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CLEARINGHOUSE
FOR MILITARY FAMILY READINESS

Post 9/11 U.S. Veterans: Understanding What Works Inside the Black Box of Veteran Programs and Services in terms of Well-Being

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FOR MILITARY FAMILY READINESS

Greetings from:

State College, PA



Presentation Outline

- Overview of Clearinghouse for Military Family Readiness at Penn State
- Overview about The Veterans Metrics Initiative (TVMI)
- Overview about common components and the distillation process
- What components matter
- ACEs, Moral injury, Post Traumatic Growth



Advancing the health and well-being of military families

The Clearinghouse for Military Family Readiness at Penn State



Applied
Research



Program
Evaluation



Implementation
Support



Learning Design
& Curriculum
Development

<https://militaryfamilies.psu.edu/>

Clearinghouse Services

The screenshot shows the top portion of the Clearinghouse website. At the top left is the Penn State logo. To the right, it says "A Penn State Applied Research Center". Below this is a navigation bar with links for Home, About, Services, Programs, Projects, Resources, and Contact Us. The main content area features a large image of a smiling soldier in uniform with a young child. Overlaid on this image is a text box with the heading "Sound Science, Strong Families, Stronger Service" and a paragraph describing the Clearinghouse's mission. A yellow "Learn More" button is positioned below the text. Below the main image is a grid of six service categories, each with an icon and a "Learn More" link.

PennState A Penn State Applied Research Center

CLEARINGHOUSE FOR MILITARY FAMILY READINESS

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Sound Science, Strong Families, Stronger Service

The Clearinghouse is an applied research center created to help professionals identify, implement, evaluate, and improve programs that strengthen military service members and their families.

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- Applied Research** [Learn More>>](#)
- Program Selection** [Learn More>>](#)
- Program Evaluation** [Learn More>>](#)
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Clearinghouse for Military Family Readiness at Penn State

The Clearinghouse is an interdisciplinary team of research faculty and staff, and creative services professionals committed to providing outstanding support to professionals who provide programs and services to military families. We are located within the Social Science Research Institute (SSRI) at The Pennsylvania State University.



Evidence, Shmevidence! Example 3

by Eric Perlin

Whatever the topic may be, there are always people who cling to strong opinions and dismiss rock-solid evidence. No matter how overwhelming the evidence may be, some people can easily dismiss it if it goes against their cherished beliefs.



I'm telling you, two plus two is four! It's a fact!

You're saying "it's a fact" does not make it so! I strongly believe two plus two is six!



You can check for yourself on any pocket calculator!

You're saying that machines never make mistakes? Tell that to someone whose debit cards failed to scan!



Just count two of your own fingers, then two more fingers, and add the total.

I've got better things to do than waste my time with finger counting!



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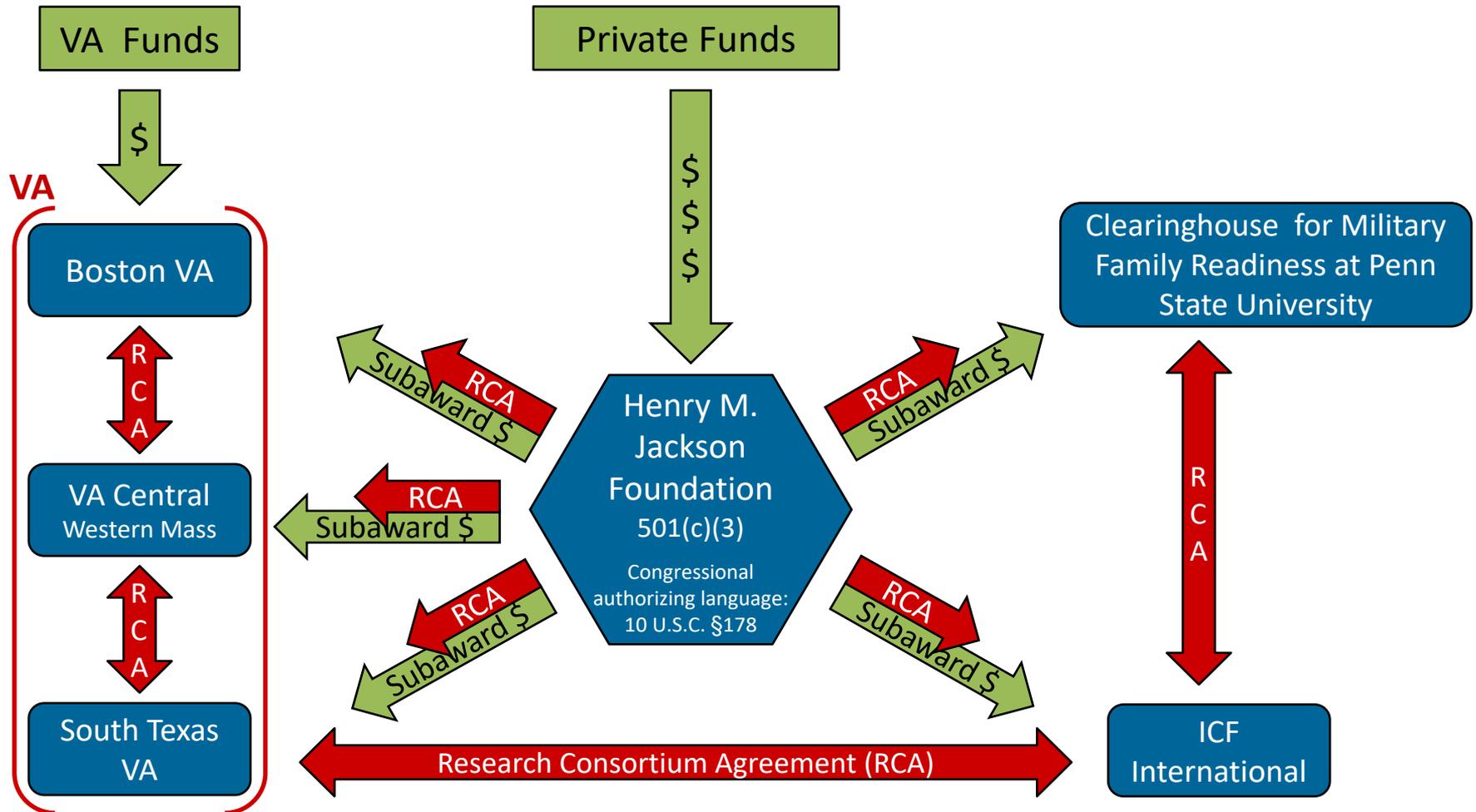


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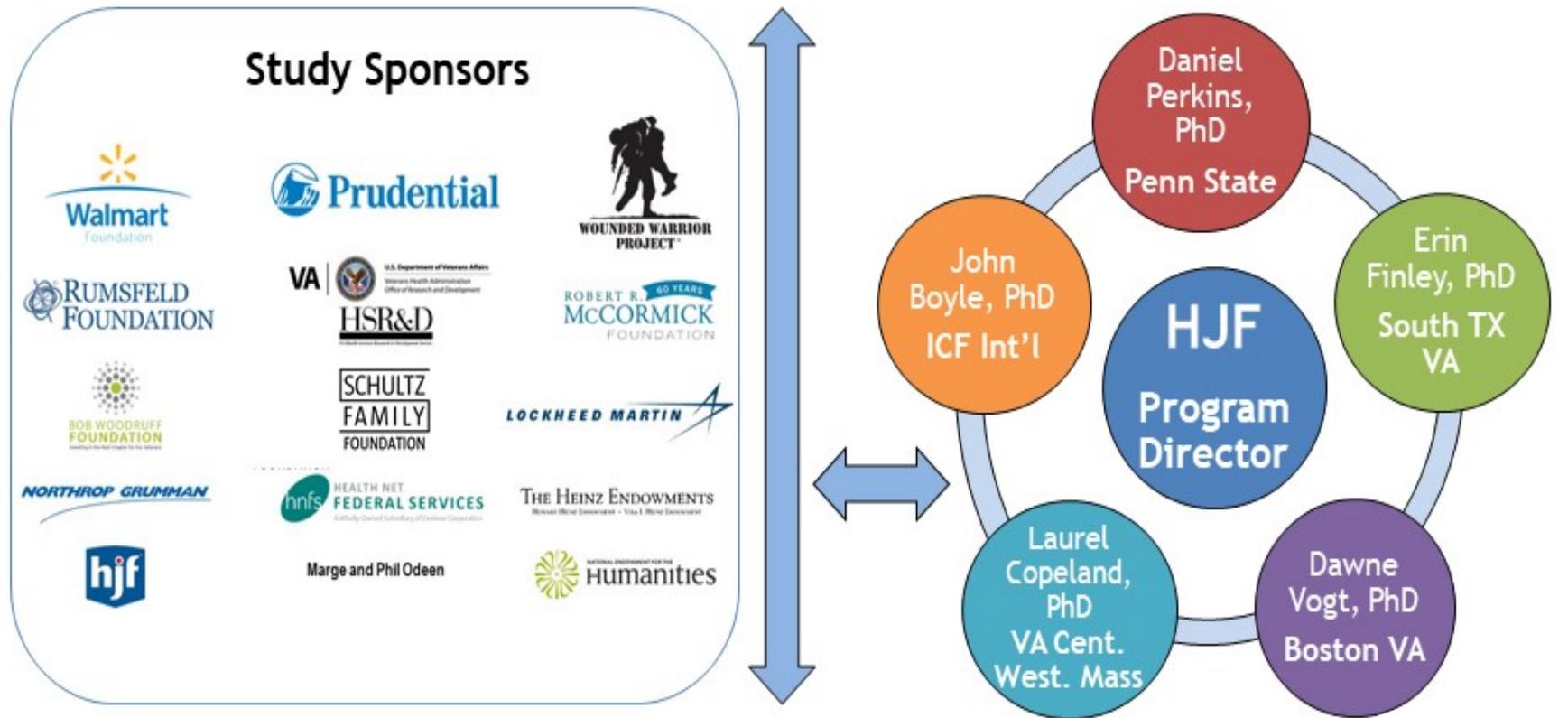
The Veteran Metrics Initiative

TVMI

TVMI: Research Study Structure



Funders and Principal Investigators



TVMI Study Team at Penn State

Clearinghouse Team & Collaborators



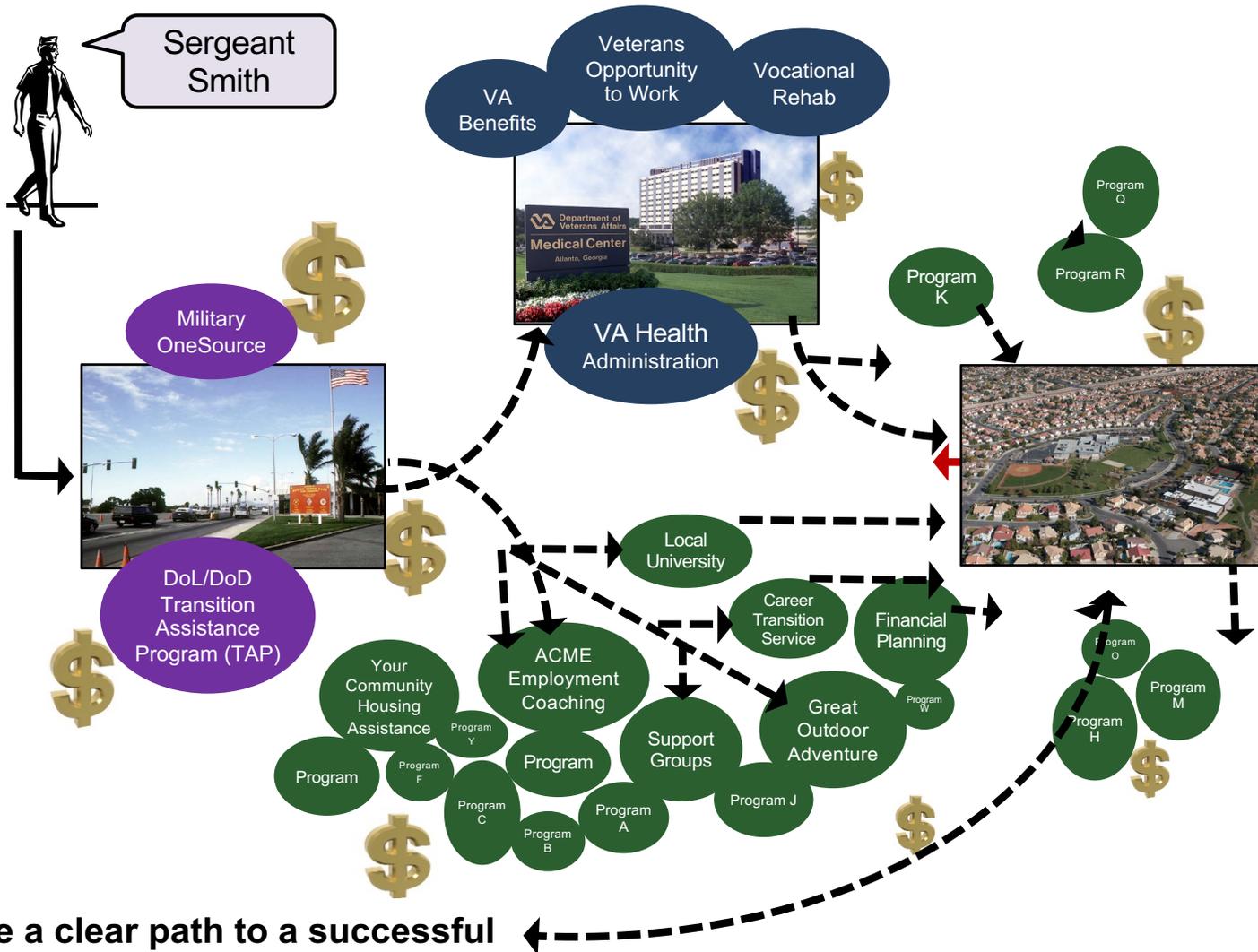
Clearinghouse Team

- Keith Aronson, PhD
- Julia Bleser, MS, MSPH
- Katie Davenport, PhD
- Nicole Morgan, PhD

Clearinghouse Collaborators

- Ryan Chestnut, PhD
- Jennifer Karre, PhD
- Cameron Richardson, PhD

The Veterans Metrics Initiative: *Linking Program Components to Post-Military Well-Being*



Is there a clear path to a successful transition/reintegration?

Research Aims

Aim 1:

- Document veteran well-being in 4 key domains - **mental and physical health, vocation, finances, and social relationships** - over the first 3 years of the transition from military service to civilian life
- Identify factors associated with better and worse well-being

Aim 2:

- Describe programs used by veterans as they reintegrate into civilian life and distill them into their components, identifying common components across programs

Aim 3:

- Identify program components that are associated with changes in well-being following separation from military service

Methods: Recruitment

- **Initial mail recruitment** of Veterans who separated in the past 90 days
 - Recruitment (Sept to Oct 2016) - 48,965 census from VA Data Identity Repository
 - Who recently separated in past 3 months
 - Non-response survey weights based on gender, paygrade & service branch
- **Follow-up web surveys** every six months for 3 years (last assessment May 2019)
 - Invitation by email, text, and mail
 - Web survey, and if requested paper was available (only 18 mail surveys were requested)



Recruitment and Re-contact Schedule

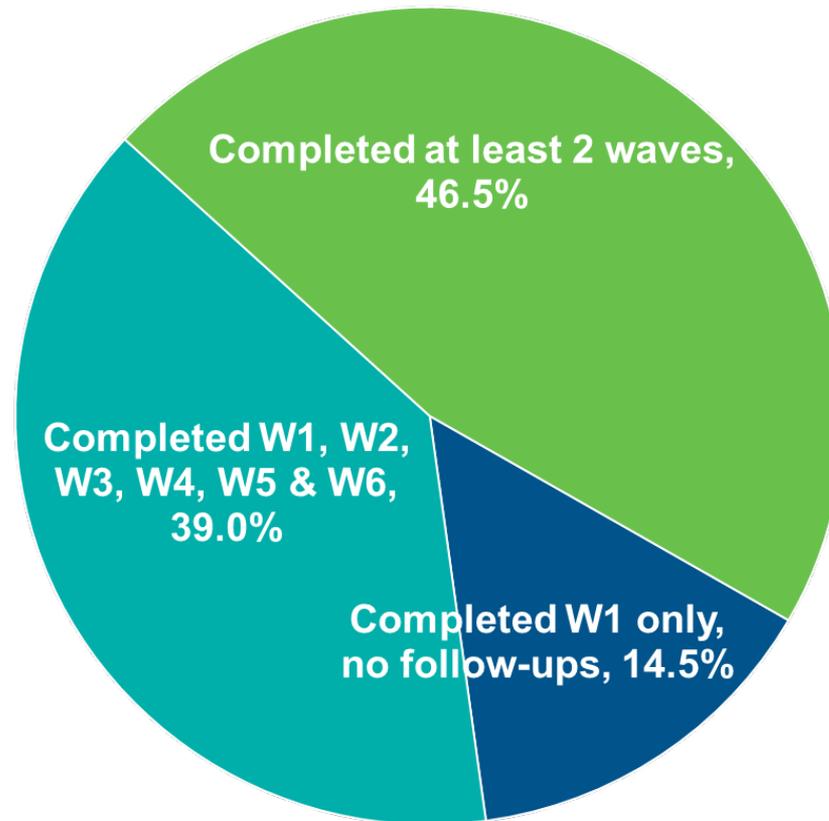
Baseline Contact Schedule		Pilot (Batch 1 - 2,000)	Wave 1 (Batch 2 - 46,965)	Follow-up Contact Schedule	Wave 2 (9,348)	Wave 3 (9,348)	Wave 4 (9,348)	Wave 5 (9,348)	Wave 6 (9,348)
Pre-alert mailing	Week 1	9/6/16	10/19/16	1 st Email	5/1/17	11/6/17	5/1/18	11/5/18	5/6/19
	Week 1.5			1 st Text	5/3/17	11/8/17	5/3/18	11/7/18	5/8/19
Invitation letter	Week 2	9/12/16	10/26/16	2 nd Email	5/8/17	11/13/17	5/8/18	11/12/18	5/13/19
	Week 2.5			2 nd Text	5/10/17	11/15/17	5/10/18	11/14/18	5/15/19
1 st Reminder letter	Week 3	9/19/16	11/2/16	3 rd Email	5/15/17	11/20/17	5/15/18		
	Week 4	9/26/16	11/9/16	1 st mailing	5/23/17	11/27/17	5/22/18		
2 nd Reminder letter	Week 5			1 st mail reminder	5/30/17	12/4/17	5/29/18		
	Week 5.5			4 th Email	6/2/17	12/6/17	5/31/18		
	Week 6		11/19/16	2 nd mail reminder	6/6/17	12/11/17	6/3/18		
	Week 6.5			3 rd Text	6/8/17	12/13/17			
	Week 7			5 th Email	6/13/17	12/17/17			
	Week 7.5			4 th Text	6/15/17				
	Week 8				6/24/17				
	Week 9								
	Week 10								
	Paper Questionnaire	Week 11		11/19/16					
COMPLETED SURVEYS		414	9152		7,200	7,201	6,480	5,844	5,258
Response Rate (AAPOR4)		25.2%	22.9%		77.0%	77.0%	69.3%	61.5%	55.2%

Survey Contacts and Completes

	Baseline - Wave 1	Wave 2	Wave 3	Wave 4	Wave 5	Wave 6						
Sample	N=48,965	N=9348	N=9348	N=9348	N=9348	N=9348						
Completed survey	n=9,566	n=7,200	n=7,201	n=6,840	n=5,844	n=5,258						
Response Rate (RR4)	22.9%	77.0%	77.0%	69.3%	61.5%	55.2%						
Interview length (median)	36.7 min	37.0 min	40.1 min	39.9 min	41.0 min	47.9 min						
Refusals at login	687	77	34	32	18	26						
Break-offs after start	581	77	148	76	102	104						
Break-offs after survey mid-point	62	26	62	26	30	26						
Questions skipped after warning	Under 2%	Under 2%	Under 2%	Under 2%	Under 2%	Under 2%						
Help-desk calls	93	92	127	104	83	125						
Completes/Break-offs by device	Comp.	Break-off	Comp.	Break-off	Comp.	Break-off	Comp.	Break-off	Comp.	Break-off	Comp.	Break-off
Desktop/laptop/tablet	78.0%	561 (6.6%)	56.6%	110 (2.5%)	61.0%	74 (4.4%)	54.7%	76 (2.0%)	63.3%	63 (2.0%)	55.0%	46 (2.0%)
Smart-phone	22.0%	160 (8.8%)	43.4%	116 (3.9%)	39.0%	91 (3.4%)	44.5%	61 (2.0%)	35.7%	45 (2.0%)	45.0%	58 (2.0%)

** 77.4% of the sample (7,404) said they would be willing to be contacted by HJF about other study opportunities in the future for themselves or their families.*

Cases Completing Baseline and Follow-Ups



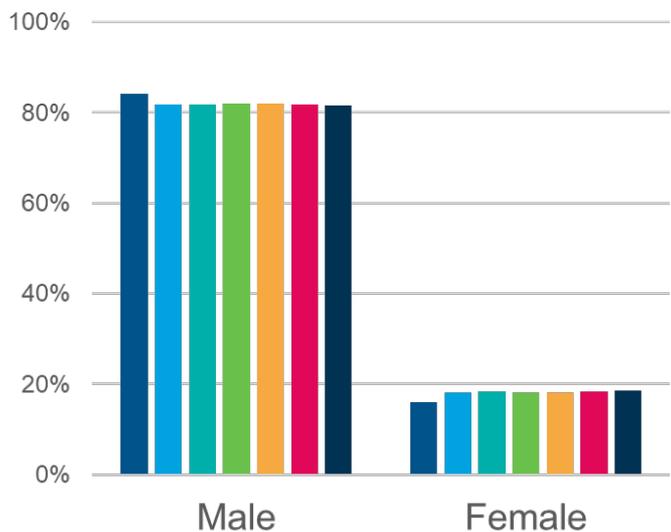
n=9,566

Sample Representativeness

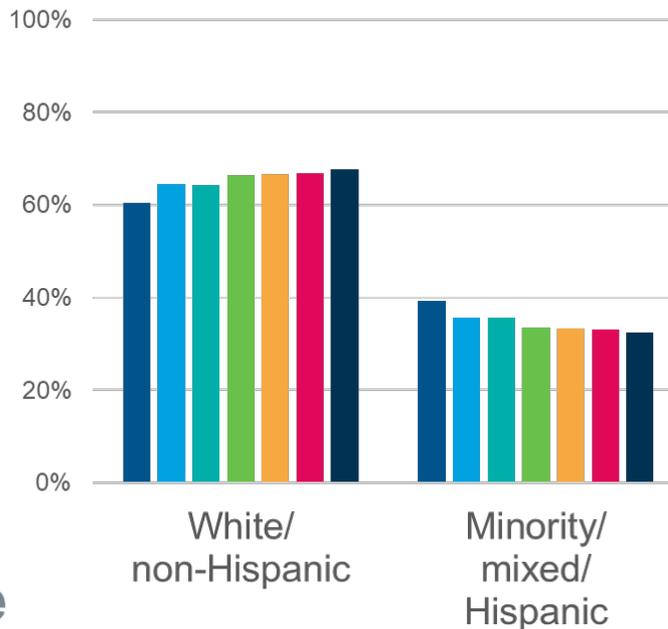
	Population (n=48,965)	Wave 1 (n=9,566)	Wave 6 (n=5,258)
Male	84.1%	81.8%	81.5%
Female	15.9%	18.2%	18.5%
Army	32.1%	32.9%	31.0%
Navy	18.8%	19.2%	19.3%
Air Force	13.5%	19.0%	19.9%
Marines	17.2%	15.9%	16.6%
National Guard/Reserve	18.4%	12.9%	12.4%
E1-E4 Junior Enlisted	41.4%	27.5%	28.5%
E5-E6 MidGrade Enlisted	29.5%	30.0%	29.9%
E7-E9 Senior Enlisted	13.4%	17.9%	16.7%
W1-W5 Warrant Officers	1.1%	1.6%	1.5%
O1-O3 Junior Officers	6.4%	8.4%	9.0%
O4-O10 Senior Officers	8.1%	14.7%	14.5%

Maintaining Representativeness

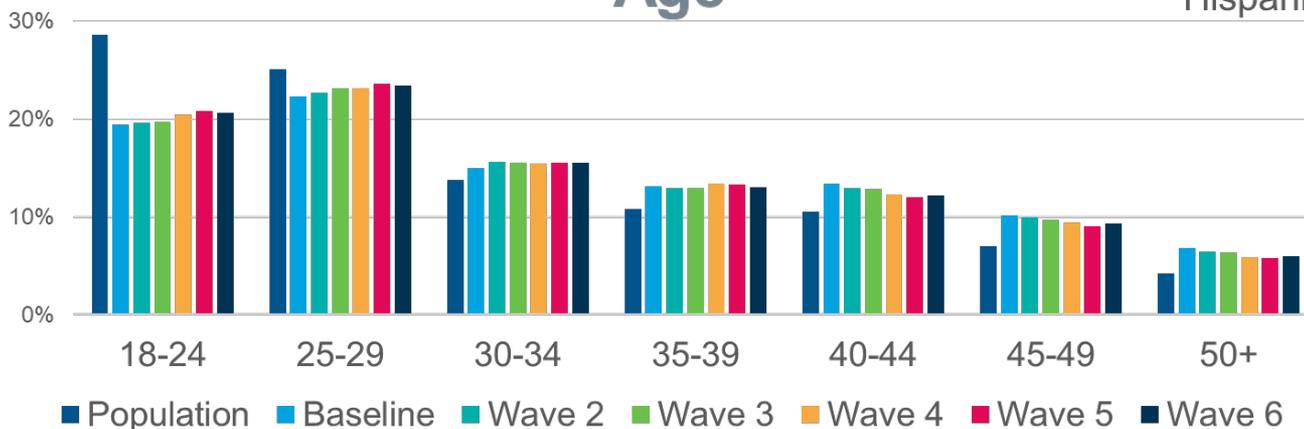
Gender



Race



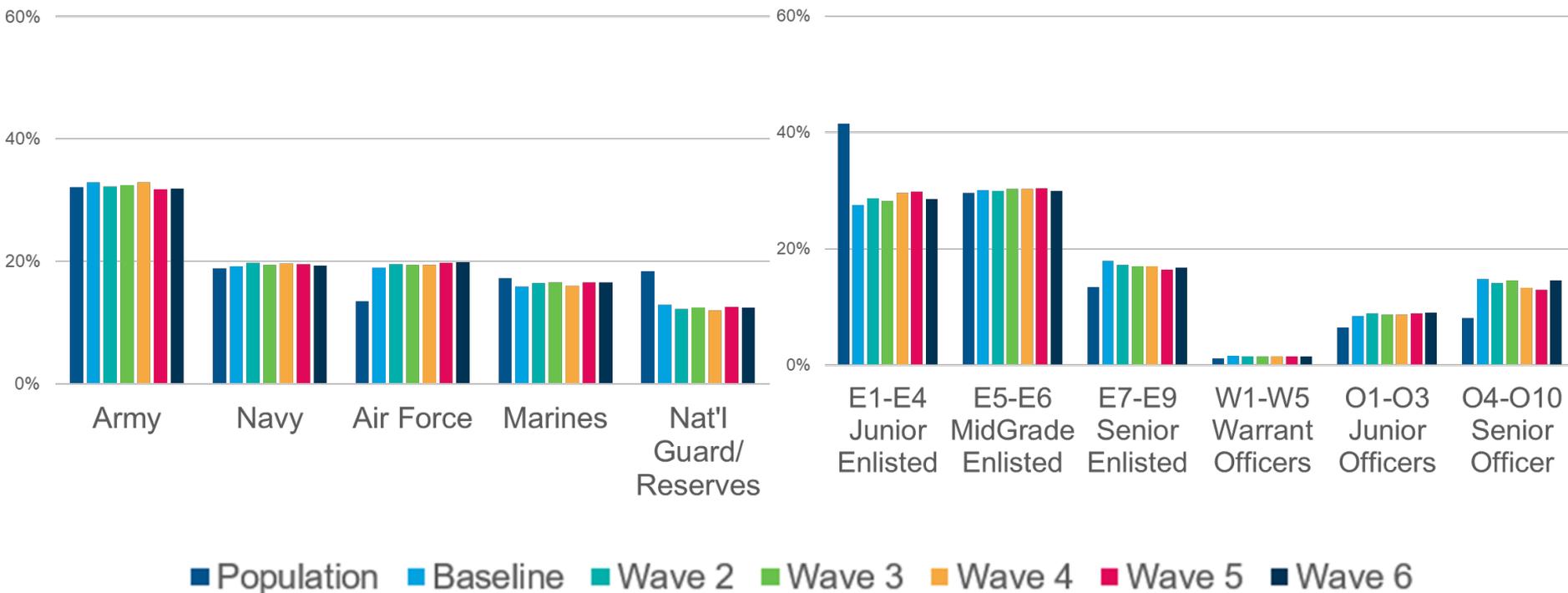
Age



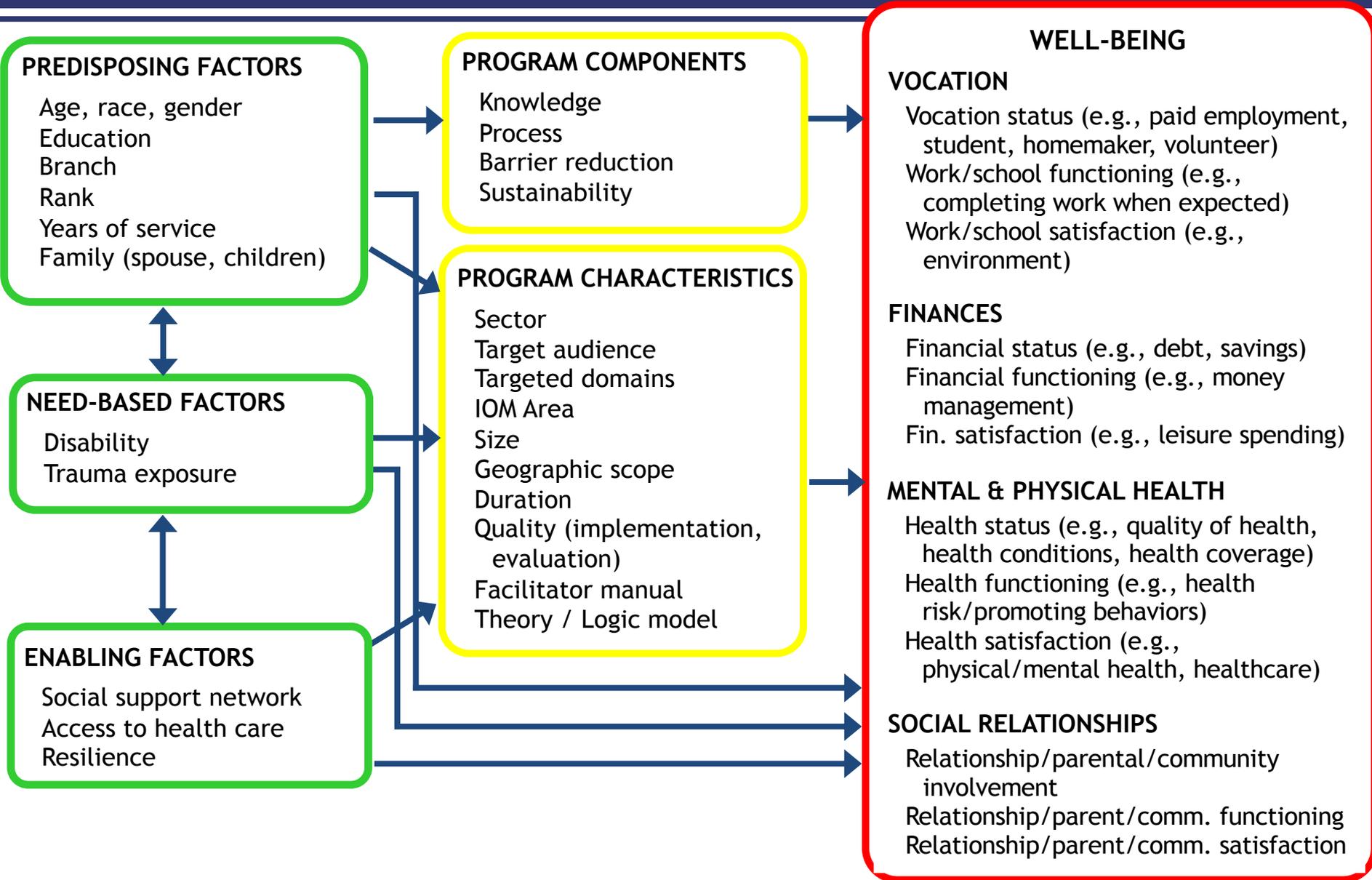
Maintaining Representativeness

Branch/Component

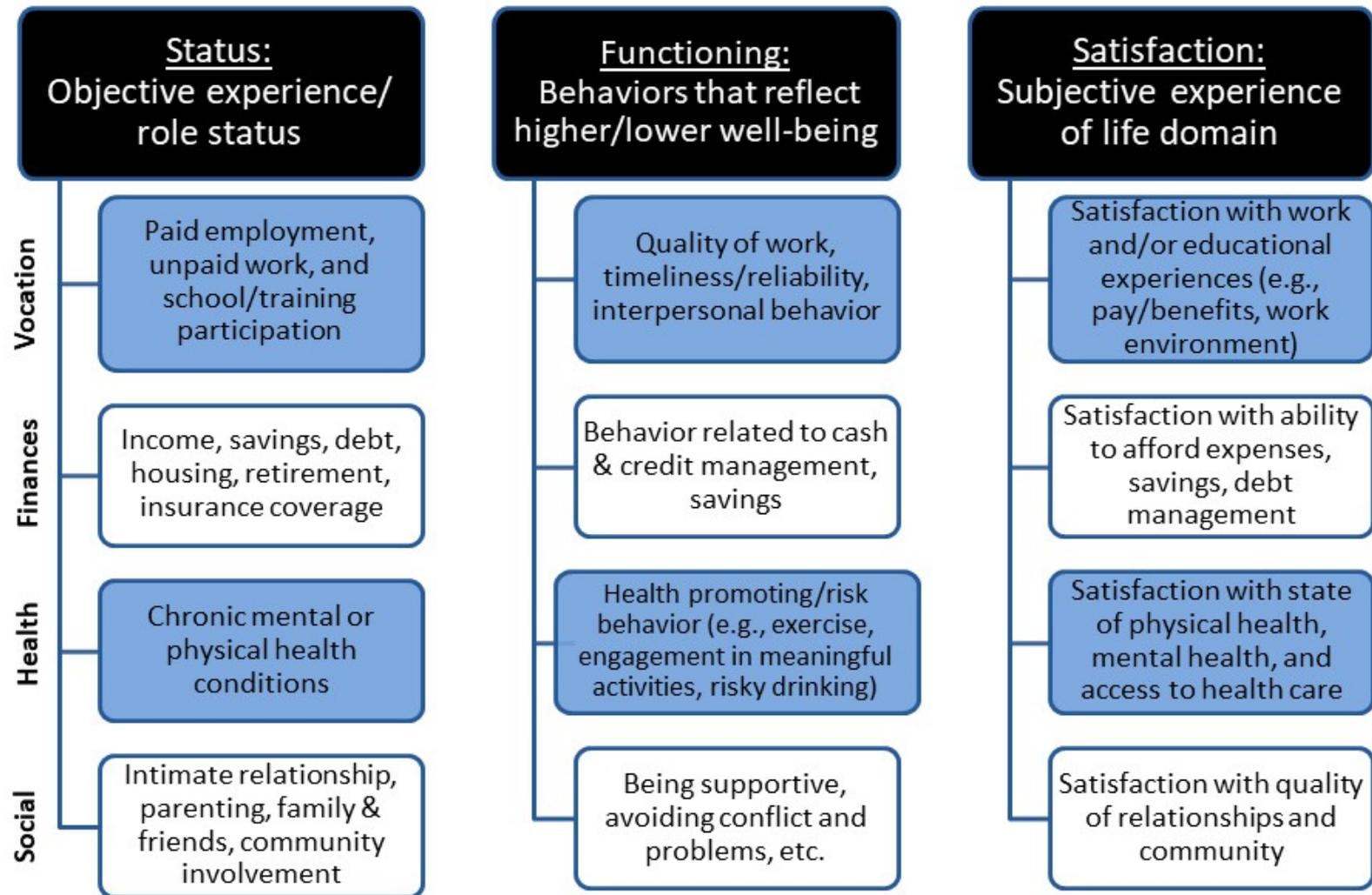
Paygrade



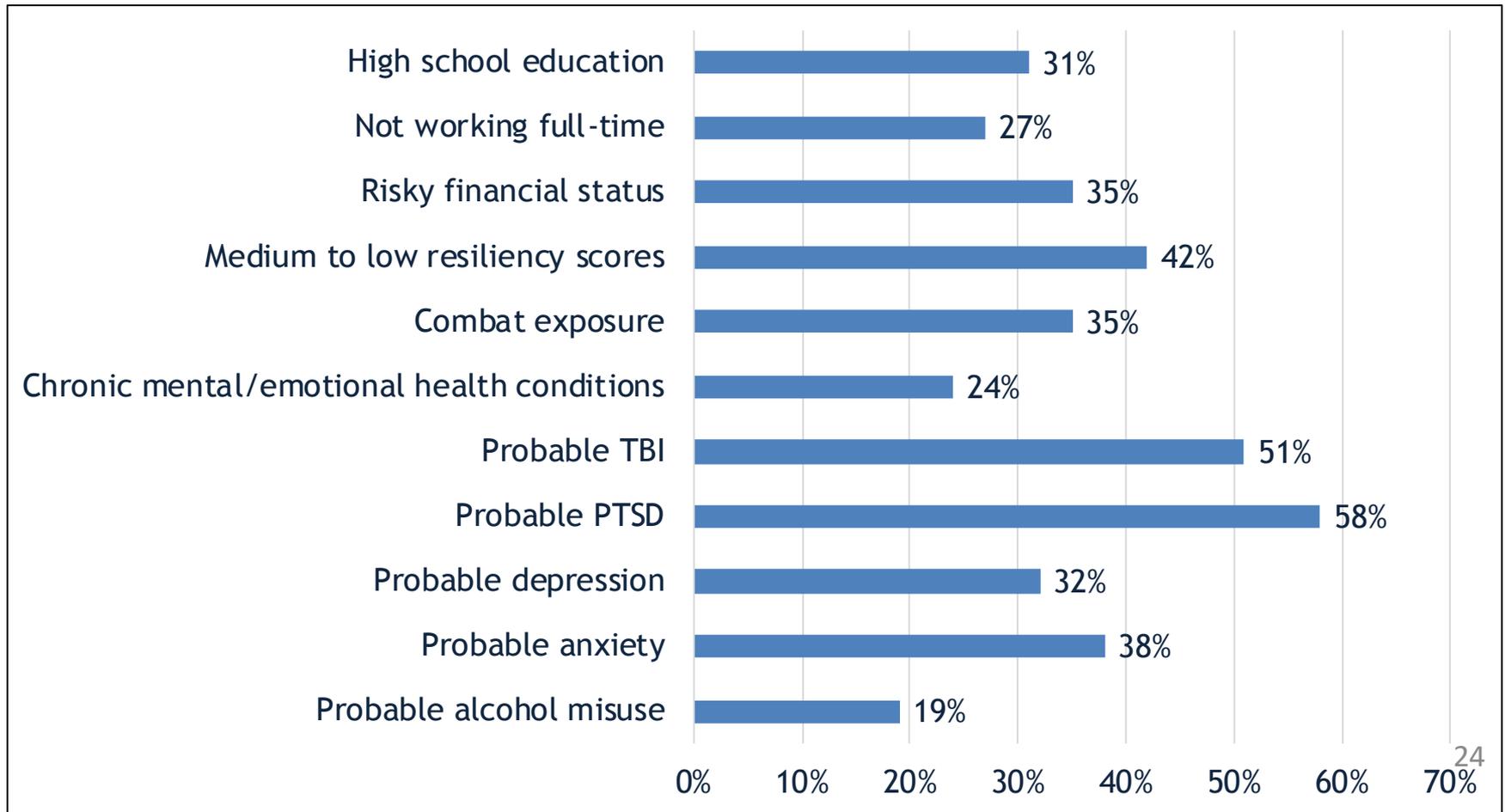
Conceptual Model of Veteran Reintegration



Operational Definitions of Well-Being



Predicting Difficulty Adjusting to Civilian Life



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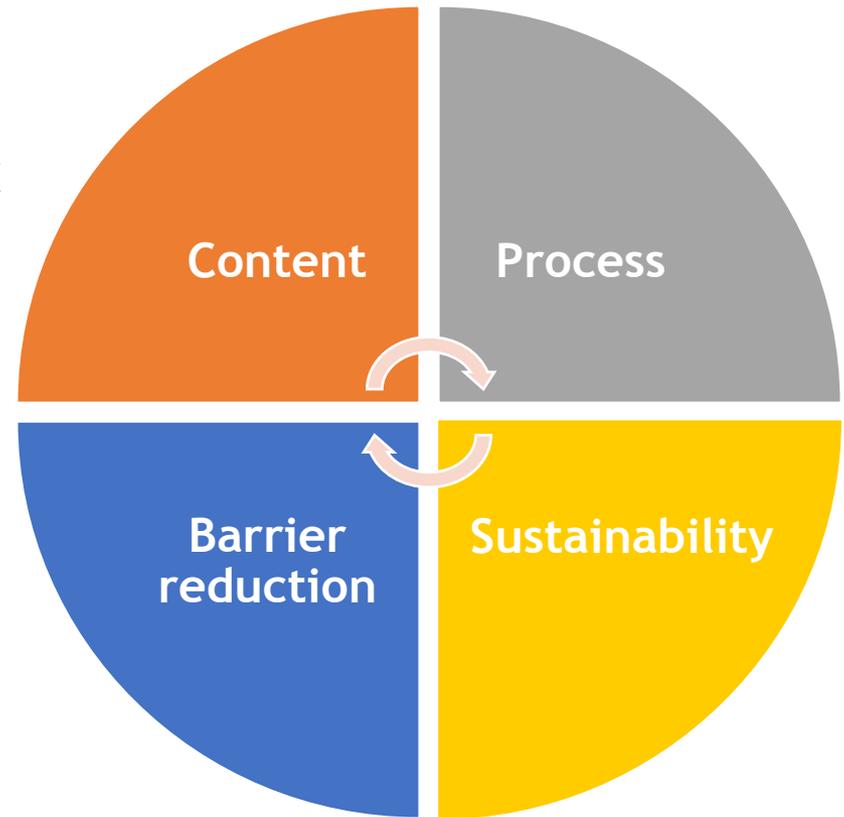


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Common Component Analyses

What is Common Components Analysis?

- Widely used in the therapeutic literature
- Identifies components within four primary areas in specific programming domains
- Test the extent to which the components are associated with intended program outcomes



Chorpita, Daleiden, Weisz (2005)
Kaminski, Valle, Filene, & Boyle (2008)
Rotheram-Borus, et al. (2009)

Common Components

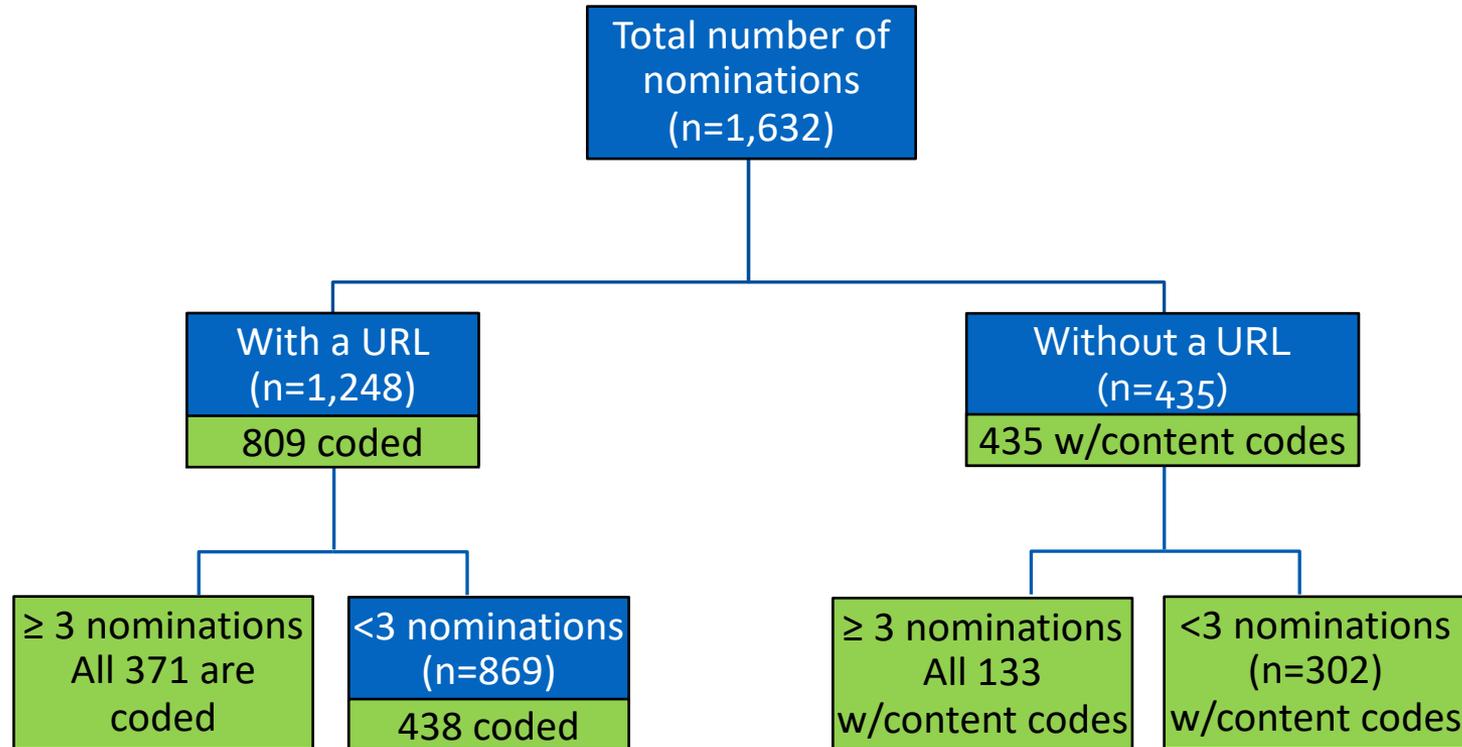
- **Content:** what does the program teach or what information does it provide?
 - Coping skills, information on how to write a resume, search for available jobs
- **Process:** how does it convey information or teach skills?
 - Mode of delivery: in-person, online, phone
 - Method of delivery: lecture format, mentoring, peer-to-peer interaction
- **Barrier reduction:** does the program provide tangible supports or does it reduce barriers to accessing the program?
 - Transportation to the program, reducing stigma
- **Sustainability:** how does the program keep participants engaged once formal programming has ended?
 - Community referrals, alumni groups

Identification of Common Components

- Three sources to triangulate data:
 - Veteran nomination
 - Program website coding
 - Including annual reports, if available
 - Interview of key program staff
- Same questions are asked across our 4 domains of interest
 - Mentoring/coaching can take place in vocation and material needs domains - does the process or the content contribute to Veteran well-being the most?

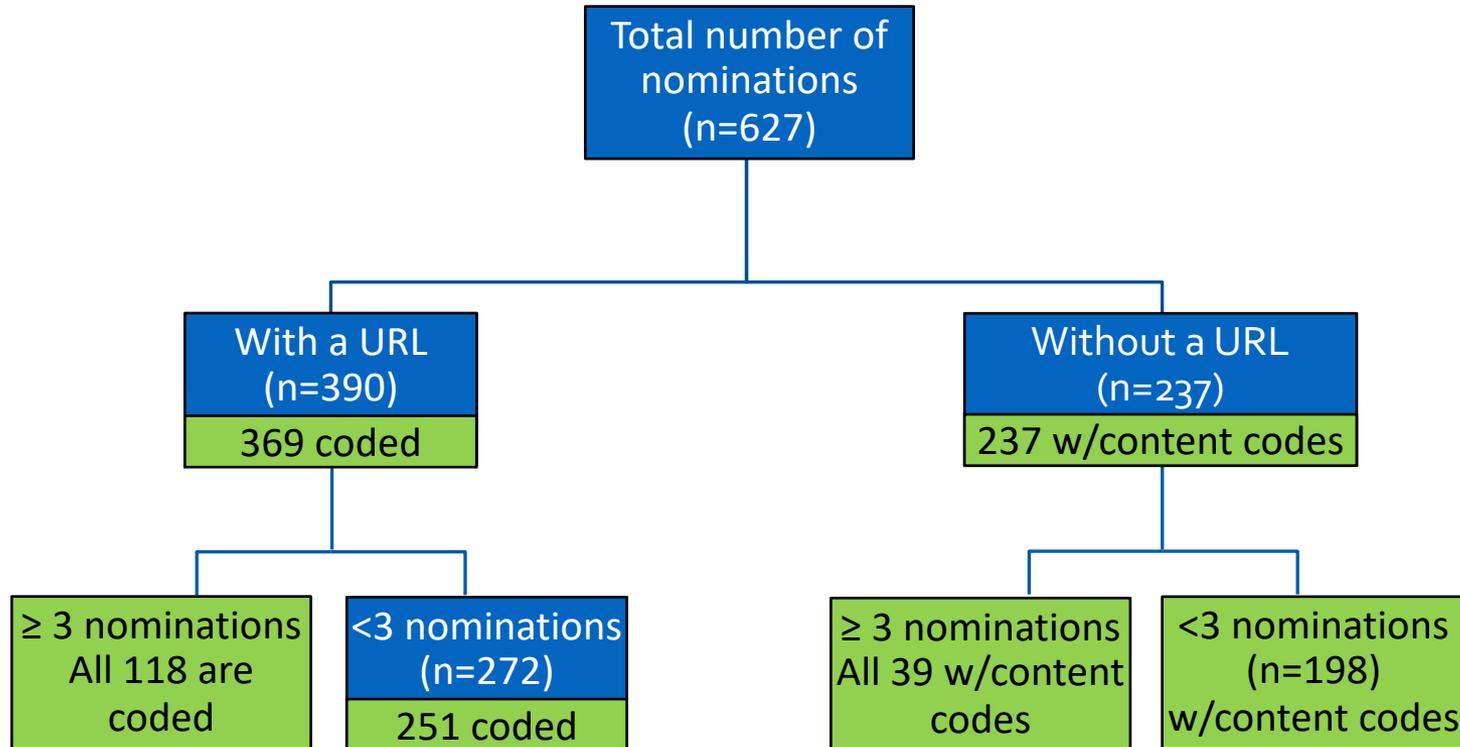


Wave 1 Program Nominations



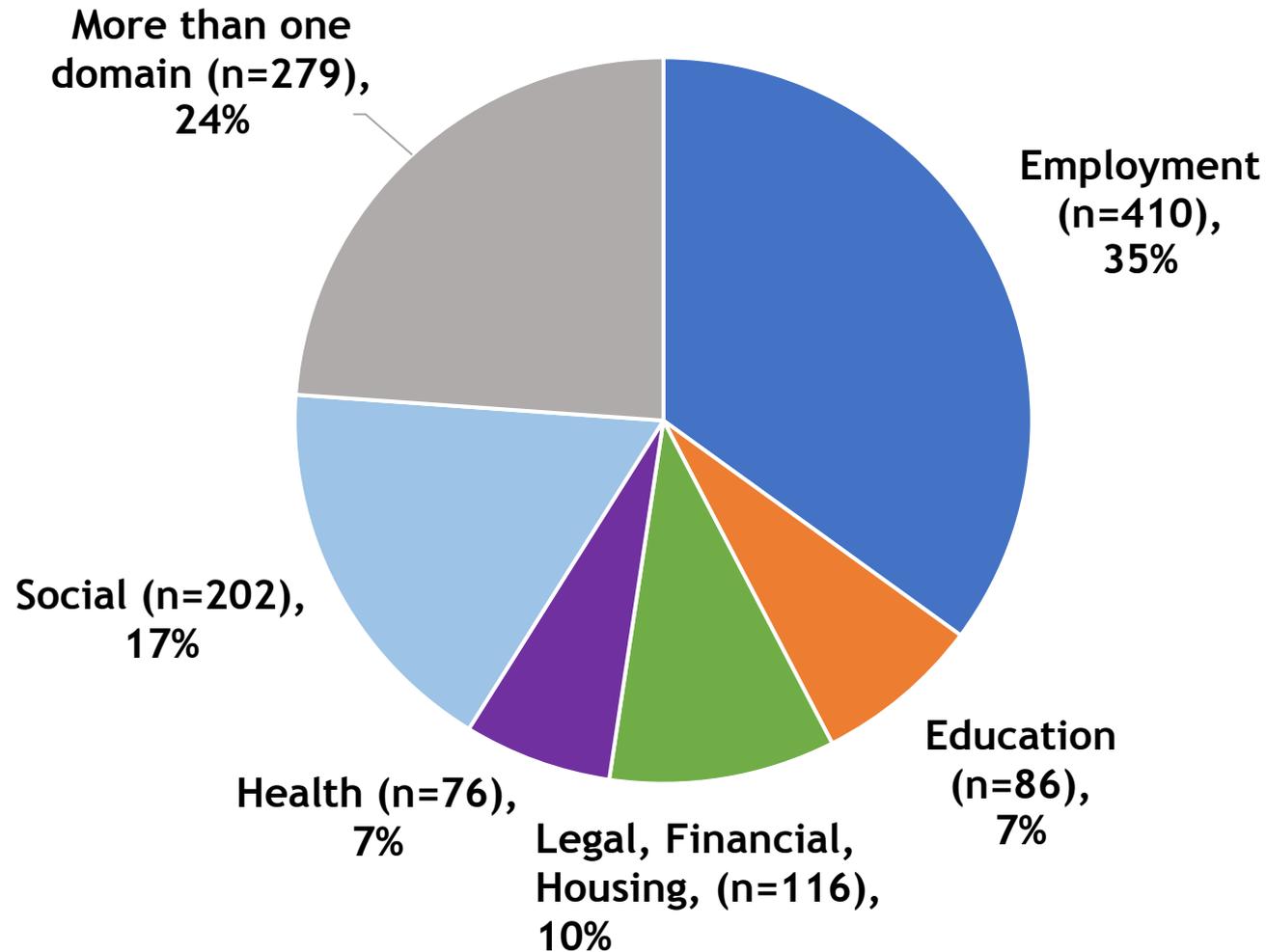
- 98.1% of Veterans that nominated a program from Wave 1 have at least 1 program coded
- 73.6% of Veterans have all of their program nominations coded

Wave 6 Program Nominations

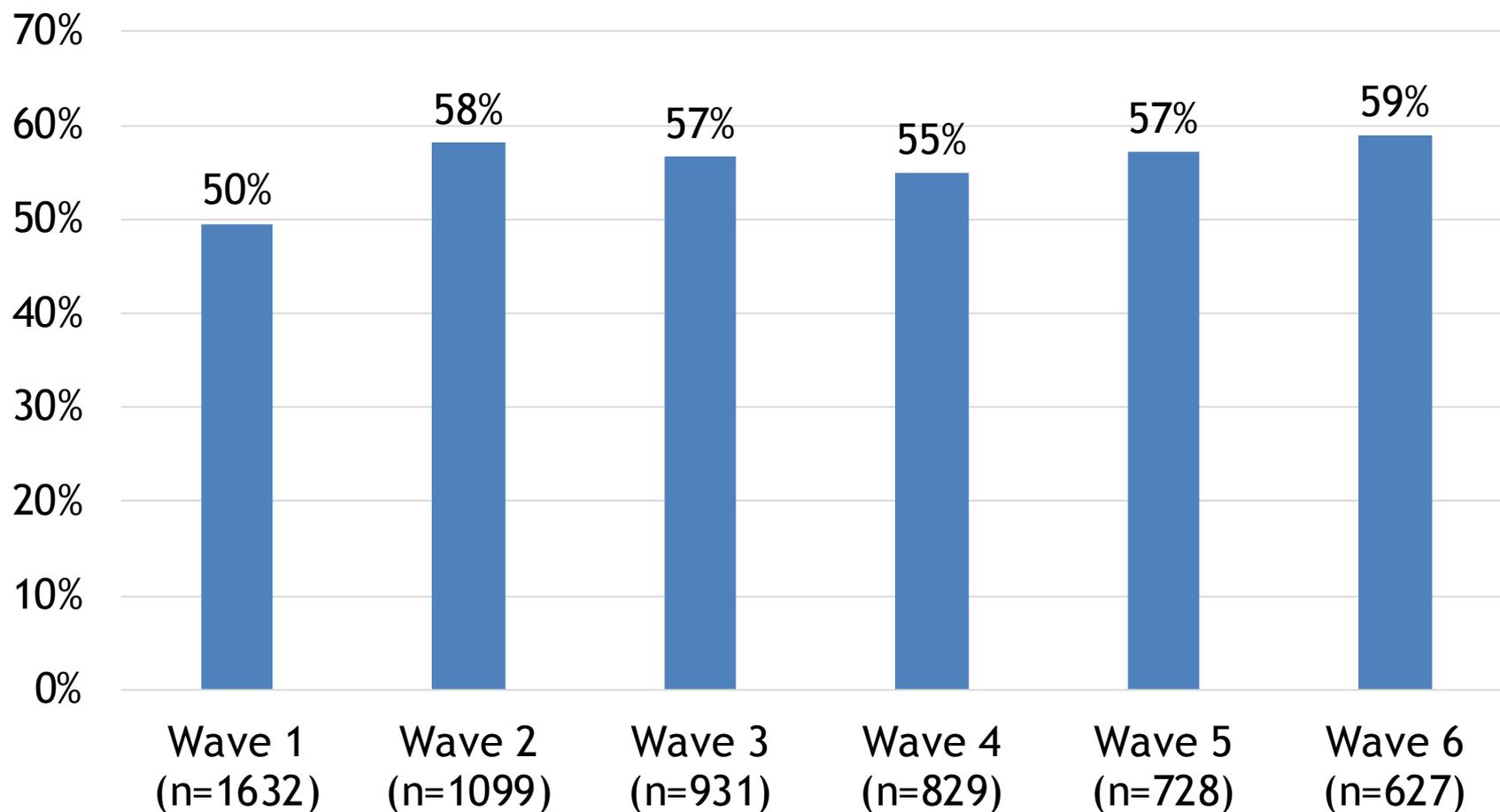


- 95.7% of Veterans that nominated a program from Wave 1 have at least 1 program coded
- 81.3% of Veterans have all of their program nominations coded

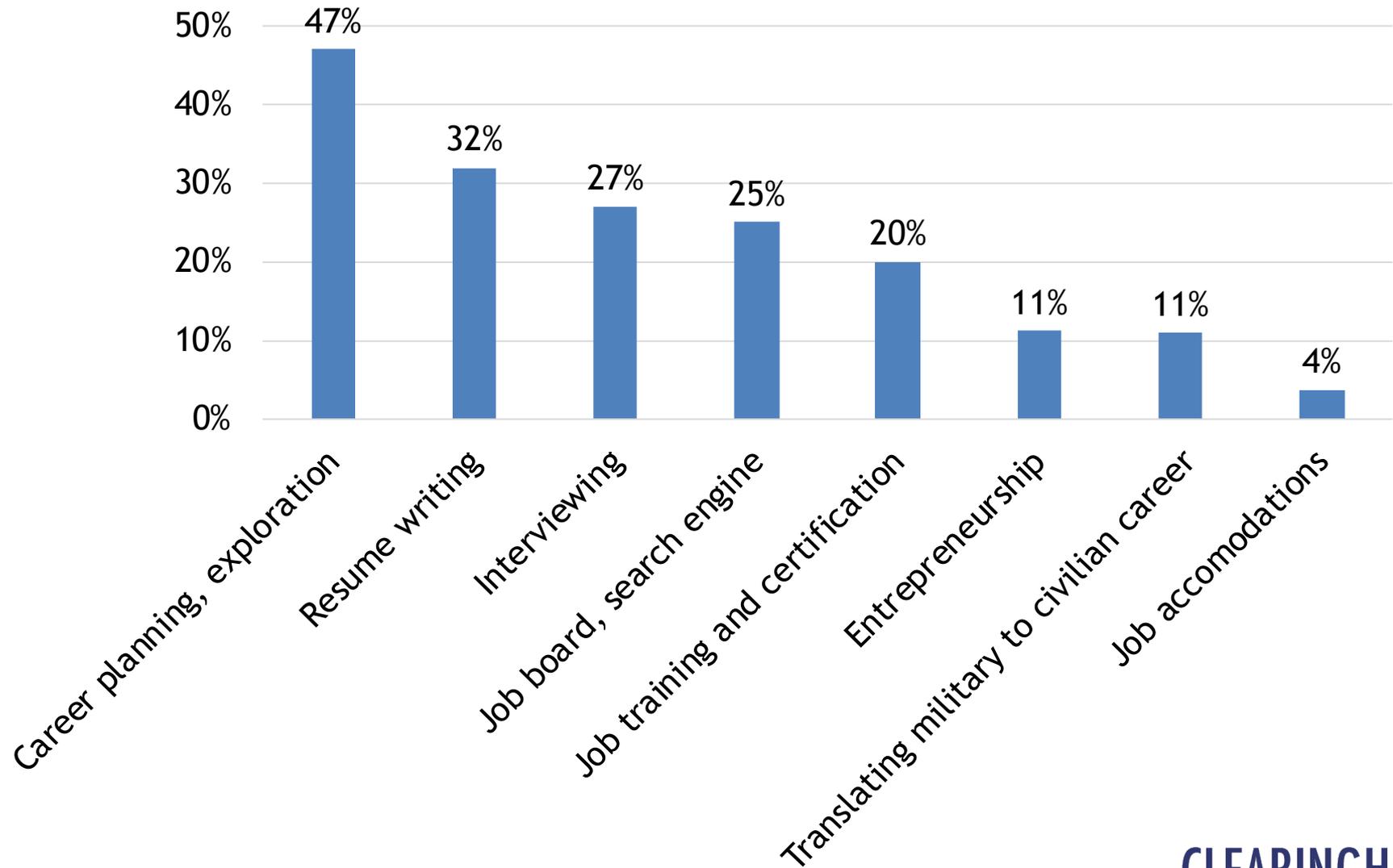
Wave 1 to 6 Programs Website Coded by Domain (n=1,169)



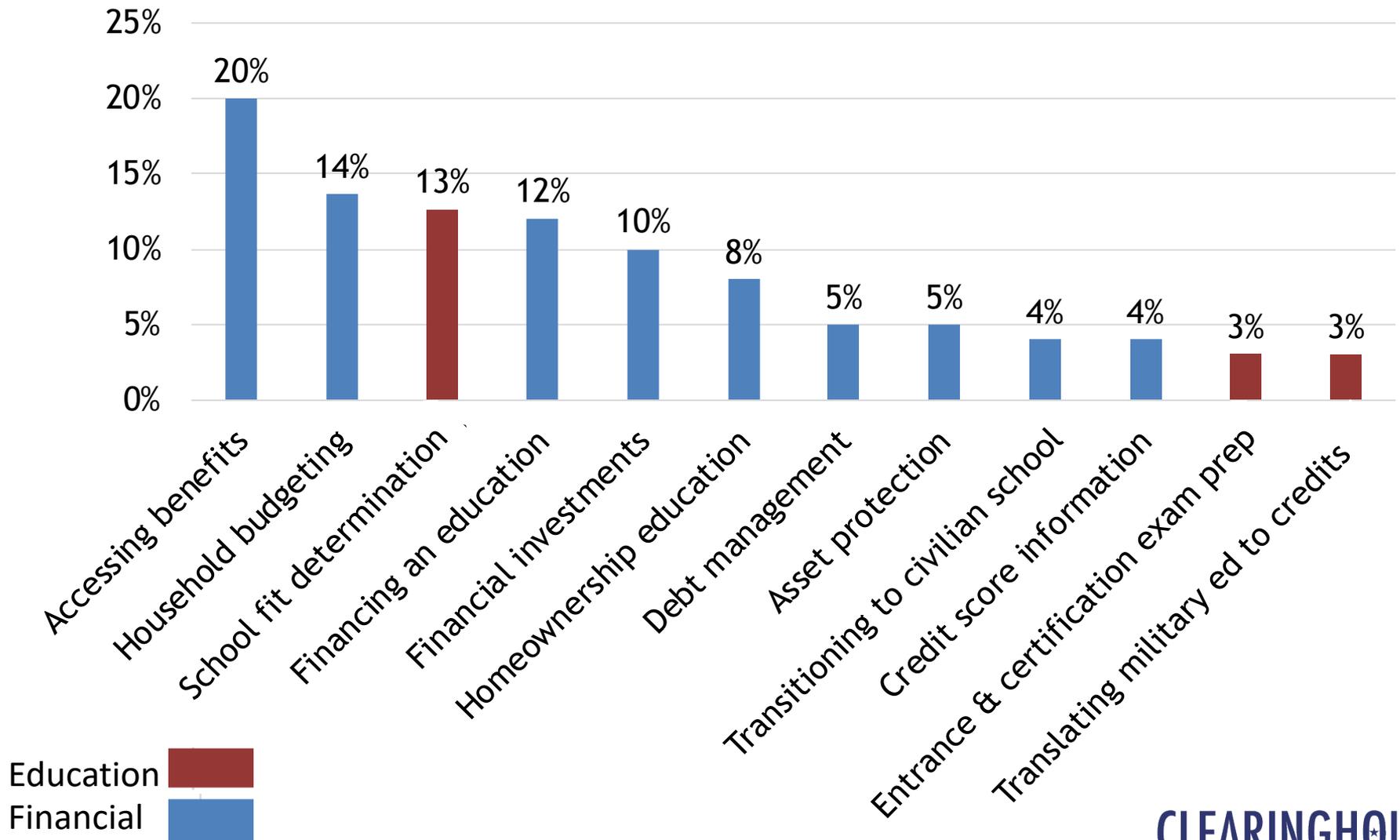
Percent of Programs With Coded Websites or Content-Only Coding, Waves 1-6



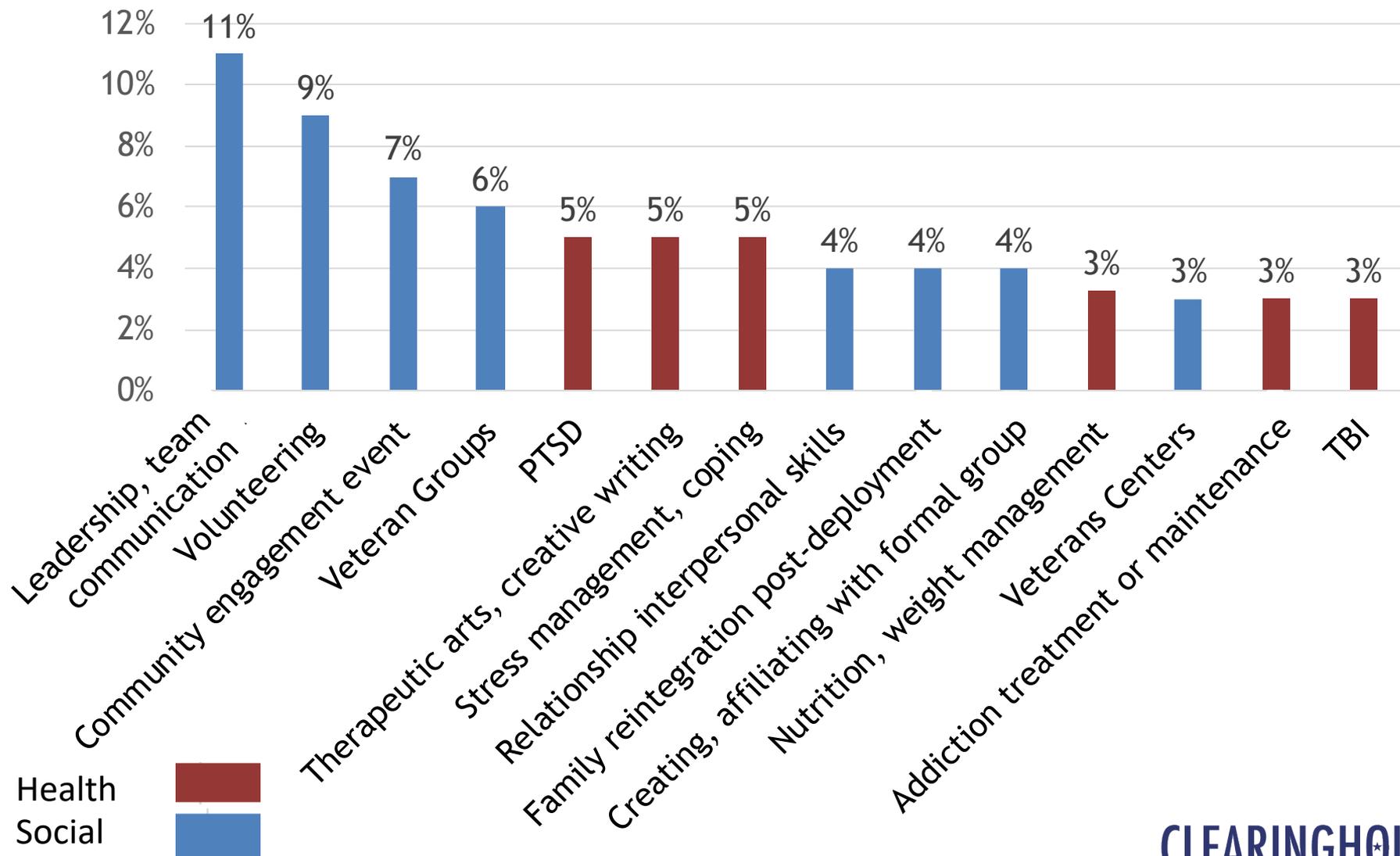
Frequency of Employment Content Components by Program (n=1,162)



Frequency of Education and Financial Content Components by Program (n= 1,162)



Frequency of Health and Social Components by Program (n= 1,162)



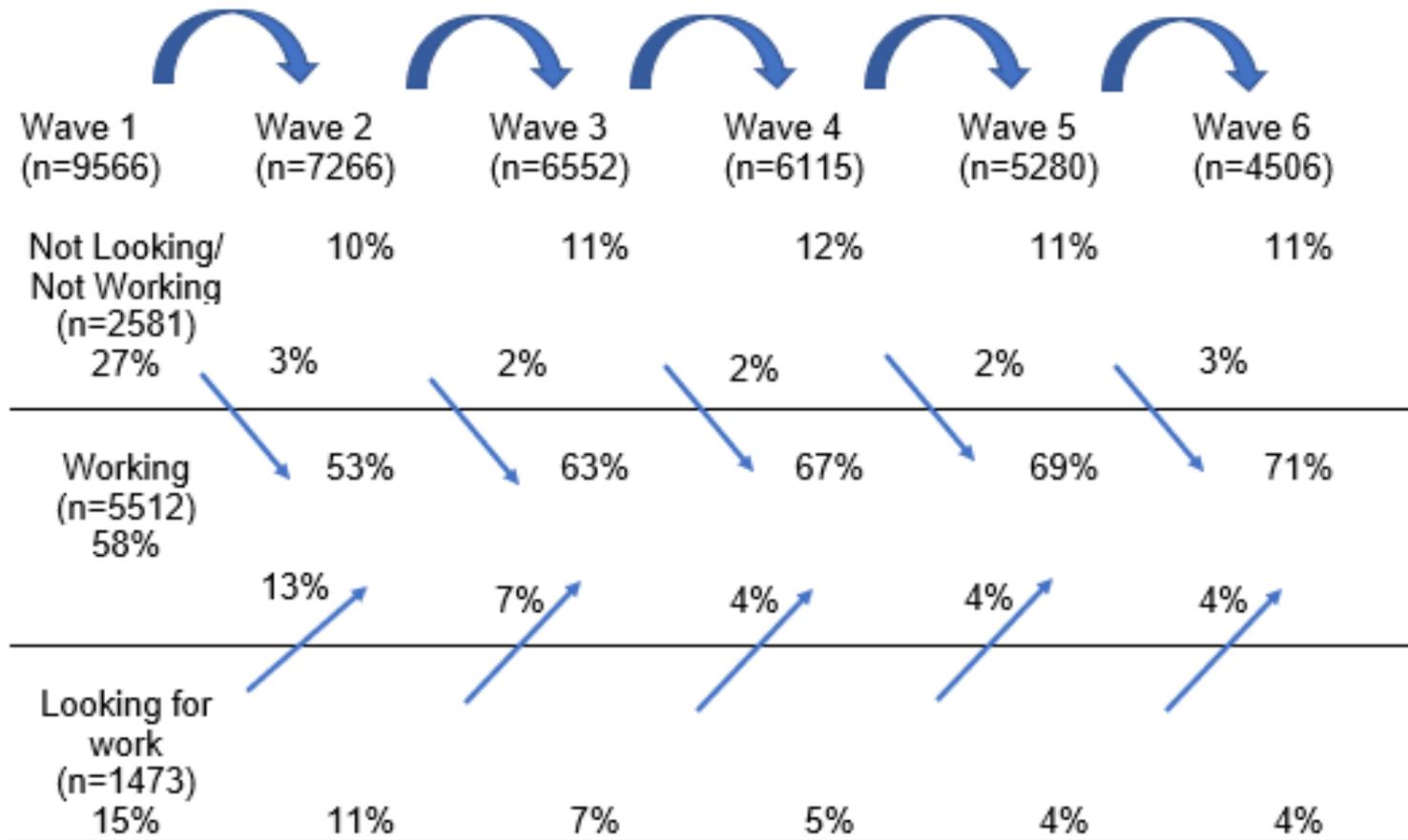
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Common Components from Employment Programs

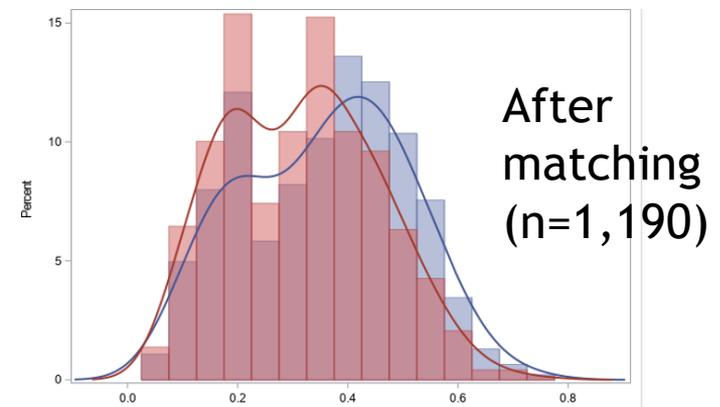
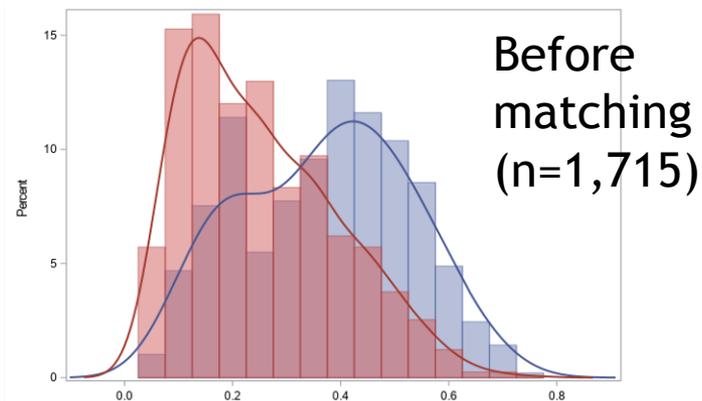
Employment Status Progression



Analytical Method

Predicted Probability of Employment Program Component Use - -- Sample Matching

- Step 1: Determine sample
- Step 2: Predict the probability of participation in any employment program in wave 1.
 - The goal is to match based on a robust list of covariates to approximate random assignment to participation in programs.



- Step 3: Conduct logistic regression with “Getting a Job” for each component

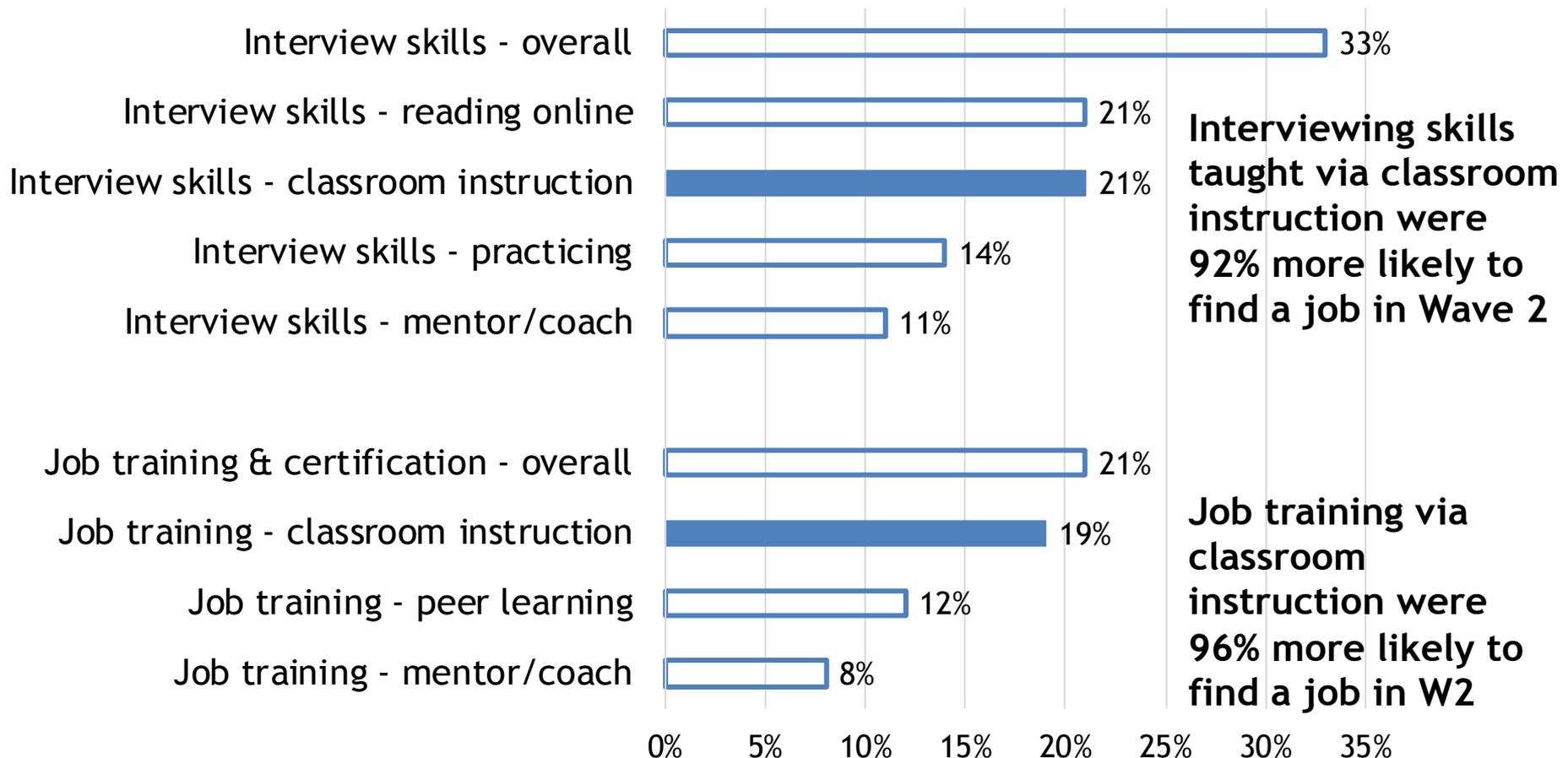
Who was Looking for Work (W1) and Found Work (W2)?

	Original Sample (n=1,715)	Matched Sample (n=1,190)
Male	79%	79%
Army	37%	38%
Navy	22%	22%
Air Force	16%	12%
Marine Corps	19%	21%
National Guard/Reserve (NGR)	6%	7%
Left active duty and currently NGR	18%	15%
E1 to E4	37%	49%
E5 to E6	32%	33%
E7 to E9	15%	9%
O1 to O3	7%	5%
O4 to O7	9%	4%
Full-time student	27%	31%
Part-time student	7%	5%

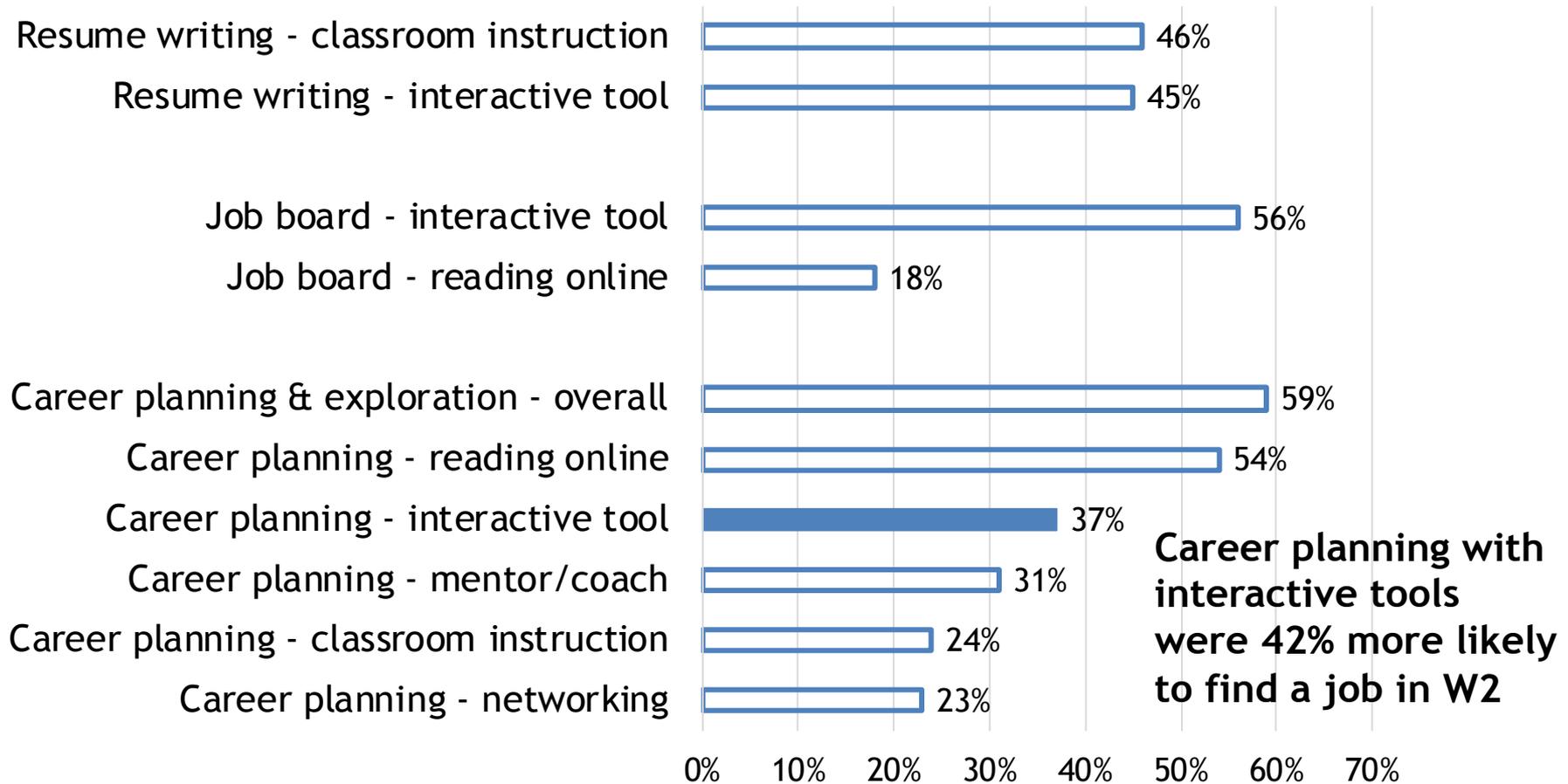
Who was Looking for Work (W1) and Found Work (W2)?

	Original Sample (n=1,715)	Matched Sample (n=1,190)
Medical Discharge	7%	7%
General/ Other Discharge	3%	4%
White Non-Hispanic	54%	51%
Black Non-Hispanic	15%	15%
Hispanic	19%	21%
Other	12%	13%
Probable anxiety	35%	33%
Probable PTSD	33%	32%
Probable depression	27%	26%
Risk for self-harm	11%	11%
Risk for alcohol misuse	37%	38%
Exposed to combat	36%	31%
Exposed to corollaries of combat	47%	41%
Very low social support	15%	16%

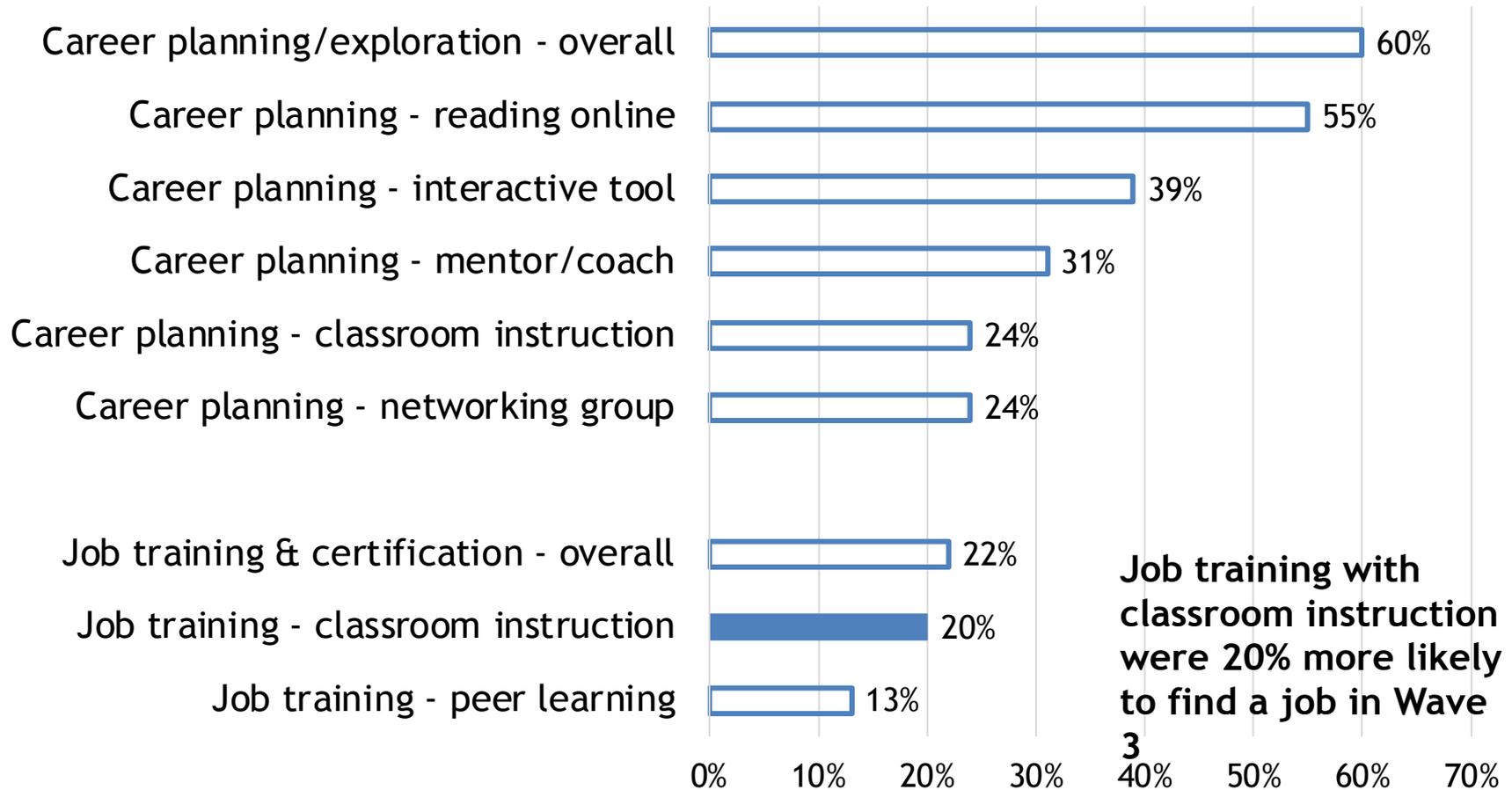
Component Use Among Those Looking in W1 and Found a Job in W2 (n=1,190)



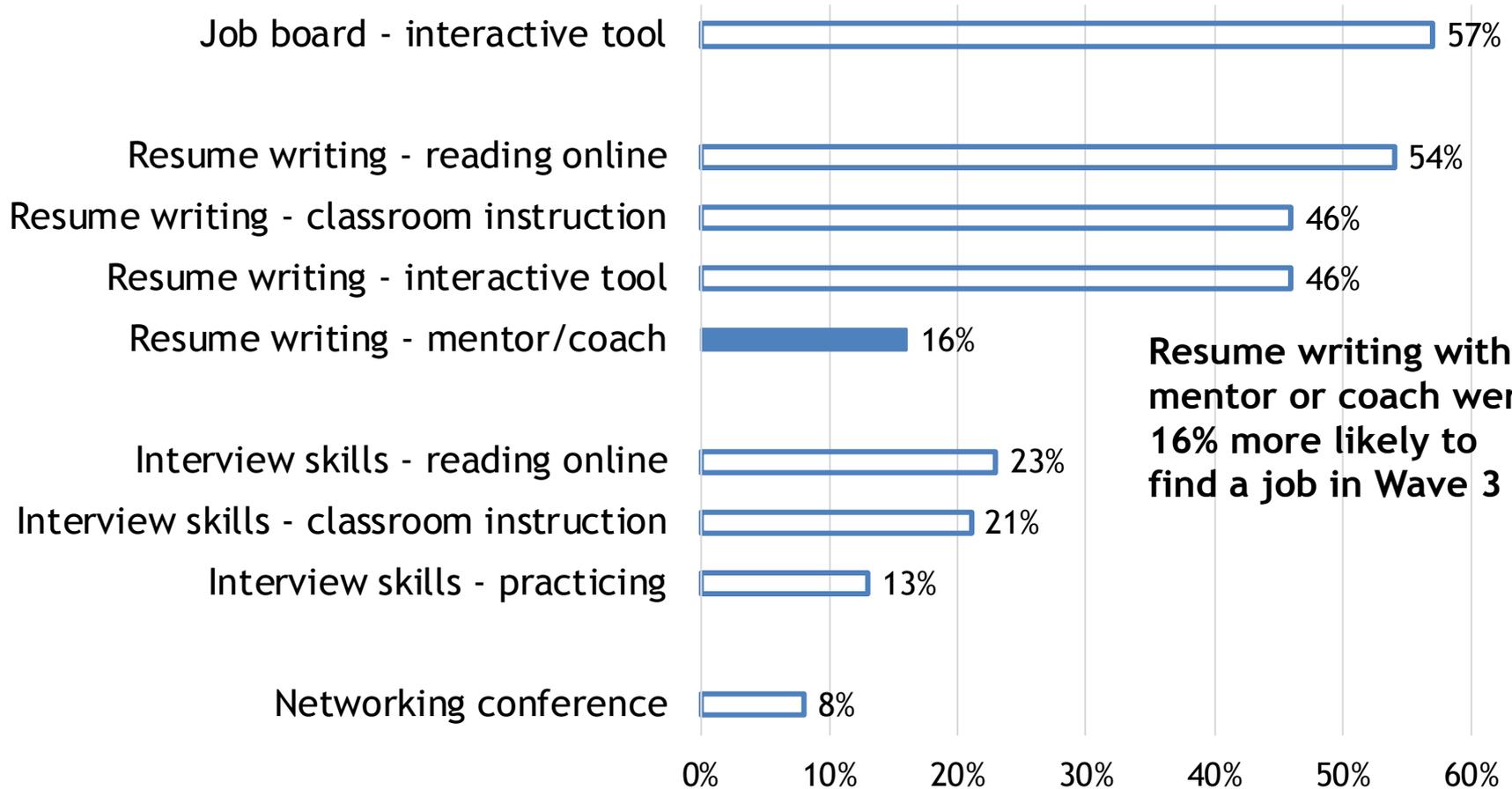
Component Use Among Those Looking in W1 and Found a Job in W2 (n=1,190)



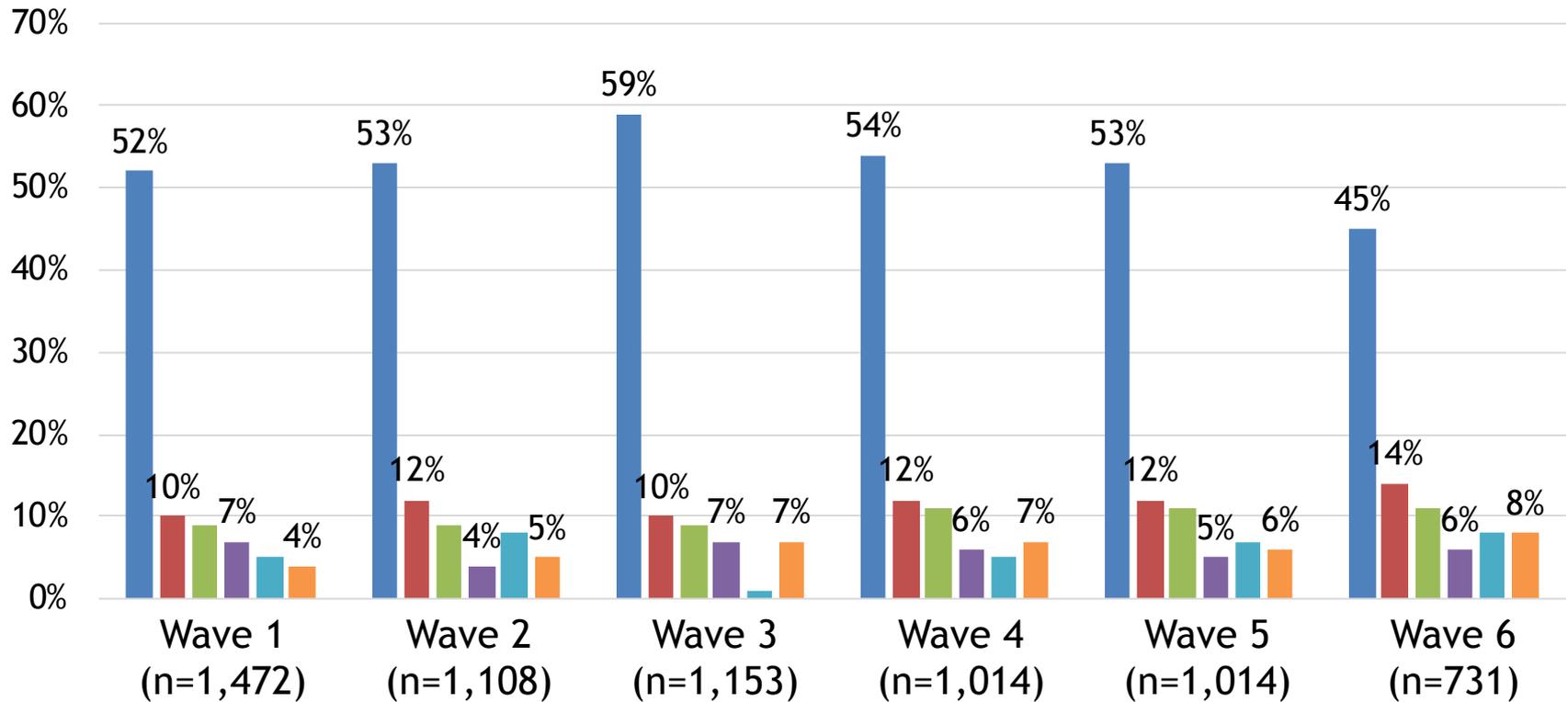
Component Use Among Those Looking in W1 and Found a Job in W3 (n=1,199)



Component Use Among Those Looking in W1 and Found a Job in W3 (n=1,199)

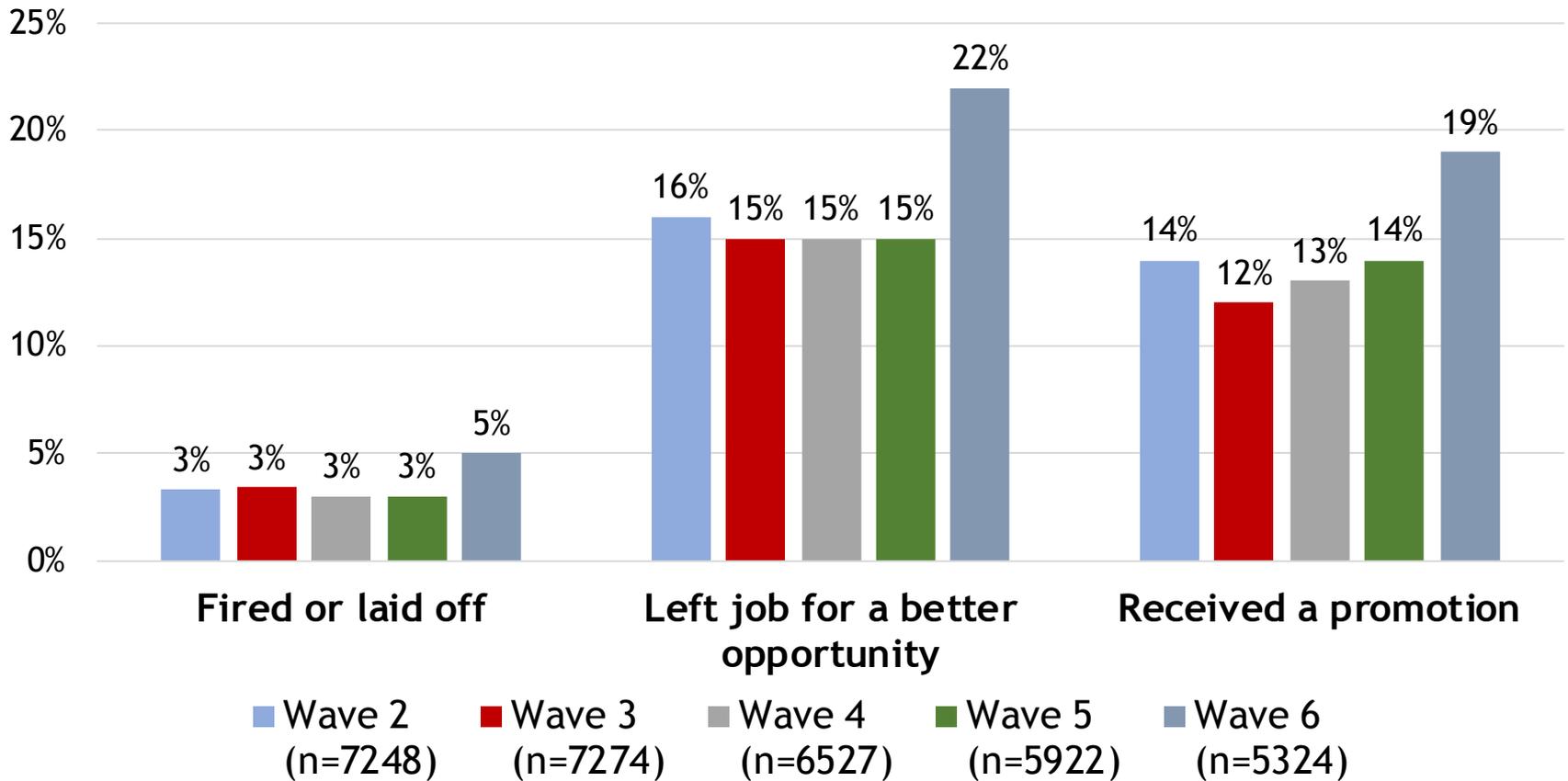


Reasons Why Veterans Were Not Looking for Work



- In school, training
- Full-time homemaker/caregiver
- Ongoing physical health condition
- Not interest in paid employment
- Retired from the workforce
- Ongoing mental health condition

Changes in Employment From Wave 2 to 6



6% -once
1% -3 or more times

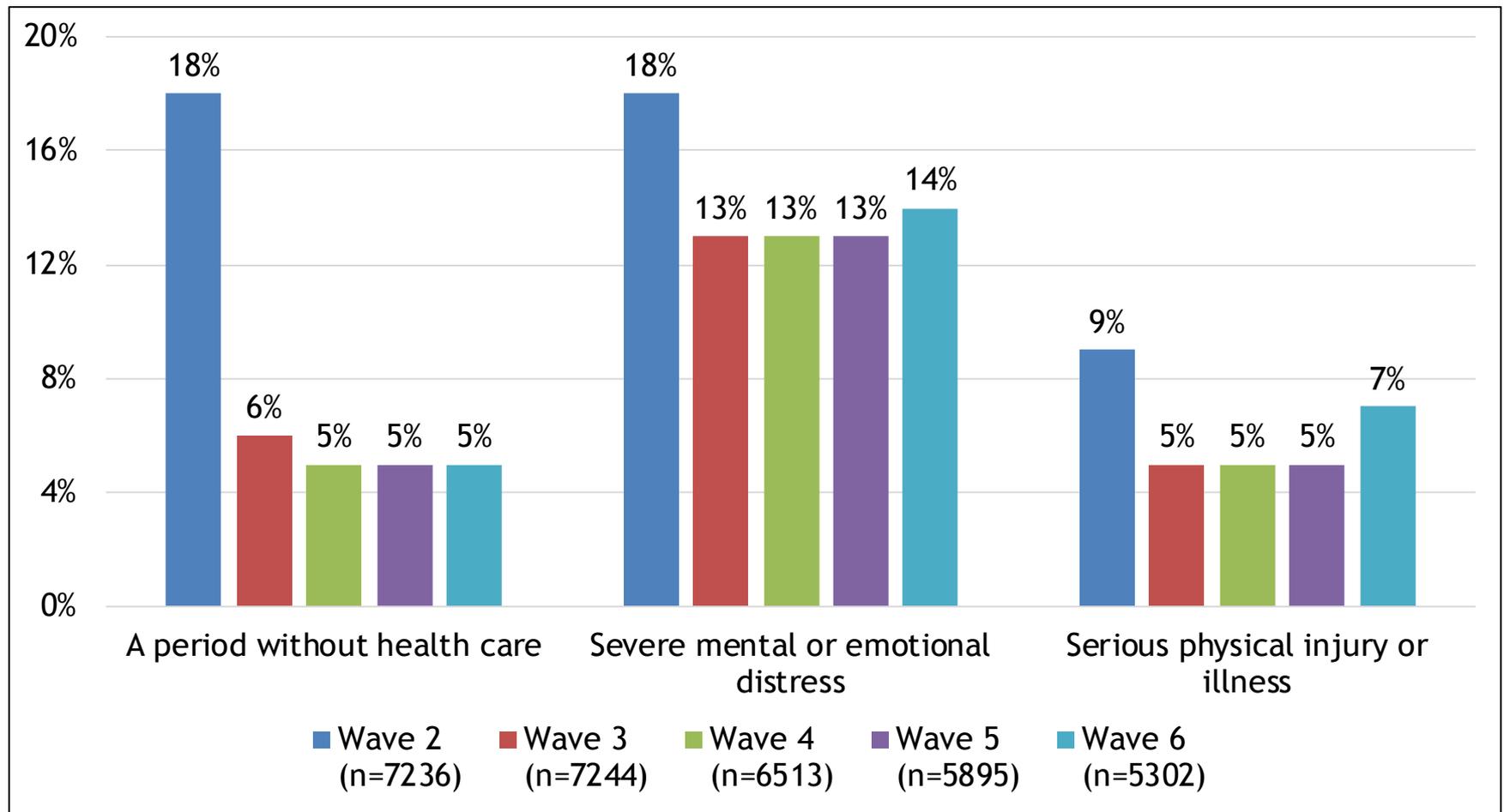
21% -once
6% -3 or more times

20% -once
5% -3 or more times



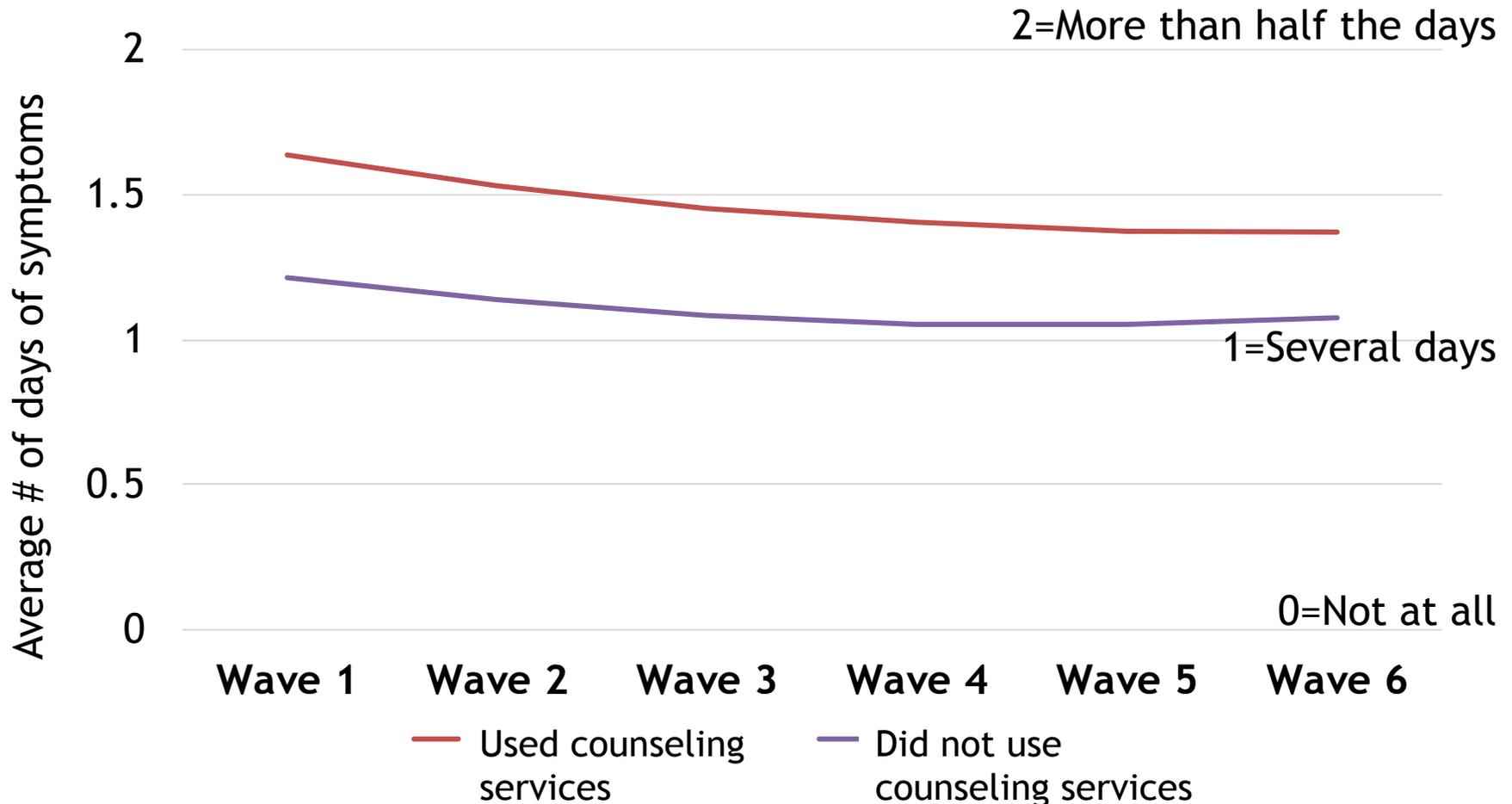
Patterns of Change in Physical & Mental Health When Examining Components

Experiences of Health Changes



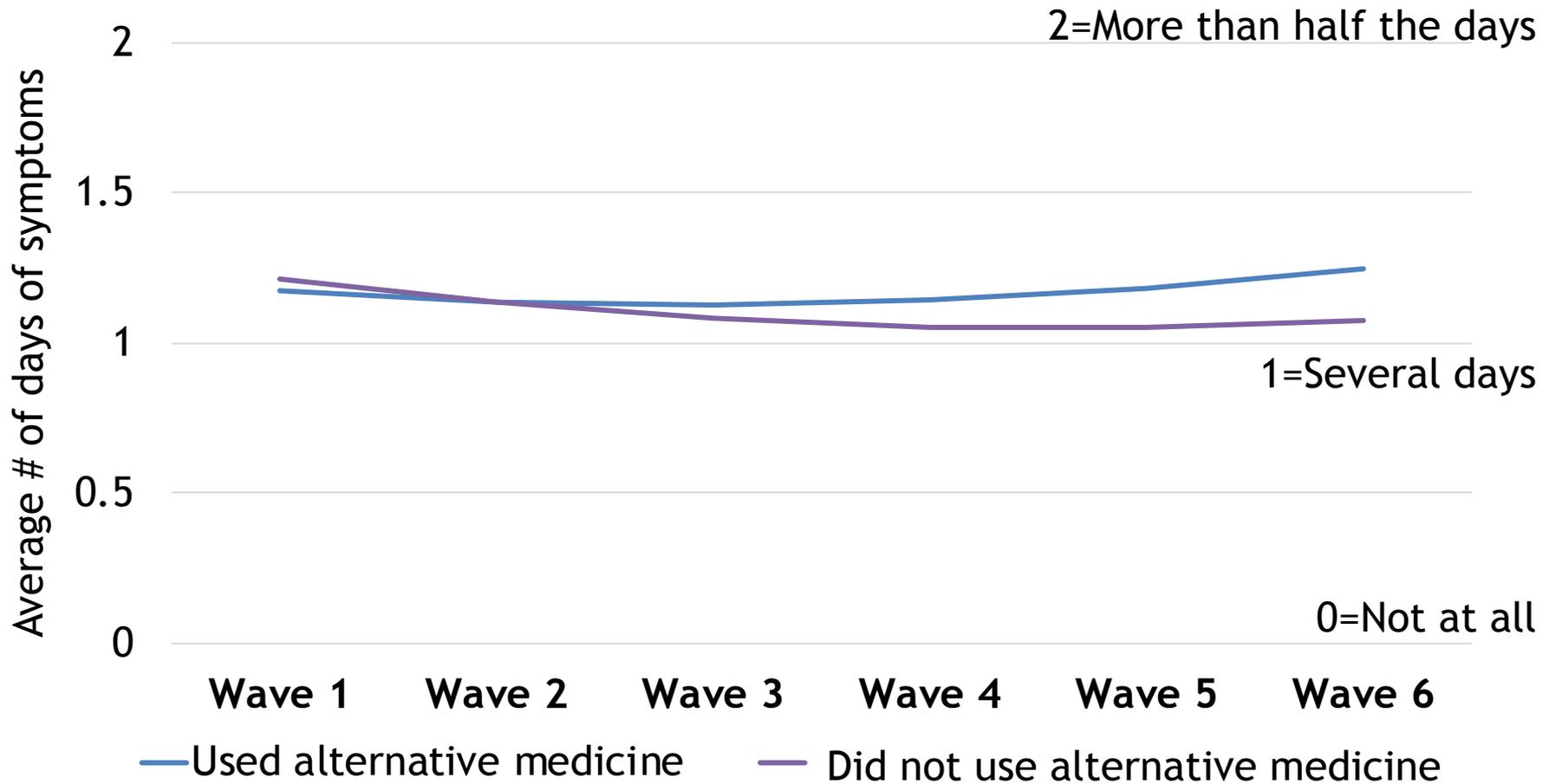
Changes in Depressive Symptoms by Counseling Services

Among Veterans with mental health symptoms at Wave 1 matched for health service use:



Changes in Depressive Symptoms by Alternative Medicine Use

Among Veterans with mental health symptoms at Wave 1 matched for health service use:



Changes in Anxiety Symptoms by Health Program Component Use

- Among Veterans with mental health symptoms in Wave 1 matched for Wave 1 health program use:
 - Physical ability programs with a mentor/coach decreased the number of days Veterans experienced anxiety symptoms
 - Adaptive sports programs with a mentor/coach for a veteran with a disability decreased number of days Veterans experienced anxiety symptoms
 - No other health programs (e.g., fitness programs, nutrition/weight management, stress/coping, PTSD) were significant in reducing anxiety or depressive symptoms



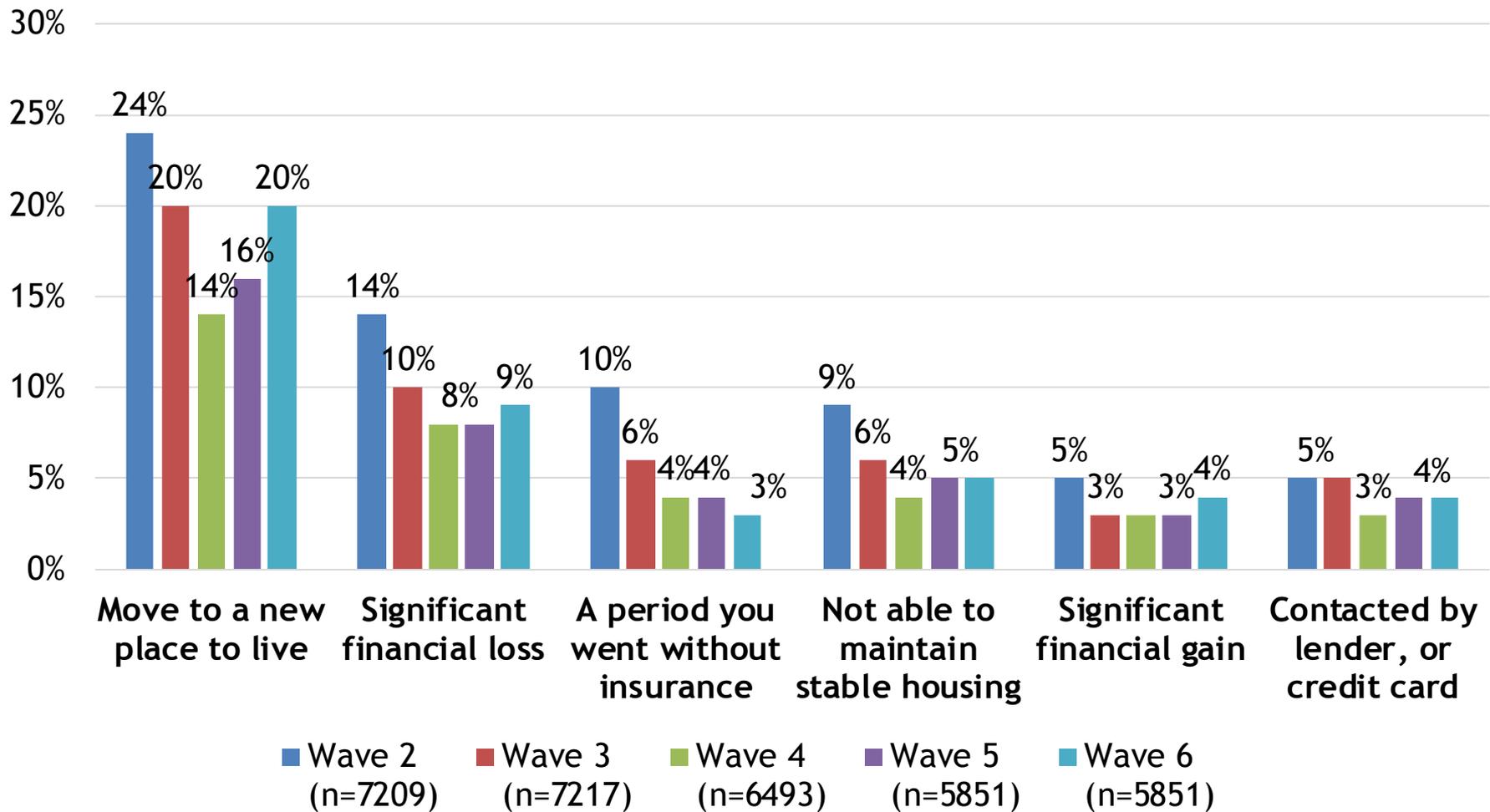
Changes in PTSD symptoms and Use of Counseling Services

- Among Veterans who displayed any mental health symptoms, 80% met criteria for probable PTSD based on a sum score of 3+ on PTSD screener (n=1,203 matched sample).
- 22% still met criteria at Wave 2
 - Among those who did not use counseling services for mental health (n=741), 18% met criteria for probable PTSD in Wave 2
 - Among those who used counseling services for mental health (n=461), 27% still met criteria for probable PTSD in Wave 2
- There was a change in PTSD measure in Wave 3, when 28% met the criteria for probable PTSD based on a score of 19+
 - 25% of those who did not use counseling services still met criteria for PTSD
 - Among those who used counseling services in Wave 1 for mental health (n=410), 33% still met criteria for probable PTSD symptoms in Wave 3*



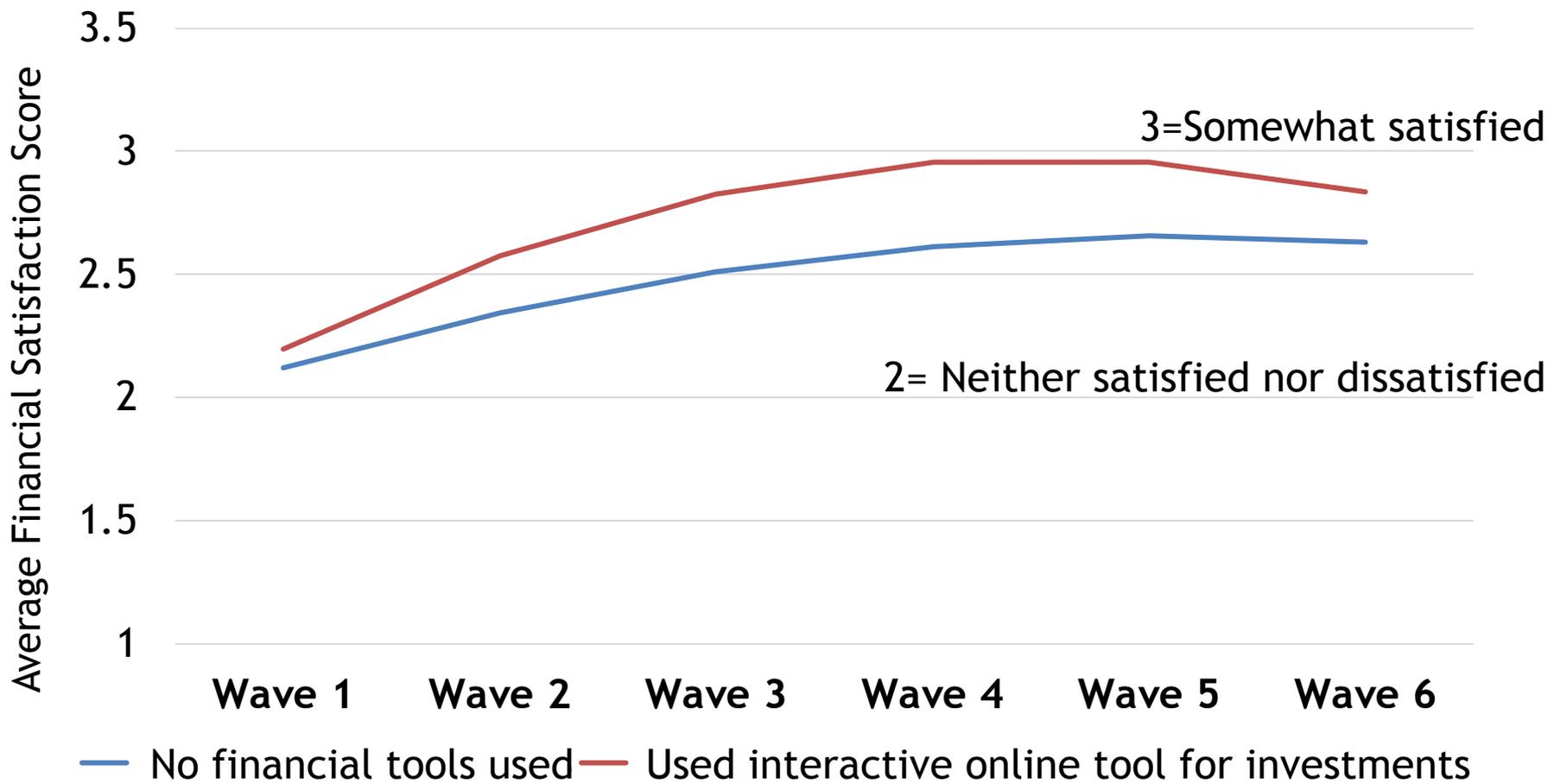
Changes in the Financial, Legal, and Housing Domain When Examining Components

Experiences of Financial Changes



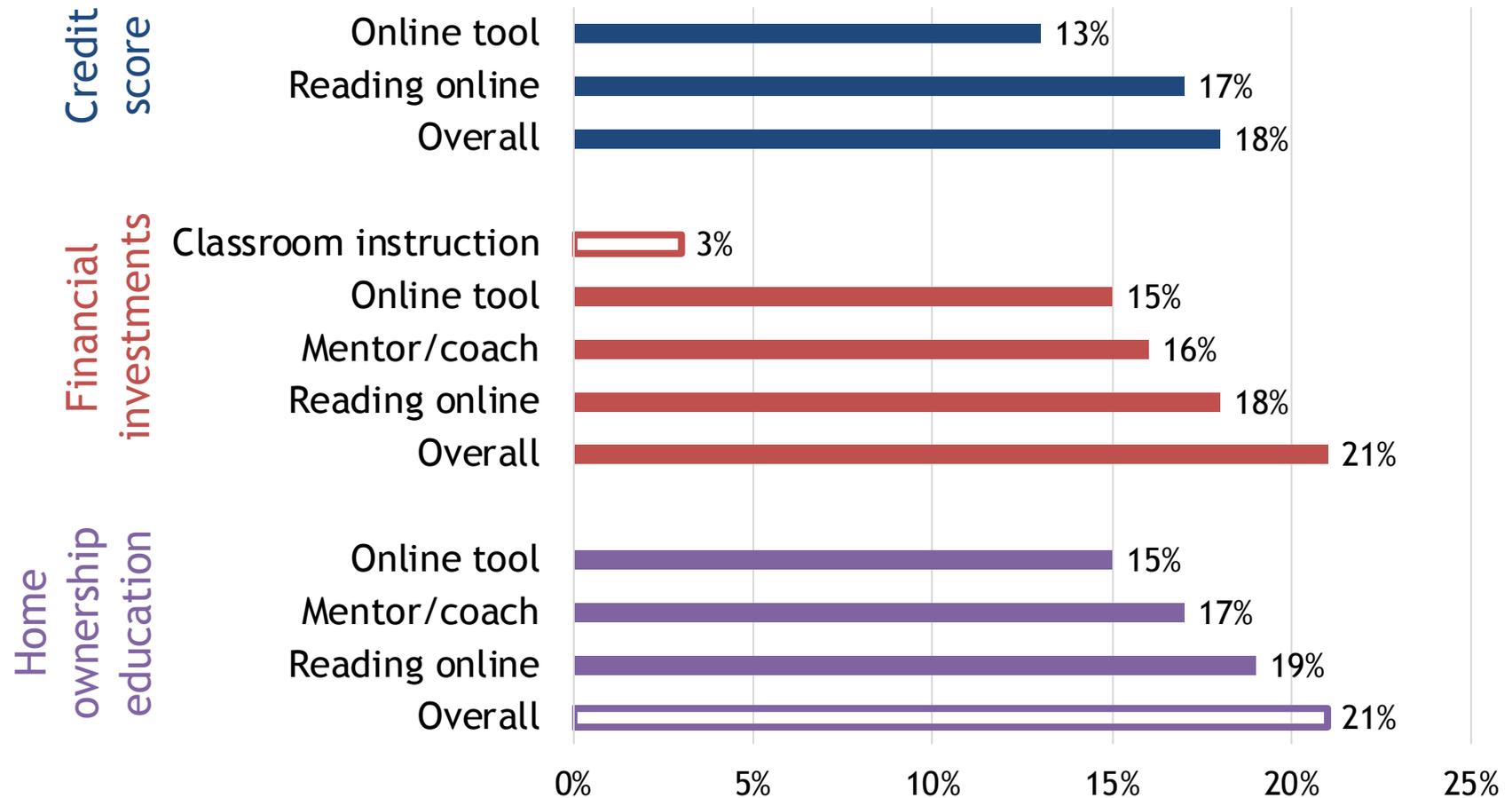
Financial Tools and Changes Financial Satisfaction from Wave 1 to Wave 6

Among Veterans who had *problematic* financial status:



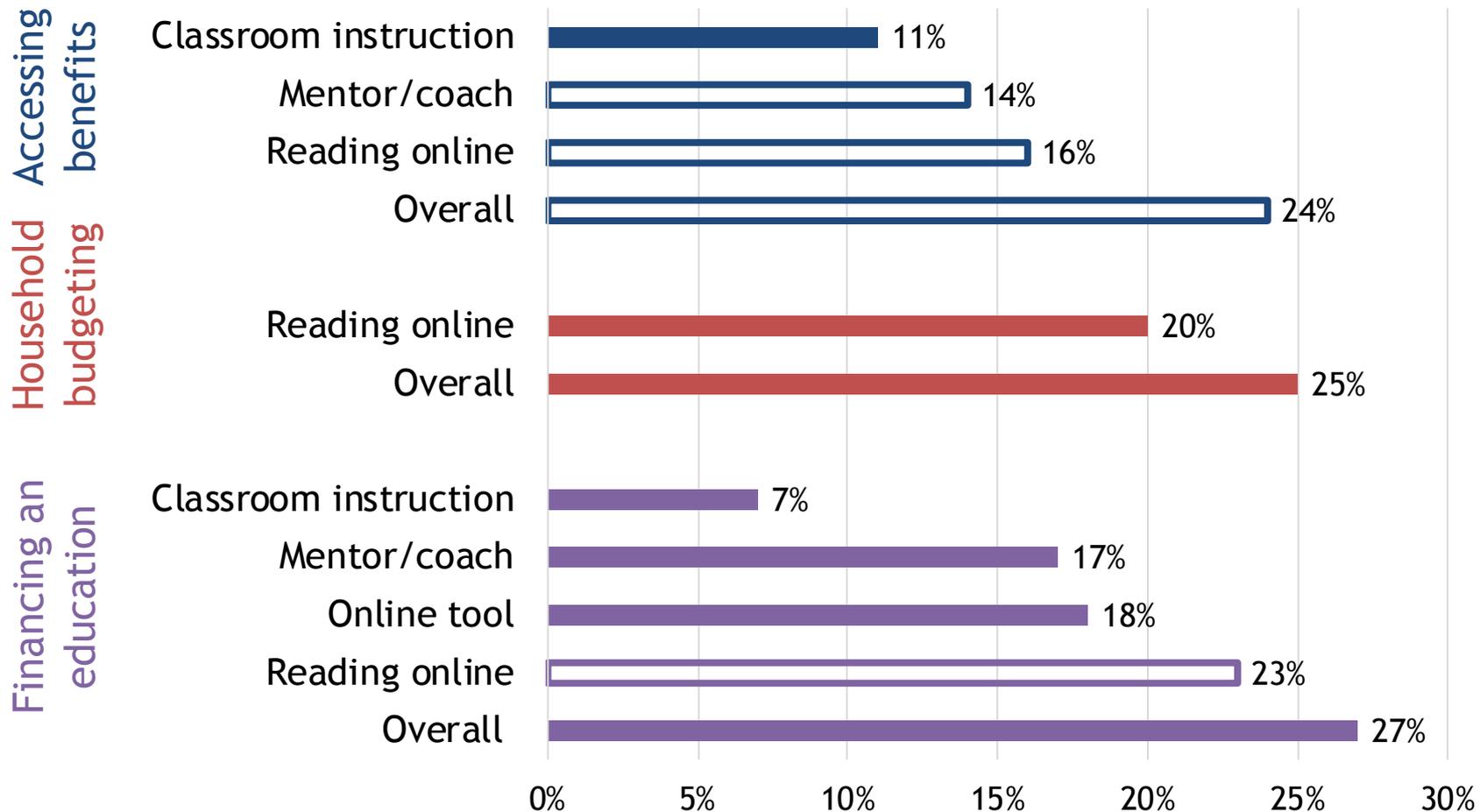
Financial Components Change Financial Satisfaction from Wave 1 to Wave 6

Among Veterans who had *problematic* financial status:



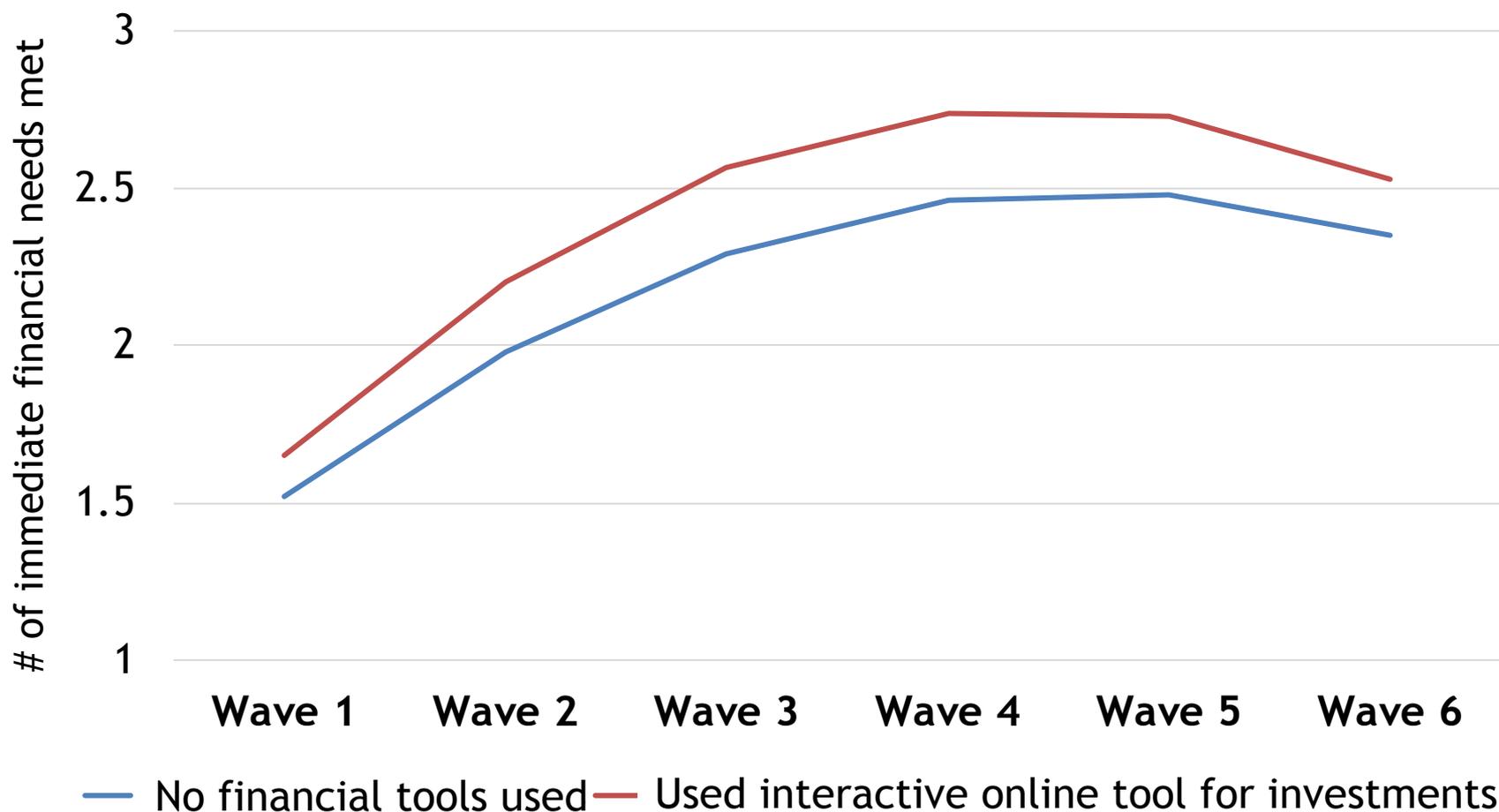
Financial Components Change Financial Satisfaction Wave 1 to Wave 6

Among Veterans who had *problematic* financial status:



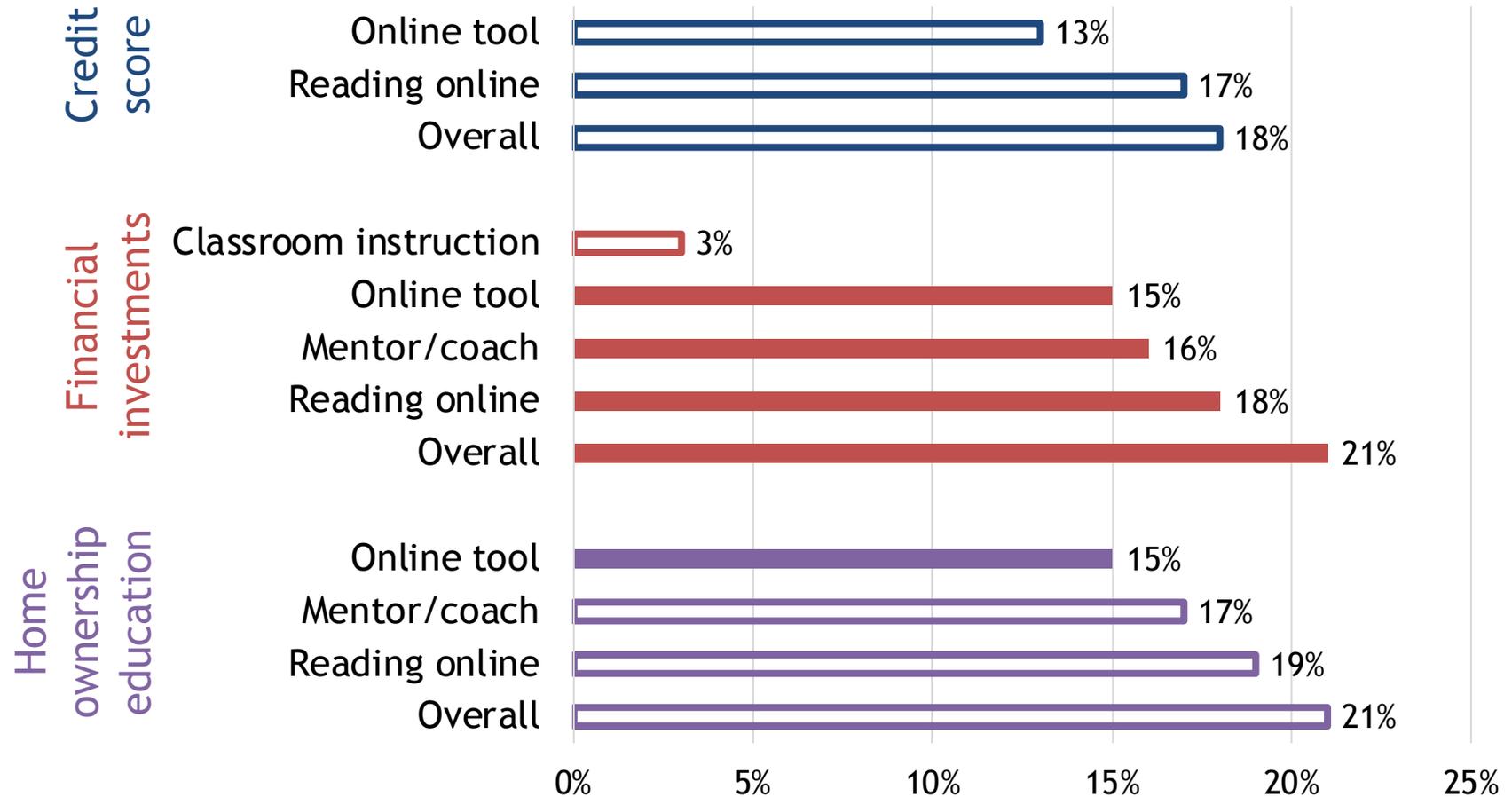
Financial Tool Use and Veterans' Ability to Pay for Immediate Financial Needs - W1 to W6

Among Veterans who had *problematic* financial status:



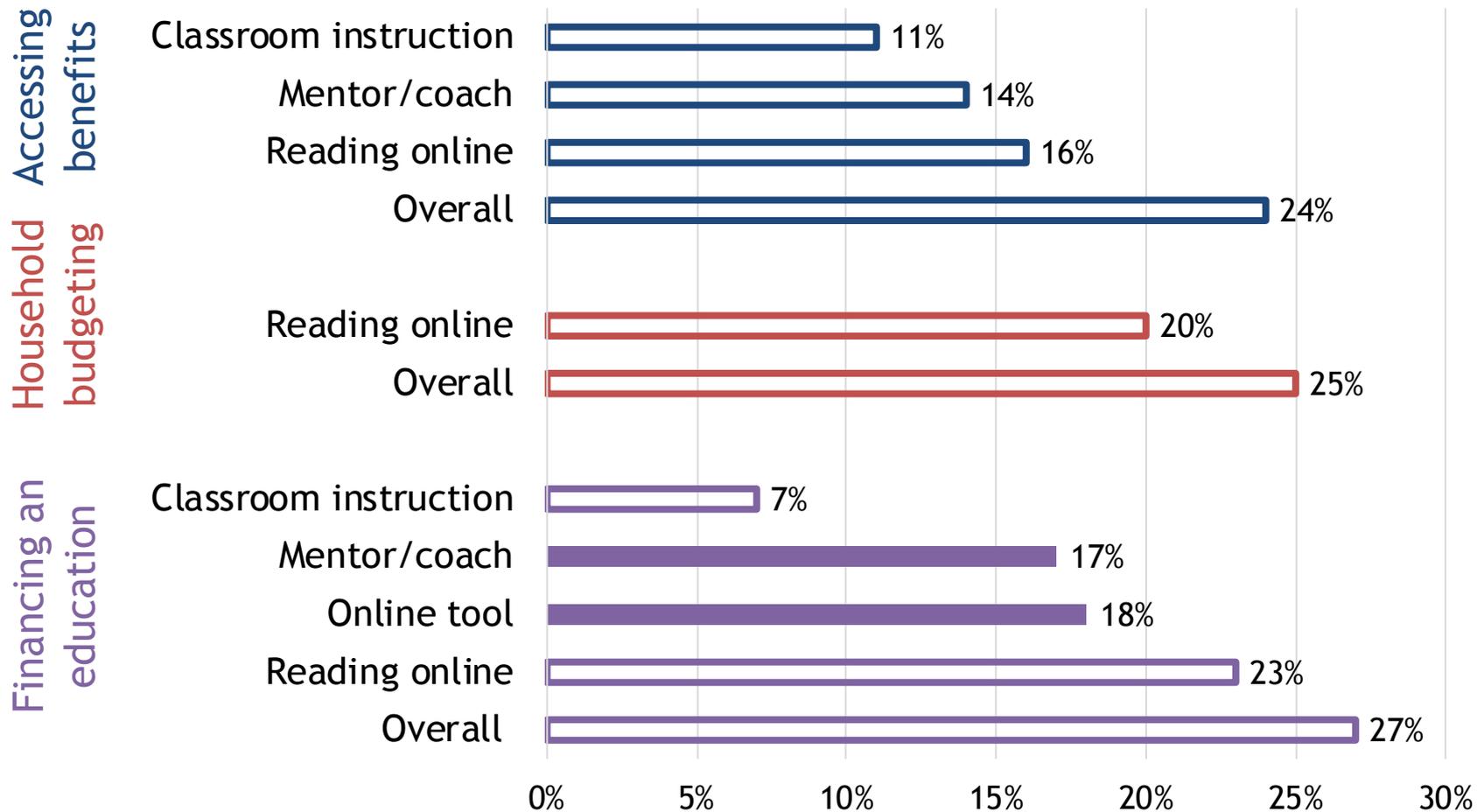
Financial Components and Veterans' Ability to Pay for Immediate Financial Needs - W1 to W6

Among Veterans who had *problematic* financial status:



Financial Components and Veterans' Ability to Pay for Immediate Financial Needs - W1 to W6

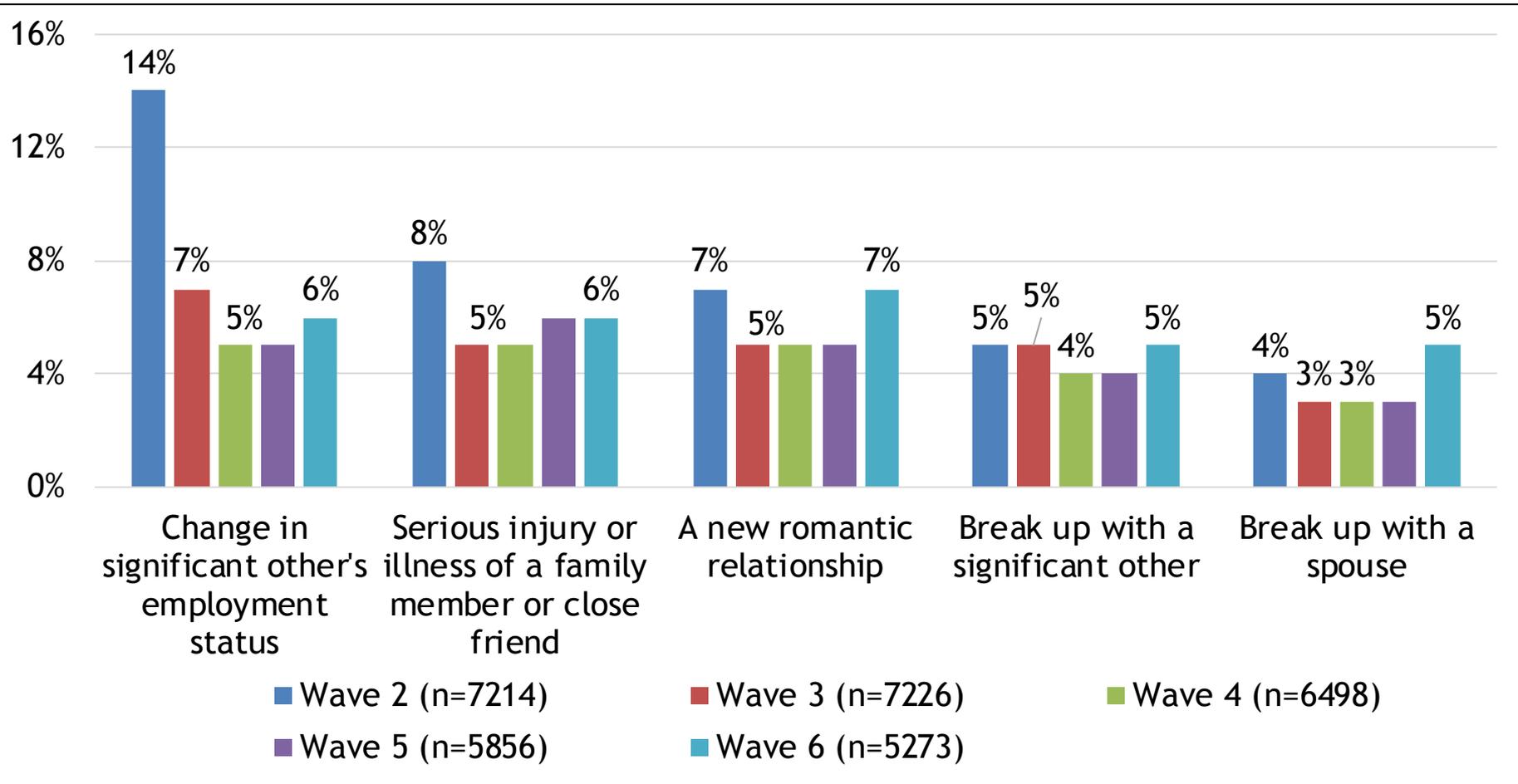
Among Veterans who had *problematic* financial status:



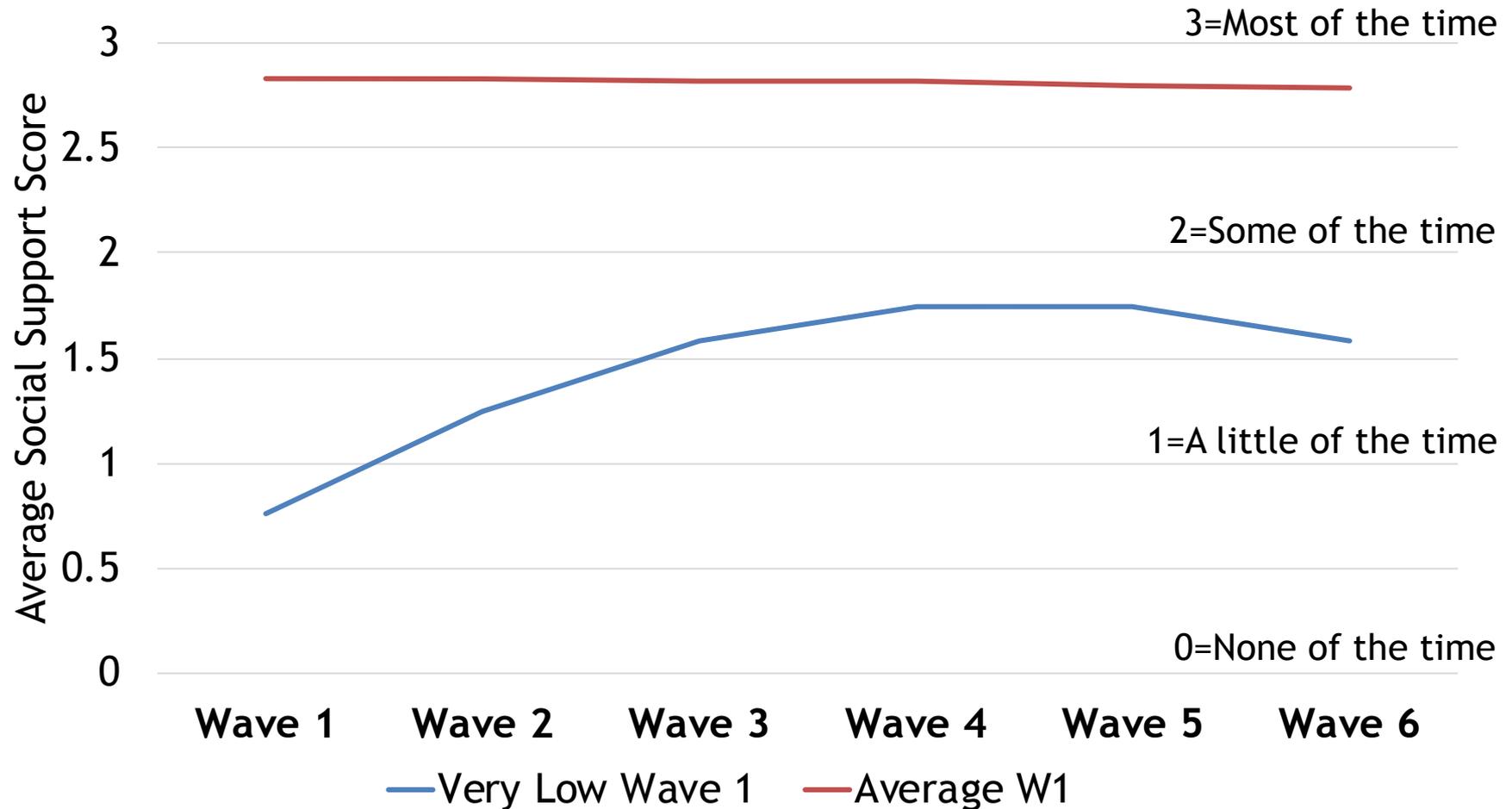


Social Relationships and Social Isolation When Examining Components

Experiences of Change in Social Relationships



Changes in Social Support Over Time



Correlates of Social Isolation

- Veterans with these attributes were more likely to be socially isolated at Wave 1:
 - Problematic financial status
 - Traumatic brain injury
 - PTSD symptoms
 - Probable depression



Social Isolation and Program Components

Among those Veterans who were socially isolated at Wave 1, using counseling services for mental health (at Wave 1) was not related to improvements in their feelings of social isolation at Wave 2.



Social Isolation and Program Components

Veterans who were socially isolated at Wave 1, but visited a Veterans Center at their school in Wave 1, were less likely to feel socially isolated at Wave 2.



Social Isolation and Program Components

- Veterans who were socially isolated at Wave 1 but:
- Participated in a religious or spiritual community at Wave 2 were less likely to feel socially isolated at Wave 2
 - Reported regularly participating in a community group that shares similar hobbies at Wave 2 were less likely to feel socially isolated at Wave 2.



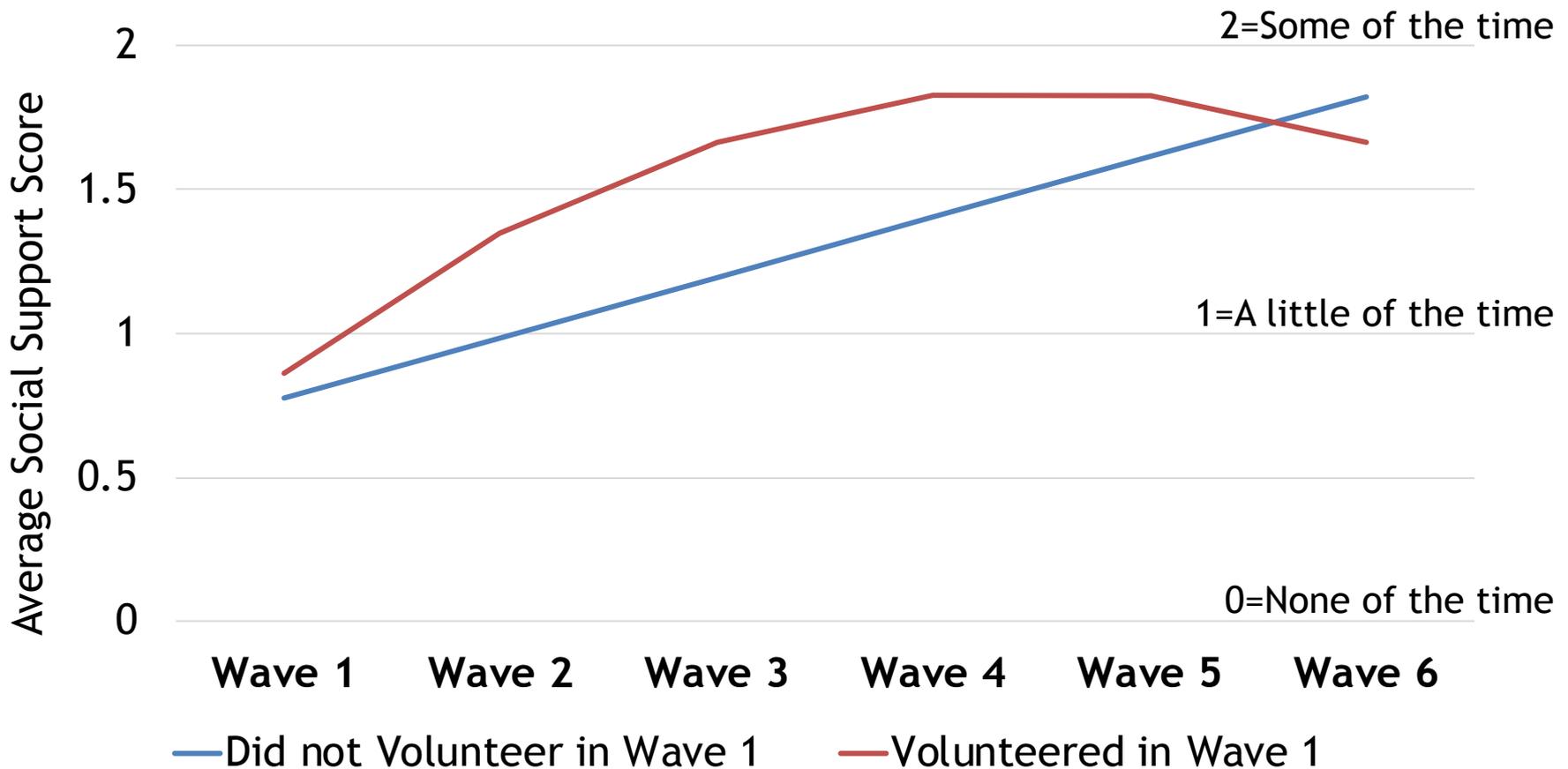
Social Isolation and Program Components

Veterans who were socially isolated at Wave 1 but reported volunteering in Wave 2 were less likely to feel socially isolated at Wave 2.



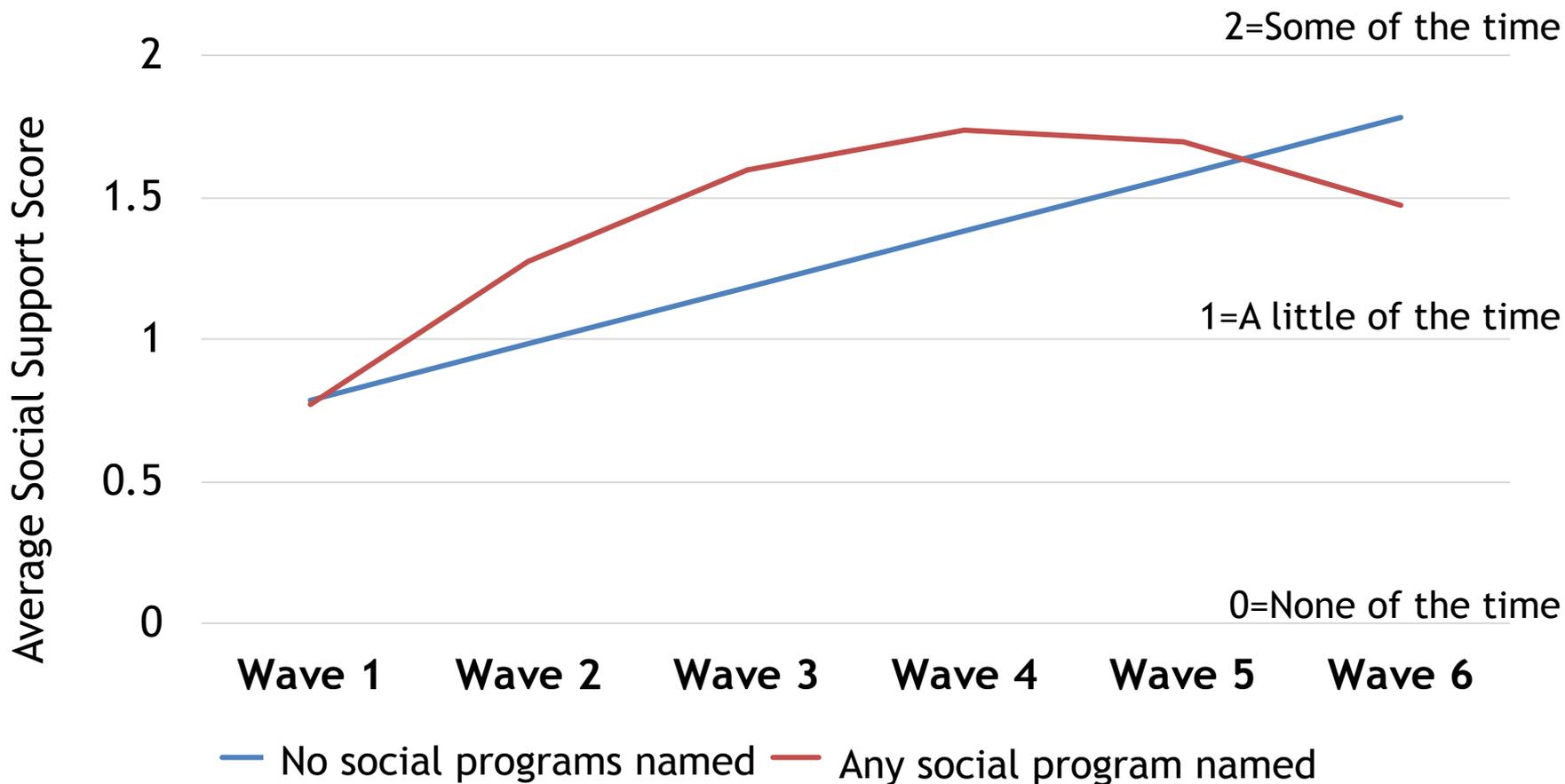
Social Support Volunteers to Non-Volunteers

Among those socially isolated at Wave 1 matched for volunteer activity:

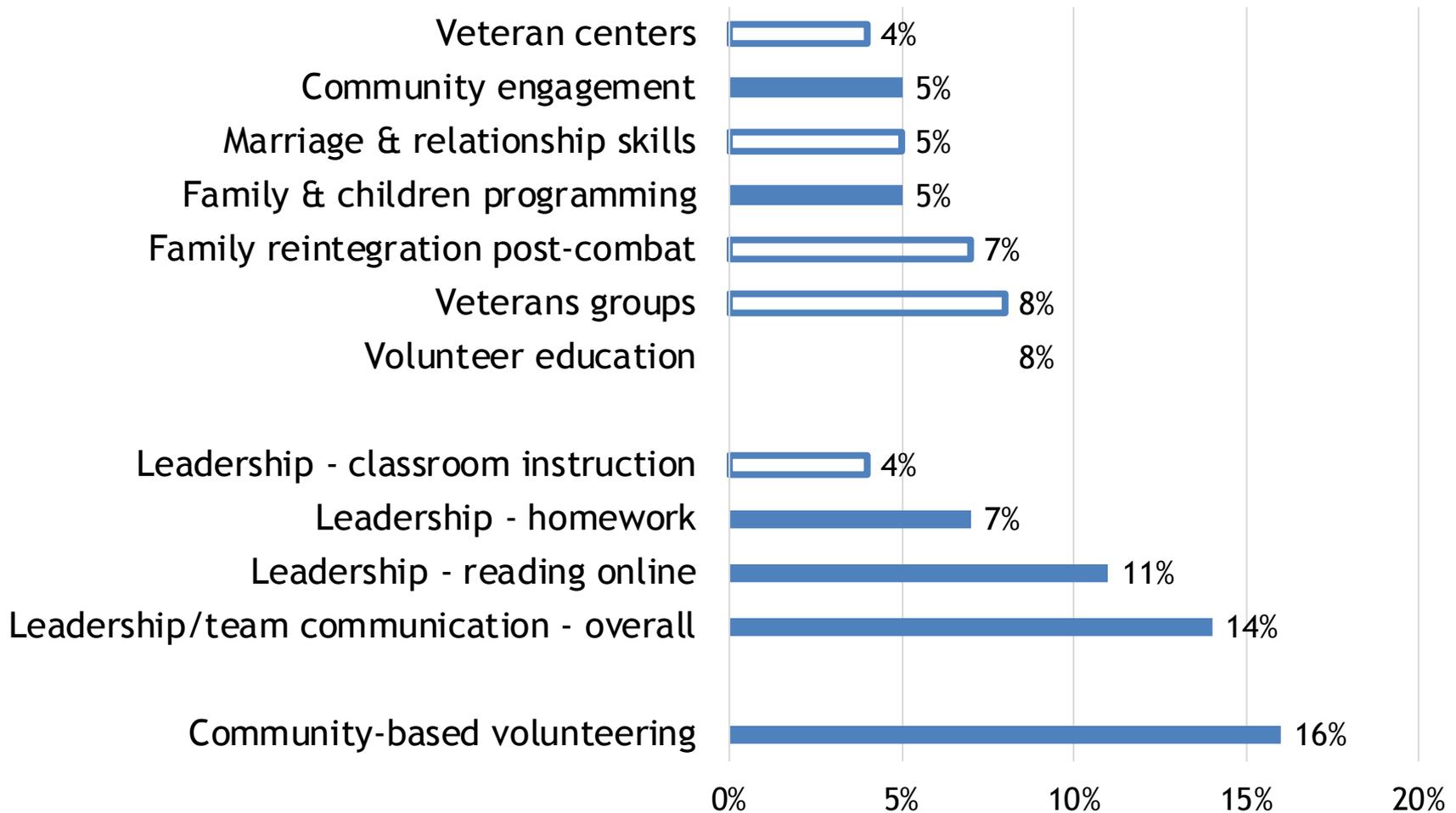


Matching Social Program Users to Non-Users

Among those socially isolated at Wave 1 matched for social program use:



Changes in Social Support - Components



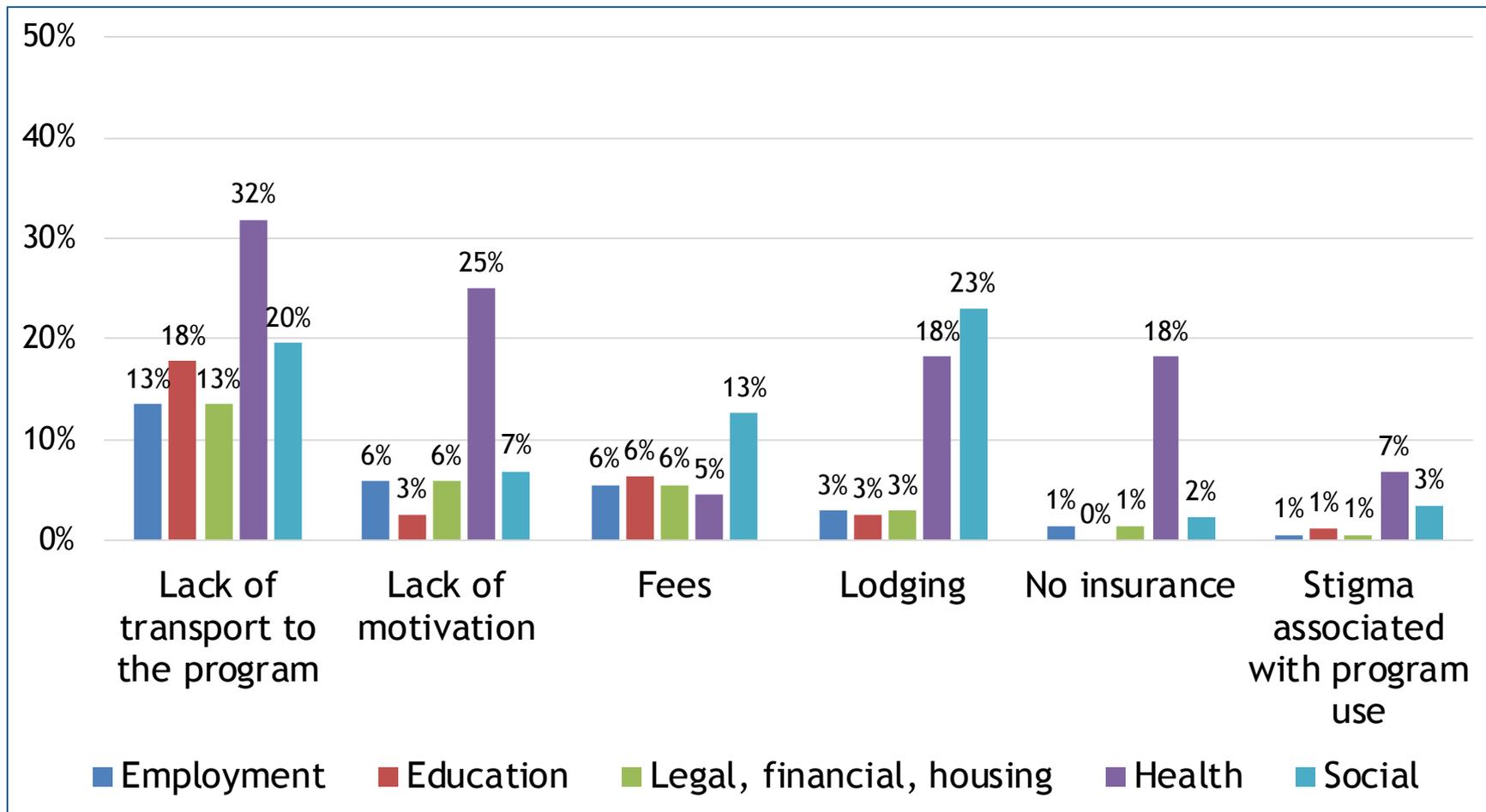
PennState



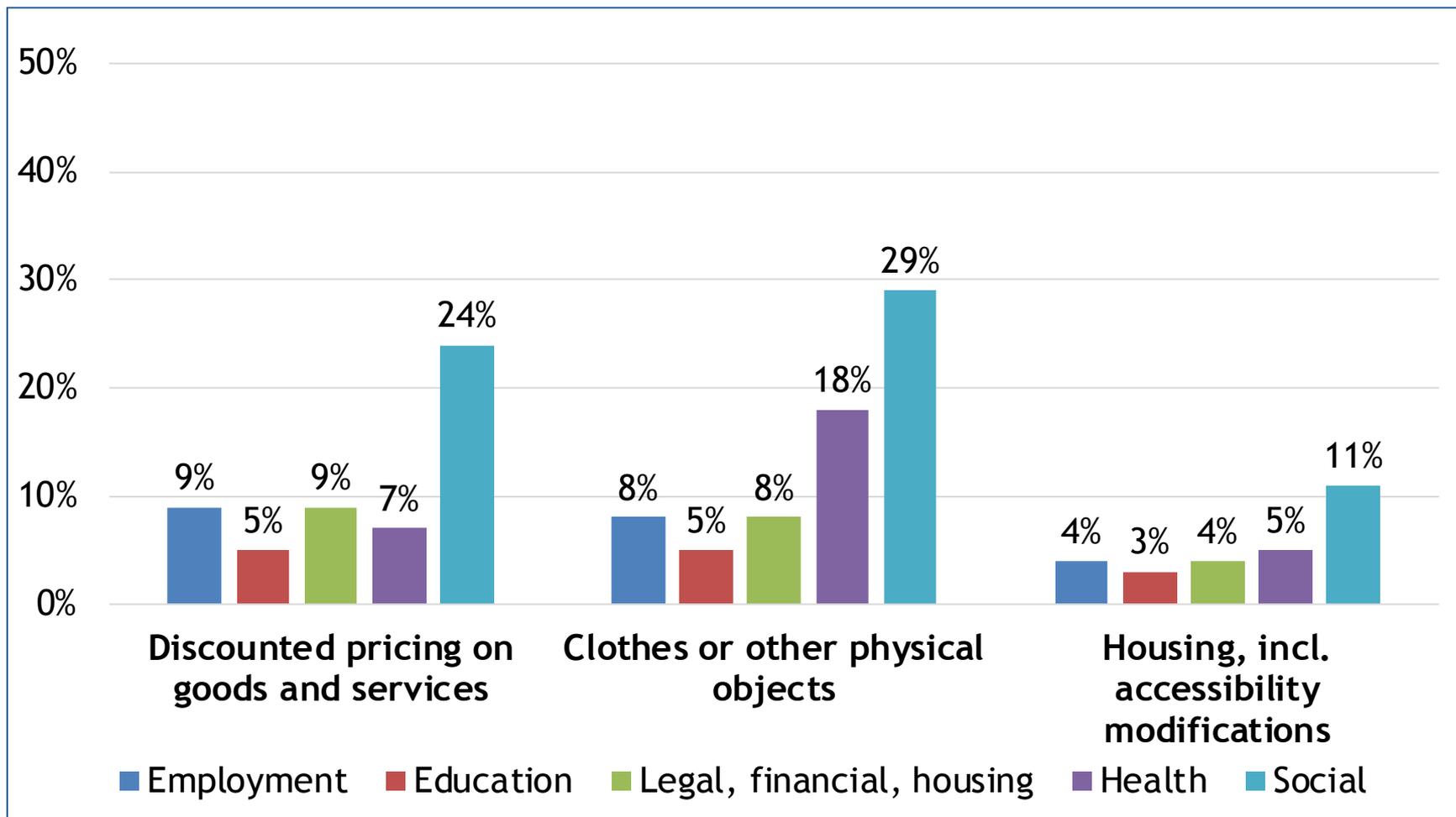
CLEARINGHOUSE
FOR MILITARY FAMILY READINESS

Cross-Domain Common Components

Components that Increase Program Access (W1)



Components that Provide Tangible Supports (W1)



Barrier Reduction: Access to Healthcare

Significant predictors of nominating a health program that offers transportation (n=708):

- Currently serving NGR after leaving Active Duty - less likely
- Discharge status - 69% more likely if medical discharge
- Those who have ever applied for VA or DoD service connected disability - almost 5 times more likely
- Probable PTSD - 39% more likely
- TBI symptoms - 2 times more likely



Sustainability Components (Ongoing Support to the Veteran After the Program Ends)

- Sustainability components in $\geq 10\%$ of programs in each domain:
 - Helpline** - health
 - Referrals** - employment, social relationships
 - Merchandising** - health, social relationships
 - Participant awards** - education, social relationships
 - Alumni organization** - social relationships
 - Ongoing coaching** - employment, legal/financial/housing, health, social relationships
 - Ongoing peer support** - social relationships
 - Caregiver support** - health

*It is not enough to be
busy. So are the ants.*

*The question is:
What are we busy
about?*



Henry David Thoreau

THANK YOU!

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