NCAIR 2024 Annual Conference

Institutional Innovation

Exploring Tinto: The Relationship between Motivation and Persistence in Higher Education

Beverly King, Jeremy Tuchmayer, Kathy Hill, Margot Neverett, & Yihui Li

East Carolina University

Agenda

- **Context: Tinto's old & new models of student retention & persistence**

- **Collaborative research at ECU**

- **Literature review**

- **Preliminary data analysis & results**

- **Conclusions & future research directions**

- **Questions**

CONTEXT: TINTO'S OLD MODEL OF STUDENT RETENTION & HIS NEW MODEL OF STUDENT PERSISTENCE

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Tinto's Institutional Departure Model (1975)

- Significant influence on the study of student retention

- A student's institutional and goal commitments lead to social and academic integration which, in turn, promotes retention.

- Focused more on keeping students in a particular institution than on student persistence to degree, regardless of institution.

Tinto's Institutional Departure Model (1975)
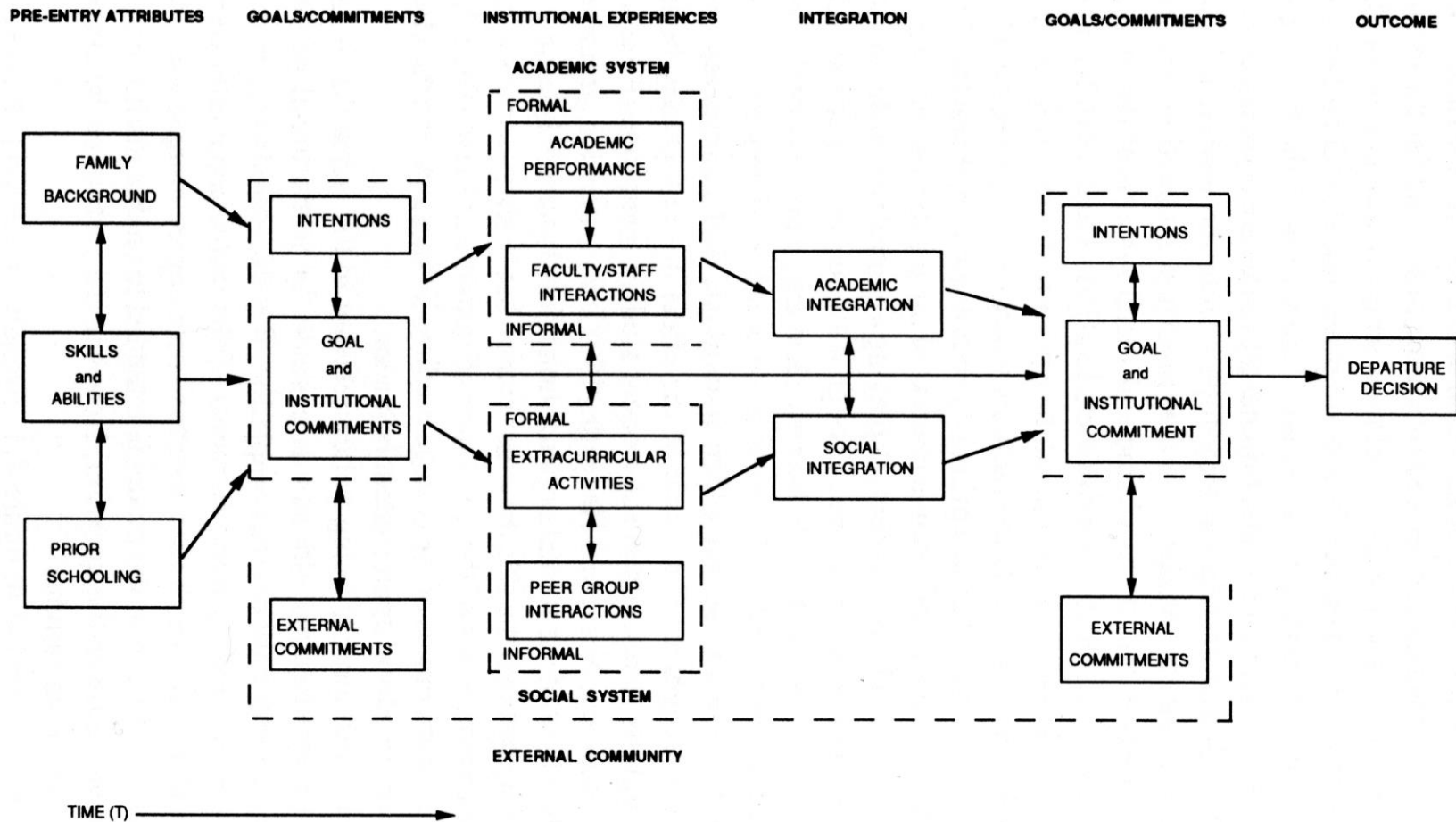
Tinto's New Model of Student Persistence (2017)

- Persistence is one manifestation of student motivation.

- Assumes students enter college with at least some degree of commitment to completing their degree in the institution in which they first enroll.

  – Goals still important but only as they lead to a student's motivation to persist.

- College experiences influence students' self-efficacy, sense of belonging, and perceptions of the value or relevance of their studies and in turn their motivation to persist.

  – Self-efficacy=belief in ability to succeed in a situation or at a task.

  – Sense of belonging=seeing oneself as a member of a community of faculty, staff, and other students who value one's participation, that one matters & belongs.

  – Perceptions of curriculum=perception of the value or relevance of one's studies.

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Tinto's New Model of Student Persistence (2017)
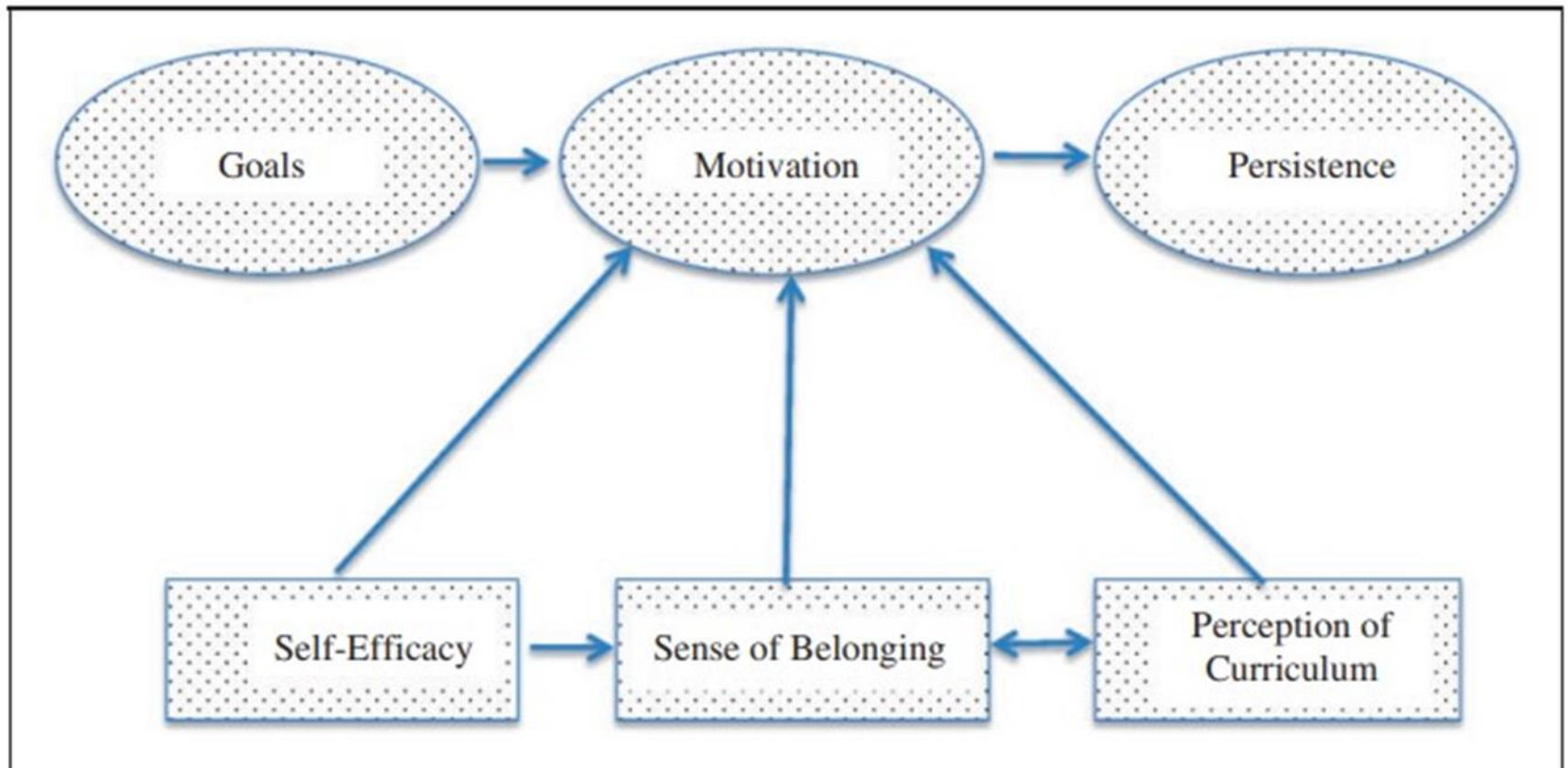
COLLABORATIVE RESEARCH AT ECU

# Collaboration in Exploring Student Success

- Reframed research focus from students at-risk of departure to focus on students who persist

- Pilot study 2017: surveyed students on reasons and motivations for persisting

- Began exploring tools to incorporate into First Year Survey administered during orientation

First Year Assessment

- Long history of ECU First Year Student Surveys

- Non-Cognitive Assessment Pilot (NCAP) UNC System Office Initiative 2016-2017

  - System-wide survey of first-year students to assess non-cognitive factors such as grit, resilience, hope, goal orientation, growth mind-set and optimism

- SAARR worked in collaboration with Psychology faculty member and IPAR staff to identify comparable measures to incorporate into ECU assessment

- 2019 First Year Assessment included externally validated surveys Connor-Davidson Resilience Scale (CD-RISC 10), PSS-4 (Perceived Stress) MHI-5 (Anxiety and Depression), along with internally created measures of Academic Support, Student Support, and Degree and Institutional Commitment measures

- 2020 First year Assessment CD-RISC 10, PSS-4 or PSS-10 (randomized), MHI-5, MHI-18 DASS-21

- 2021 CD-RISC 10, PSS-10, MHI18, ULS10

- 2022 NGSE8 (New General Self-Efficacy Scale) & BEST10 (Academic Self-Efficacy)

- 2023 NGSE8, CD-RISC, PSS-10, MHI-18, ULS-10, BEST10

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LITERATURE REVIEW

Tinto's New Model of Student Persistence (2017)
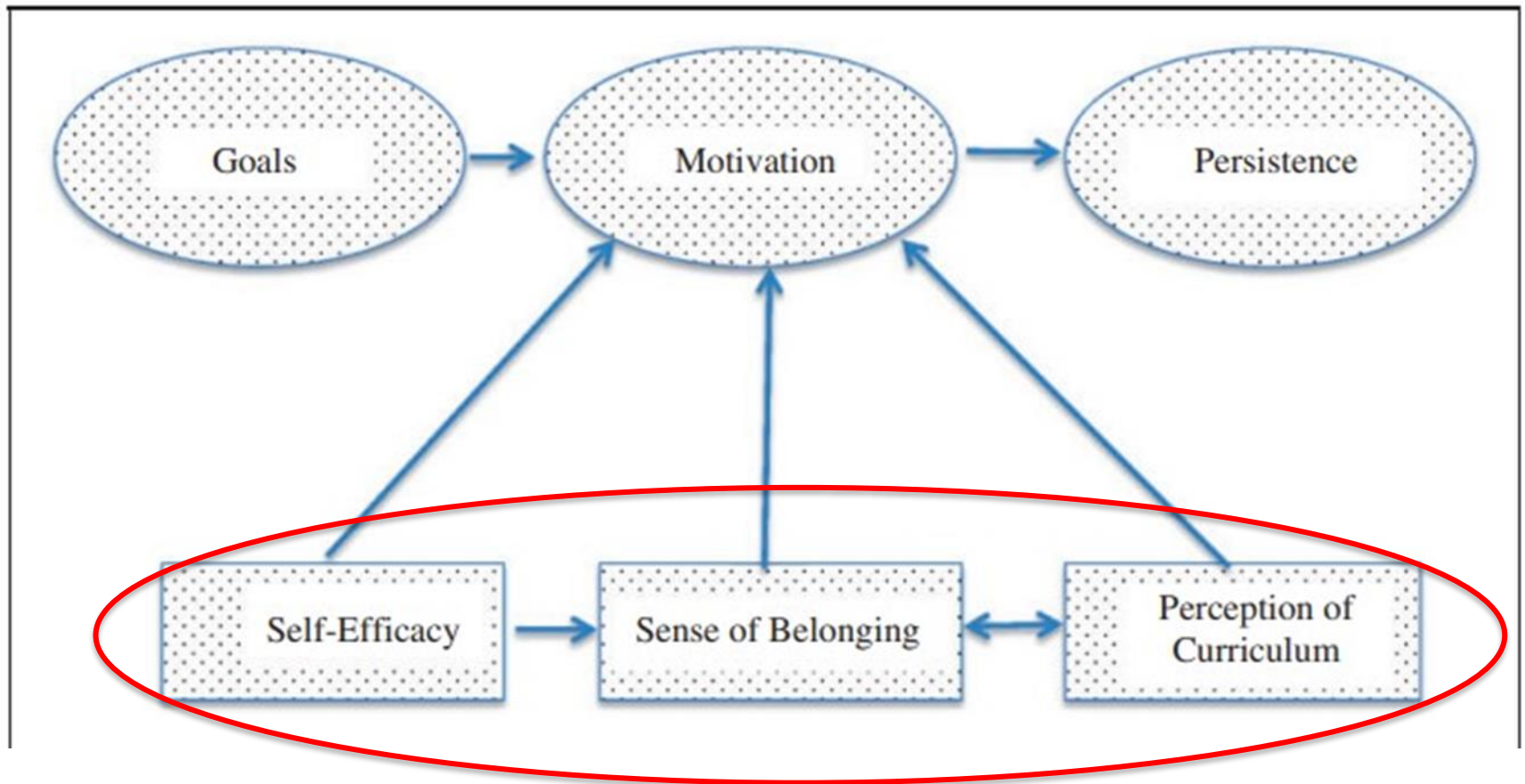
Self-Efficacy

> Self-efficacy is the belief in one's ability to succeed in a situation or at a task (Bandura, 1977 & 1994).
>   > Learned, not inherited
>   > Task and challenge specific
>   > Influences how a person addresses goals, tasks, and challenges

> Self-efficacy is the foundation upon which student persistence is built (Tinto, 2017).
>   > Strong sense of self-efficacy can't be assumed
>   > Help students acquire academic skills and reshape their belief in ability to succeed (Hall & Ponton, 2005)
>   > Challenges to one's self-efficacy can affect all students; experience matters

- **Self-Efficacy Concept**
  - Self-Efficacy in a Broad Sense
    - New General Self-Efficacy Scale
    - Sources: Chen, G., Gully, S. M., & Eden, D., 2001
    - Sample questions:
      - I will be able to achieve most of the goals that I set for myself.
      - When facing difficult tasks, I am certain that I will accomplish them.
      - In general, I think I can obtain outcomes that are important to me.
  - Academic Self-Efficacy
    - Beliefs in Educational Success Test
    - Source: Majer, 2006
    - Sample questions:
      - How confident are you
        - That you will do well in future courses?
        - In your ability to learn new information?
        - In completing your homework assignments?

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Sense of Belonging

➢ Sense of belonging is described as a students' subjective feelings of connection and integration with their institution and campus community (Gillen-O'Neel, 2019; Hoffman et al., 2002; Maunder, 2018; Soria & Stubblefield, 2015, Tinto, 2017).

➢ Theoretical Background:
  ➢ Rooted in educational psychology.
  ➢ Recognized as a basic human need for interpersonal connections.
  ➢ Characterized by acceptance, value, inclusion, and encouragement.

Self-Actualization
personal growth, fulfillment

Self-Esteem Needs
achievement, respect from community, reputation

Social Needs
belonging, love, family, work groups

Safety Needs
protection, security, law, job, health-care

Physical Needs
air, water, food, shelter, comfort, temperature

- ➢ Sense of Belonging and Academic Success
  - ➢ Sense of belonging has a significant influence on students' academic achievement, retention, and persistence (Astin, 1984; Braxton, 2002; Braxton, Sullivan, & Johnson, 1997; Maramba & Museus, 2011; Strayhorn, 2012).
- ➢ Nature of Sense of Belonging
  - ➢ Emerges, accrues, and fluctuates through engagements in higher education.
  - ➢ Context-dependent, reflecting personal involvement and integration.

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- Measurement of Sense of Belonging
  - Quantitative studies, measuring students' belonging at a single point of time
    - Multi-Institutional Study of Leadership survey, 2015 version:
      - I feel valued as a person at this school; I feel accepted as a part of the campus community; and I feel I belong on this campus.
    - Higher Education Research Institute (HERI), Senior Student Survey 2018 version:
      - I feel valued at this institution; I feel a sense of belonging to this campus; and I feel I am a member of this college.
  - Qualitative studies, understanding belonging as a developmental phenomenon
    - Interviews, photo journals
    - When, where, and with whom they feel like they belong as well as possible reasons for their varying levels of belonging

Perceptions of Curriculum

- Perceptions of curriculum = perception of the value or relevance of one's studies (Tinto, 2017)
  - Faculty teaching methods
  - Perceived Institutional quality
  - Student learning style preferences
  - Values

- Students need to feel the material to be learned is of sufficient quality to warrant their time and effort.

- At present, no specific literature attending to perceptions of co-curriculum.

- Measuring perceptions of curriculum
  - Tesseman, Ready, & Yu, 2012: Factors Affecting College Students' Satisfaction with Major Curriculum
    - Required course availability for major
    - Quality of instruction
    - Major course content
    - Variety of courses in major
    - Capstone experiences
    - Academic advising
    - Overall college experience
    - Preparation for career or graduate school
    - Class size of major courses
    - Grading in major courses
    - course availability for electives in major
  - Frick et al. (2009) focused on how learners perceived the quality of instruction they received across various instructional design models through a course evaluation survey instrument.
    - This instrument included items targeting academic learning time (ALT), Merrill's First Principles, and Kirkpatrick's levels of evaluation, specifically focusing on learner satisfaction and learning. The survey also included global items for overall course and instructor ratings.

- Measuring Perceptions of Curriculum
  - Graduating Senior Survey
    - To what extent do you think your college education contributed to your knowledge, skills, and personal development in each of the following areas?
      - Ability to work with people from diverse backgrounds
      - Applying analytic skills
    - All things considered, how would you evaluate:
      - Quality of face-to-face instruction
      - Quality of instruction in your major
      - Quality of instruction overall
      - Quality of web-based instruction
    - Please rate your overall satisfaction with instructors in your major department on their ability to motivate you to do your best.
  - Graduate Student Exit Survey
    - Please rate your overall satisfaction with your academic experience at ECU.
    - As a result of your graduate education at ECU, how well prepared are you to practice in your discipline or profession?

DATA ANALYSIS & RESULTS

Fig. 7: Belief in Educational Success

μ = 73.79, σ = 15.56
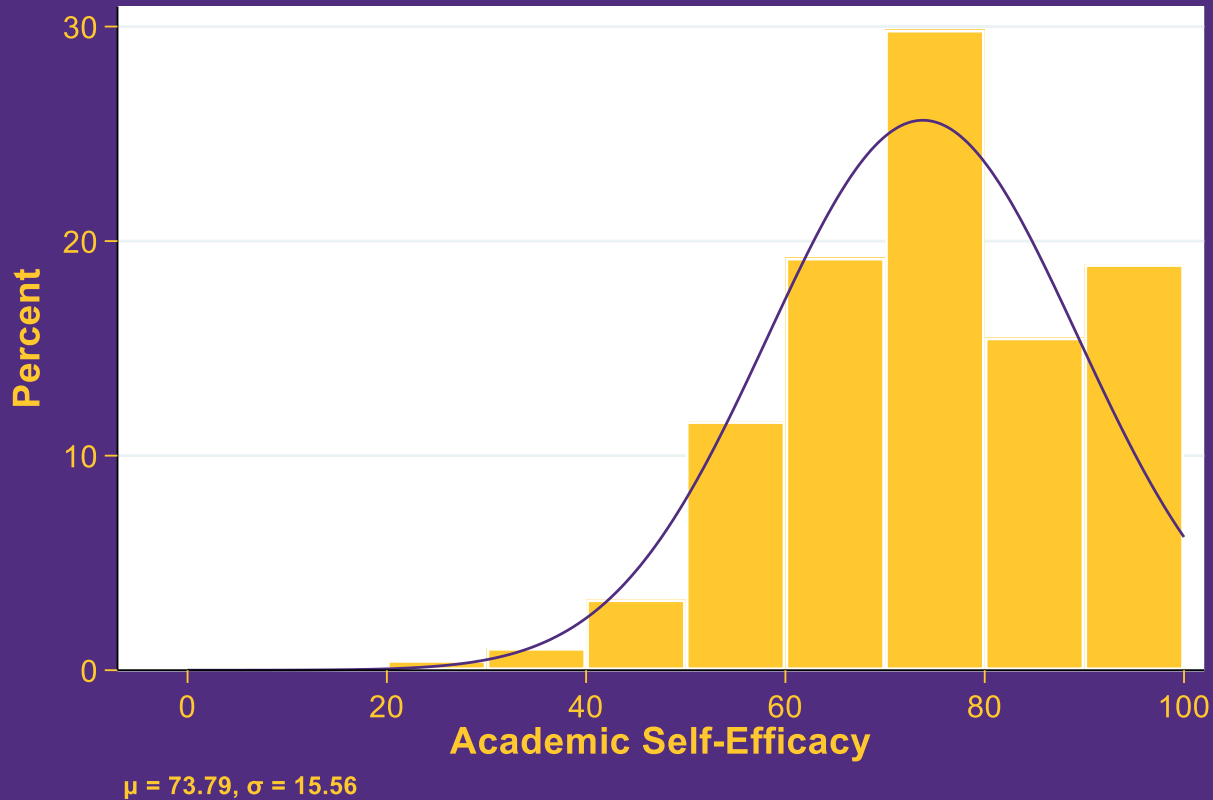
> Females (74.28 vs 73.07) reported slightly higher academic self-efficacy scores.

> Academic self-efficacy was measured on a 10-item scale, with scores normalized and ranging from 0 to 100. The higher the value, the more the student believes they are able to excel academically.

How confident are you that you…
➢ will do well in future courses?
➢ will seek professors help during office hours?
➢ are in control of your education?

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➢ Females (87.14 vs 84.87), continuing generation students (86.80 vs 85.23), non-Pell recipients (86.78 vs 85.29) and non-FAFSA applicants (87.70 vs 86.04) report slightly higher levels of degree commitment.
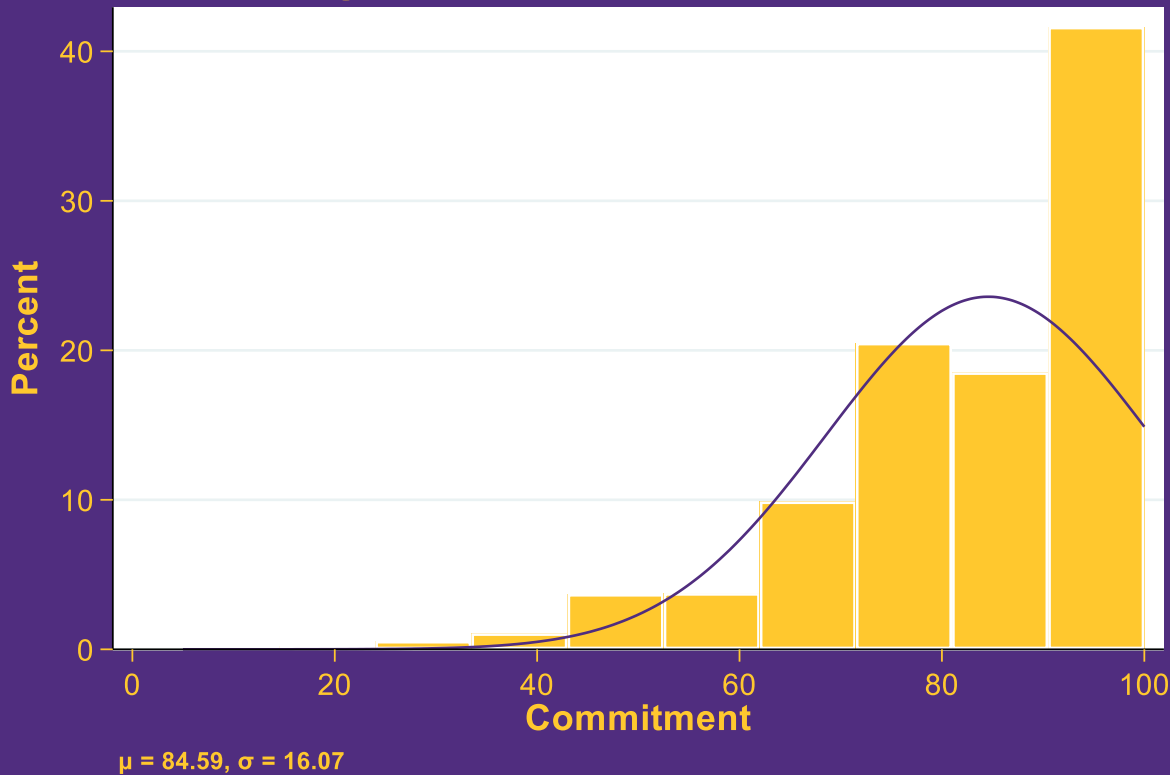
➢ Degree commitment is measured on a 5-item scale, with scores normalized and ranging from 0 to 100. The higher the value, the greater the level of commitment to earning a baccalaureate degree.

Fig. 12: Degree Commitment

$\mu = 86.22$, $\sigma = 13.40$
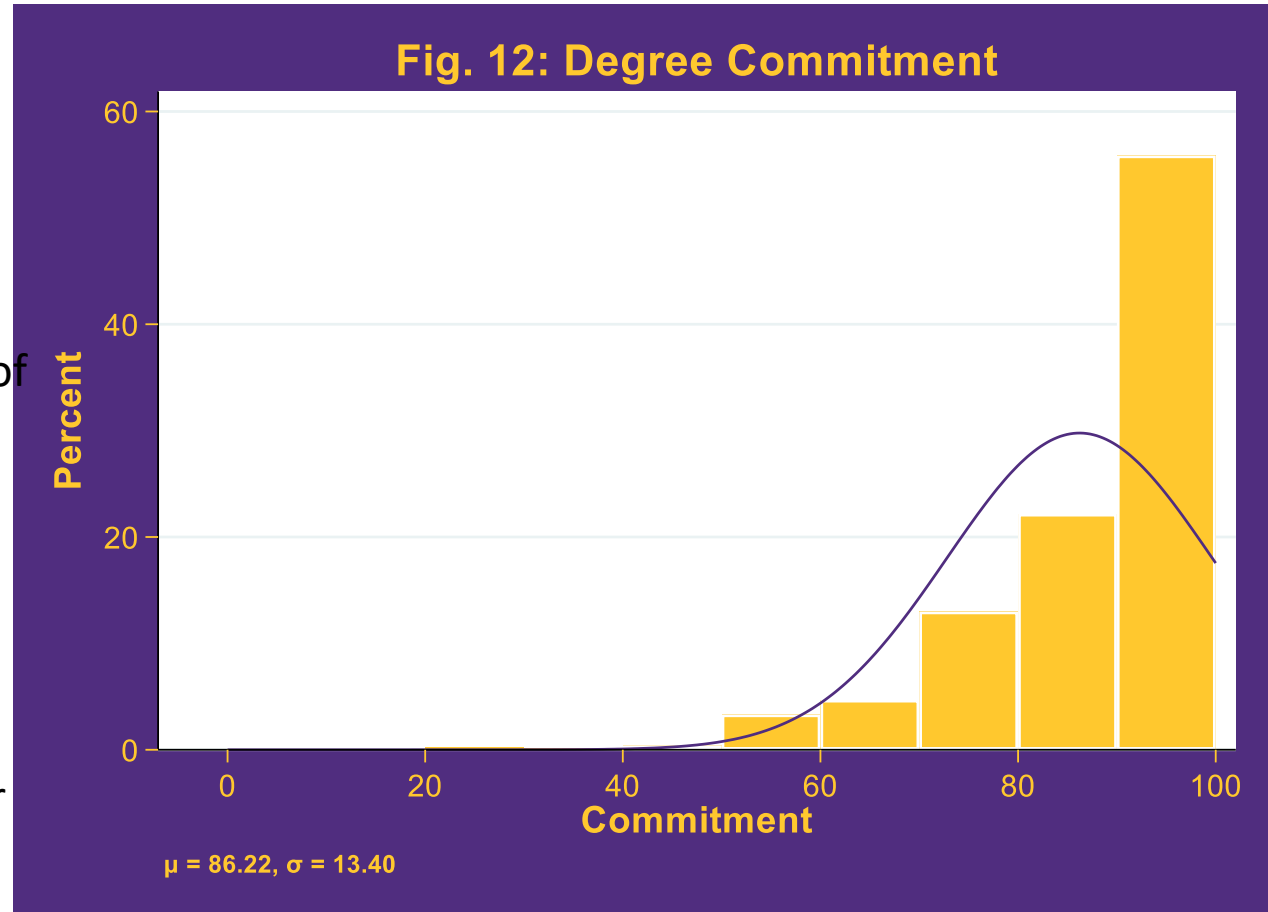
Sample questions include:
➢ How confident are you that you will earn a college degree?
➢ How supportive is your family of your pursuit of a college degree?

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Fig. 13: Institutional Commitment

μ = 84.59, σ = 16.07

➢ Females (86.34 vs 81.99), out-of-state residents (86.27 vs 84.22), and students living East of I-95 (85.60 vs 83.07), or in the most economically distressed counties (86.33 vs 82.2) are more committed to earning their degree at ECU.

➢ Institutional commitment is measured on a 5-item scale, with scores normalized and ranging from 0 to 100. The higher the value, the more committed a student is to ECU.

➢ How likely are you to earn a degree from ECU?
➢ How confident are you that ECU is the right university for you?
➢ How much thought have you given to not continuing your education at ECU (transfer, job, other reasons)?

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There were no significant differences with regards to
- student sex description
- first generation status
- Residency
- East/West of I-95
- Economic distress
- Pell recipients
- FAFSA applicants

Sense of Belonging was measured on a 10-item scale, with scores normalized and ranging from 0 to 100. Higher values indicated greater levels of sense of belonging

Sense of Belonging

$\mu = 80.97$, $\sigma = 17.55$
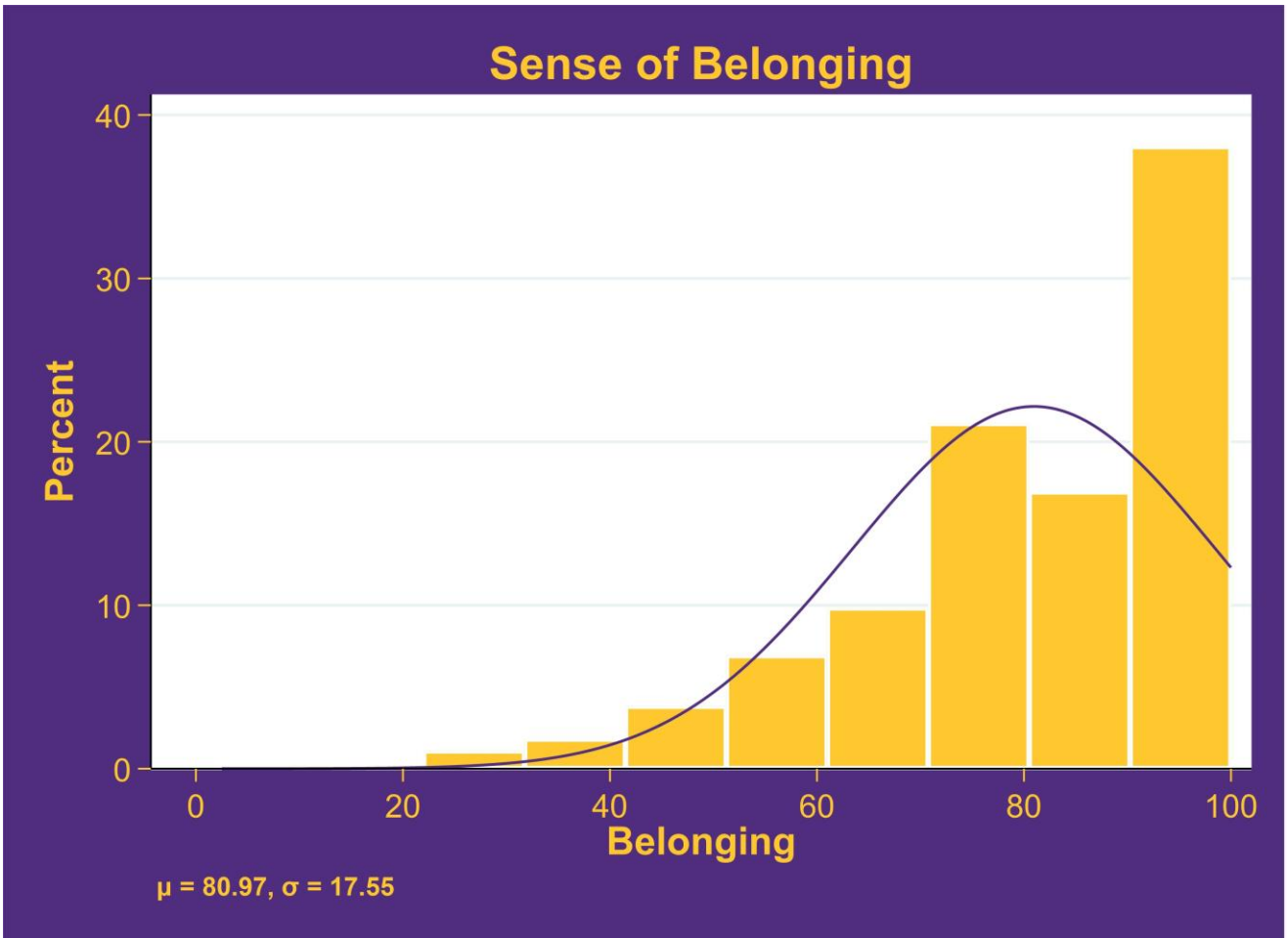
To what extent do you agree with the following statements
- I feel valued as a person at ECU
- I feel accepted as a part of the ECU campus community
- I am proud to be an ECU student

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CONCLUSIONS & FUTURE RESEARCH DIRECTIONS

Conclusions

- IPAR and Student Affairs are collaborating on research to test Tinto's new model of student persistence.

- This model emphasizes self-efficacy, sense of belonging, and perceptions of the curriculum by students as key contributors to motivation to persist in college.

- Research efforts are currently focused on determining measures of self-efficacy, sense of belonging, and perceptions of the curriculum (as well as co-curricular activities).

    - How have these constructs been measured by others?

    - What data are we already collecting?

    - Do we see any patterns in the data?

Future Directions

- Incorporate sense of belonging items into the fall first-year student survey to establish baseline, then follow-up with continued assessment.

- Assess other student populations (in addition to first-year), e.g., transfer and graduate students.

- Determine how to assess student perceptions of co-curricular activities & engagement

- Test Tinto's new model to determine the relationship between motivational factors and persistence (student success).

  o Do (and how do) self-efficacy, sense of belonging, and perceptions of the curriculum influence motivation which, in turn, influences persistence?

  o Do any of these factors influence persistence directly (in addition to their indirect influence through motivation)?

  o Are self-efficacy, sense of belonging, & perceptions of the curriculum interrelated?

Future Directions

- Suggest modifications to Tinto's model IF perceptions of co-curricular activities are found to relate to motivation and persistence.

- If self-efficacy, sense of belonging, and perceptions of the curriculum predict persistence of ECU students, collaborate with others in Student Affairs to put research results into practice.

  o How can self-efficacy be taught?

  o How can sense of belonging be increased?

  o How can perceptions of the curriculum (and co-curricular activities) be modified?

  o What interventions (& with whom) will best promote student success in the form of persistence?

- Continue to track students involved in any implemented interventions.

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