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Student Experience in the  
Research University survey



# **Major Decisions: Implications for Engagement, Satisfaction, and Belonging**

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UNIVERSITY OF MINNESOTA

**Driven to Discover<sup>SM</sup>**

# Overview

- Background of presenters
- Research questions
- Choosing a major
- Conceptual framework
- Results
- Discussion



# Background of Presenters

- Educational backgrounds
- Professional experience
- Interest in integrating research and practice
- Mutual research interests:
  - Historically underrepresented students
  - Academic and career advising
  - Writing for practitioners



# Research Questions

- Are there differences between student groups with regard to their motivations for choosing academic majors?
- Is there a relationship between students' intrinsic and extrinsic motivations for choosing their academic majors, their **satisfaction** with their educational experience, their **engagement**, and their **sense of belonging** on campus?



# Choosing a Major

Many scholars have noted the importance of major selection:

- Individual implications: majors are correlated with
  - job stability
  - career opportunities
  - salary
  - satisfaction
- Societal implications: disparities may be perpetuated when groups choose majors leading to differential earnings



# Motivations for Selecting Majors

- Economic factors
  - earnings differentials
  - job outlook conditions
  - tradeoff between returns and risk of failure
- Demographics
  - gender
  - SES
  - minority status may reinforce traditional roles
- Mixed models
  - demographics and economic factors (e.g. differences in the impact of expected earnings varies by race/gender)



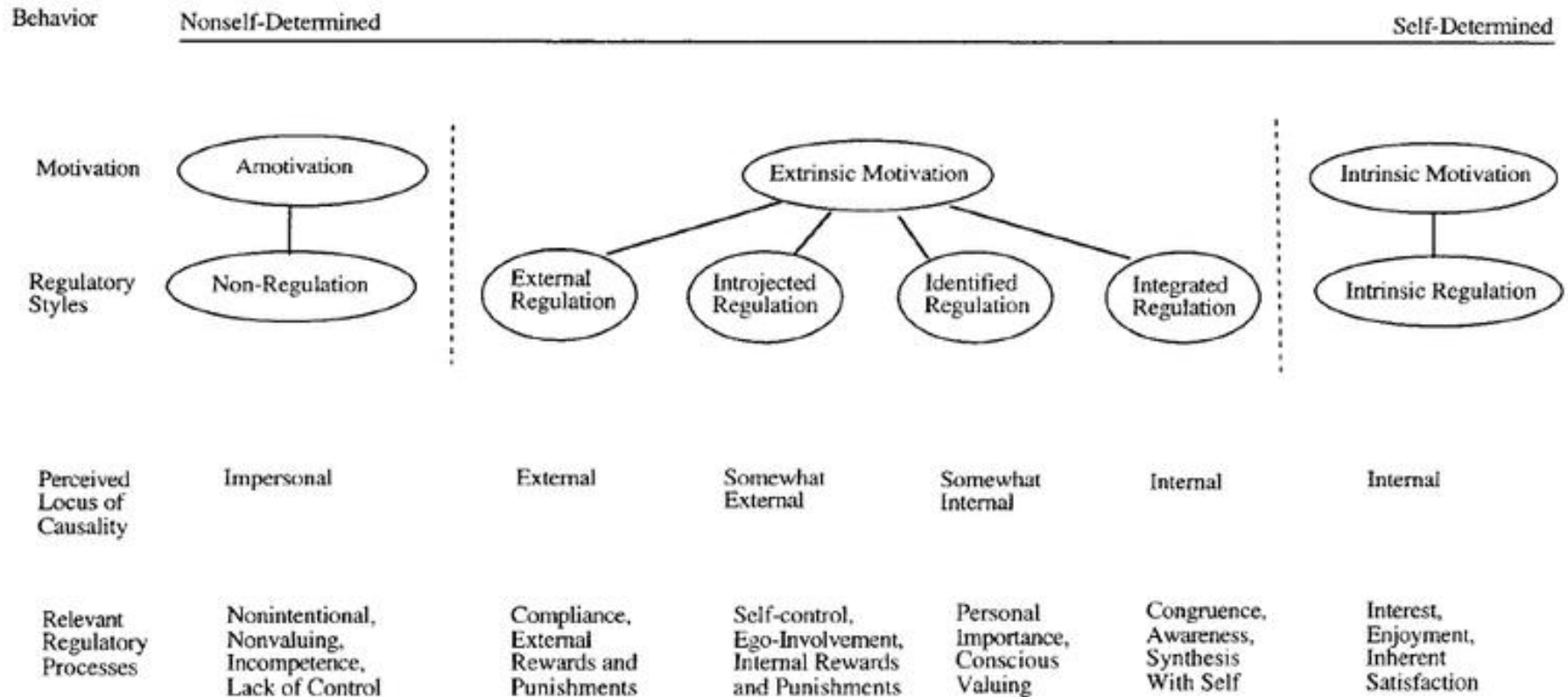
# Self-Determination Theory

- Intrinsic motivation: doing something because it is inherently interesting or enjoyable
- Extrinsic motivation: externally prompted and valued by others to whom one is connected
  - external extrinsic: punishments and compliance
  - internal extrinsic: self-endorsements of goals and autonomy





# Self-Determination Theory



Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist*, 55(1), 68-78.





# SERU Survey

- Systematic environmental scan of the undergraduate experience
- In-depth analysis of the varied types and levels of undergraduate engagement in research universities
- The survey is organized around five thematic research areas:
  - Academic engagement
  - Civic and community engagement
  - Global knowledge, skills, and awareness
  - Student life and development
  - Wildcard module for the University of Minnesota



# Survey Participants

- In spring 2010, the SERU was distributed to 28,237 undergraduate students at UMNTC
- 9,651 students responded to at least one question (34.2%)
  - 59.5% female
  - 1.1% American Indian or Alaskan Native
  - 3.9% African American
  - 2.4% Hispanic
  - 9.2% Asian, Filipino, or Pacific Islander
  - 75.8% White
  - 6.2% International



# Survey Measures

Students were asked to respond to the following question:

*Which of the following factors do you consider to be very important to you in deciding on your major?*

- Interest in subject area
- Intellectual curiosity
- Prepares me for a fulfilling career
- Prepares me for graduate/professional school
- Leads to a high paying job
- Prestige
- Provides international opportunities
- Allows time for other activities
- Complements my desire to study abroad
- Parental desires
- Easy requirements
- Could not get into my first choice of major

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# Survey Measures

- Sense of belonging: 4 items
  - I feel that I belong on this campus, satisfaction with overall social/academic experience, I'd return knowing what I know now, etc.
- Satisfaction: 19 items
  - Instruction, access to classes/faculty, libraries, advising, programs, etc.
- Engagement: 6 items
  - Asking questions in class, did more work than required in courses, bringing up ideas from different classes, contributing to a class discussion, etc.



# Discussion Question

- What do you think are the top five reasons UMNTC students choose for selecting their majors?

*Table 1*

*Frequency and Categorization of Motivations for Choosing Academic Majors*

<i>Factors</i>	<i>Yes</i>		<i>No</i>	
	<i>n</i>	<i>%</i>	<i>n</i>	<i>%</i>
Interest in Subject Area	8378	97.8	189	2.2
Intellectual Curiosity	7929	92.5	647	7.5
Prepares Me for a Fulfilling Career	7830	91.5	732	8.5
Prepares Me for Graduate/Professional School	5400	63.2	3148	36.8
Leads to a High Paying Job	4346	50.8	4206	49.2
Prestige	4039	47.4	4490	52.6
Provides International Opportunities	4018	47	4522	53
Allows Time for Other Activities	3037	35.6	5488	64.4
Complements My Desire to Study Abroad	2989	35	5544	65
Parental Desires	1569	18.4	6969	81.6
Easy Requirements	1046	12.3	7481	87.7
Could Not Get Into My First Choice of Major	599	7	7909	93



# Our Mapping

Intrinsic	Internal Extrinsic	External Extrinsic
Interest in subject area	Prepares me for a fulfilling career	Prestige
Intellectual curiosity	Prepares me for graduate/professional school	Parental desires
	Leads to a high paying job	Easy requirements
	Provides international opportunities	Could not get into my first choice of major
	Allows time for other activities	
	Complements my desire to study abroad	





# Differences between Groups

## Differences in gender:

- Leads to a high paying job (males, 58.4%; females, 45.8%)
- Complements my desire to study abroad (male, 29.2%; female, 38.8%)
- Provides international activities (male, 42%; female, 50.4%)
- Prestige (male, 53.2%; female, 43.5%)



# Differences between Groups

## Differences in race/ethnicity:

- Leads to a high paying job (58.9% students of color, 47.5% White students)
- Parental desires (27.9% students of color, 14.7% White students)
- Allows time for other activities (42.7% students of color, 33.6% White students)



# Differences between Groups

## Differences in race/ethnicity, continued:

- Provides international opportunities (55.1% students of color, White students, 43.4%)
- Couldn't get into my first choice of major (11.7% students of color, 5% White students)
- Prepares me for graduate/professional school (71.1% students of color, 60.8% White students)



# Differences between Groups

## Differences in colleges:

- Intellectual curiosity
  - CBS, 97%
  - CSE, 95%
  - CLA, 94%
- Leads to a high paying job
  - CSOM, 79.2%
  - CSE, 73%
  - CBS, 54%
- Prepares me for a fulfilling career
  - CDES, 98%
  - CFANS, 96%
  - CEHD, 97%

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# Differences between Groups

## Differences in colleges:

- Couldn't get into my first major
  - CEHD, 14%
  - CLA, 9%
  - CFANS, 9%
- Interest in subject area
  - CDES, 100%
  - CFANS/CEHD/CBS/CLA, 98%
  - CSE, 97%
  - CSOM, 96%
- Prepares me for graduate/professional school
  - CBS, 91%
  - CEHD, 68%
  - CLA, 64%

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# Differences between Groups

## Differences in colleges:

- Complements desire to study abroad
  - CDES, 55%
  - CLA, 42%
  - CSOM, 41%
- Parental desires
  - CSOM, 25%
  - CSE, 21%
  - CEHD, 21%
- Easy requirements
  - CEHD, 21%
  - CLA, 16%
  - CFANS, 12%

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# Differences between Groups

## Differences in colleges:

- Allows time for other activities
  - CEHD, 55%
  - CSOM, 41%
  - CLA, 40%
- Provides international opportunities
  - CDES, 62%
  - CSOM, 58%
  - CLA, 53%
- Prestige
  - CSOM, 65%
  - CSE, 62%
  - CBS, 59%

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# Discussion Question

- How do you think the reasons for choosing a major, as understood in self-determination theory, will be associated with students' **satisfaction, sense of belonging, and engagement?**



# Sense of Belonging

Reason for Choosing a Major	Motivation Type	Relationship
Interest in subject area	Intrinsic	+
Prepares me for a fulfilling career	Internal Extrinsic	+
Allows time for other activities	Internal Extrinsic	+
Provides international opportunities	Internal Extrinsic	+
Prepares me for graduate school	Internal Extrinsic	+
Prestige	External Extrinsic	+
Leads to a high paying job	Internal Extrinsic	-
Parental desires	External Extrinsic	-
Easy requirements	External Extrinsic	-
Couldn't get into choice of first major	External Extrinsic	-



# Satisfaction

Reason for Choosing a Major	Motivation Type	Relationship
Interest in subject area	Intrinsic	+
Prepares me for a fulfilling career	Internal Extrinsic	+
Allows time for other activities	Internal Extrinsic	+
Provides international opportunities	Internal Extrinsic	+
Prepares me for graduate school	Internal Extrinsic	+
Complements desire to study abroad	Internal Extrinsic	+
Prestige	External Extrinsic	+
Leads to a high paying job	Internal Extrinsic	-
Easy requirements	External Extrinsic	-
Couldn't get into choice of first major	External Extrinsic	-



# Engagement

Reason for Choosing a Major	Motivation Type	Relationship
Interest in subject area	Intrinsic	+
Intellectual curiosity	Intrinsic	+
Prepares me for a fulfilling career	Internal Extrinsic	+
Provides international opportunities	Internal Extrinsic	+
Prepares me for graduate school	Internal Extrinsic	+
Complements desire to study abroad	Internal Extrinsic	+
Leads to a high paying job	Internal Extrinsic	-
Easy requirements	External Extrinsic	-



# Implications

- Satisfaction, sense of belonging, and engagement are all related to internal motivators; encourage students to hold more intrinsic viewpoints regarding major selection.
- Helping students "unpack" the socially-driven messages about major/career choice.
- Advisors can encourage students to consider benefits of selecting major based on internal motivators.





# Implications

- Risks of selecting high paying careers that are competitive.
- Role of "Plan B" academic planning and advising.
- Helping students to seek out structured and reflective strategies to engage in the life-career planning process (e.g., career exploration classes).



# Implications

- Role and trends in exploring issues of spiritual development; impact of internal factors.
- Students looking to make a difference (high income/high impact).
- Advisors focus on strong developmental advising approaches; holistic academic advising.



# Other Factors to Consider

- Issues working with students from historically and underrepresented populations.
- Example: parental desires from students from collective cultures.
- Solid understanding of diverse cultures; ecological approach.



# Questions to Consider

- What do students expect from academic advisors? How might we best meet these expectations?
- Given heavy case loads, how do we as advisors have the time to develop longer-term relationships with students?
- How might we reach more students about these messages via cost-efficient strategies? (e.g., group advising; workshops).
- How do we continue to make a difference where a difference matters?



# Contact Information

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