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National Science Foundation

IVY TECH COMMUNITY COLLEGE

A Campus-Level View of Faculty and Academic Advisors in IT Programs at Ivy Tech Community College

Hi-TEC Conference– July 26th, 2023

Project Background

National Science Foundation Grant Award #1801043.

Pathways into Careers in Information Technology: Community College Student Decision-Making about Academic Programs and Jobs

Project Team

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Background and Study Goals

Study Goals

- Understand student decision-making relative to Community College IT programs and careers
- National Science Foundation Advanced Technological Education targeted research project grant
- Outgrowth of evaluation partnership for TAACCCT Round 4 grant
- Currently in Year 4 of NSF project

Importance of Decision Making

- Informed decisions about technical programs and careers can help **boost completion and employment**
  - Knowing requirements and getting on track early
  - Motivation to a goal
- Little is known about how community college students make these decisions, particularly for technical programs like IT
  - Attractive to many students because of job prospects
  - Many sub-fields, graduation requirements, short-term credentials options, and academic pathways
  - Many options = many opportunities = potential confusion

Perspectives on Decision Making

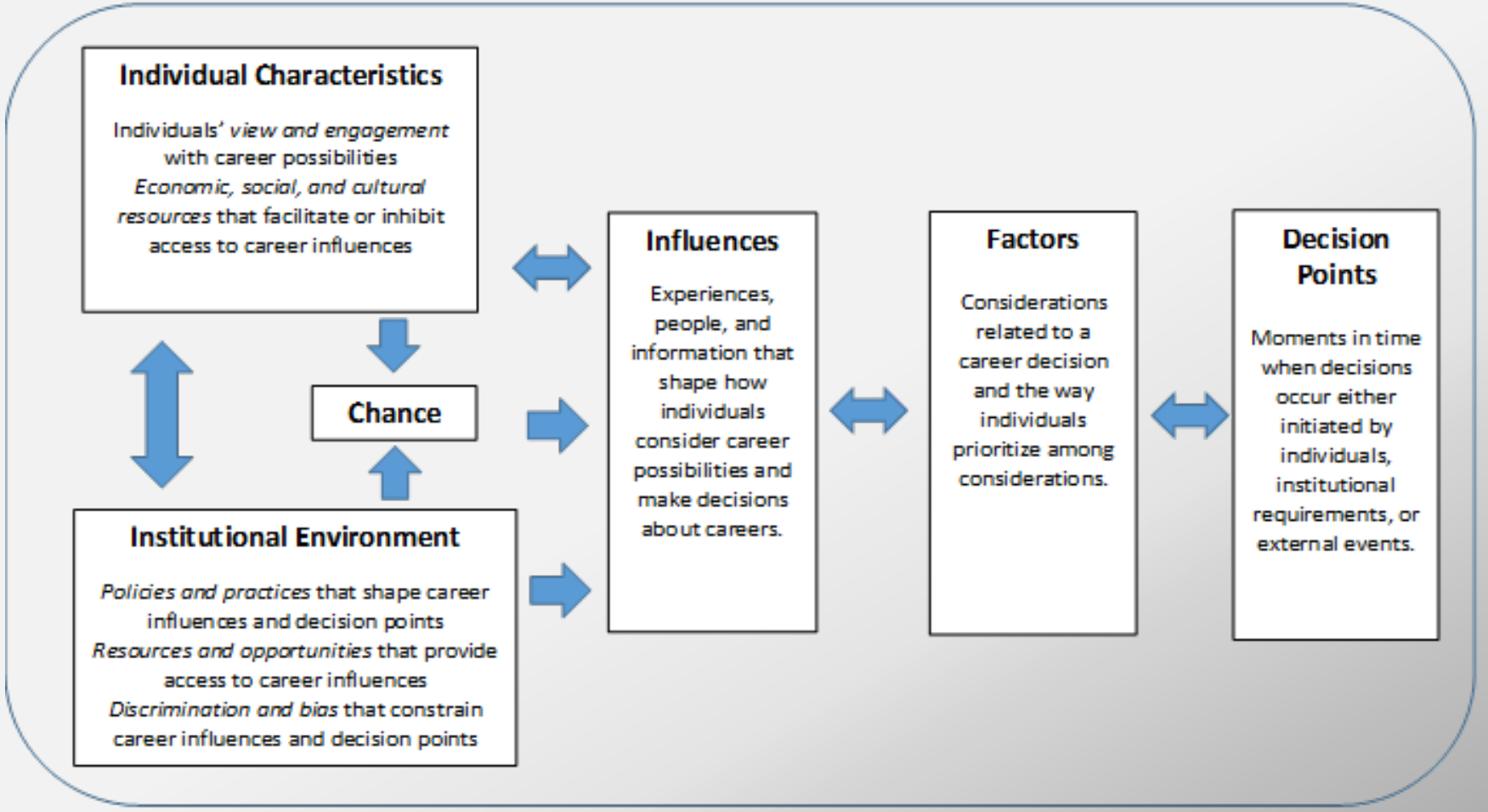
Variation in focus on:

- Rational choice versus idiosyncrasy and chance
- Individual versus social context
- Decisions points in time versus over time

Influences on decisions include:

- information (e.g. websites, college resources)
- experiences (e.g. jobs, internships, volunteer exp)
- people (e.g. mentors, faculty, friends, family)

Framework for Decision Making



Focus on College Influences

- Math requirements
- Transfer requirements
- Course requirements
- Advising tools
- Introductory and early milestone courses
- Academic advisors
- Faculty advisors
- College social influences (groups, competitions, team activities, etc.)

Opportunities/Challenges of the Many CC IT Pathways

- IT programs are attractive
- IT has a wide variety of
  - sub-fields,
  - graduation requirements,
  - short-term credentials options
  - academic pathways
- Many options potential confusion
- High need for advising and role for faculty advising based in knowledge of IT field
  - Faculty advisor relationships
  - Institutional policies

Study Methods

Student Surveys and Interviews

- Distributed surveys to Ivy Tech students enrolled in key IT courses followed by interviews of interested students
- First semester students – fall 2018, fall 2019–following over time
- “Completers” – summer 2020—following over time
- Pandemic subset—fall 2020, fall 2021

Campus Reviews

- 18 campuses, mix of three sizes (designated C1, C2, and C3 by the college)
- 42 interviews with IT faculty, chairs and advisors
- Fall 2019/ Spring 2020

Research Questions

- Goal: to understand student decision making about IT programs and careers
- Methods: Longitudinal case studies, campus policy and practice reviews, student interviews, faculty and advisor interviews, first- and third-semester student surveys, faculty and advisor surveys
- RQ1: How do community college students make the decision to enter technician programs? How do students learn about programs and careers to decide to enter a program?
- RQ2: What experiences and information influence students' decision making about programs and careers in IT? How do college information tools and advising resources influence these decisions, particularly early in students' enrollment?

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Sam Scovill, Rutgers Education & Employment Research Center
Danette Coughlan, Ivy Tech Community College School of IT, Evansville

Policy Review Methods: Faculty/Advisors Interviews & Surveys

- Policy reviews done by Ivy Tech faculty collaborators
- 3 collaborators, visited 6 campuses each, total of 18 campuses
- In-depth semi-structured interviews, 2-3 interviews/campus
- Total of 42 interviews of
  - IT Faculty
  - Advisors
- Policy review topics:
  - Campus advising model
  - Role of faculty
  - Role of advisors
  - Student program choice from the faculty/advisor perspective

Ivy Tech Community College Campuses and Sites

- Originally (1966) co-located with Indiana University and Purdue University campuses
- Provided vocational technical training for “blue collar” jobs
- Indianapolis has become a growing Tech ecosystem for secondary headquarters (e.g., Salesforce, InfoSys)
- Fishers (outside of Indy) functions as a Tech Incubator
- Manufacturing and agriculture are transforming with technology

Campus Advising Policy/Practice Reviews Background

- Open access institution with 18 campuses of varying sizes located throughout the state (now 19)
- Campuses considered large, medium, or small per the college designation (C1, C2, C3, respectively)
- Accredited as a single institution
- Academic Advising housed under Student Affairs
- ~65-70% students are Pell eligible
- Recent grants from the Governor's office make some shorter-term IT credentials free (non-AS or non-AAS)
- Indiana not seen as a 2 + 2 state
- Indiana HS courses coded as "Computer Science"

Campus Advising Policy/Practice Reviews Background

- School of IT Programs (8)
  Cloud Technologies, Computer Science, CyberSecurity/Information Assurance, Data Analytics, Informatics, IT Support, Network Infrastructure, Software Development
- Assumption that transfer is accomplished through the AS path only (especially advisors and students)
- Credentials (currently 36; 17 industry certifications)
- Industry a main driver in rapid curricula changes; directly affects advising students no matter who does it

Advising in Ivy Tech's School of IT

- Across campuses, faculty and advisors provide guidance to students on all the programs that fall under the umbrella of IT.
- This helps to dispel students' confusion on what a computer science degree really is.

“It’s more of a statement – “well, I want to work with computers.” So, then it’s like, “okay, so like what do you like to do with computers?” And I’ll just get a good overview. A lot will say, “well, I like to play video games.” Or “I helped my brother build a computer a couple of years ago.” “Oh, okay. So, what was that experience like when you were building it?” So really just digging down to what is it about computers [that the student likes]? Sometimes it’s, oh, “I want to work with computers because it’s the future.” “Yep, you’re 100 percent right about that, but we need to try and kind of narrow that down a little bit.””

Faculty and Advisor Collaboration is Key

Instead of seeing them after the 15-credit hand-off:

- 61 % of faculty said students are seeing faculty at 0-12 credits.
- 32% of faculty said that they start seeing students for advising at 13-24 credits
- only 2 faculty said that they don’t see students until 25-60 credits.

Faculty and Advisor Collaboration is Key

- Collaboration between faculty and advisors has increased over time and both parties appreciate the open lines of communication as they work to support students.

“Because we’ve talked, and we continue to talk, and we continue to develop a relationship together where we have a better understanding of what is going on between – because we have a tendency to silo ourselves. And by us communicating like that, we’re able to come out of our silo a little bit, and say, “oh, yeah, I could see where you would have trouble grasping that without knowing why we do this” and, vice versa, why they need to do this, oh, I can get that. So, you get a better working relationship when you start to communicate really well with them. And that’s what I loved about [an advisor] is, when she first took over, she was like, “can I come talk to you?” And I’m like, “Shoot, yes, let’s talk about it.” And we’ve had a good relationship ever since.”

Faculty and Advisor Collaboration is Key

- On campus events can provide a space for connection between faculty, advisors, and students.

Questions to Ponder

Faculty and advisors collaborate to support students, which is necessary because students use both as distinct information sources when making decisions.

1. Do faculty and advisors work collaboratively on your campus?
    a. If yes, what does that collaboration look like in practice?
    b. If not, do you think your campus would benefit from increased collaboration between these stakeholders? What might your ideal faculty/advisor relationship look like?
2. Are there advising policies/practices that you think should be made for faculty and advisors to better support students?
3. Do these findings change how you yourself think about how advising could look at your campus? In what ways? Why not?

Recommendations for Practice

- Advising systems whereby faculty and advisors collaborate ensure that the student receives complete information when making decisions.
- Regular and consistent communication between faculty and advisors is imperative to provide accurate and updated information to students.
- Events combining faculty and advisors can increase students' ability to seek information and build institutional networks.
- Create and maintain opportunities for instructor-student mentorship.

Learning Outcomes

- Collaboration makes for better research at community colleges.
- Collaboration between stakeholders at an institution makes for better support for students.
- A campus's size does not necessarily dictate that they will have unique problems compared to institutions that are different in size.
- It is important to study campuses both for their uniqueness and similarities.

Questions?