

We Built It, Why Aren't They Coming?

Enhancing Skilled Technical Program Recruitment

Presented By:

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Today's Presenters



Lana J. Rucks, Ph.D.
President + CEO



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The Problem

The Problem



① High demand for a Skilled Technical Workforce (STW)

Over the next decade, STEM Professions are expected to grow by 11%, while non-STEM Professions are expected to grow by only 5%. (*U.S. Bureau of Labor, 2022*)

For the United States to maintain global leadership within STEM, it must attract and recruit individuals into the STW. (*National Science Board, 2019*)

Even for roles within the STW with modest job growth, openings remain high because of the aging current STW with limited replacement by younger workers. (*Greenberg, Schaefer, & Weddle, 2024*)

The Problem



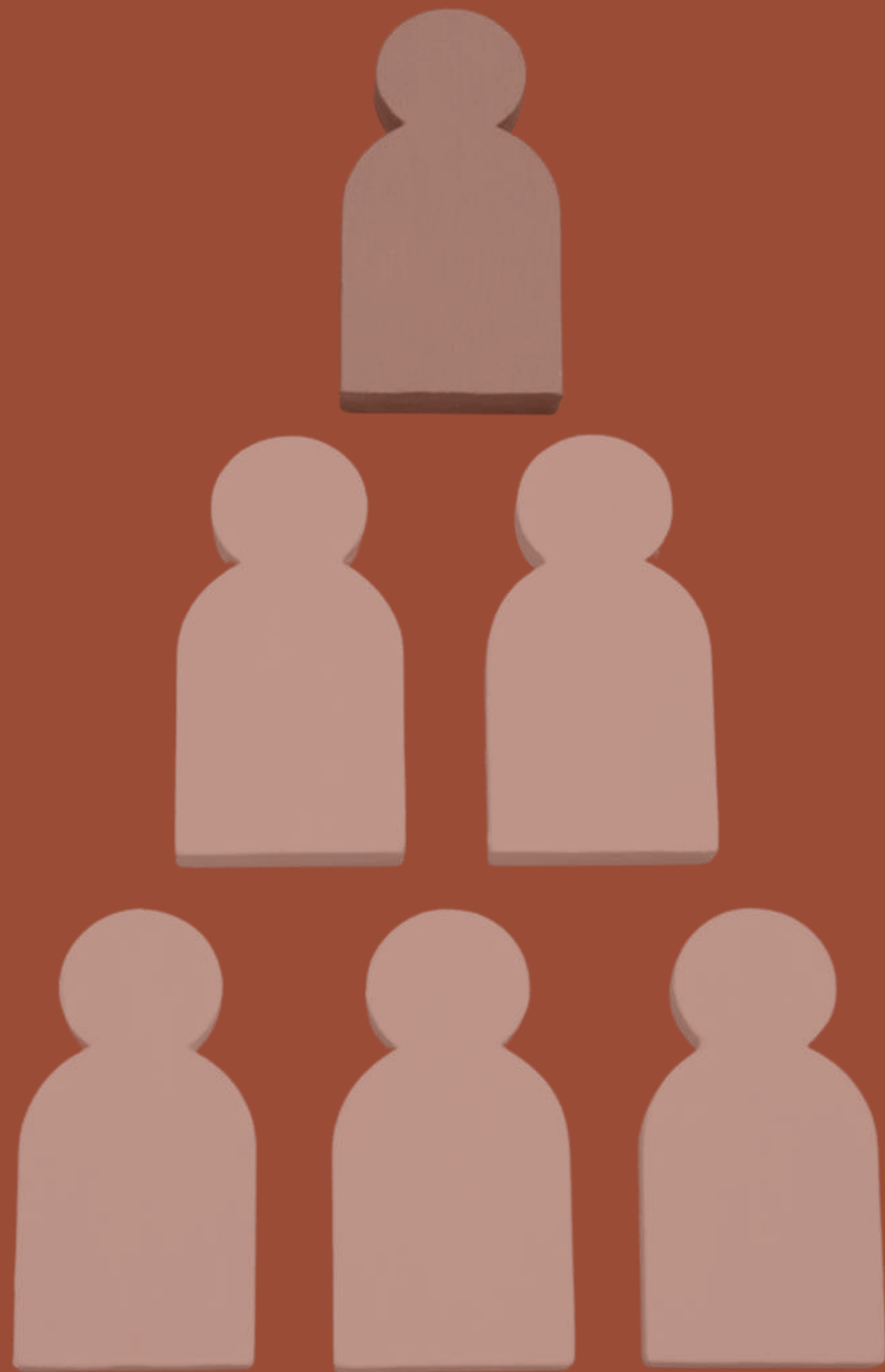
② Meeting the STW Demands is challenging

While the need for the STW is increasing, analyses of market forces continually predict that the number of individuals available to fill these positions is not keeping pace. (*Frady, 2021; National Academies of Sciences, Engineering and Medicine; 2017*)

Several reports suggest that, on average, about 75% of employers indicated that they struggle to fill skilled technical positions. (*Manpower Group Research, 2020; Society of Human Resource Management, 2024*)

High level of turnover within roles also makes meeting the STW demands challenging. (*Greenberg, Schaefer, & Weddle, 2024*)

2024 ATE Annual Survey



How challenging is it to recruit individuals central to your project?



The Problem



③ Variability in the Effectiveness of Recruitment Tactics

Observational data indicate that similar types of recruiting tactics yield varying results across differing contexts.

Sample Recruiting Tactics



Reach out to Potential Students

- Mailers
- Email
- Phone

Reach out to Parents/Guardians

- Mailers
- Email
- Phone

Removal of barriers

- Scholarships
- Credit for Experience
- Articulation Agreements
- Supplemental Instructions/Tutoring

Hosting/Participating

- Industry Tours
- Hands-on Experiences (Physical/Virtual)
- Recruitment Events
- Job Fairs
- Guest Speakers – Incumbent Workers
- Guest Speakers – Program Graduates
- Recruiting Friend Groups
- Exposure to Profession

Engagement with Institution's:

- Admissions
- Marketing
- Institutional Research

Engagement with Community Partners:

- Guidance Counselors
- STEM Teachers
- Tech Instructors

Engagement with Industry Partners

- On-site courses
- Alignment of job requirements


The Problem



③ Variability in the Effectiveness of Recruitment Tactics

Observational data indicate that similar types of recruiting tactics yield varying results across differing contexts.

A natural experiment in which the ability to recruit similar profile of students varied across two grants with an overlapping purpose.

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“There is nothing so practical as a good theory.”

-- Kurt Lewin

Sample Recruiting Tactics



Reach out to
Potential Students

- Mailers
- Email

Hosting/Participating

- Industry Tours
- Hands-on Experiences
(Physical/Virtual)

Engagement with
Institution's:

- Admissions
- Marketing

**What if we could understand
what makes recruiting
effective in a given context?**

Removal of barriers

- Scholarships
- Credit for Experience
- Articulation Agreements
- Supplemental Instructions/Tutoring

- Exposure to Profession

Engagement with Industry
Partners

- On-site courses
- Alignment of job
requirements

OBJECTIVES



Theoretical Framework
for STW Recruiting



Demonstrate use of
the Framework



Questions
& Comments

Theoretical Framework

Recruiting Framework Rooted within a Systems Lens



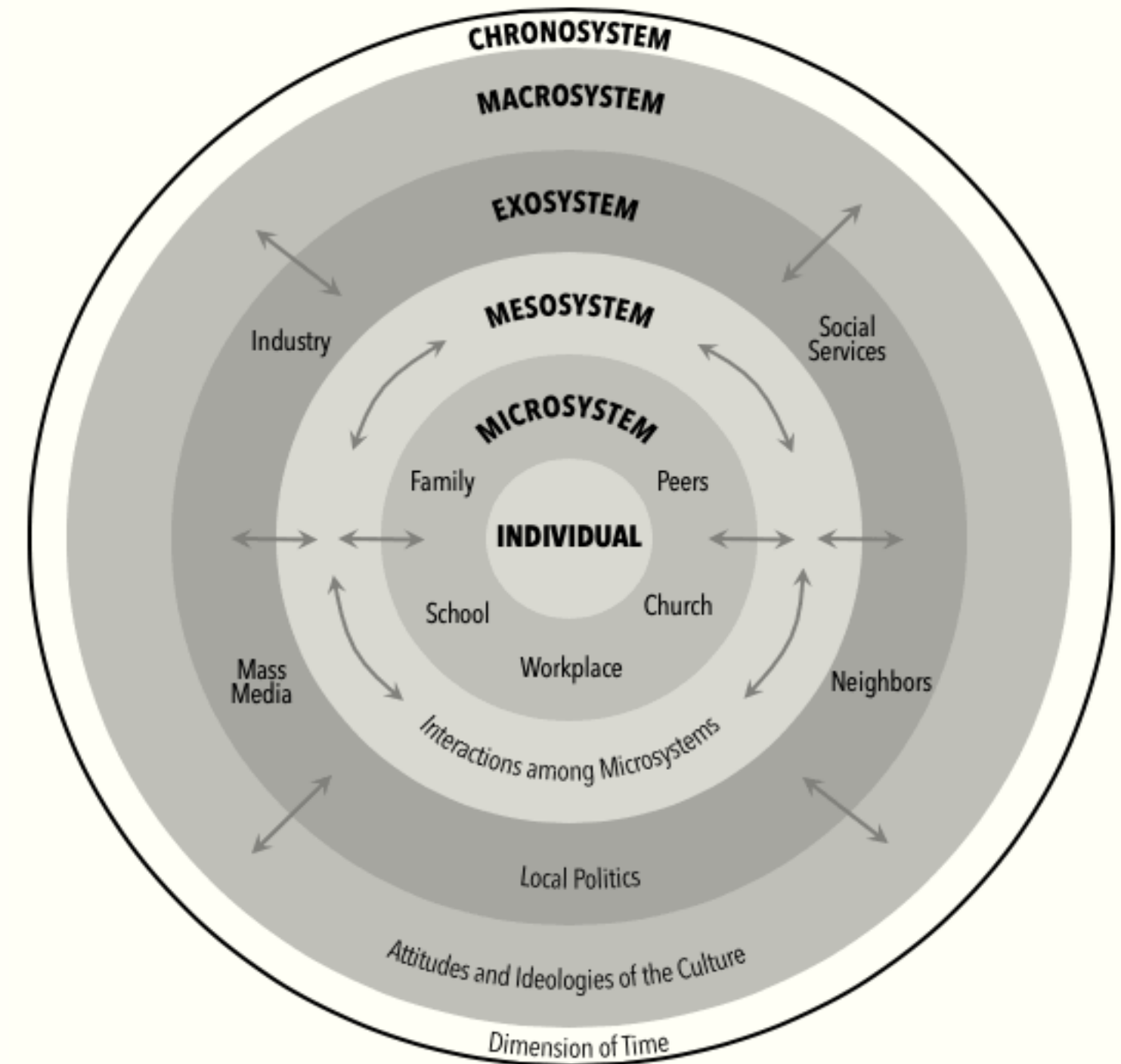
THE SOCIAL ECOLOGICAL MODEL

Argues that the development, behaviors, and wellness of an individual are impacted by a complex interplay between individual characteristics and multiple levels of the individual's environment.

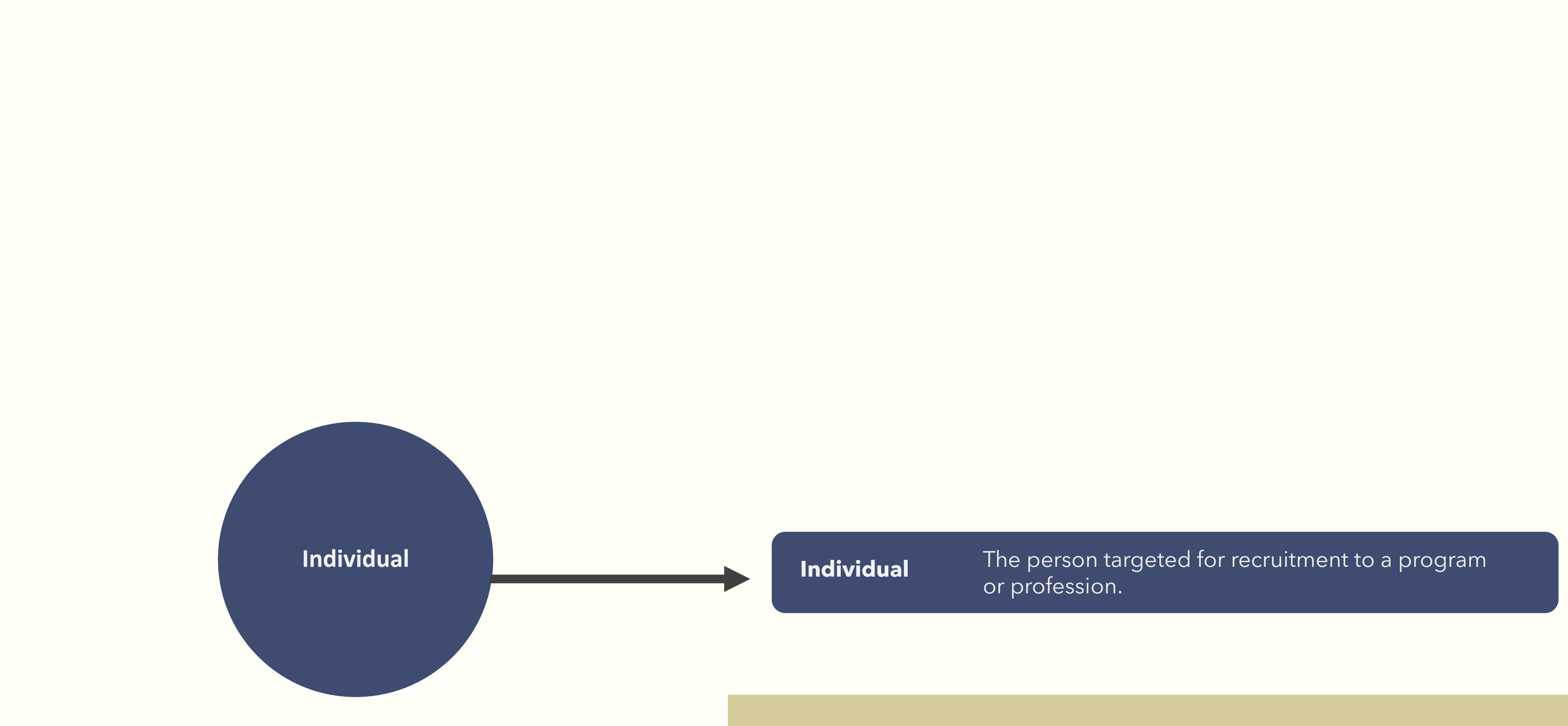
(Bronfenbrenner, 1977; Bronfenbrenner, 1986)

Widely adopted in multiple fields to better understand the complex interplay between an individual and their environment.

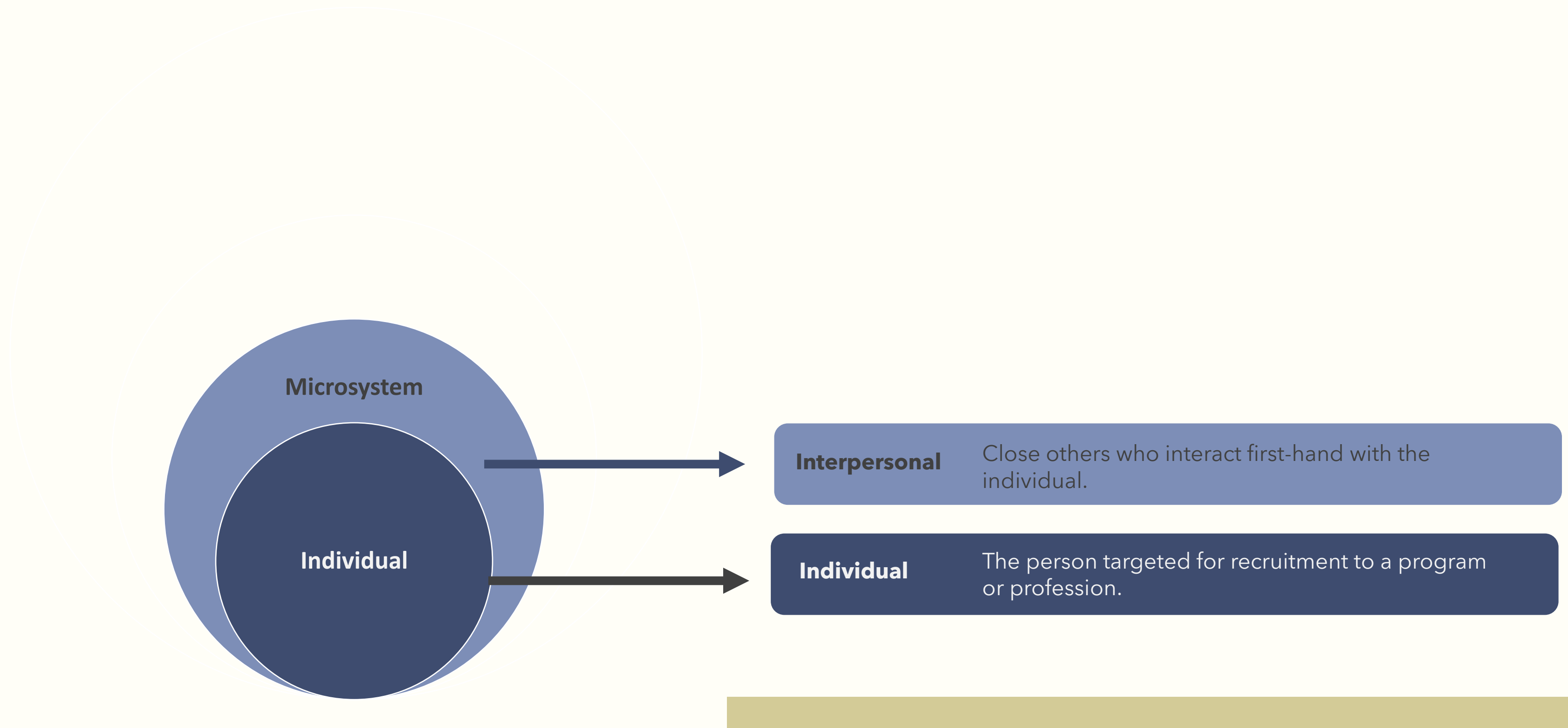
(Fuller, Luckey, Odean, & Lang, 2021; Center for Diseases and Prevention, 2017)



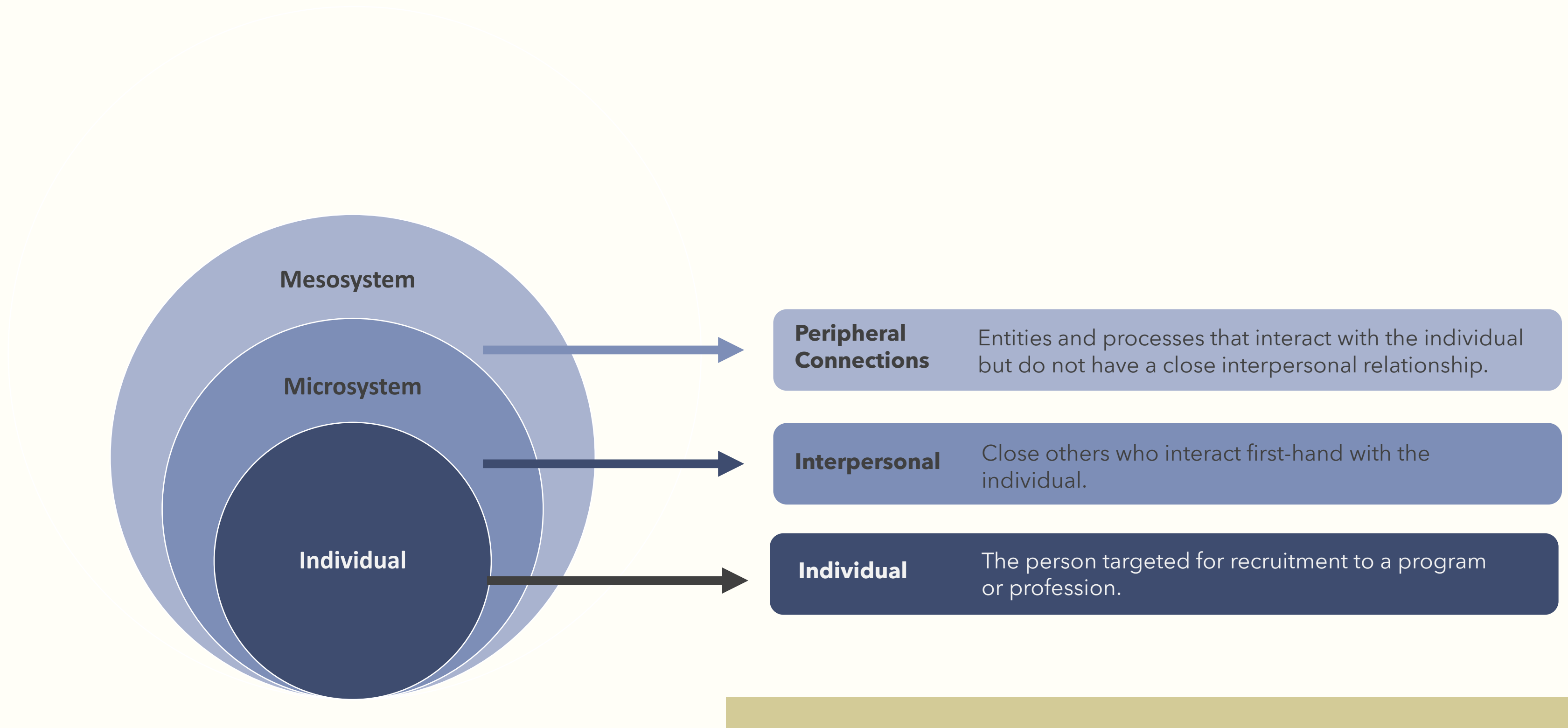
Adapted Social Ecological Theory



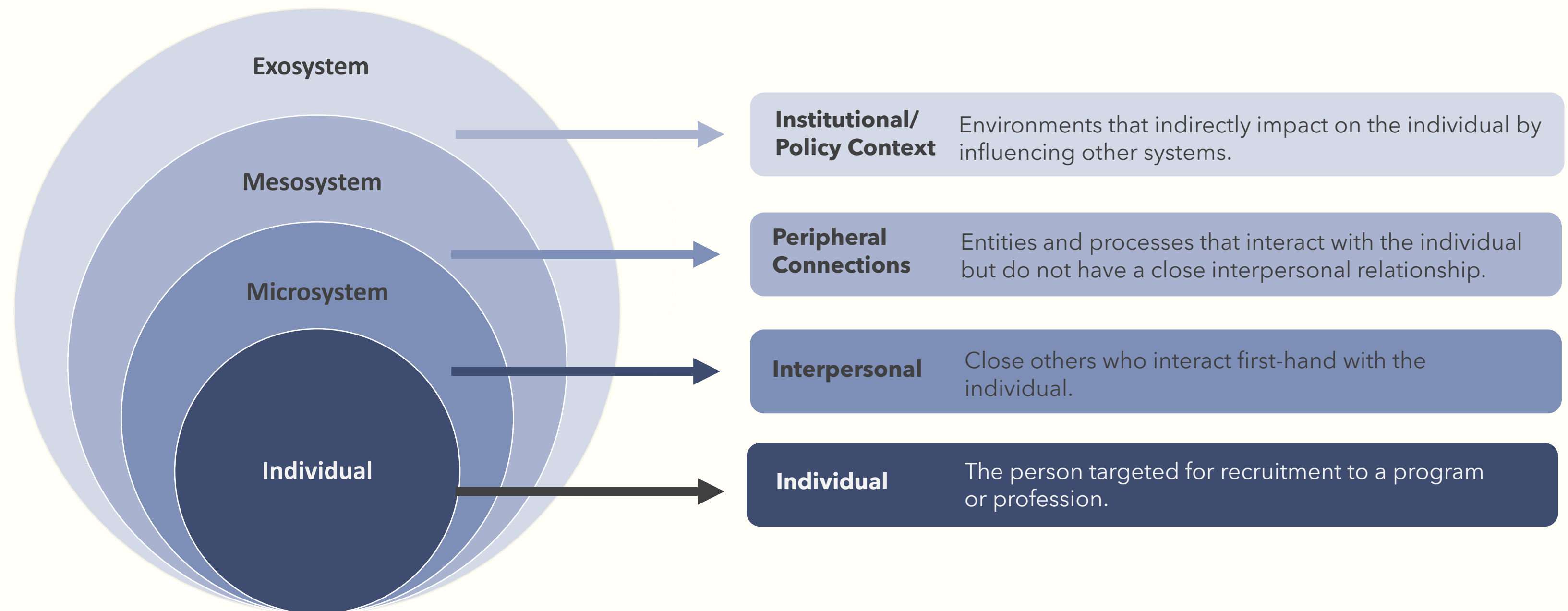
Adapted Social Ecological Theory



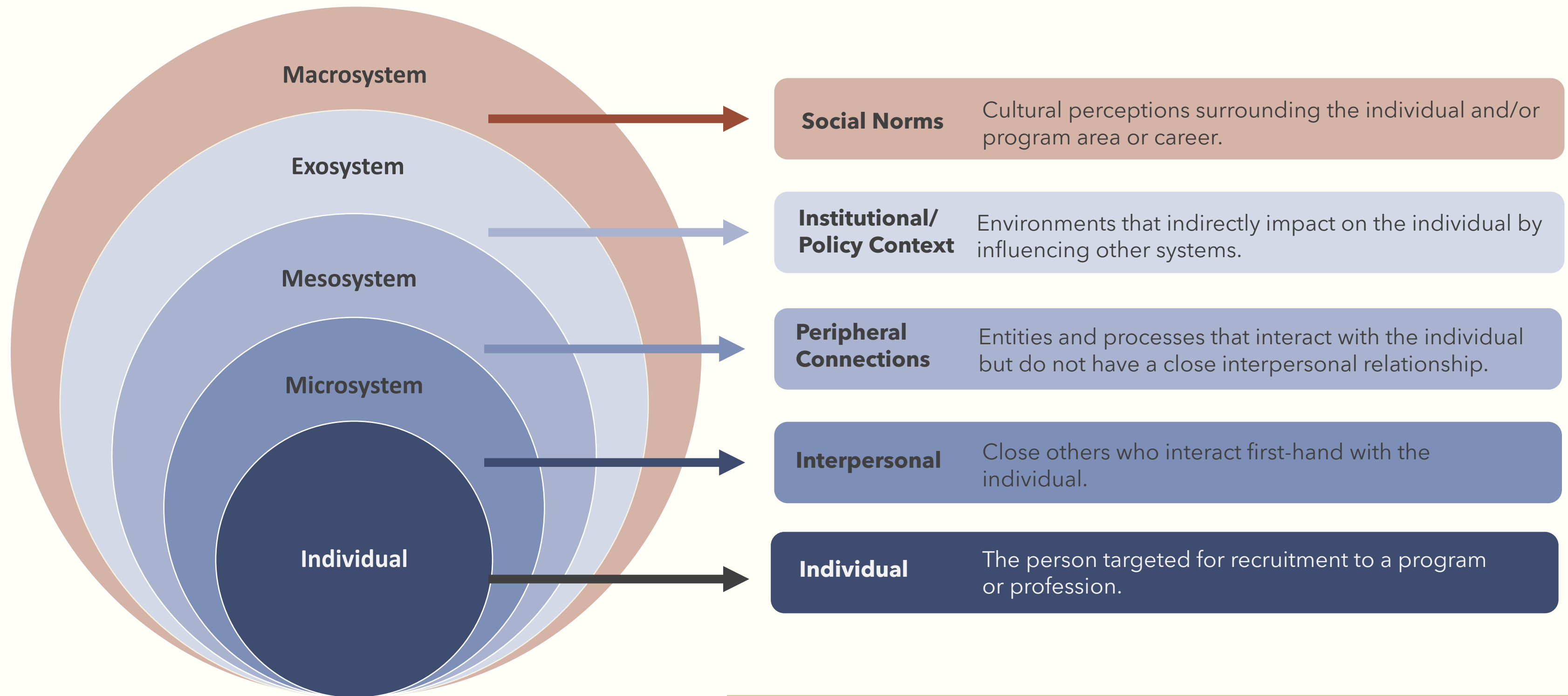
Adapted Social Ecological Theory



Adapted Social Ecological Theory



Adapted Social Ecological Theory





Framework In Action

Case Study #1



A small four-year institution was awarded a scholarship grant and near the end of the initial grant, was awarded another scholarship grant from the same program. The project team with the first grant struggled to recruit students, while the project team with the second did not.

	Struggled: Bridge to Nowhere	Successful: Fly-Wheel
Social Norms	Favorable norms related to the field and the program	Favorable norms related to the field and the program
Institutional/Policy	Connections with community colleges but no clear articulation agreements.	Institutional knowledge expanded and policies changes due to the prior grant experience.
Peripheral Connections	Ineffectively engaged with other entities at this level.	Effectively engaged with other entities at this level.
Interpersonal	N/A	Provided financial information to scholars and their families and information from the marketing office.
Individual	Multiple outreaches to scholars.	Multiple outreaches to scholars.

Case Study #2




A different small four-year institution was awarded two separate scholarship grants to recruit into STEM disciplines (this also involved partnering with a local community college). While one grant struggled to meet recruitment goals, the other did not.

	Struggled: Re-Route Project	Successful: Message Received
Social Norms	<div>The STEM teaching scholarship may have been perceived as burdensome.</div>	<div>The STEM scholarship may have been perceived as prestigious.</div>
Institutional/Policy	<div>Scholarship recipients were required to teach in a low-resourced school post-graduation.</div>	<div>Scholarship recipients do not have additional requirements other than supplemental instruction.</div>
Peripheral Connections	<div>Presentations by high school STEM teachers (incumbent worker) to Freshmen and Sophomores.</div>	<div>Engagement with the admissions counselors.</div>
Interpersonal	<div>Project team mailed pamphlet to student's parents.</div>	<div>Admissions counselor and project team phone call and physical letter to parents/guardians.</div>
Individual	<div>Project-level informational sessions to incoming first year students.</div>	<div>Project-level email, phone call, and physical letter to incoming freshmen who met financial eligibility.</div>

Additional Work ...

Used the Recruiting Framework to understand the factors that led to successful recruitment within a technician program.

Applying the Recruiting Framework prospectively to facilitate the process of developing a recruiting strategy.





What We Are Learning

Take Home Lessons

- 01 ——— Recruiting Framework appears to be useful in distilling a holistic recruiting strategy.
- 02 ——— Successful recruiting involves either intentionally addressing or unintentionally leveraging the various system components at different depths.
- 03 ——— Developing a recruiting strategy means considering the entire system and employing tactics that address it at multiple levels.



Our Ask ...



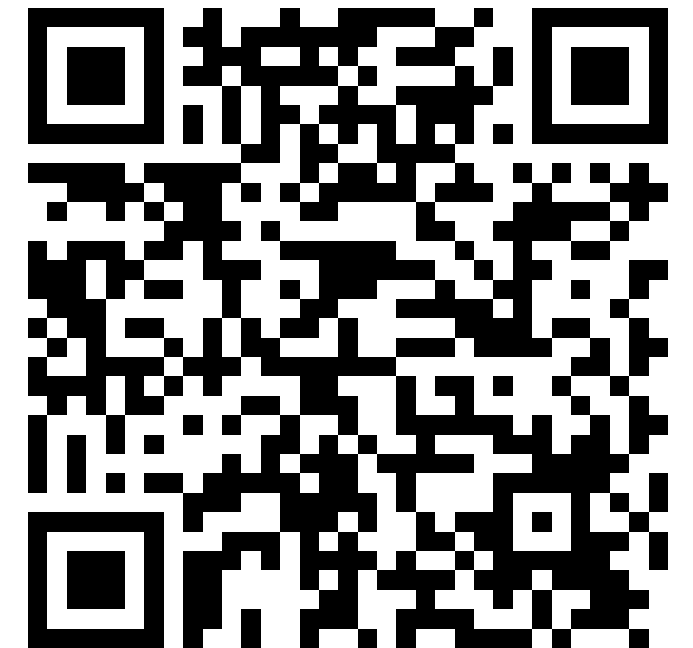
We are interested in finding additional situations in which we can test the use of the Recruiting Framework.

If you are interested, please reach out!

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in Lana Rucks, Ph.D.



DISCUSSION



Recommended Citation:

Rucks, L. & Crumly-Goodwin, B. (2025, July). *We built it, why aren't they coming?: Enhancing skilled technical program recruitment*. High Impact Technology Exchange Conference (HI-TEC), Minneapolis, MN.



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Working Together



Identifying, Cultivating, and
Assessing Partner Involvement

Presenters:

Thursday, September 18, 2025 | 2:00p–2:30p ET | Zoom

Mary Slowinski, Ph.D. | Working Partners Workshop
Lana Rucks, Ph.D. | The Rucks Group, LLC

Thanks for Participating!



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