses and number of required courses necessary to achieve your degree in FW?
- How would you describe the atmosphere of the FW program between students, between faculty and students, and between faculty?
- Have you taken science related courses in other departments? Do you think instruction differed between those departments and FW? If so, how?
- Why do you think students leave the FW program?
- What motivated you to select FW as a major?
- Did the curriculum match with your expectations for the department?
- Do you think the material you learned in your FW classes were applicable to the job market?
- Did career opportunities and future earning potential dissuade you from continuing in FW?
- Did you know about the FW program before you arrived on campus?