



CENTER for RURAL POLICY
& DEVELOPMENT

Pathways After High School – Key Findings

SOURCEWELL WEBINAR

SEPTEMBER 22ND, 2026

About the Center

Created in 1997, the Center for Rural Policy & Development provides policy makers, rural advocates and everyday citizens with an objective, unbiased and politically unspun examination of today's rural issues.

***Better knowledge.
Better understanding.
Better decisions.***



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Labor Force Situation

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Economic Situation

Labor Force Shortage

High Job Vacancy Rates

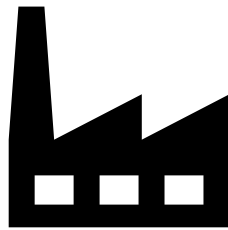
Low unemployment

High labor force participation rate

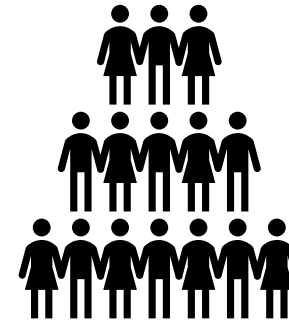
Strategy

Search for labor force

A fundamental shift is taking place in economic development



From Business
Recruitment



To People
Recruitment

This is a statewide issue!



What to do?

Invest in non-traditional economic development

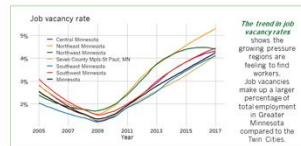
- Resident recruitment and retention initiatives
 - High school engagement
 - Child care
 - Housing
 - Engaging retired
-

Rural Job Vacancy Report Series



Finding work or finding workers? Part 1: Job vacancy data analysis

Ask business owners in Minnesota what their biggest challenge is today and most will tell you, "finding help." Economic growth coupled with an aging workforce and fewer young people to replace them is putting significant pressure on Greater Minnesota's employers, making hiring significantly more challenging.



Main challenges to filling positions

- 1. The workforce in Greater Minnesota is barely growing:** The seven county metro is the only region to recover to its 1990 level of growth in its labor force, which was over 2%. All other regions are growing below 1% and have been since 2010. The southeast and northeast regions have actually been experiencing declines in their labor force.
- 2. There is a lack of younger workers to replace retirees:** In Greater Minnesota, the share of jobs held by people age 25 to 44 make up less than 40% of all jobs compared to older workers who hold more than 40%. In the seven county metro, the opposite is true: the share of jobs held by people age 25 to 44 is significantly higher than the share of jobs held by people age 45 or older.

To read the full report, visit our website at ruralsm.org.



Resident
recruitment



Finding work or finding workers? Part 3: Engaging populations with high barriers to employment

As employers hit the end of what's known as the "easy in the labor force", they are turning up against something new: engaging with and recruiting workers that are struggling with high barriers to employment. But must be addressed if they are to enter the workforce and be able to stay there.

Groups with high barriers to employment



Barriers to employment

Individual barriers: For workers, many barriers to employment revolve around access to other pieces of the first many of us take for granted, such as access to transportation, child care, housing, and health care. Other barriers include flexibility to attend required meetings with support agents such as parole officers, counselors, and other employers.

Business barriers: Barriers also come from the business side, which face under a couple of themes:
First of the unknown - for example, legal liabilities by hiring someone from these populations.
Perceptions - for example, perceiving someone with a criminal background history means they would be a bad employee.

To read the full report, visit our website at ruralsm.org.



Engaging high
school students

The data

High barriers to
employment



Research Question

Among rural high school graduates, which educational experiences result in a higher probability of having local geographic workforce participation at Time X?

About the Data

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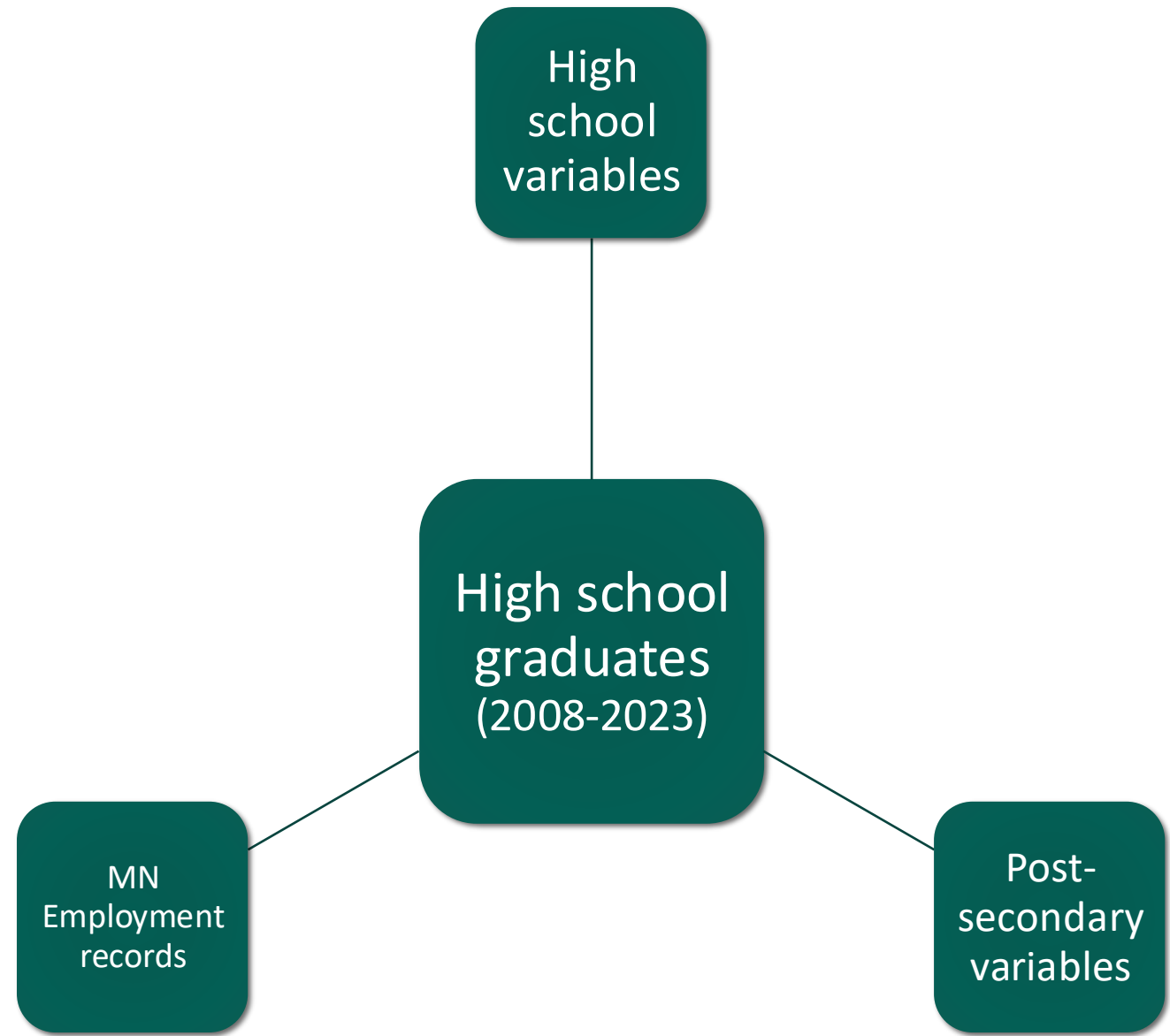
Data Used - SLEDS

SLEDS = Statewide
Longitudinal Education
Data Systems

OHE

DEED

MDE



Research Regions

Northwest

EDR 1
EDR 2
EDR 4

Northeast

EDR 3

Central

EDR 5
EDR 7E
EDR 7W

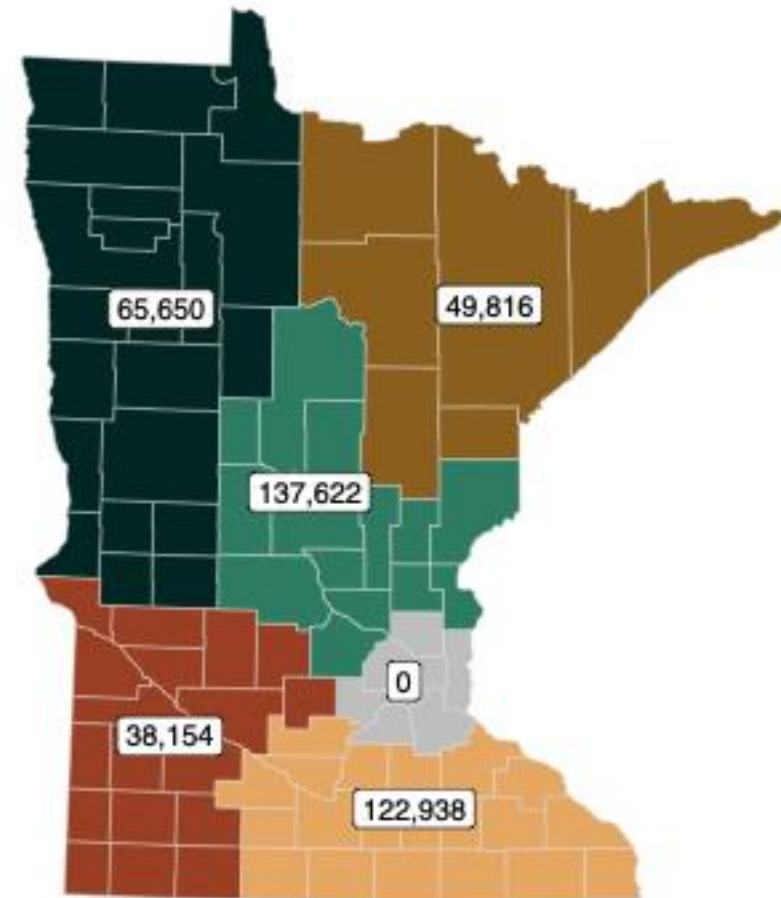
Southwest

EDR 6E
EDR 6W
EDR 8

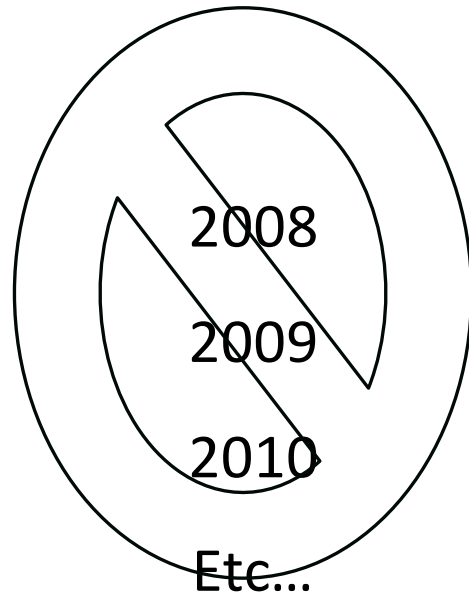
Southern

EDR 9
EDR 10

Research regions & number of grads



“Time X” = Years after graduation



1 year after graduating high school
2 years after graduating high school
3 years after graduating high school
Etc...

Workforce Participation Outcomes

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5 Categories

Sustained WF – Region

Sustained WF – MN

Non-sustained WF

No MN employment record

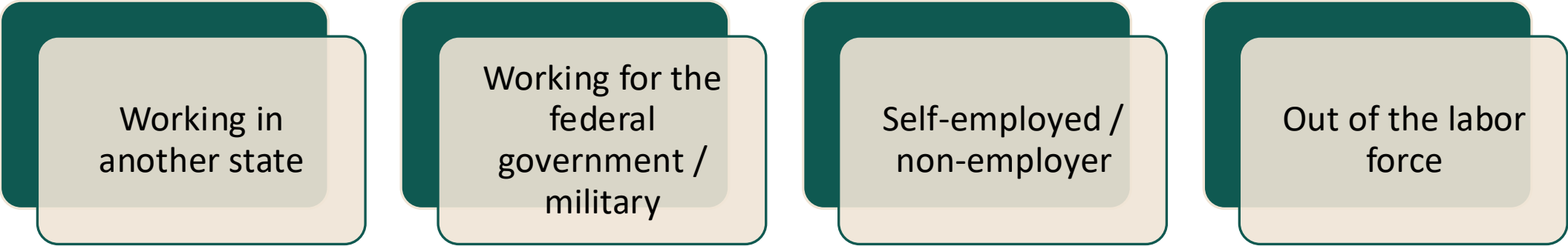
Attending PS



“Sustained WF”

1,000+ HOURS WORKED WITH SINGLE
EMPLOYER IN CALENDAR YEAR.

“No MN employment record”



Working in
another state

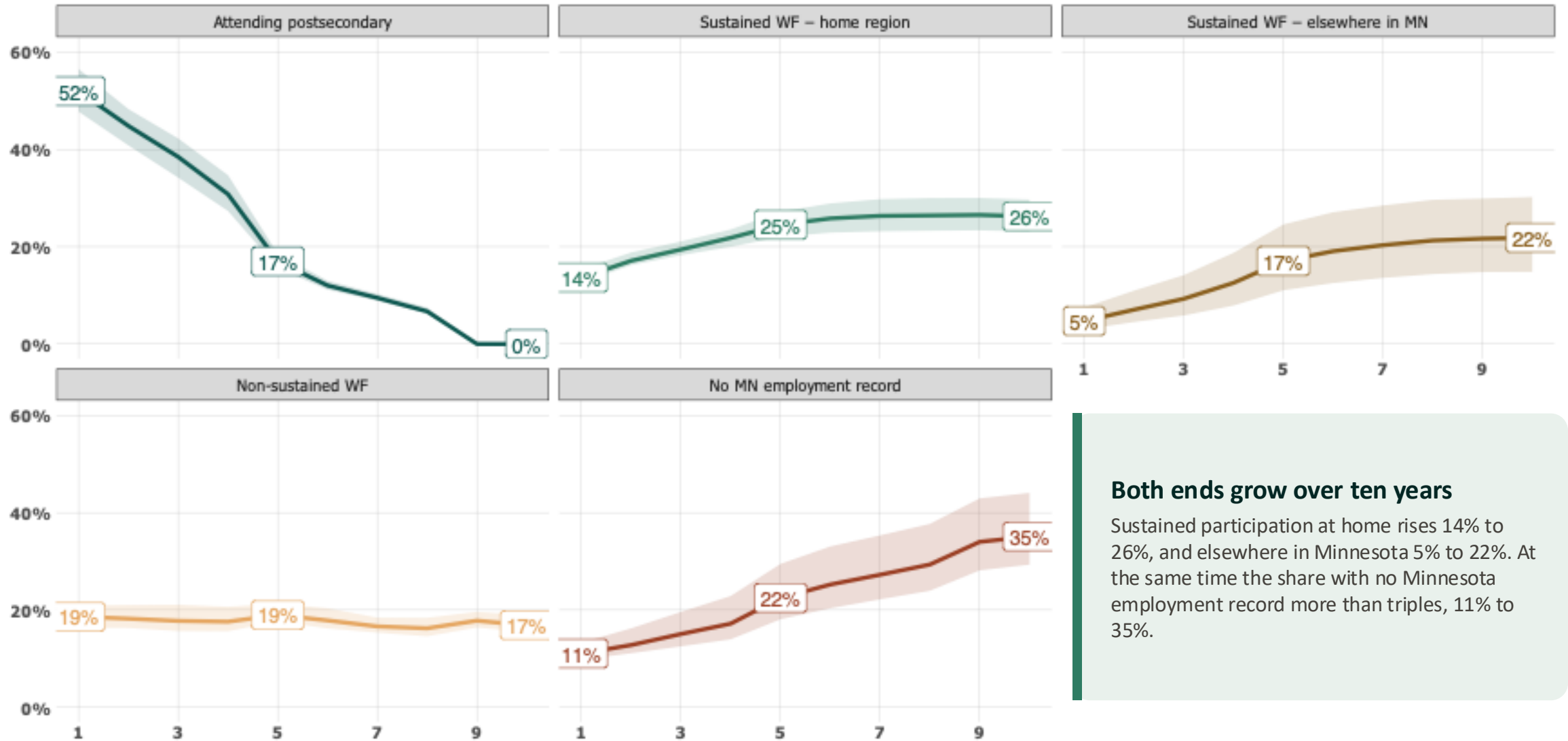
Working for the
federal
government /
military

Self-employed /
non-employer

Out of the labor
force

Workforce participation, years 1–10 after high school

Line = average share across all five regions • Shaded band = range across regions



Both ends grow over ten years

Sustained participation at home rises 14% to 26%, and elsewhere in Minnesota 5% to 22%. At the same time the share with no Minnesota employment record more than triples, 11% to 35%.

MN Office of Higher Education - SLEDs

THE QUESTION

What characteristics are related to these trajectories?

Where each group stood ten years after high school

Attending
postsecondary

52% → 0%

falls away

Sustained work, home
region

14% → 26%

grows

Sustained work,
elsewhere in MN

5% → 22%

grows

Non-sustained work

19% → 17%

holds steady

No MN employment
record

11% → 35%

more than triples

The Characteristics

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The Characteristics



Demographics

Gender
Free or reduced lunch
Race and Ethnicity
Special Education
Limited English Proficiency
English learner
Plus more....



Community/High school characteristics

Average unemployment rates
Average wages in high school county
EDR
RUCA Category



High School Accomplishments

CTE Achievement
CTE Courses (N)
ACT Scores
MCA scores
PSEO Participant
SAT taken
Plus more....

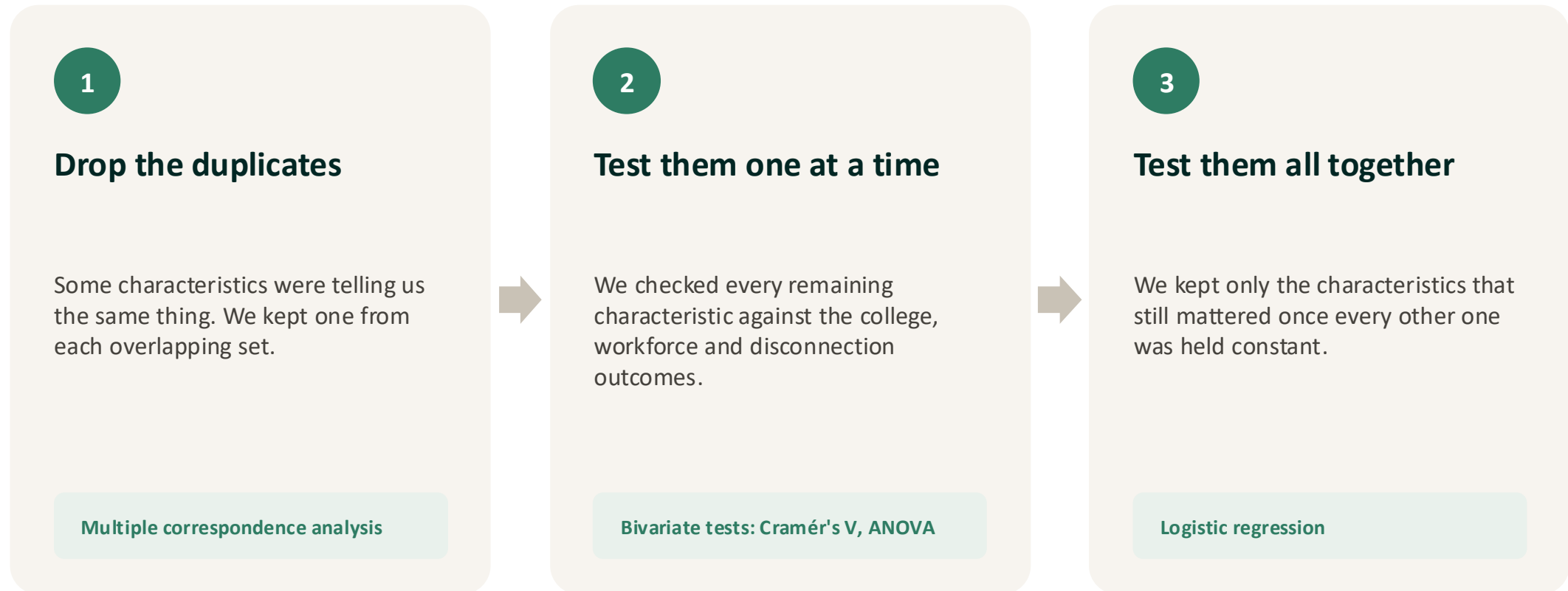


Post-secondary Pathway

Institution type
Location
Highest credential earned
Attended within first year after HS
Plus more....

Analysis Process

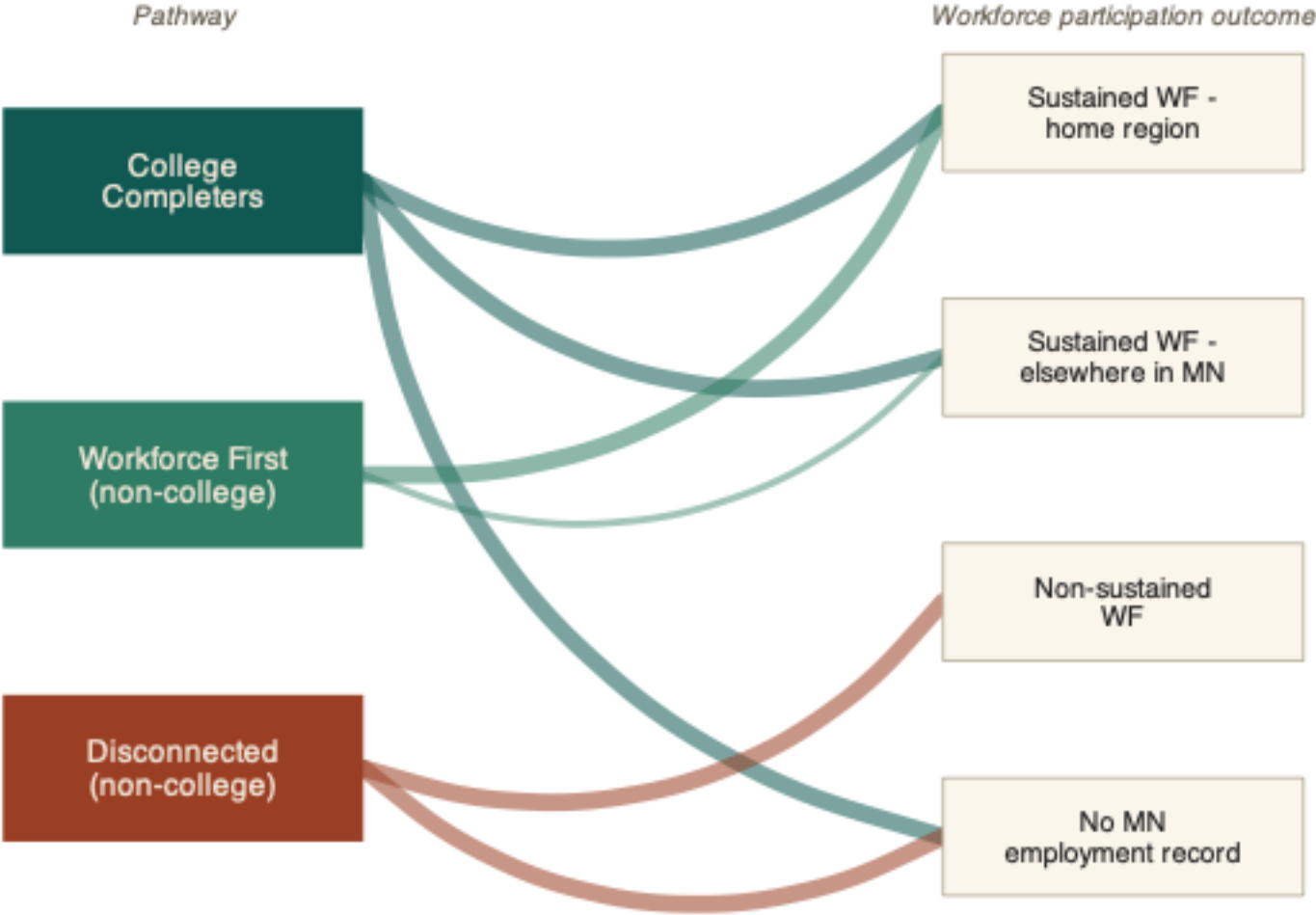
Three passes over the data, each one narrowing the list of characteristics.



What survived the third pass is what the rest of this presentation reports.

How the three pathways relate to workforce participation

Line weight reflects the strength of the relationship, not a percentage share



Three Observable Patterns

Three Observable Patterns

Every high school graduate in the data follows one of three patterns after leaving school.

	College completers	Workforce first	Persistent instability
In short	Earn a postsecondary credential after high school.	Enter the workforce directly, without a credential.	No credential and no sustained employment.
What defines it	Where they graduate decides whether the region keeps them.	CTE engagement is the defining feature.	Defined by the absence of CTE and of an academic pathway.
Role of background	Demographics and the high school record clearly mark this group.	Demographics separate this group much less.	Certain demographics are more common here.

Pathway 1: College Completers

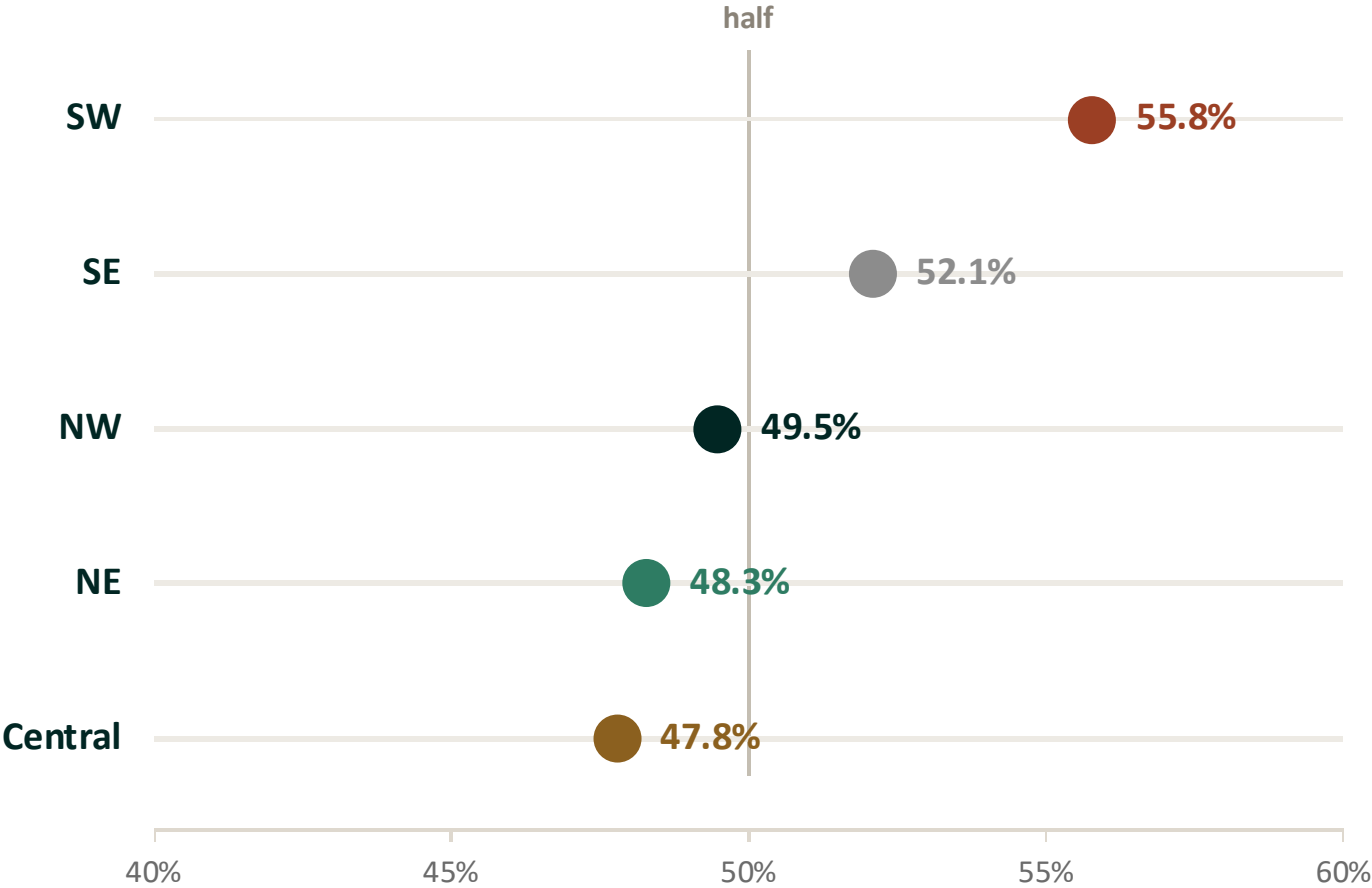
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Percent of high school graduates who completed college, by region

Every region sits near half, within 8 points of each other.



Share that completed college (2008-2020)

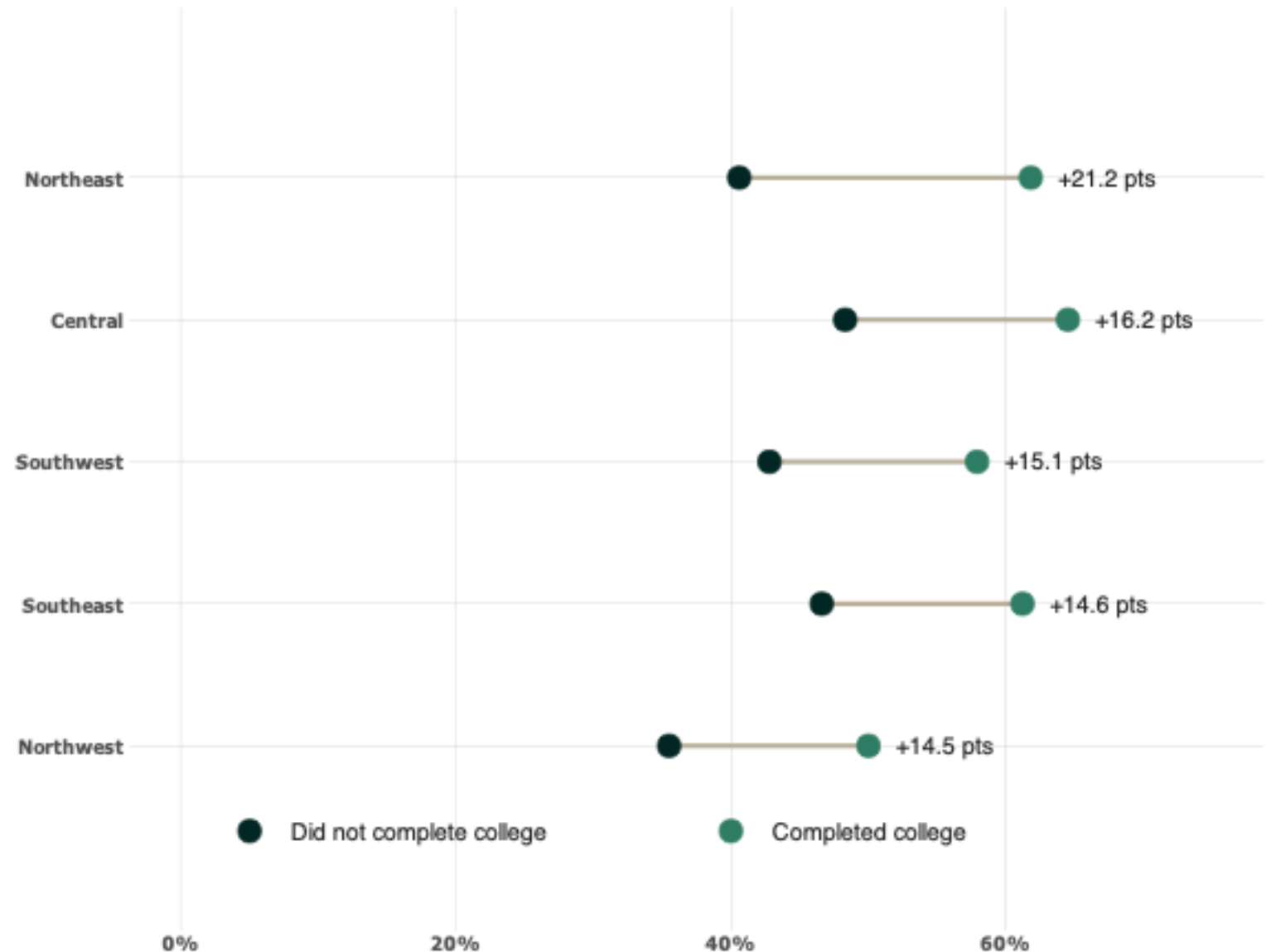
Source: MN Office of Higher Education, SLEDs.

College Completion Relationship to Sustained Workforce Participation

The percentage of individuals that completed college and had sustained workforce participation in the region or elsewhere in Minnesota ranged from 14 to 21 percentage points higher than individuals who did not complete college. This is 5-years after high school.

Share of graduates with sustained workforce participation in the region or elsewhere in Minnesota five years after high school, by college completion status

Completing college is linked to higher sustained workforce participation in every region

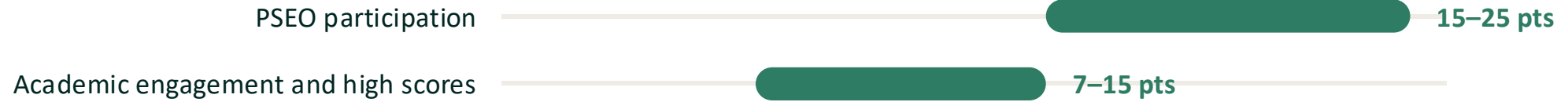


Data: Minnesota Office of Higher Education - SLEDs

What factors were associated with completing college?

How much each characteristic raises the likelihood of completing college, percentage points

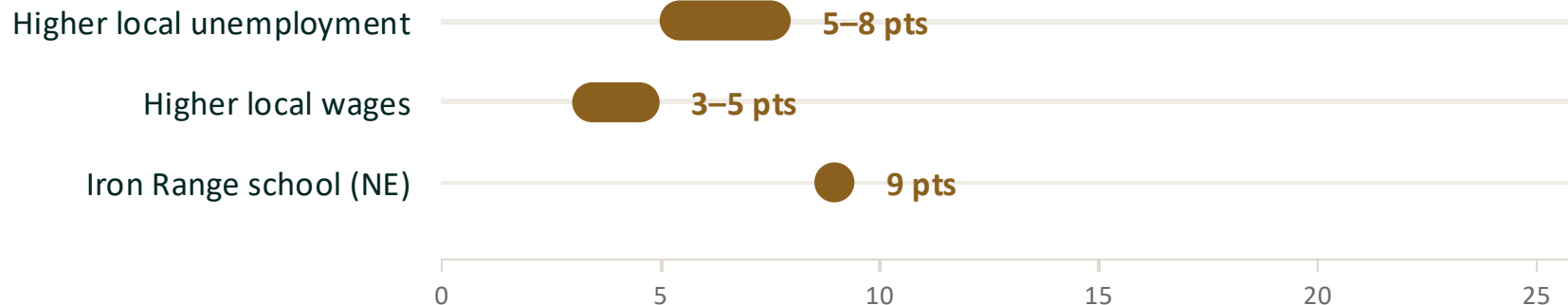
ACADEMICS



DEMOGRAPHICS



HIGH SCHOOL AND LOCAL ECONOMY

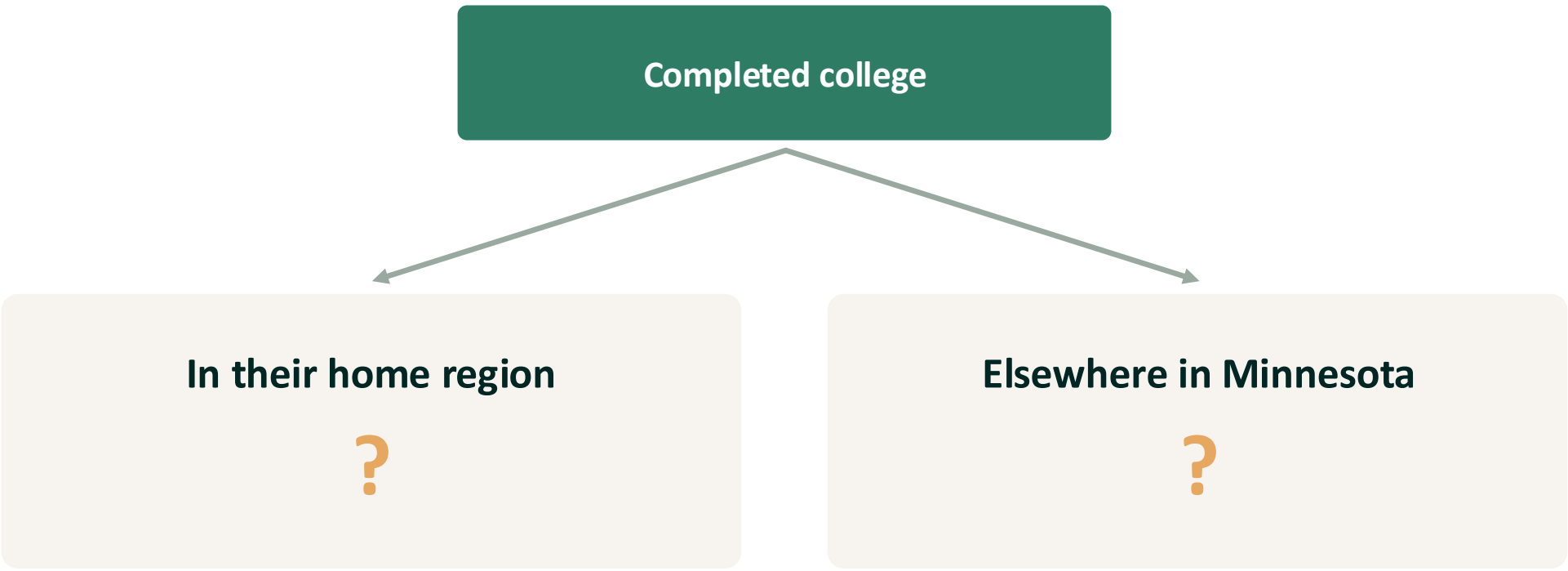


Bars show the range across regions; dots mark a single estimate.

Where do they end up having sustained workforce participation?

14 to 21 points more likely to reach sustained work

Completed college



```
graph TD; A[Completed college] --> B[In their home region?]; A --> C[Elsewhere in Minnesota?];
```

In their home region

?

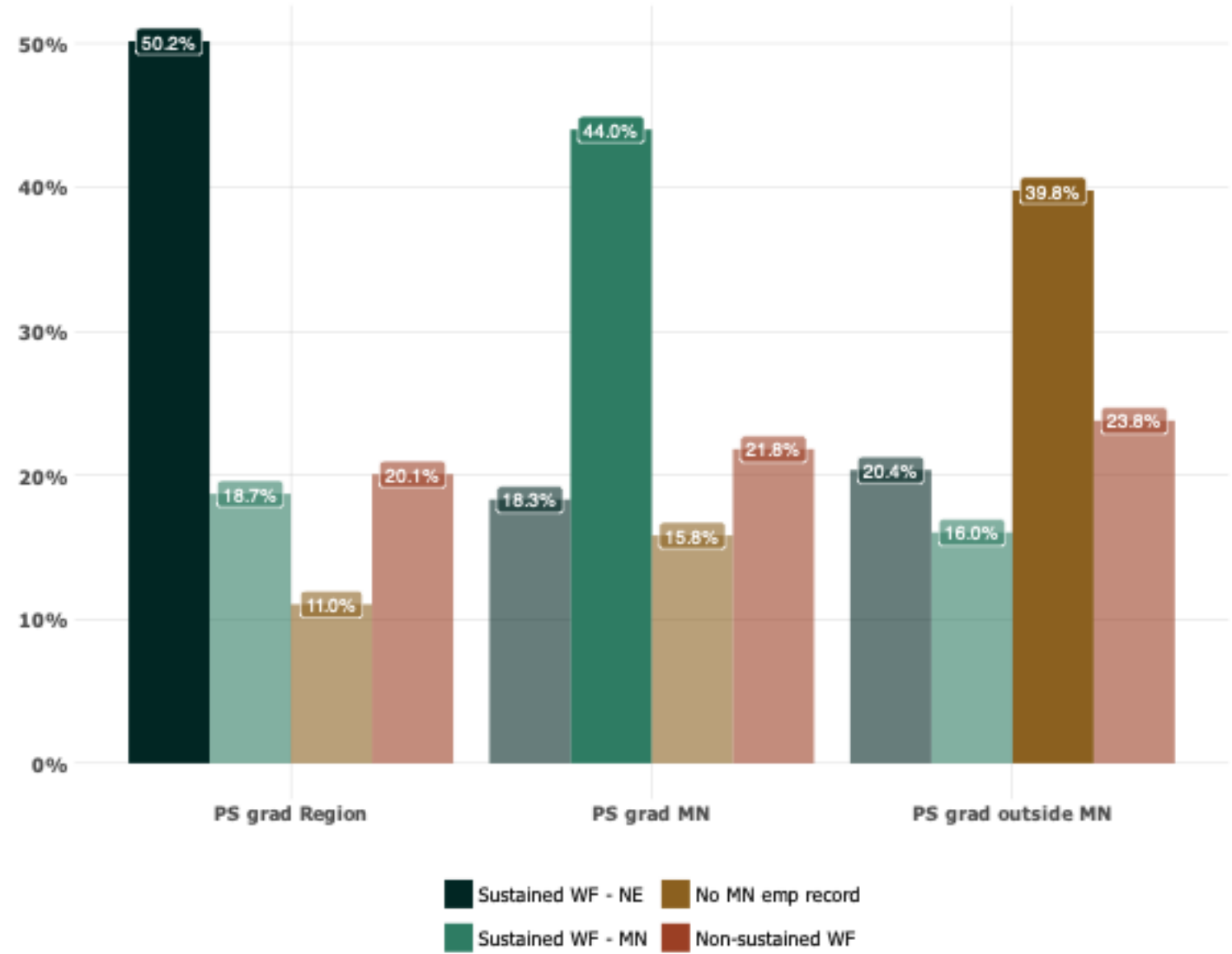
Elsewhere in Minnesota

?

Sustained workforce participation, five years after high school.

Workforce participation outcomes five years after high school graduation, by location of postsecondary graduation

Where college completers graduated is strongly associated with where they end up working



Depends on where they completed college.

Where They Graduate Is Where They Stay

Northeast college completers, five years after high school. Outcomes track the place the credential was earned.

COMPLETED COLLEGE IN THE
REGION

50.2%

have sustained work in the region

COMPLETED COLLEGE ELSEWHERE
IN MN

44.0%

have sustained work elsewhere in
Minnesota

COMPLETED COLLEGE OUTSIDE MN

39.8%

have no Minnesota employment record

WHICH RAISES THE QUESTION

**What share of the region's college completers earn that credential
in the region?**



Northeast example. Source: MN Office of Higher Education, SLEDs.

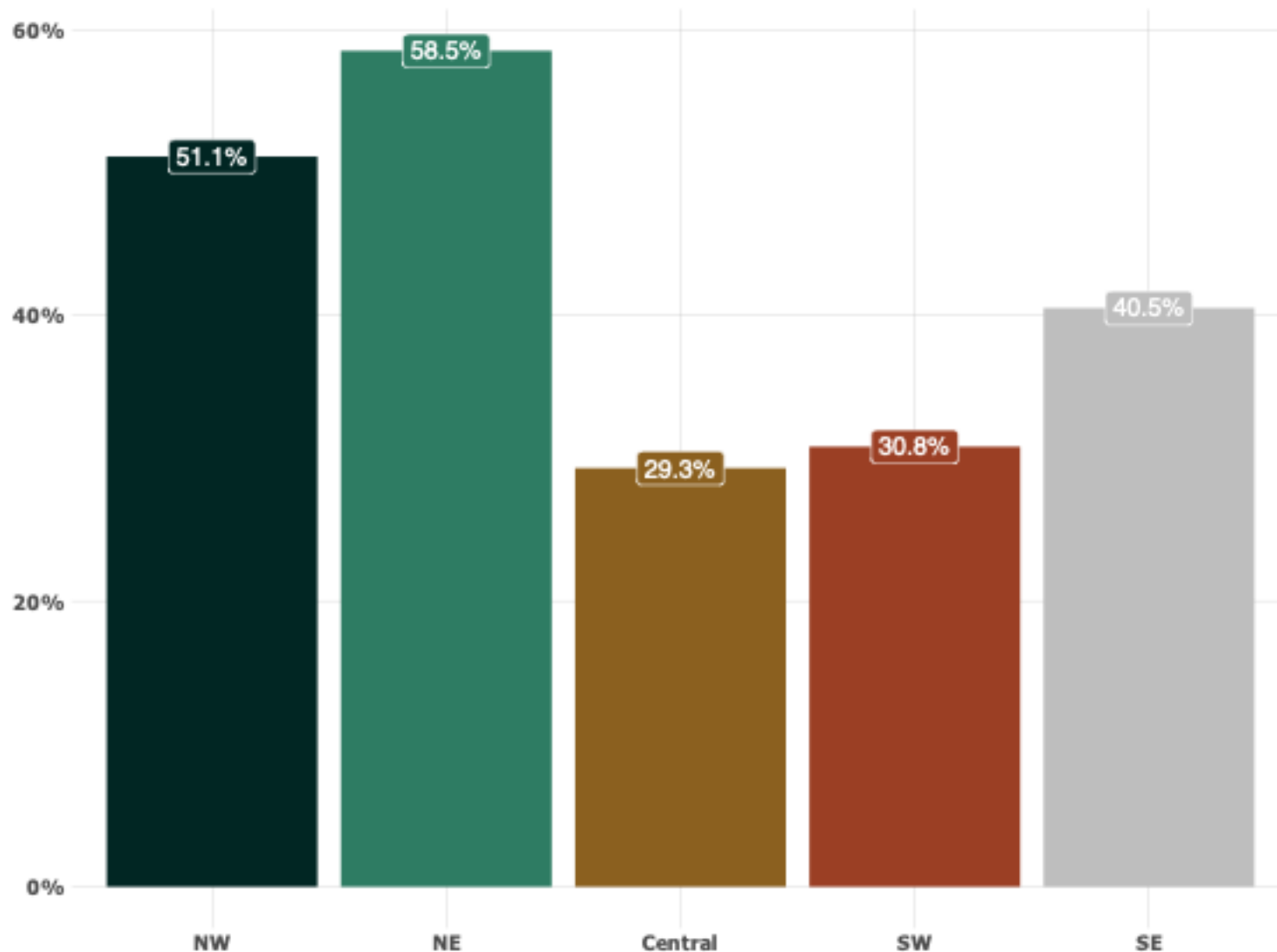
Where are high school graduates completing college?

There is considerable variation in the percentage of high school graduates that graduate college, and do so in an institution that is in their region. This variation is due to border state competition (SW), and adjacency to the twin cities (Central & SE).

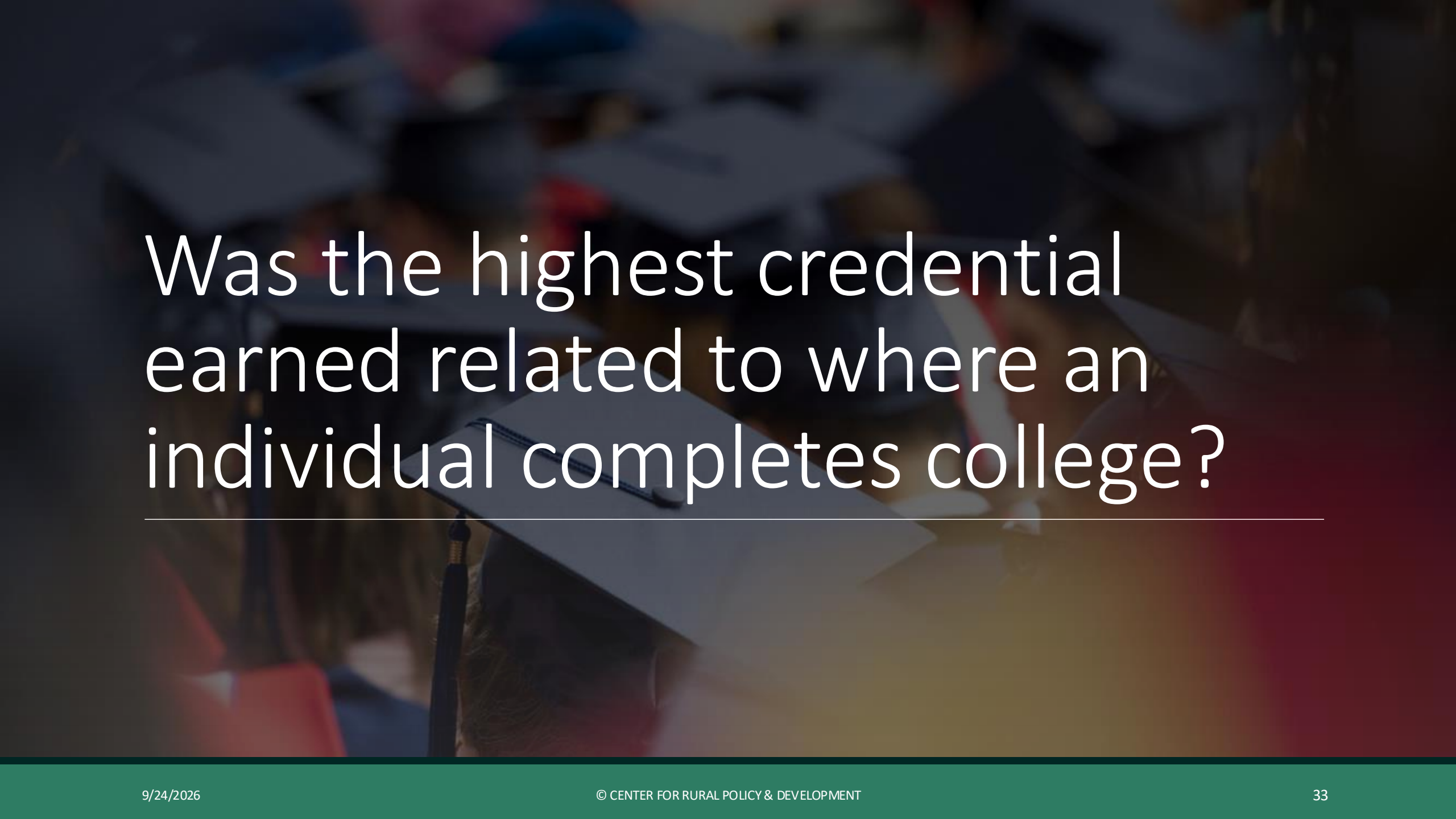
It's also important to know that some of this variation is also a result of how the regions were divided. For example, Southwest has very few colleges in it compared to Southeast, which has Mankato, Rochester and Winona within it's region.

Percent completing college in their region

Significant variation in percentage of high school graduates that complete college in the same region as their high school



Minnesota Office of Higher Education - SLEDs



Was the highest credential
earned related to where an
individual completes college?

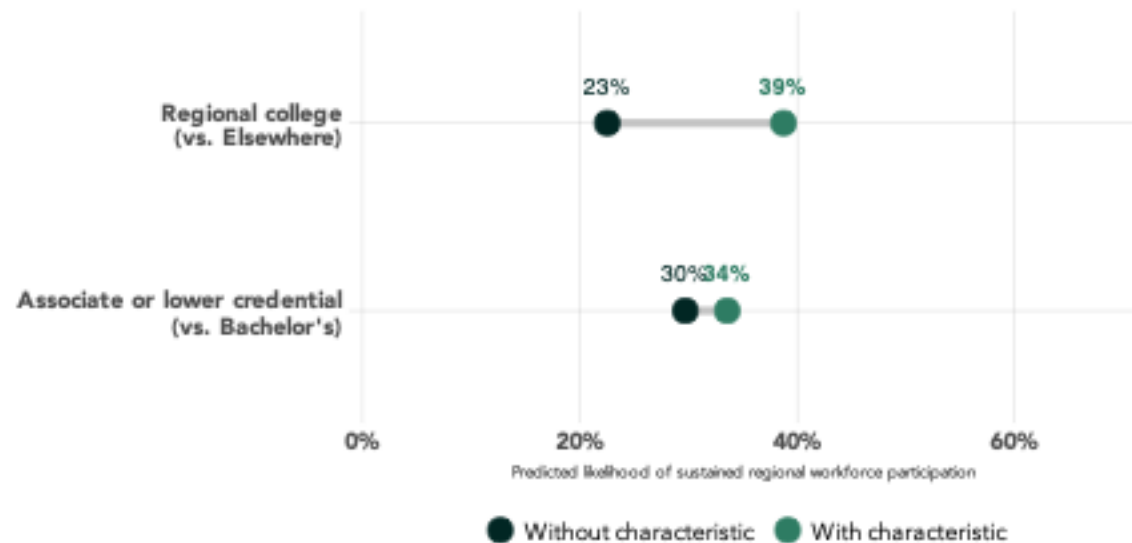
College location vs. credential earned

Once graduation location is accounted for, the credential type's relationship with regional workforce participation weakens considerably but doesn't disappear: graduates with an associate degree or less had a predicted 34% likelihood of sustained regional workforce participation, compared to 30% for otherwise similar bachelor's degree holders (Figure X) — a real, but modest, 4-point difference. That's a much smaller gap than graduation location produces: graduates who completed their credential regionally had a predicted 39% likelihood of sustained regional participation, compared to just 23% for those who completed elsewhere — a 16-point difference, more than three times the size of the credential-level gap, just reinforcing that where a graduate completed their degree matters far more than what degree they completed.

Northwest

Predicted Likelihood of Sustained Regional Workforce Participation by Graduation Location and Credential Level

Graduation location shows a much larger relationship with regional workforce participation than credential level, though credential level still adds a real, independent effect.



Factors associated with completing college in the region vs. outside the region

Complete college in region



CTE engagement



Economic disadvantage



Taking the ACT



Labor force dynamics (i.e. higher unemployment, lower wages)

Completing college outside region



Higher academic engagement

- Higher ACT scores
- Taking high level exams (i.e. AP)



Stronger local wages

Factors pointing
both ways
depending on
region



BIPOC populations



Female



Rural-ness



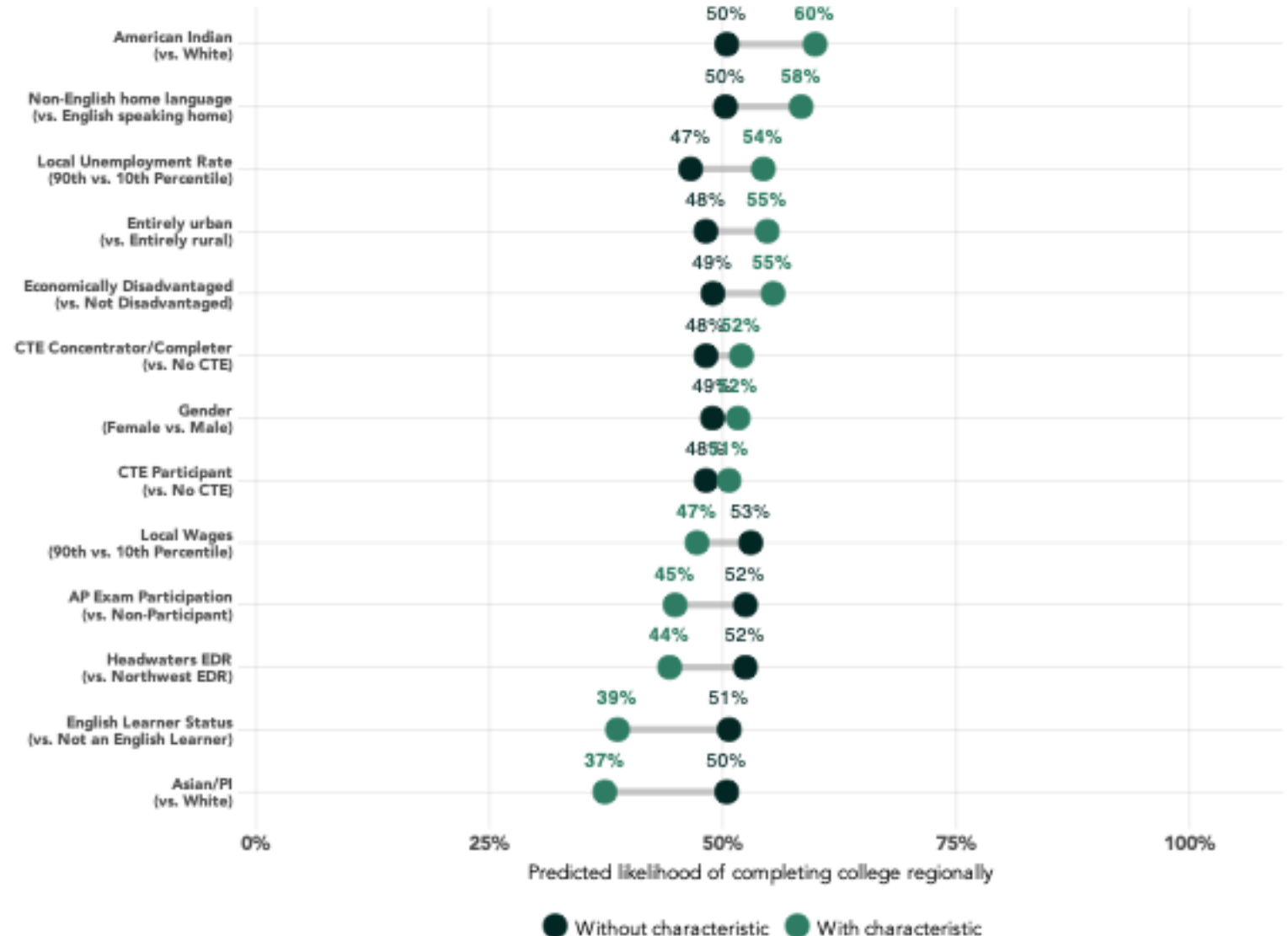
EDR

Northwest Example

This chart shows, for Northwest graduates who completed a postsecondary credential, how much having each characteristic shifts the predicted likelihood of completing that credential regionally versus elsewhere — holding all other characteristics constant. Each pair of dots compares someone without the characteristic to someone with it; the wider the gap, the stronger the pull in that direction. Six characteristics (American Indian identity, non-English home language, higher local unemployment, entirely urban communities, economic disadvantage, and CTE engagement) pull toward staying regional, while five (Asian/PI identity, English learner status, the Headwaters EDR, AP exam participation, and higher local wages) pull toward completing elsewhere.

Predicted Likelihood of Completing College Regionally by Selected Characteristics

CTE engagement, economic disadvantage, American Indian identity, non-English home language, entirely urban communities, and higher local unemployment all point toward staying regional; AP exam participation, English learner status, Asian/PI identity, the Headwaters EDR, and higher local wages point toward completing elsewhere.



The most likely path from high school to the workforce

IN HIGH SCHOOL

- CTE engagement
- Taking the ACT
- Economic disadvantage
- Higher local unemployment, lower wages

COLLEGE COMPLETION

Completes college in the region

WORKFORCE OUTCOME

Sustained workforce participation in the region

- Higher academic engagement: ACT scores, AP exams
- Stronger local wages

Completes college outside the region

Sustained workforce participation elsewhere in Minnesota

No Minnesota employment record

Graduates who complete college outside the region may work elsewhere in Minnesota or in another state.

Non-College Completers

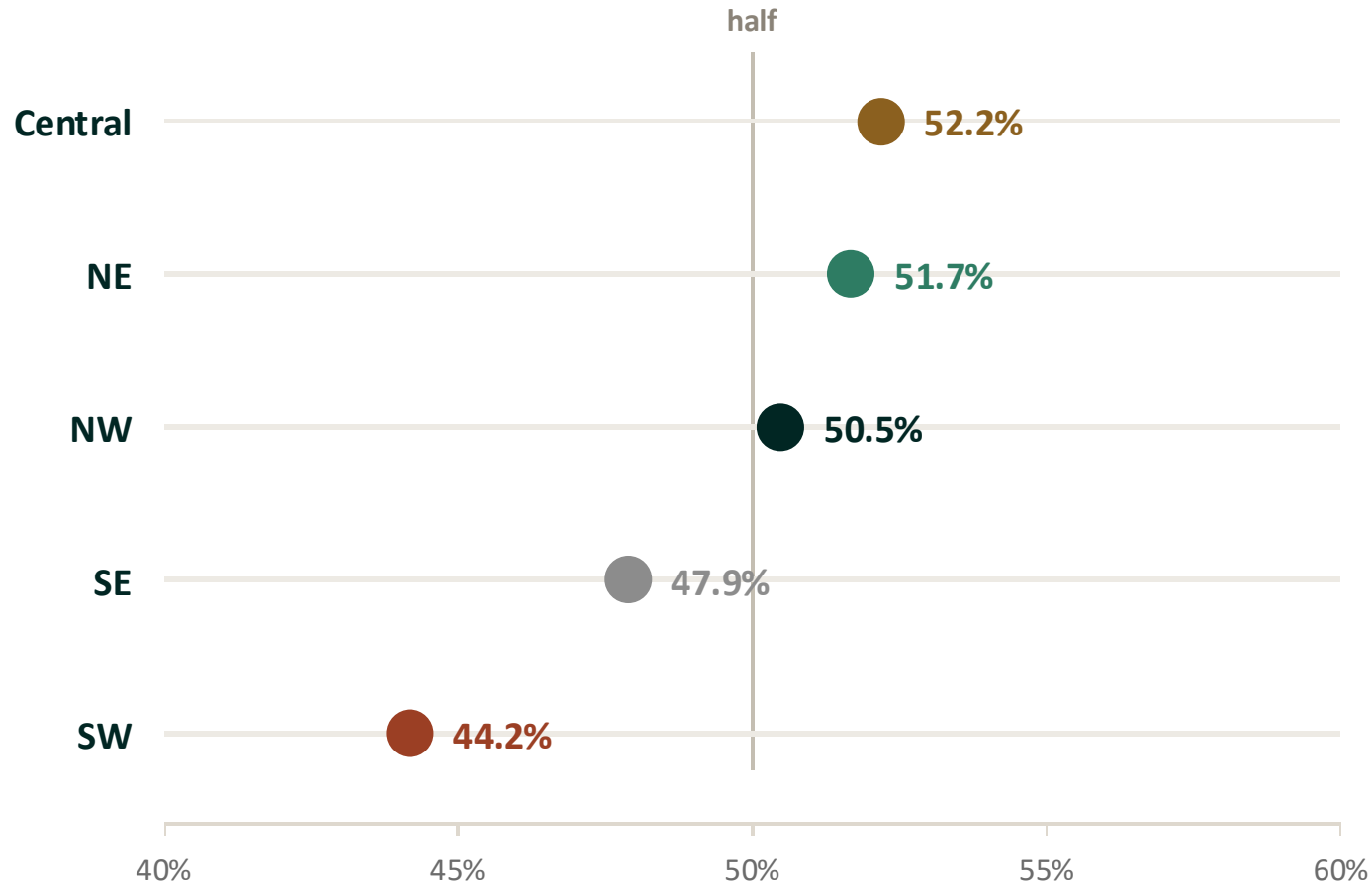
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Percent of high school graduates who did not complete college, by region

Every region sits near half, within 8 points of each other.

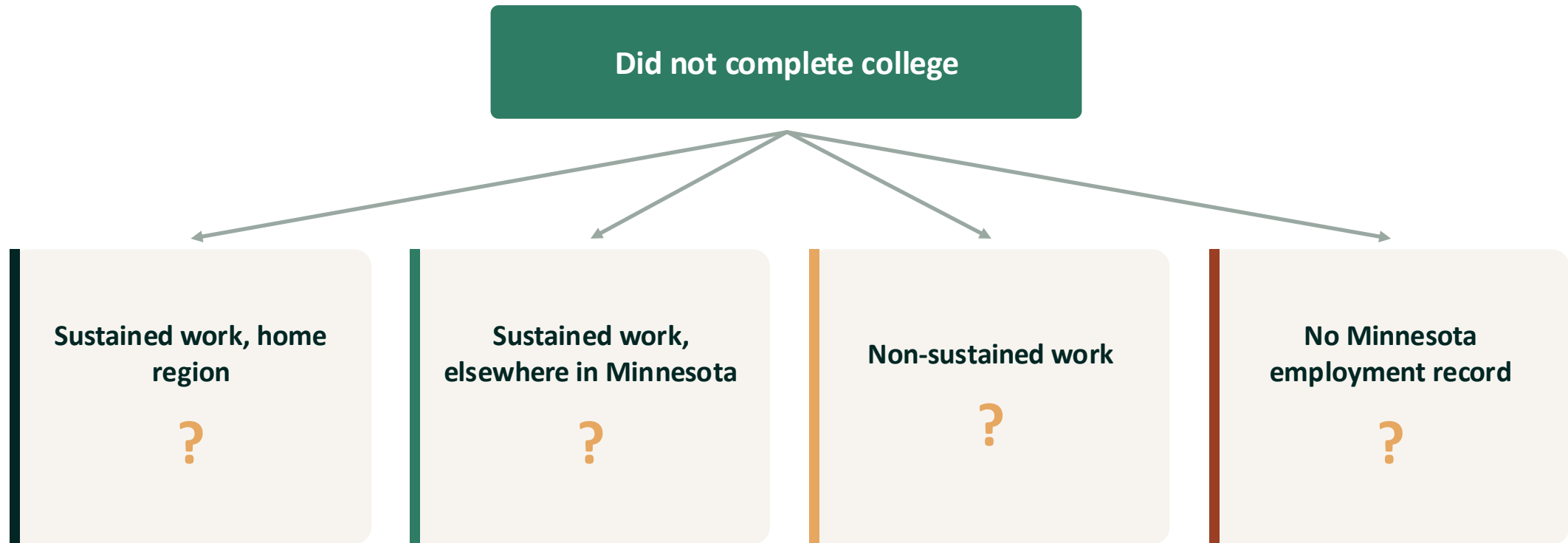


Share that did not
complete college
(2008-2020)

Source: MN Office of Higher Education, SLEDs.

Where do non-college completers end up?

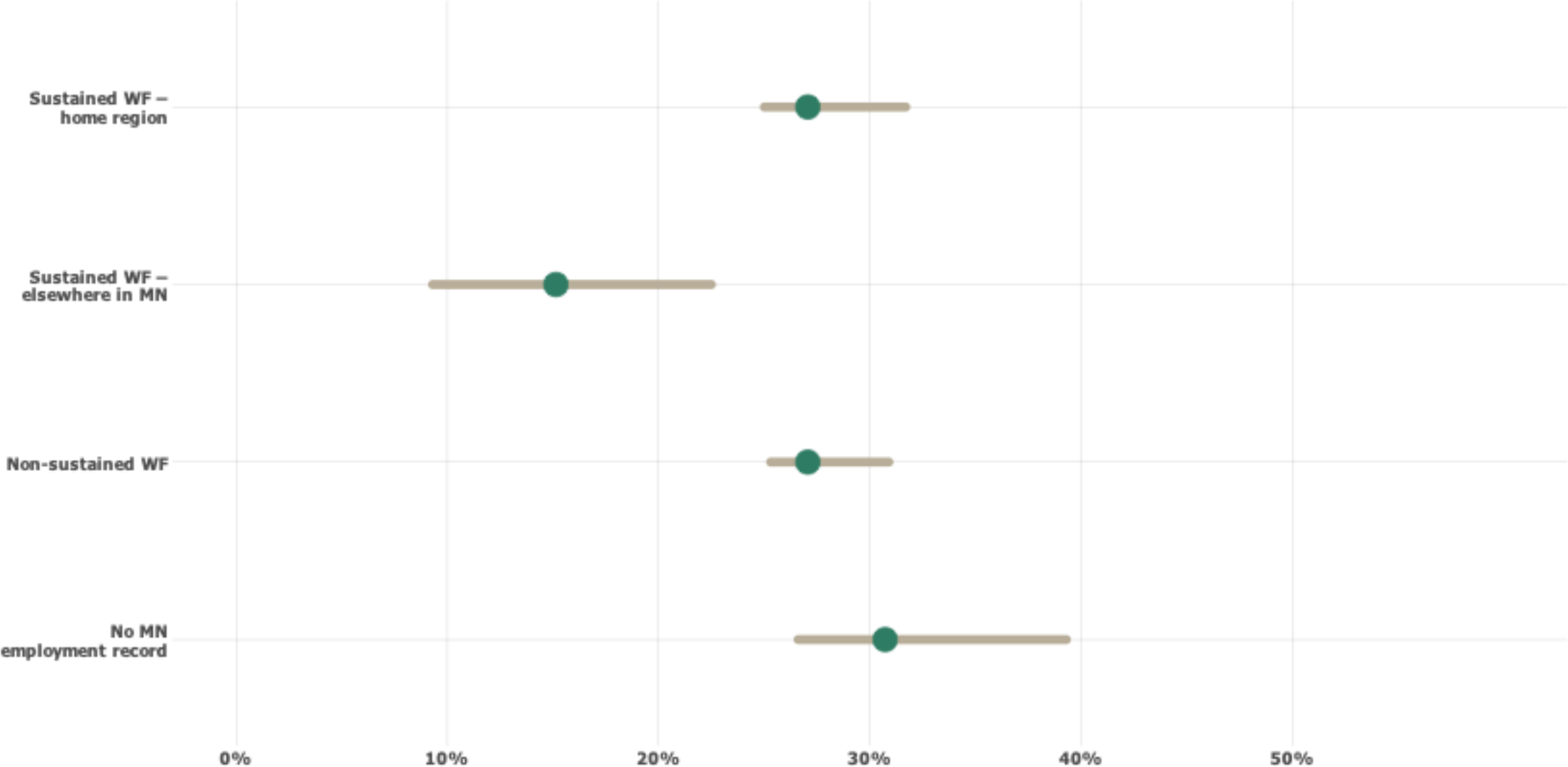
About half of each region's high school graduates never complete a credential, from 44.2% in the Southwest to 52.2% in Central.



Workforce participation five years after high school. Source: MN Office of Higher Education, SLEDs.

Non-college completers: workforce participation 5 years after high school

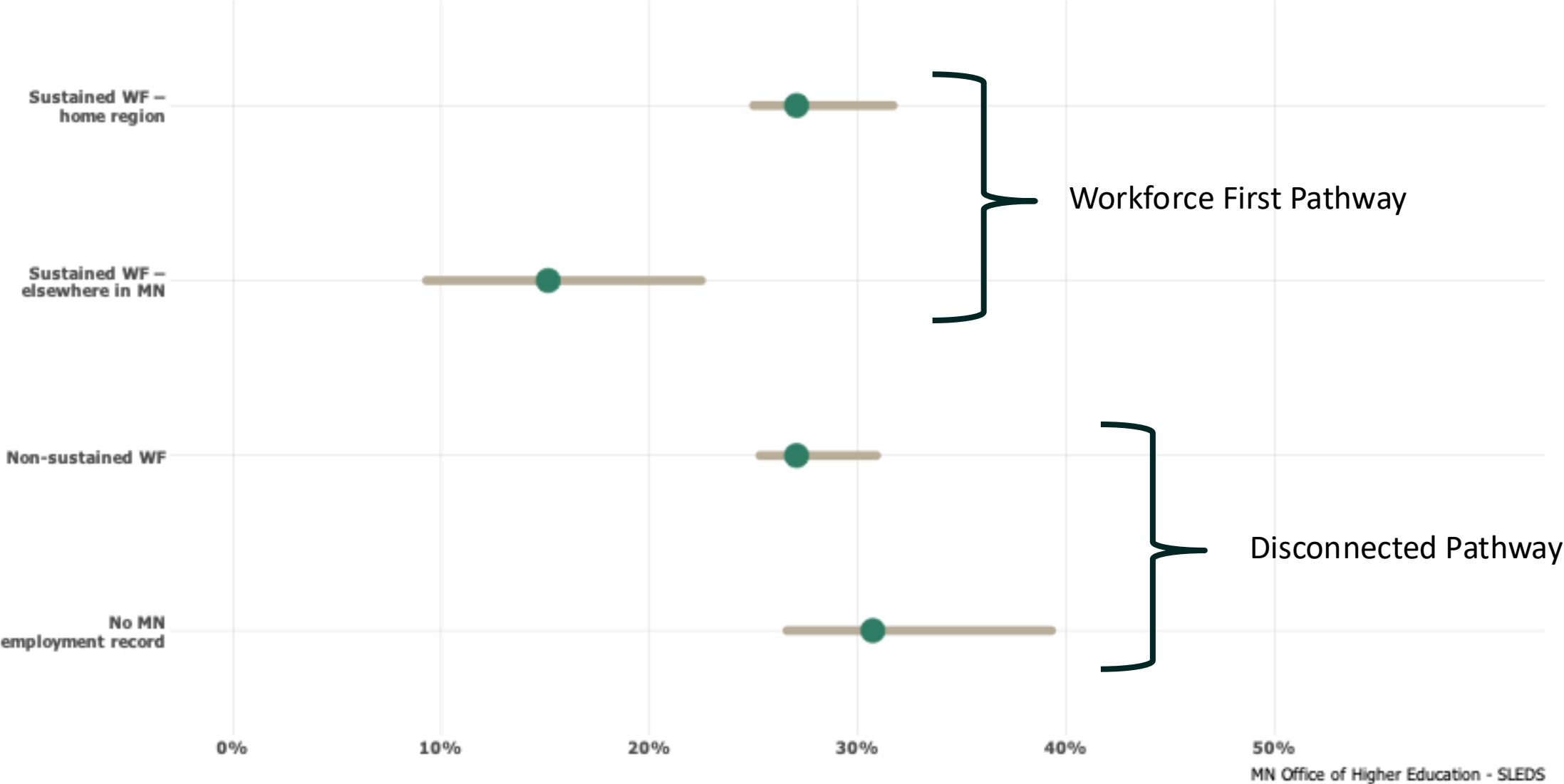
Dot = average share across all five regions; line = full regional range



MN Office of Higher Education - SLEDs

Non-college completers: workforce participation 5 years after high school

Dot = average share across all five regions; line = full regional range



Pathway 2: Workforce- First Pathway

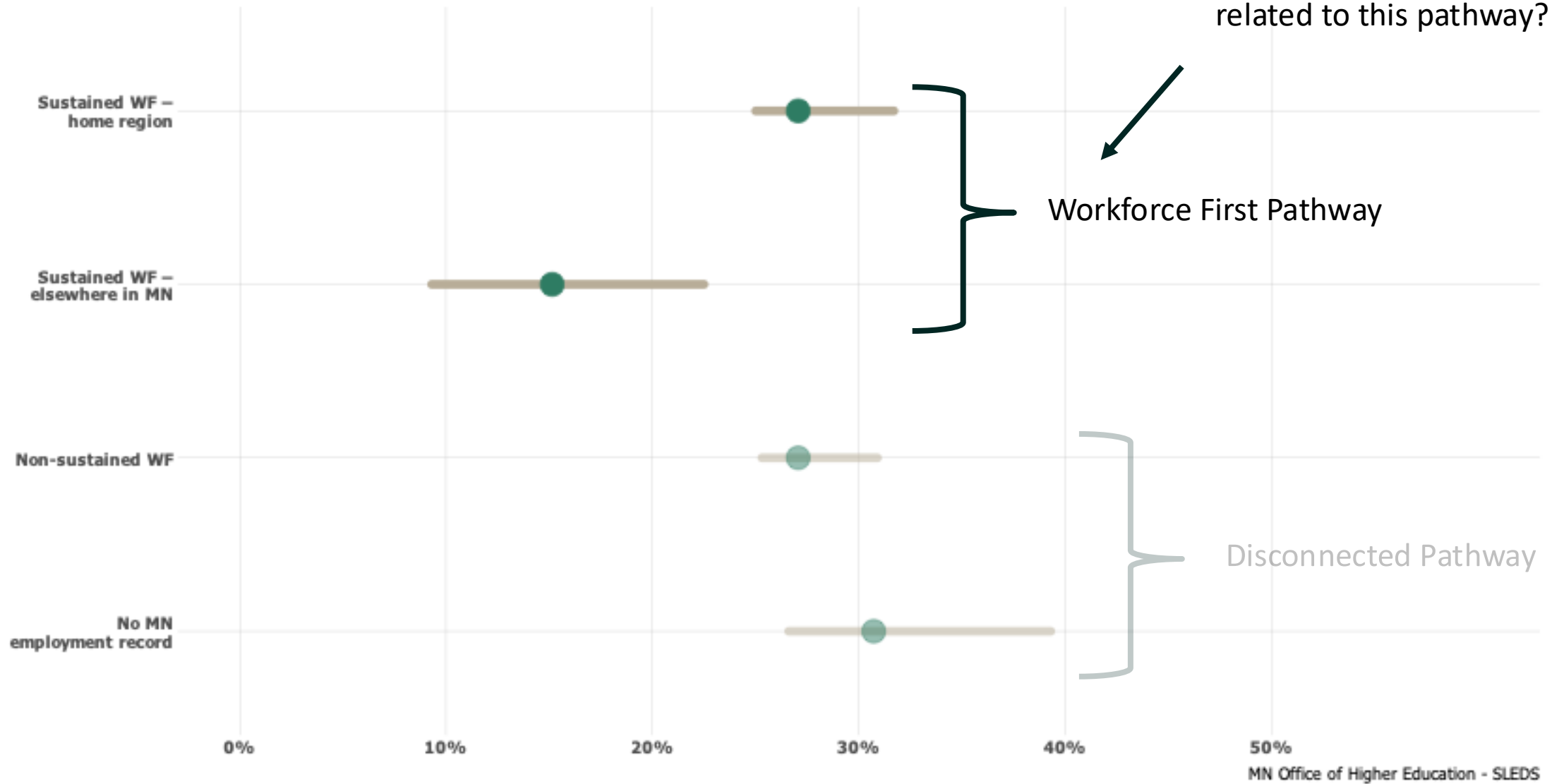
Pathways After High School

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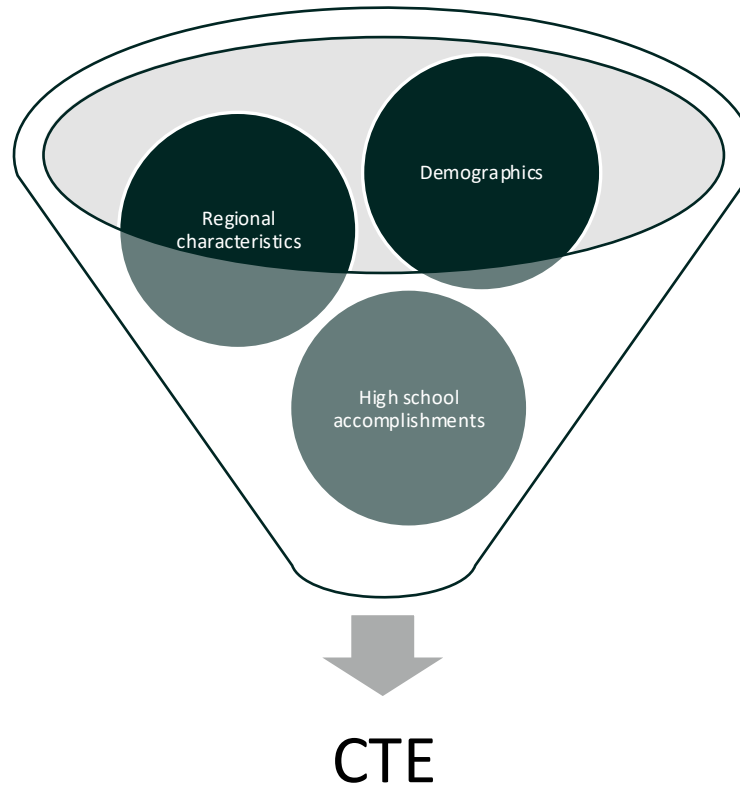
September 22nd, 2026

Non-college completers: workforce participation 5 years after high school

Dot = average share across all five regions; line = full regional range



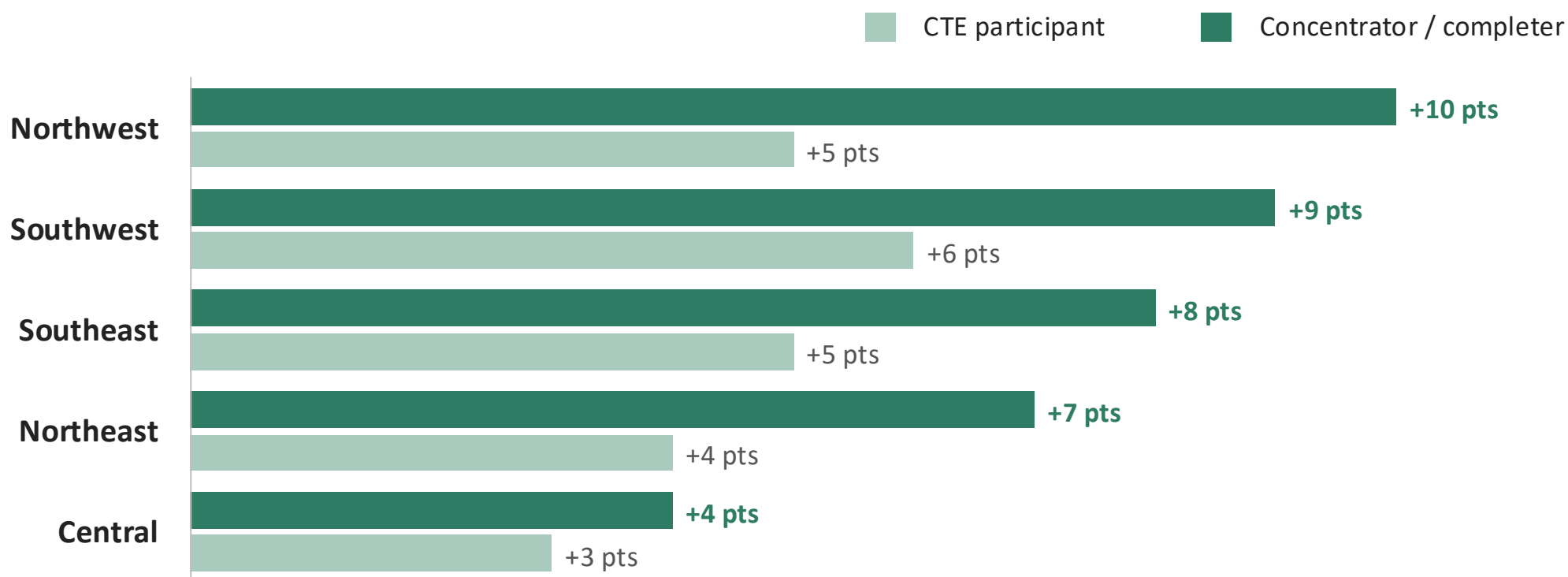
Only one characteristic.



“While several other factors we examined shift, fade, or reverse over time, CTE's relationship with non-college completers and regional attachment only deepens the longer you look.”

Increased likelihood of sustained workforce participation in the region when engaged in CTE

3–10 percentage points higher sustained workforce participation for non-college completers



Pathway 3: Disconnected Pathway

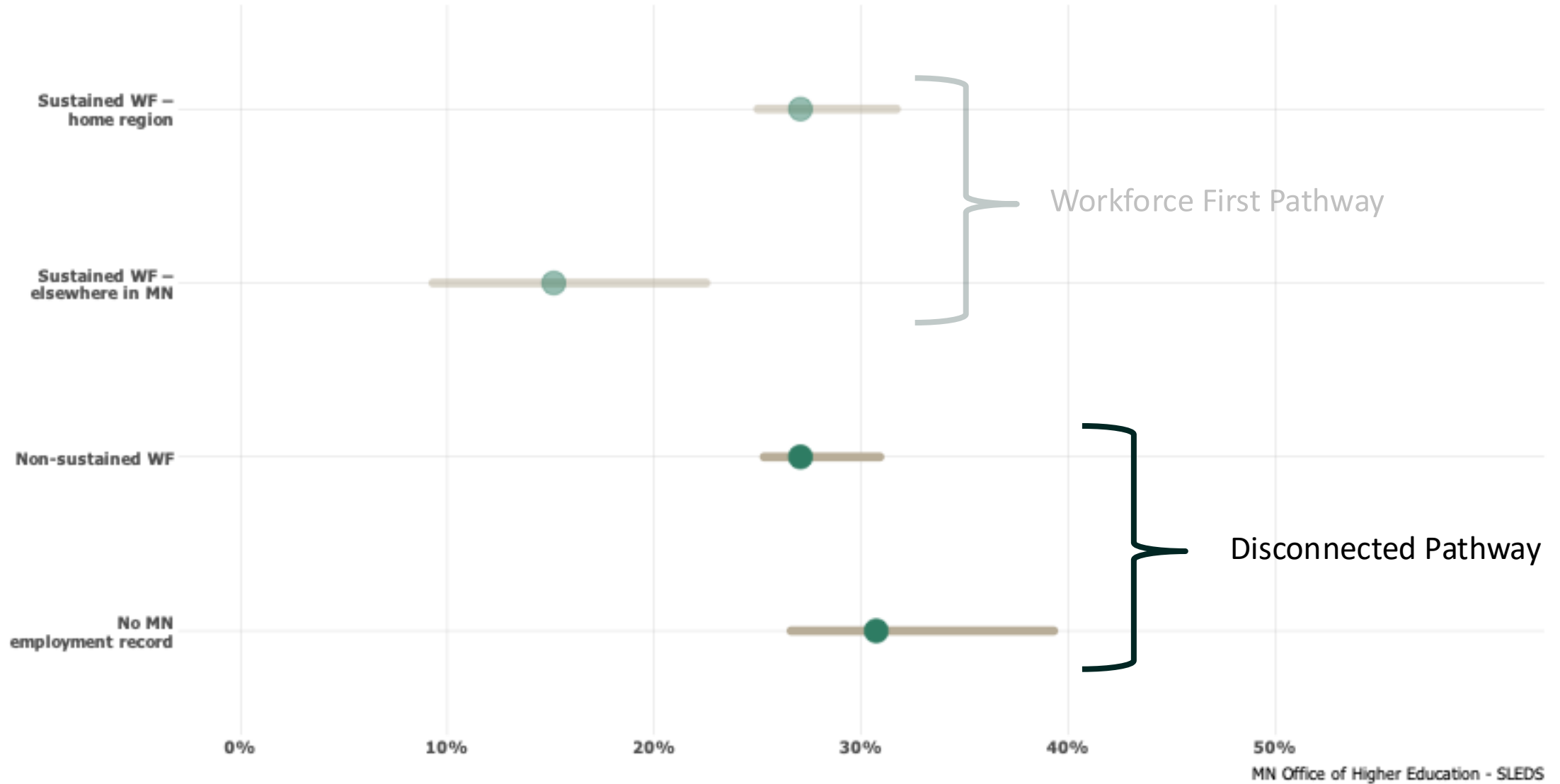
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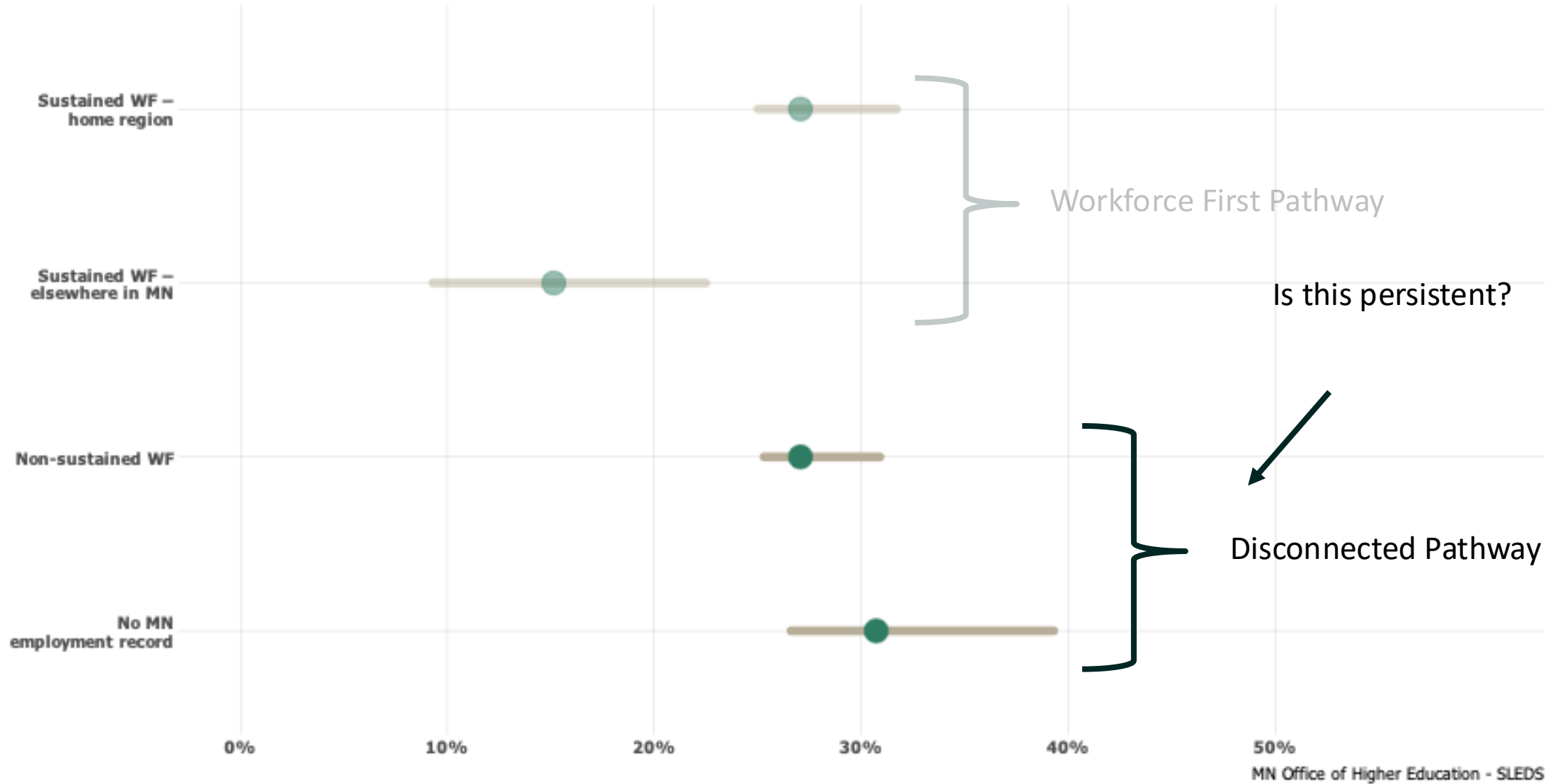
Non-college completers: workforce participation 5 years after high school

Dot = average share across all five regions; line = full regional range



Non-college completers: workforce participation 5 years after high school

Dot = average share across all five regions; line = full regional range



Disconnection is Persistent

Examined each non-college graduate's first five years after exiting formal education.

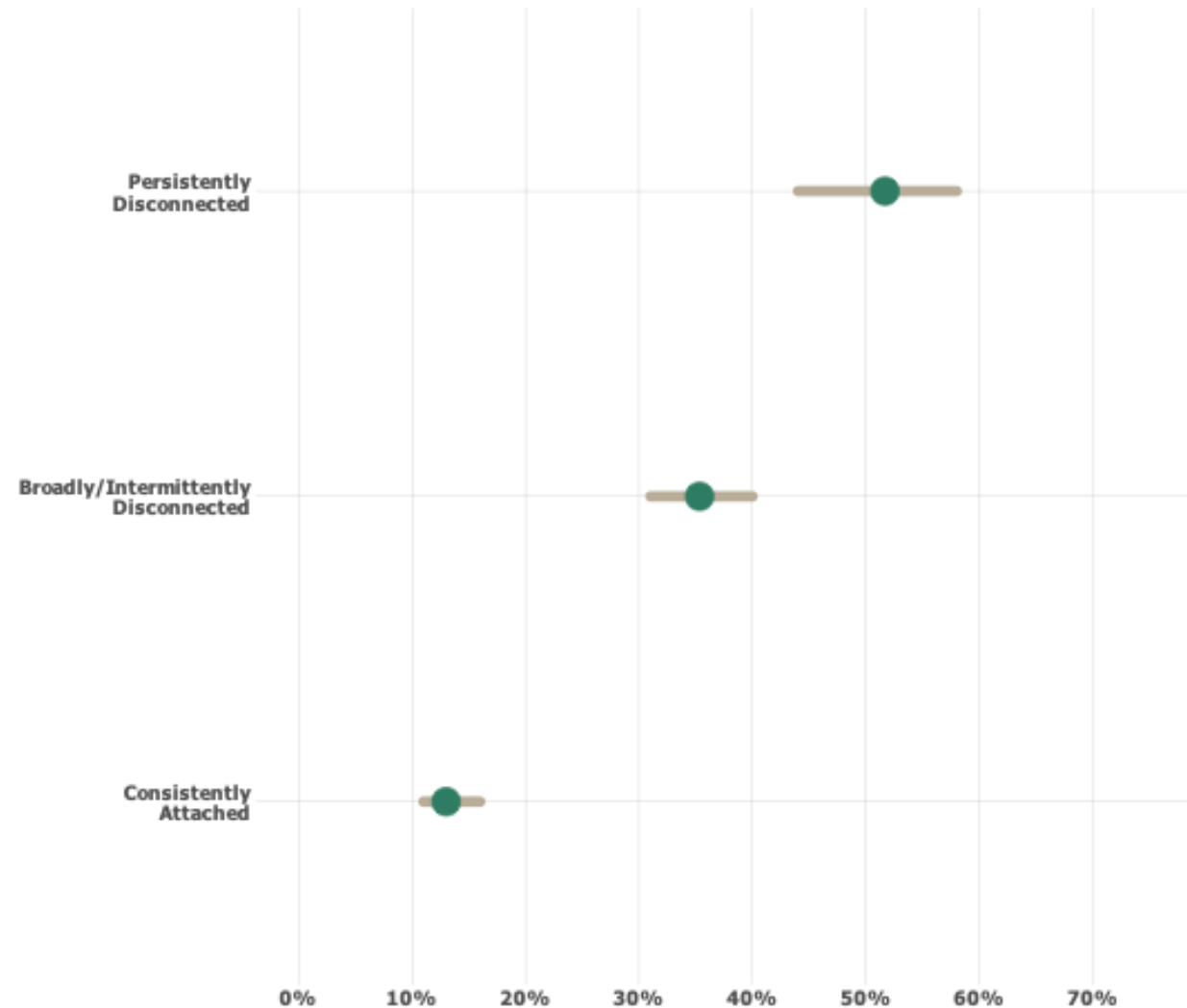
Persistently disconnect: 4 to 5 years disconnection

Broadly/Intermittently: 1-4 years disconnection

Consistently attached: 0 years disconnection

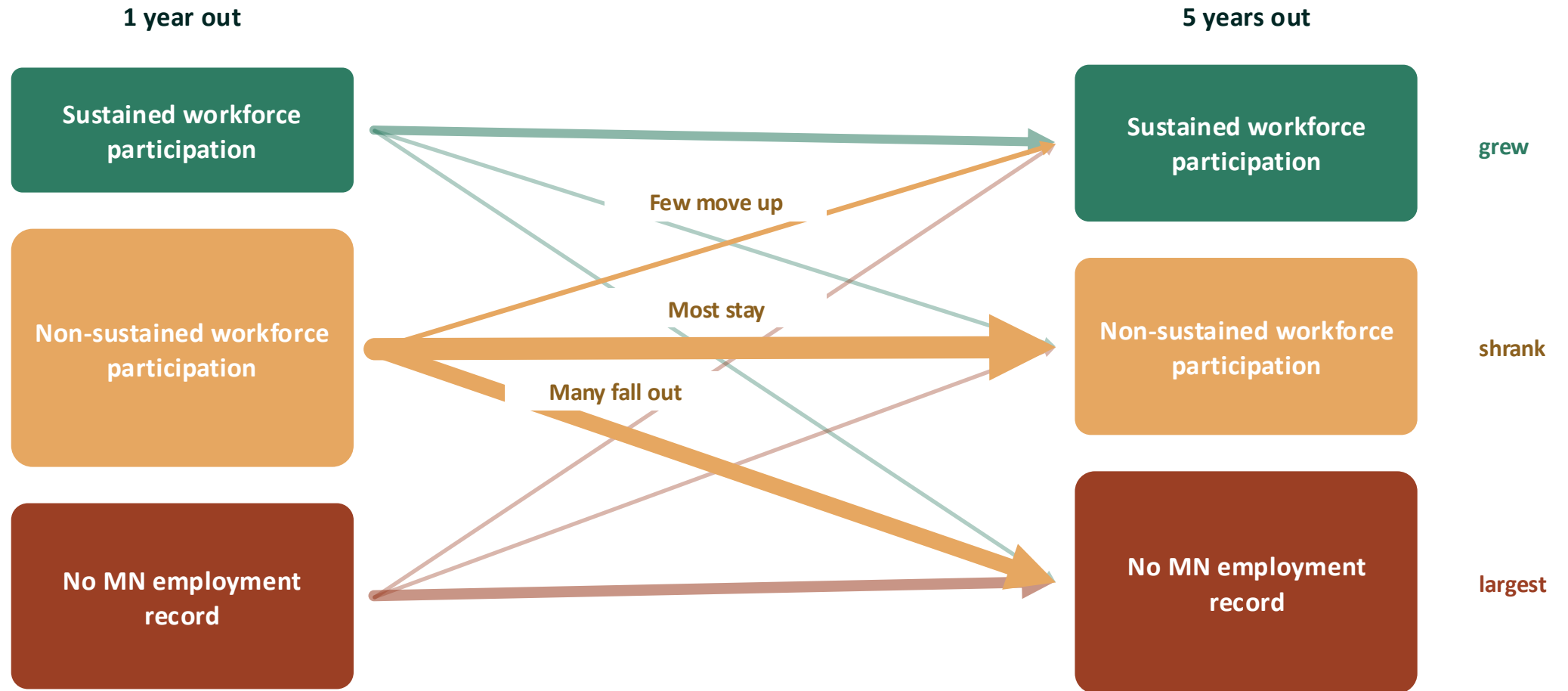
Distribution of non-college graduates by pattern of workforce disconnection

Dot = average share across all regions; line = full range



Disconnection is sticky

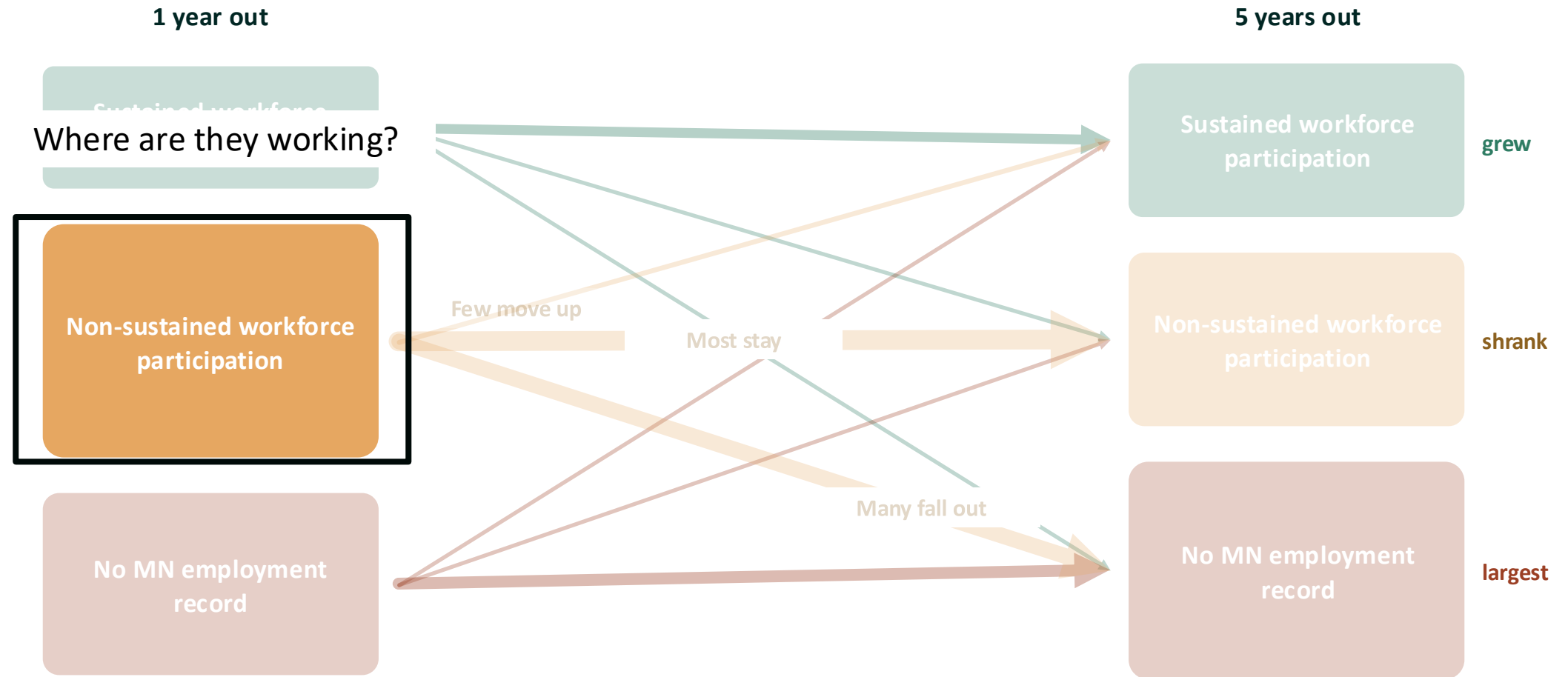
Five years out, most who start in non-sustained work either stay there or lose their employment record.



Illustrative pattern. Block sizes and flow widths show direction and relative scale, not exact values; patterns vary by region.

Disconnection is sticky

Five years out, most who start in non-sustained work either stay there or lose their employment record.



Illustrative pattern. Block sizes and flow widths show direction and relative scale, not exact values; patterns vary by region.

A Local Opportunity

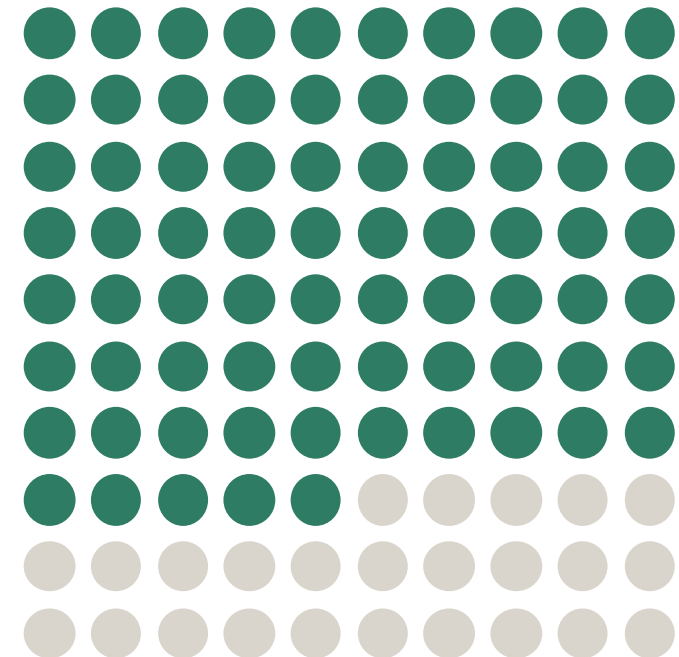
~75%

of non-sustained work happens inside the region, not outside it.

These workers are already here. Local workforce development professionals can reach them where they work and help them move toward steadier, fuller employment.

Where non-sustained work happens

Each dot = 1% of non-sustained workforce activity

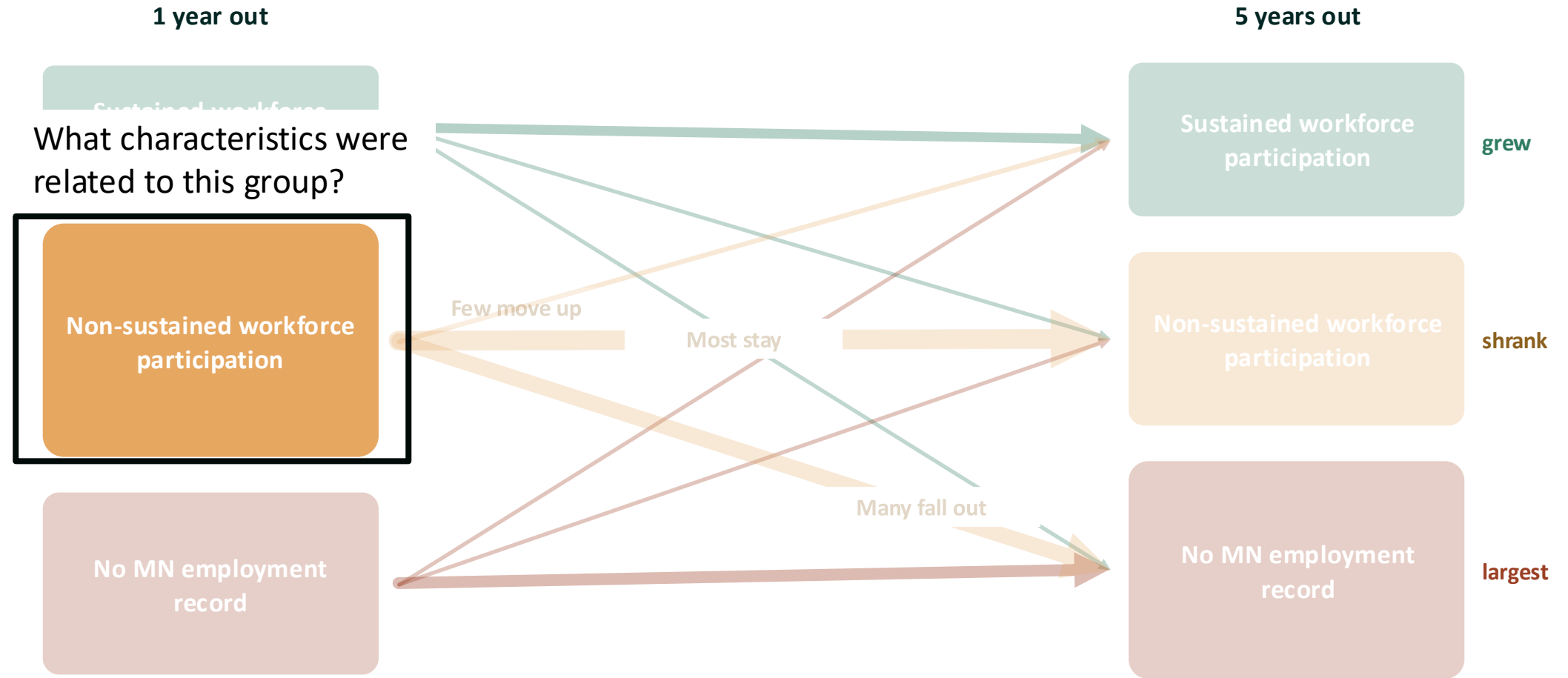


● In the region

● Outside the region

Disconnection is sticky

Five years out, most who start in non-sustained work either stay there or lose their employment record.



Illustrative pattern. Block sizes and flow widths show direction and relative scale, not exact values; patterns vary by region.

Who Stays in Non-Sustained Work

Four characteristics track with persistent non-sustained work in nearly every region. Three others depend on the region.

Common across most regions

Present in nearly every regional model

Female

Black identity

Special education label

Economic disadvantage (low income)

Depends on the region

Present in some regions, absent in others

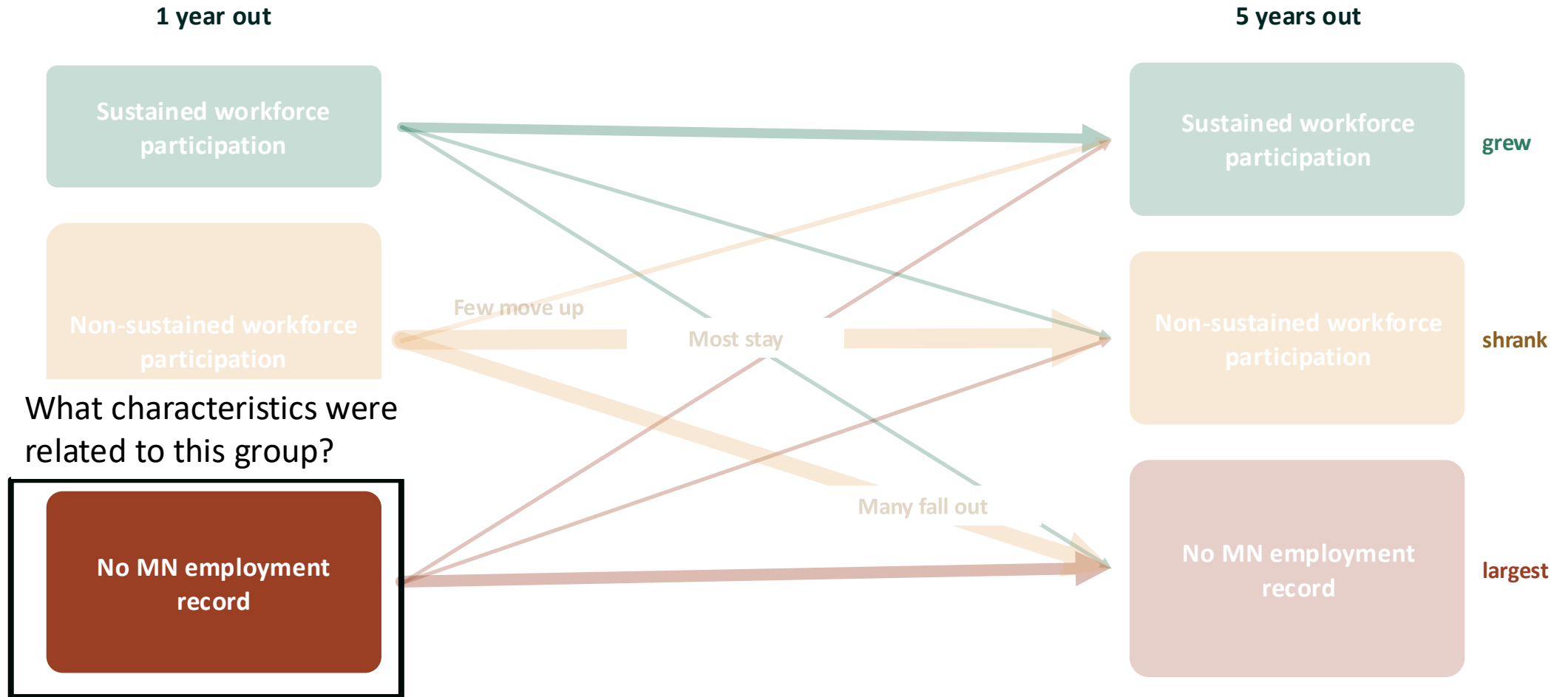
Other BIPOC groups, including American Indian

School district rurality

English learner status

Disconnection is sticky

Five years out, most who start in non-sustained work either stay there or lose their employment record.



Who Stays in the “No Minnesota Record” category

Four characteristics track with persistently having no Minnesota employment record in nearly every region. Three others depend on the region.

Common across most regions

Present in nearly every regional model

Hispanic identity

Asian or Pacific Islander identity

English learner status

Non-English language spoken at home

Depends on the region

Present in some regions, absent in others

Taking the ACT

American Indian identity

School district rurality

Modest Shifts, Not Big Swings

No single characteristic explains disconnection. Each one shifts the likelihood by single digits to the mid-teens.

How much one characteristic shifts the likelihood, percentage points

Persistently non-sustained workforce participation



Persistently no Minnesota employment record



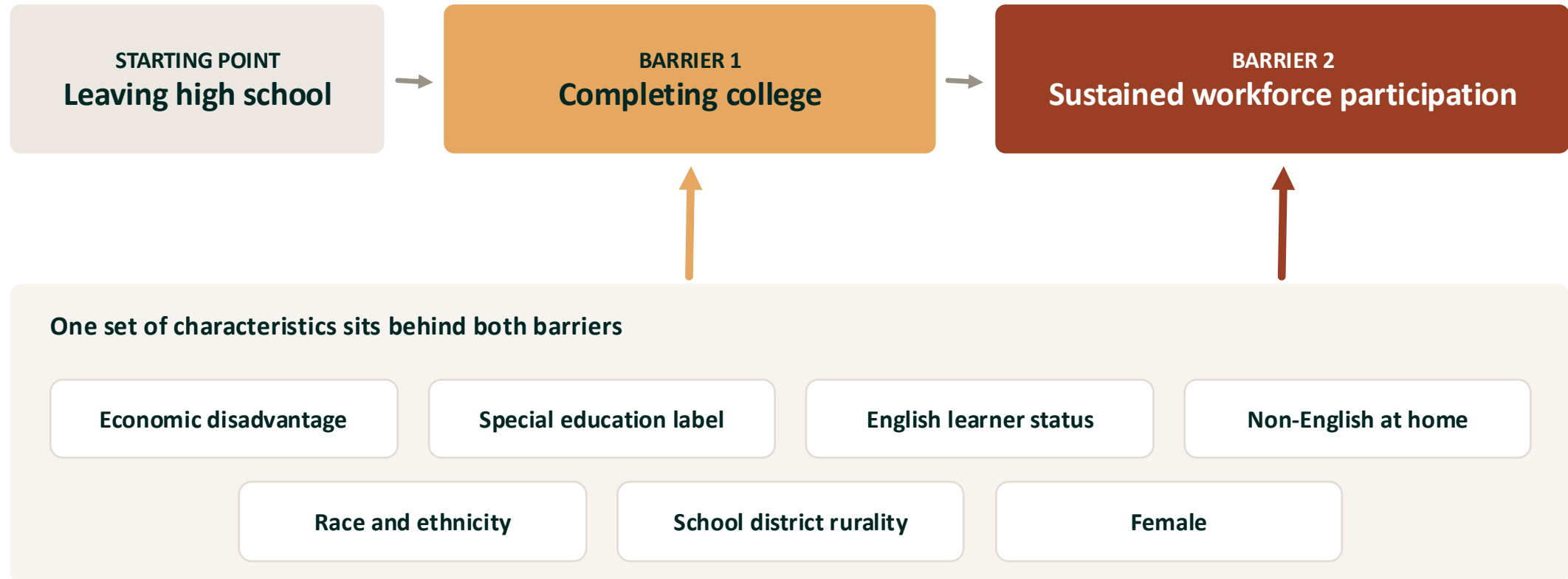
The barrier builds when characteristics stack

One characteristic on its own shifts the odds by a few points. Students rarely carry just one, and the points accumulate into a barrier large enough to change where someone lands.

Ranges span the characteristics tested across regional models; effect sizes vary by region and characteristic.

The Same Barriers Appear Twice

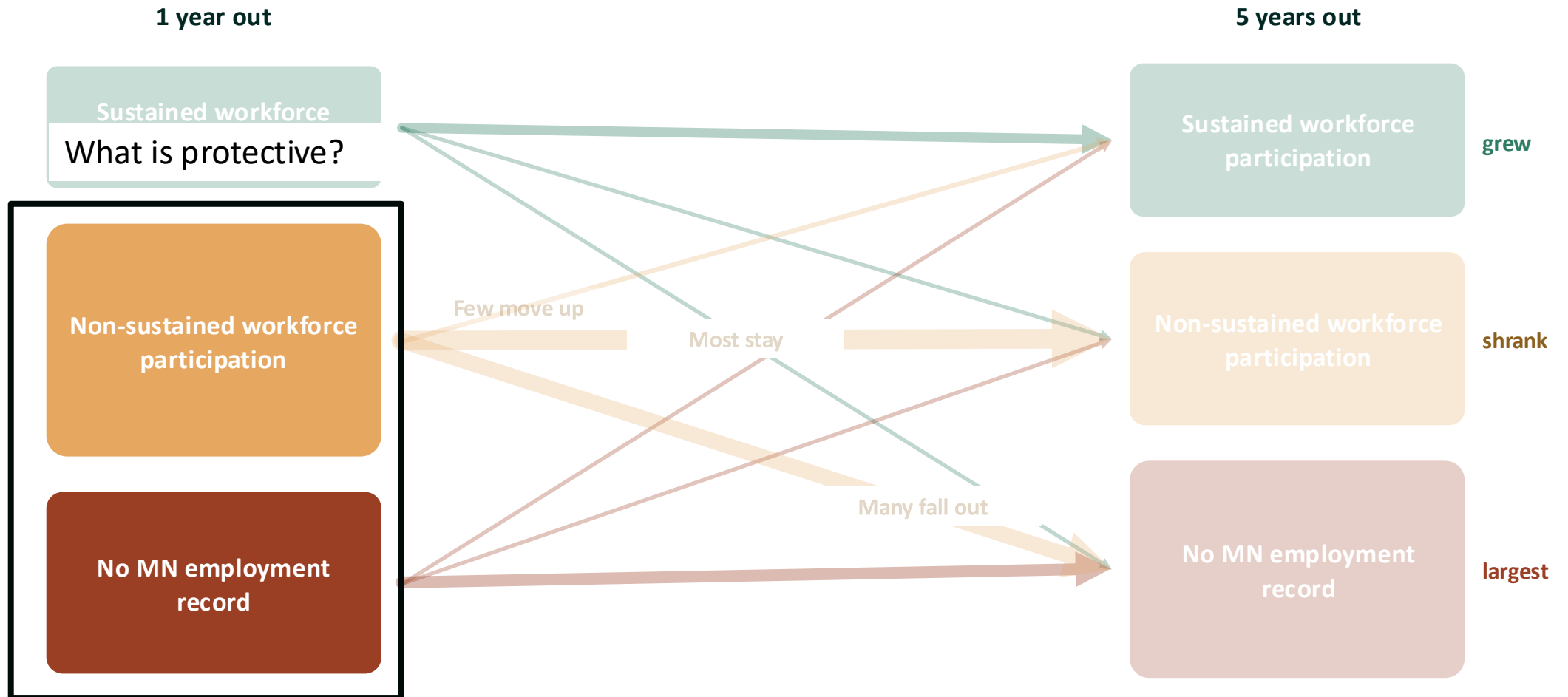
The characteristics tied to disconnection after high school are the same ones tied to not completing college.



Characteristics are associated with these outcomes across regional models; association is not causation.

Disconnection is sticky

Five years out, most who start in non-sustained work either stay there or lose their employment record.



Illustrative pattern. Block sizes and flow widths show direction and relative scale, not exact values; patterns vary by region.

What Protects Against Disconnection

Two factors protect against both patterns in every region. One protects only against losing the employment record.

Non-sustained workforce participation

No Minnesota employment record

Attempting post-secondary

Attempting post-secondary

CTE engagement

CTE engagement

Economic disadvantage

Protective means lower likelihood of the outcome in regional models; association is not causation.

Key Takeaways

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Key Takeaways

1

Where they finish college decides whether the region keeps them

Completing a credential in the region is what ties graduates to the regional workforce.

2

Disconnection is sticky

Most who start in non-sustained work stay there or lose their Minnesota employment record within five years.

3

Risk factors stack

Each characteristic shifts the odds by 3 to 15 points, and the same characteristics also block college completion.

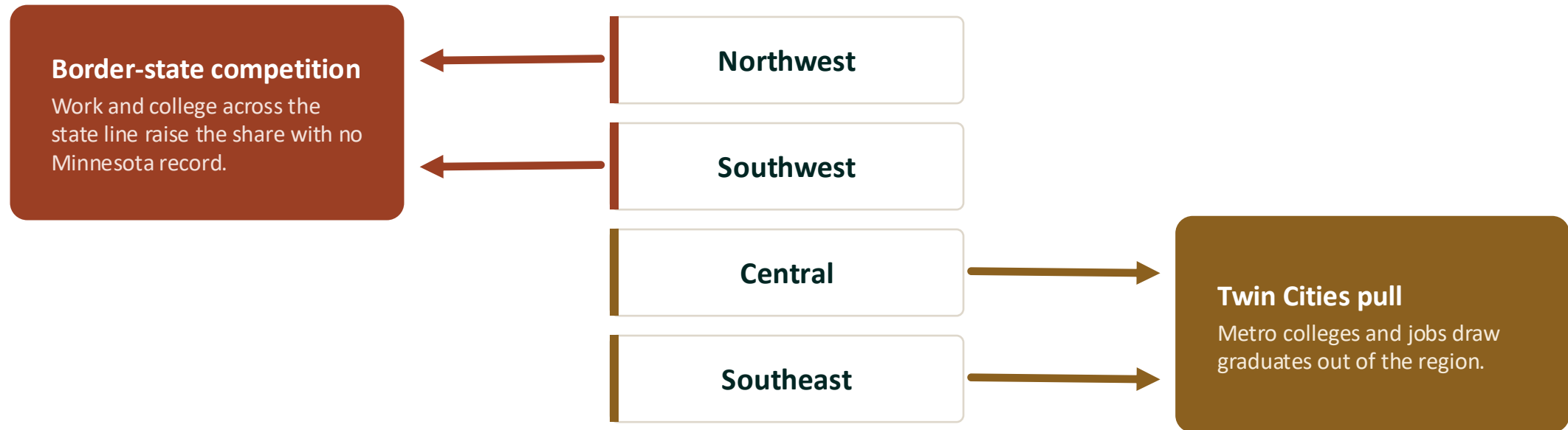
4

The one consistent lever

CTE increases the likelihood of regional workforce participation across college and non-college completers. Is also protects against disconnection in every region.

Geography Still Shapes Each Region

The same characteristics show up everywhere, but what sits across each region's border changes how they play out.



Northeast is its own case

A much larger geography and a different industry mix, so the regional patterns there follow their own logic rather than either pull.

CRPD Road Show

Tuesday, September 29

Lakes Country Service Cooperative

Fergus Falls, MN · 1–3 p.m.

Thursday, October 8

South Central College

North Mankato, MN · 1–3 p.m.

Tuesday, October 20

Blandin Foundation

Grand Rapids, MN · 1–3 p.m.

Thursday, October 22

MN Discovery Center

Chisholm, MN · 1–3 p.m.

Monday, October 26

Roseau Civic Center

Roseau, MN · 1–3 p.m.

Tuesday, October 27

White Earth Tribal College

Mahnomen, MN · 1–3 p.m.

Tuesday, November 10

Ridgewater College

Hutchinson, MN · 1–3 p.m.

Thursday, November 12

MinnWest Community and Technical College

Worthington, MN · 1–3 p.m.



Thank you!

