Welcome to the NGCP National Webinar

Participation in Structured and Unstructured Out-of-School-Time (OST) Activities

Tuesday, August 18, 2020

Please respond to the poll below:

NATIONAL GIRLS COLLABORATIVE PROJECT

National Girls Collaborative Project

ASTC Association of Science and Technology Centers

Afterschool Alliance

AccessSTEM

SciGirls

Google

STUDENT RESEARCH foundation

Vision

The National Girls Collaborative Project **brings together organizations** committed to informing and encouraging girls to pursue careers in science, technology, engineering, and mathematics (STEM).

NATIONAL GIRLS COLLABORATIVE PROJECT

NGCP Goals

1. **Maximize access** to shared resources within organizations interested in engaging girls in STEM.
2. **Strengthen the capacity** of programs by sharing exemplary practice research and program models.
3. **Use the leverage of a network** to achieve gender equity in STEM.

NATIONAL GIRLS COLLABORATIVE PROJECT

National Girls Collaborative Project

NGCP Activities

Virtually:

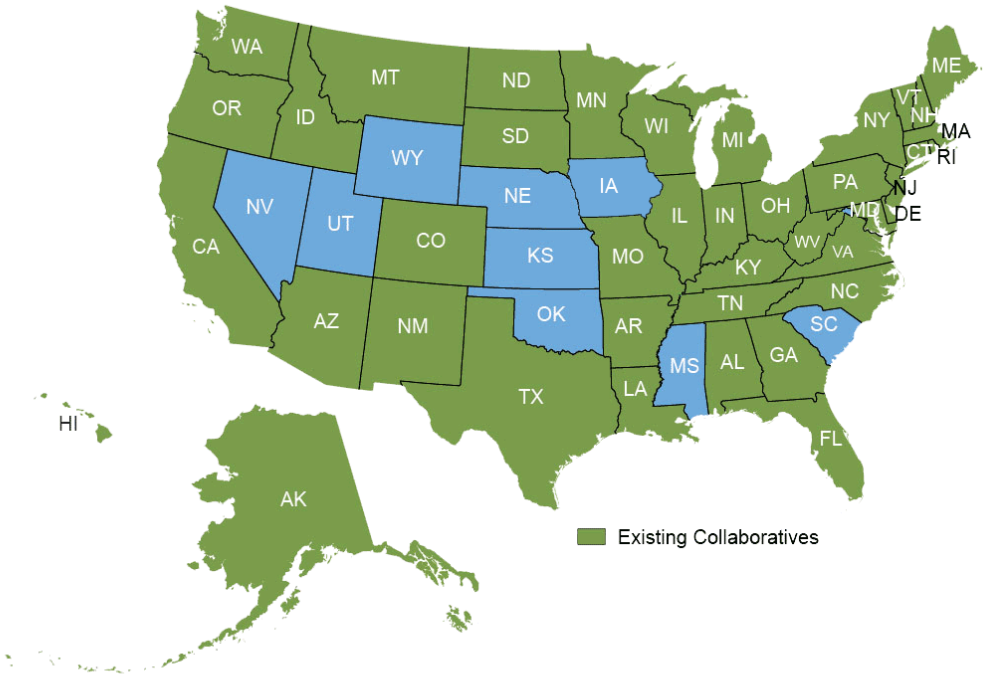
- Distribution and Content Projects
- ***The Connectory – Collaboration Tool***
- **FabFems – *Role Model Tool***
- E-Newsletter and Social Media
- Webinars – *Exemplary Practices*

Local Collaboratives:

- Professional Development: *Conferences and Forums*
- Incentives to Collaborate: *Mini-Grants*
- Newsletters and Local Resources

NATIONAL GIRLS COLLABORATIVE PROJECT

National Network of Collaborative Teams



NATIONAL GIRLS COLLABORATIVE PROJECT

National Girls Collaborative Project

CENTER FOR ASTROPHYSICS
HARVARD & SMITHSONIAN

Today's Presenters:

Dr. Susan Sunbury:
Educational Researcher
and Project Manager

Jacqueline Doyle:
Post-Doctoral Fellow

NATIONAL GIRLS COLLABORATIVE PROJECT

National Girls Collaborative Project

CENTER FOR ASTROPHYSICS
HARVARD & SMITHSONIAN

Who Does What, and When?

A look at relative participation rates in out-of-school time activities by gender and racial/ethnic group

Susan Sunbury, Ed.D. and Jacqueline Doyle, Ph.D.

August 18th, 2020

This is a toolkit

- We’re providing a starting point, and how to use the information we’ve collected
- Way more stuff here than we can go through all at once
- You’ll have the slides after the presentation to be able to go through at your leisure, approx. 90 extra slides

Female Representation in Out-of- School Time Science (FROSTS)

- Advance understanding of female representation in out-of-school time (OST) activities
- Identify and test the OST-related factors that are hypothesized to strengthen interest, identity and career interest in STEM, particularly for female students
- For this webinar, we will focus on advancing understanding of representation in OST activities, for both female students and students of different racial/ethnic groups.

Evaluating large-scale and long-term impacts of OST activities

- Evaluation efforts often:
  - occur on a program-by-program basis
  - have small numbers of subjects limiting statistical power
  - use measures of short-term student satisfaction
- Longitudinal studies can:
  - be expensive
  - take a long time

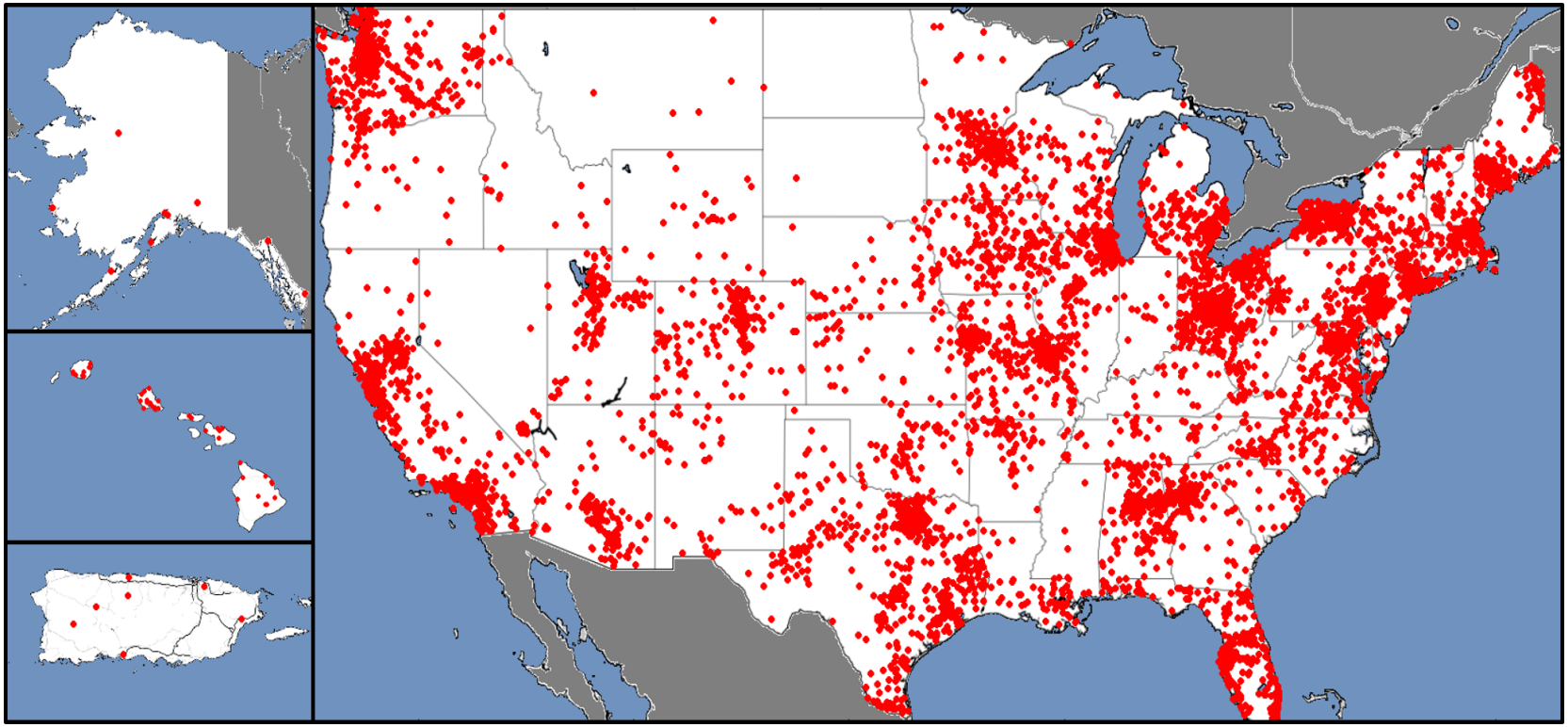
FROSTS
a retrospective cohort study

- Large scale - can obtain representative samples
- More generalizable than small-scale evaluations of specific programs
- Can test the strength of multiple hypotheses
- Can be completed in a short time frame

The FROSTS survey

- Asked students to recall earlier experiences
- Questions based on review of relevant literature, survey of stakeholders and survey students
- Survey pilot tested then sent to over 30,000 students in compulsory first-year courses (English/writing)
- Schools chosen from a stratified random sample of two-year and four-year community colleges and universities

Final nationally representative sample 15,725



Survey questions

- Comprehensive survey - 33 questions (20 minutes)
  - STEM interest
  - STEM identity
  - Career interest and motivation
  - **Participation in OST activities – structured and unstructured**
  - Subjects taken in school/grades/scores
  - Family interest and involvement in STEM
  - **Access and barriers to participation**
  - **Demographics**

Items about 'unstructured' activities

	If you participated in any of these activities, please mark how often and during which grades you participated					
	K-4		5-8		9-12	
	Sometimes	Often	Sometimes	Often	Sometimes	Often
Using tools to tinker with/take apart **mechanical** devices (e.g., bicycle, watch, door lock)	O	O	O	O	O	O
Using tools to tinker with/take apart **electrical** devices (e.g., hair dryer, hand mixer, TV, computer)	O	O	O	O	O	O
Baking/cooking/kitchen chemistry	O	O	O	O	O	O
Using science equipment (e.g., microscope, telescope)	O	O	O	O	O	O
Using STEM toys/kits (e.g.,building/construction sets, circuit boards, model rockets, science kits)	O	O	O	O	O	O

Items about ‘structured’ activities

	If you participated in any of these activities, please mark how often and in which grades you participated				This activity increased my interest in STEM
	5-8		9-12		
	Sometimes	Often	Sometimes	Often	Mark if yes
STEM-related extracurricular clubs/teams at school	O	O	O	O	O
STEM-related clubs/teams outside of school	O	O	O	O	O
Group organization (e.g., Girl Scouts, Boy Scouts, 4H)	O	O	O	O	O
Maker/DIY STEM activities/events	O	O	O	O	O
Overnight STEM programs (museums, science centers etc.)	O	O	O	O	O

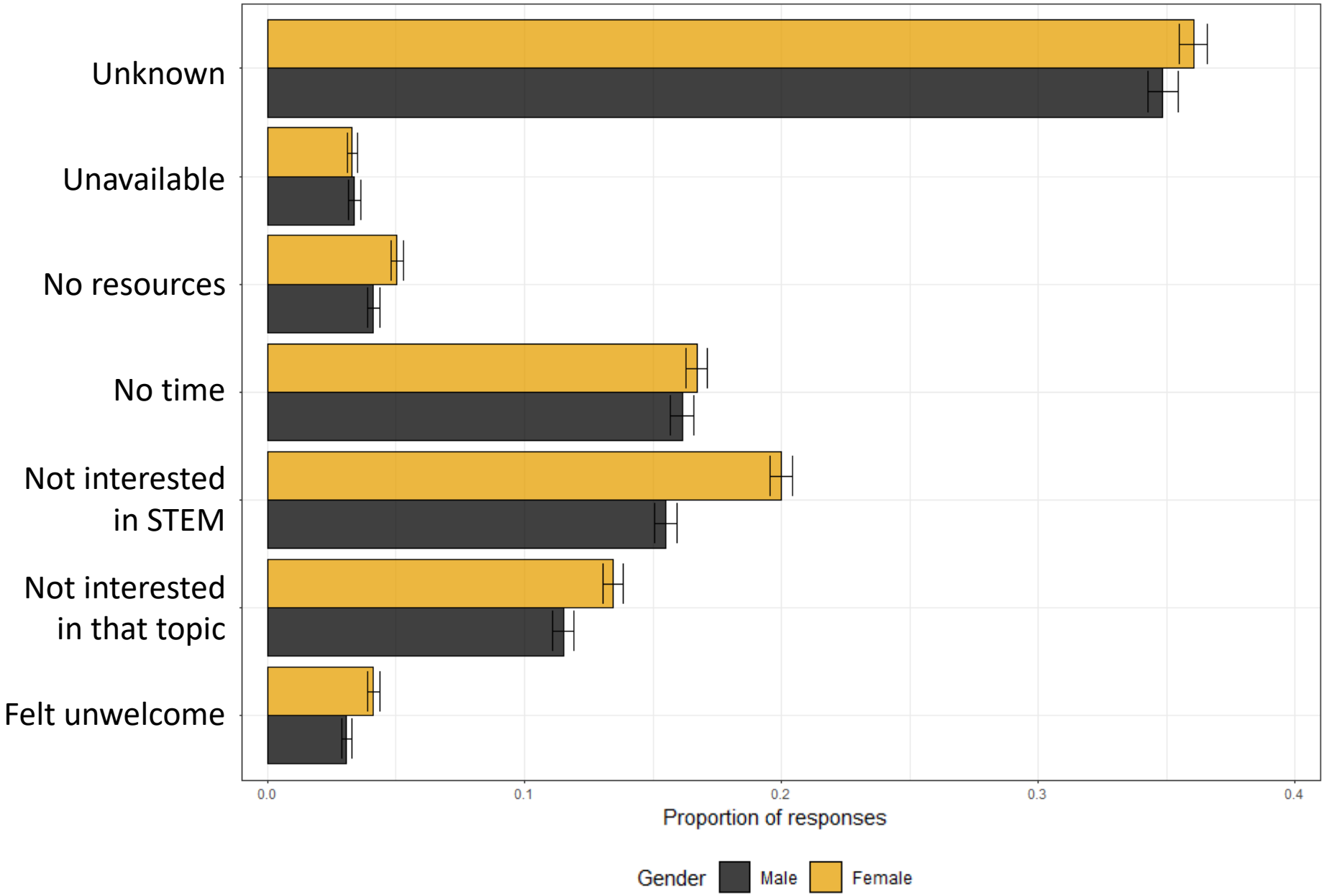
Items about opportunities within STEM activities

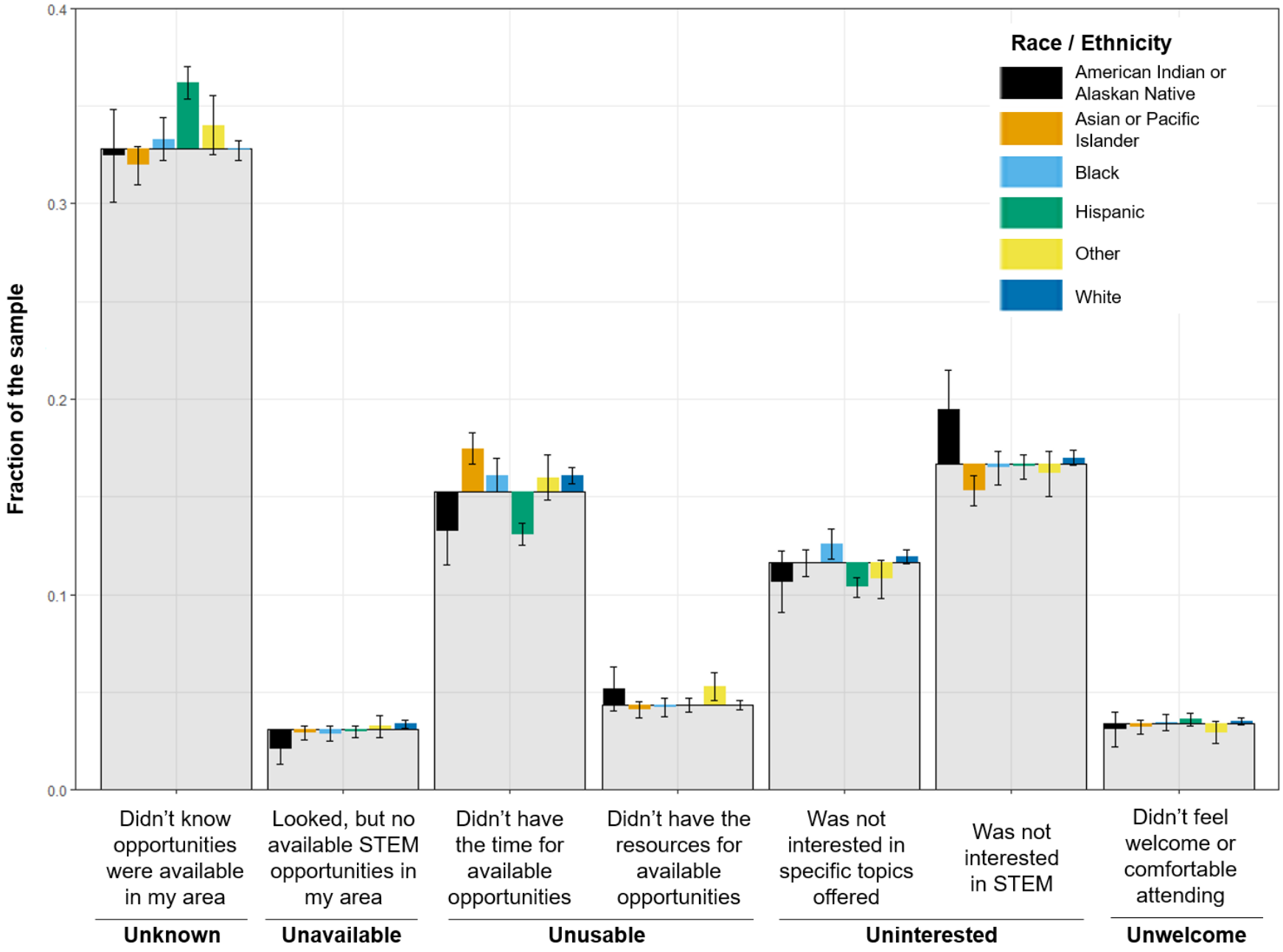
	I experienced this STEM opportunity	This opportunity increased my interest in STEM	This opportunity showed the real-life relevance of STEM
	Mark if yes	Mark if yes	Mark if yes
Interacting with a STEM mentor	O	O	O
Interacting with a STEM role model	O	O	O
Taking on a leadership role	O	O	O
Participating in hands-on STEM activities	O	O	O
Using STEM equipment to collect data	O	O	O
Learning about STEM careers	O	O	O

Items about barriers to involvement

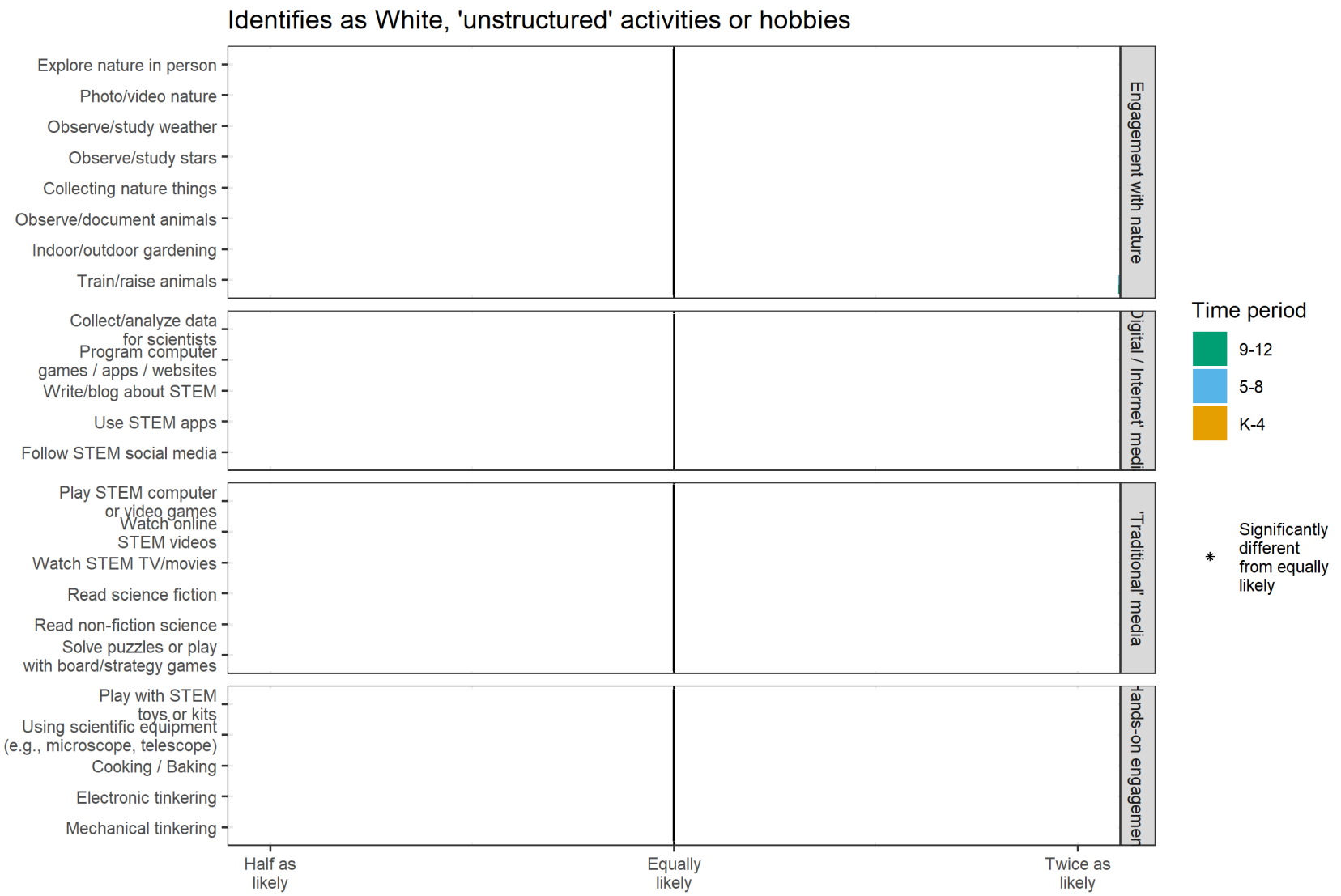
Q20. If you did NOT attend any STEM programs/activities outside of school, please indicate why. *Mark all that apply*.

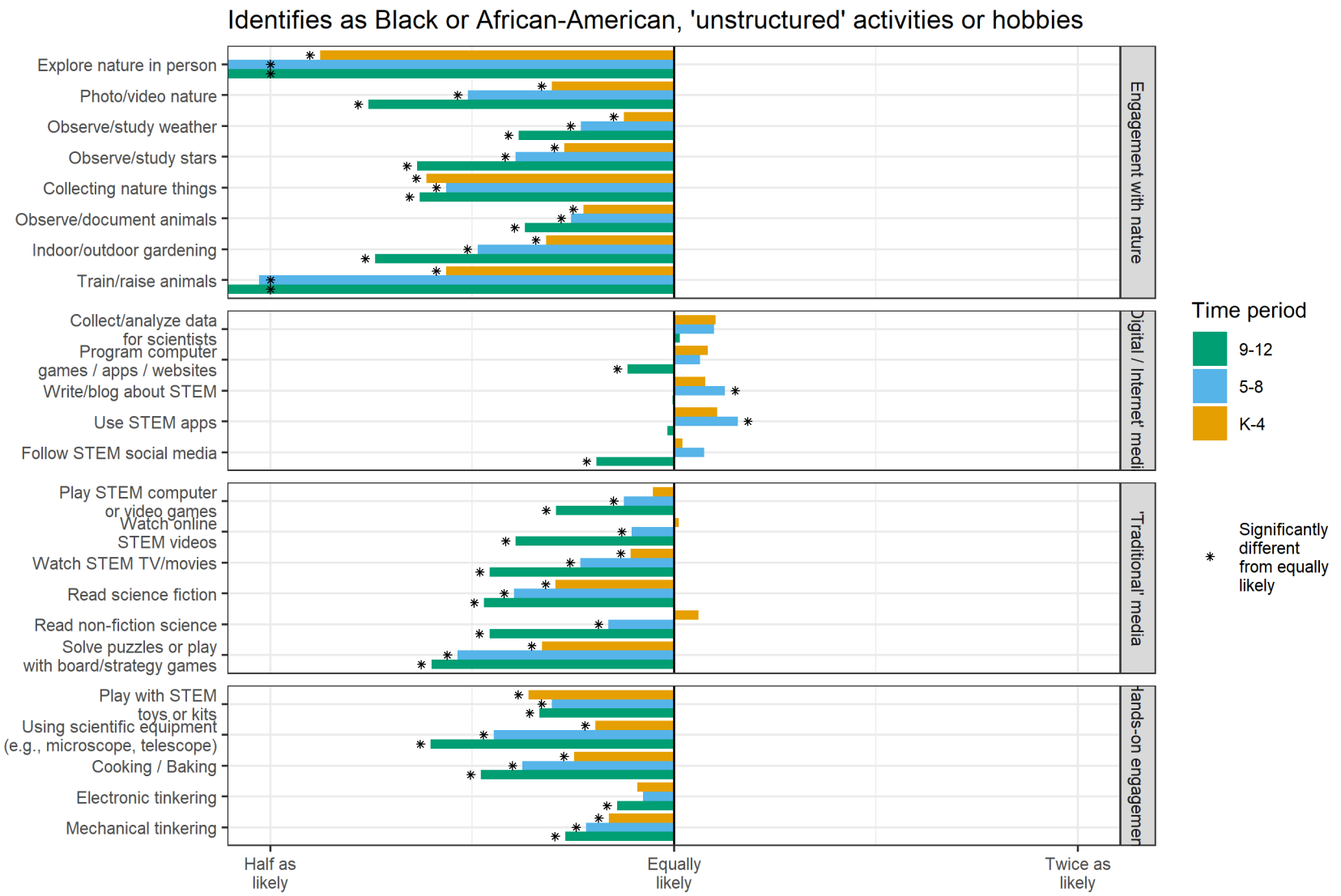
❑ I didn't know STEM opportunities were available in my area	Unknown
❑ I looked, but there were no STEM opportunities available in my area	Unavailable
❑ STEM opportunities were available but I didn't have the time (other commitments: work/home/other activities) to attend	No time
❑ STEM opportunities were available but I didn't have the resources (transportation/finances) to attend	No resources
❑ STEM opportunities were available but I was not interested in the specific topics offered	Not interested in that topic
❑ STEM opportunities were available but I was not interested in STEM	Not interested in STEM
❑ STEM opportunities were available but I didn't feel welcome/comfortable attending	Felt unwelcome


Unknown
Unavailable
No resources
No time
Not interested in STEM
Not interested in that topic
Felt unwelcome
0.0
0.1
0.2
0.3
0.4
Proportion of responses
Gender
Male
Female



CENTER FOR ASTROPHYSICS
HARVARD & SMITHSONIAN


Identifies as White, 'unstructured' activities or hobbies
Explore nature in person
Photo/video nature
Observe/study weather
Observe/study stars
Collecting nature things
Observe/document animals
Indoor/outdoor gardening
Train/raise animals
Engagement with nature
Collect/analyze data for scientists
Program computer games / apps / websites
Write/blog about STEM
Use STEM apps
Follow STEM social media
Digital / Internet' medi
Play STEM computer or video games
Watch online STEM videos
Watch STEM TV/movies
Read science fiction
Read non-fiction science
Solve puzzles or play with board/strategy games
'Traditional' media
Play with STEM toys or kits
Using scientific equipment (e.g., microscope, telescope)
Cooking / Baking
Electronic tinkering
Mechanical tinkering
Hands-on engagemer
Half as likely
Equally likely
Twice as likely
Time period
9-12
5-8
K-4
* Significantly different from equally likely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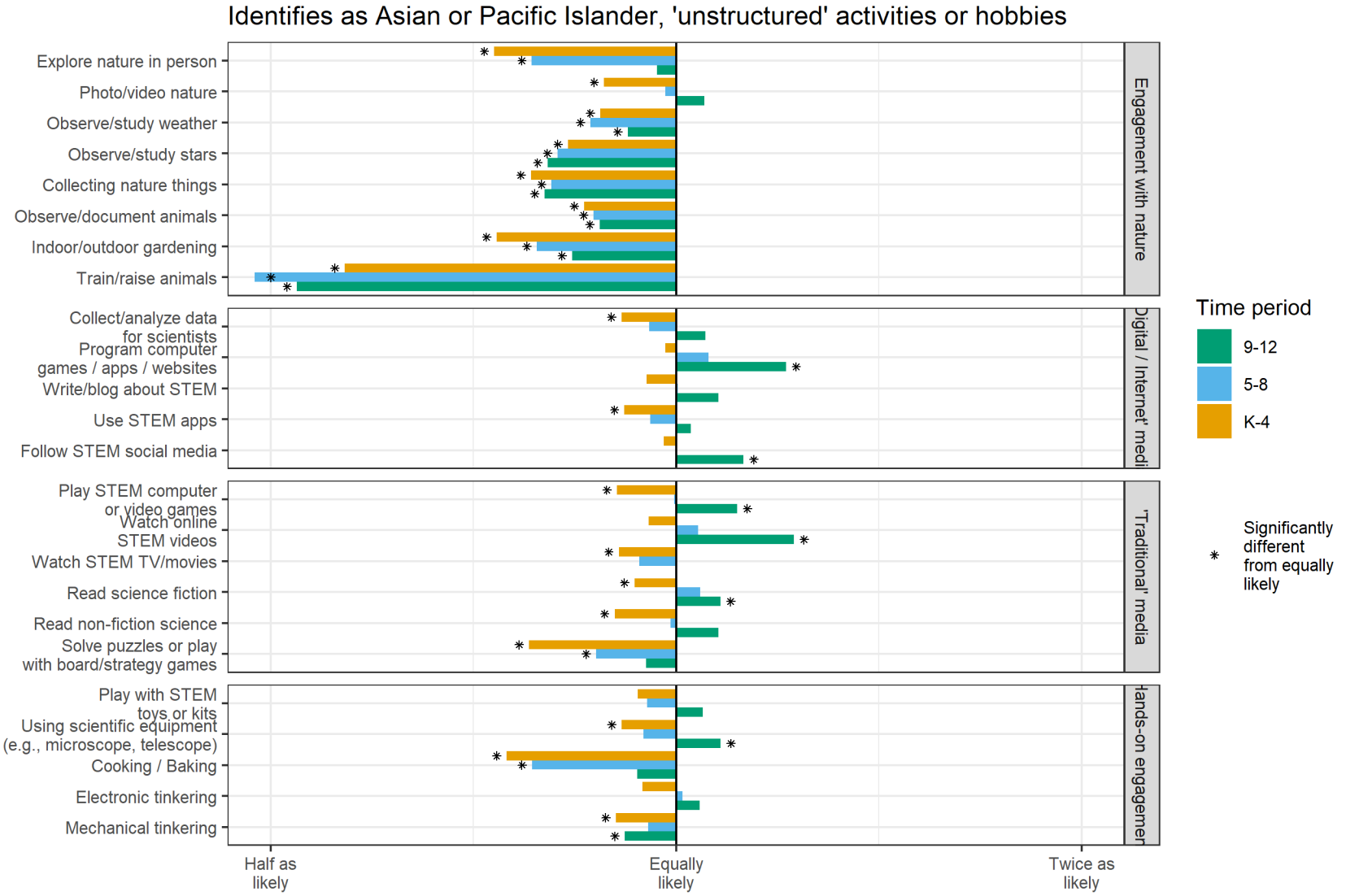
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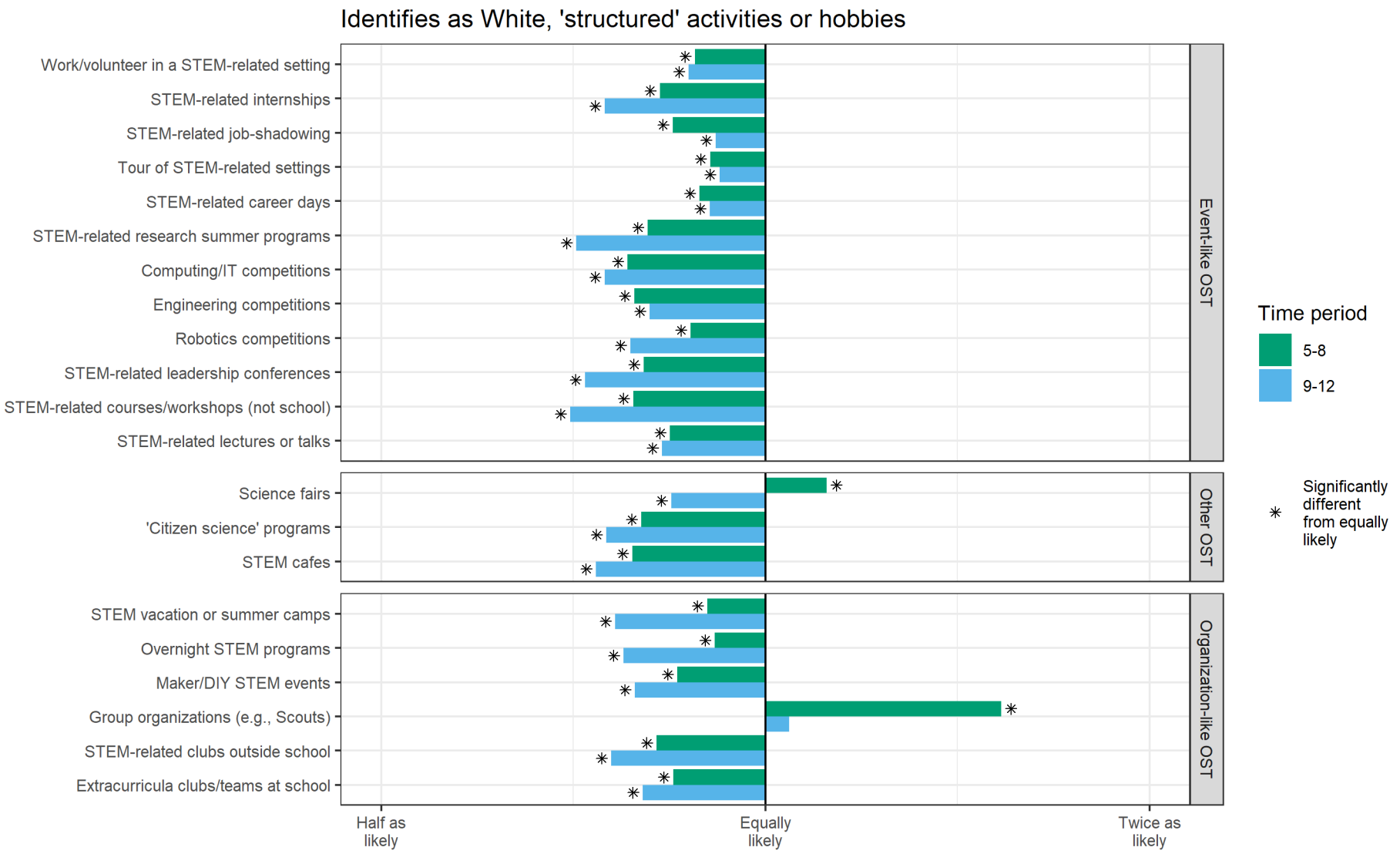
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STEM-related lectures or talks
Science fairs
'Citizen science' programs
STEM cafes
STEM vacation or summer camps
Overnight STEM programs
Maker/DIY STEM events
Group organizations (e.g., Scouts)
STEM-related clubs outside school
Extracurricula clubs/teams at school
Event-like OST
Other OST
Organization-like OST
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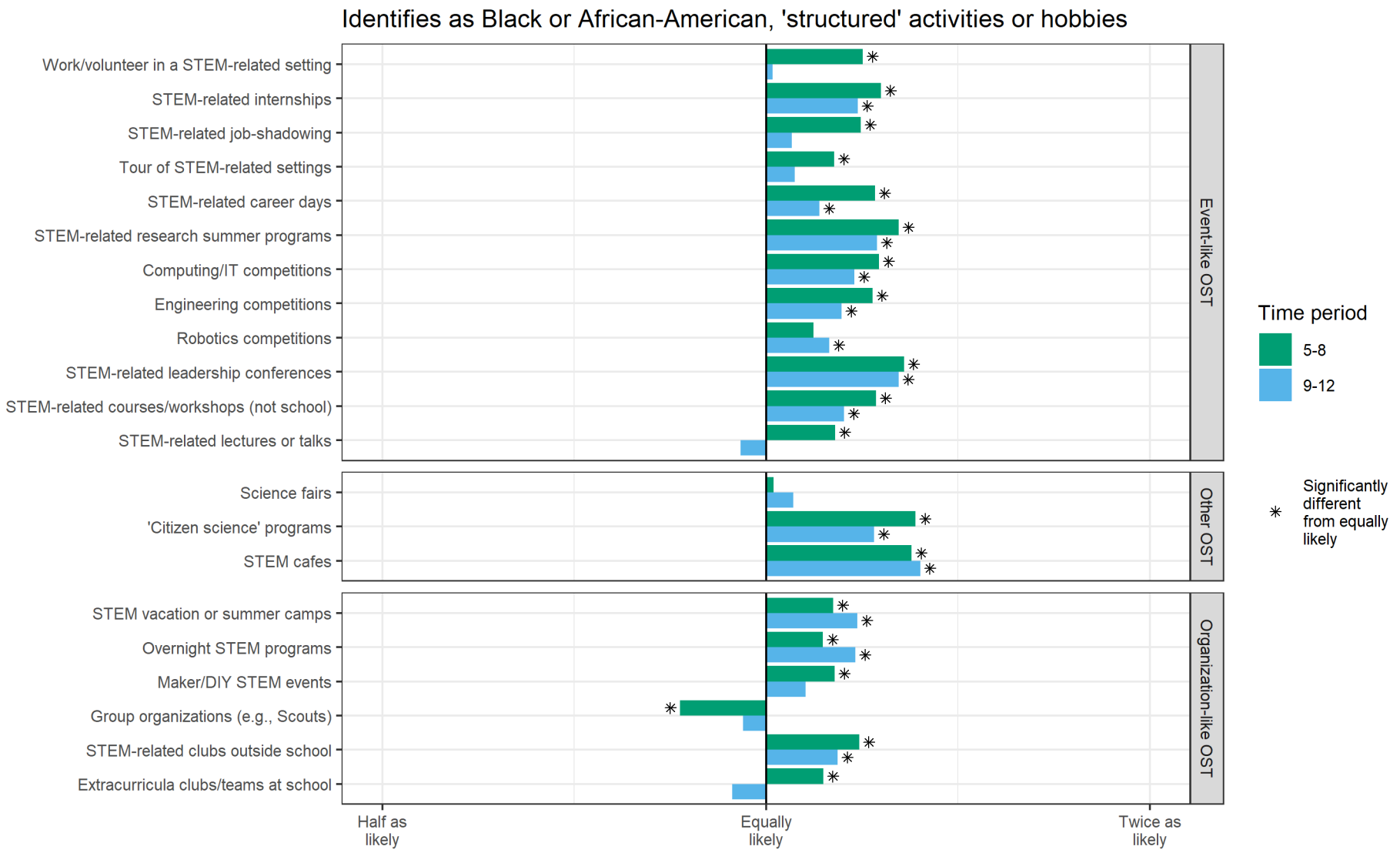
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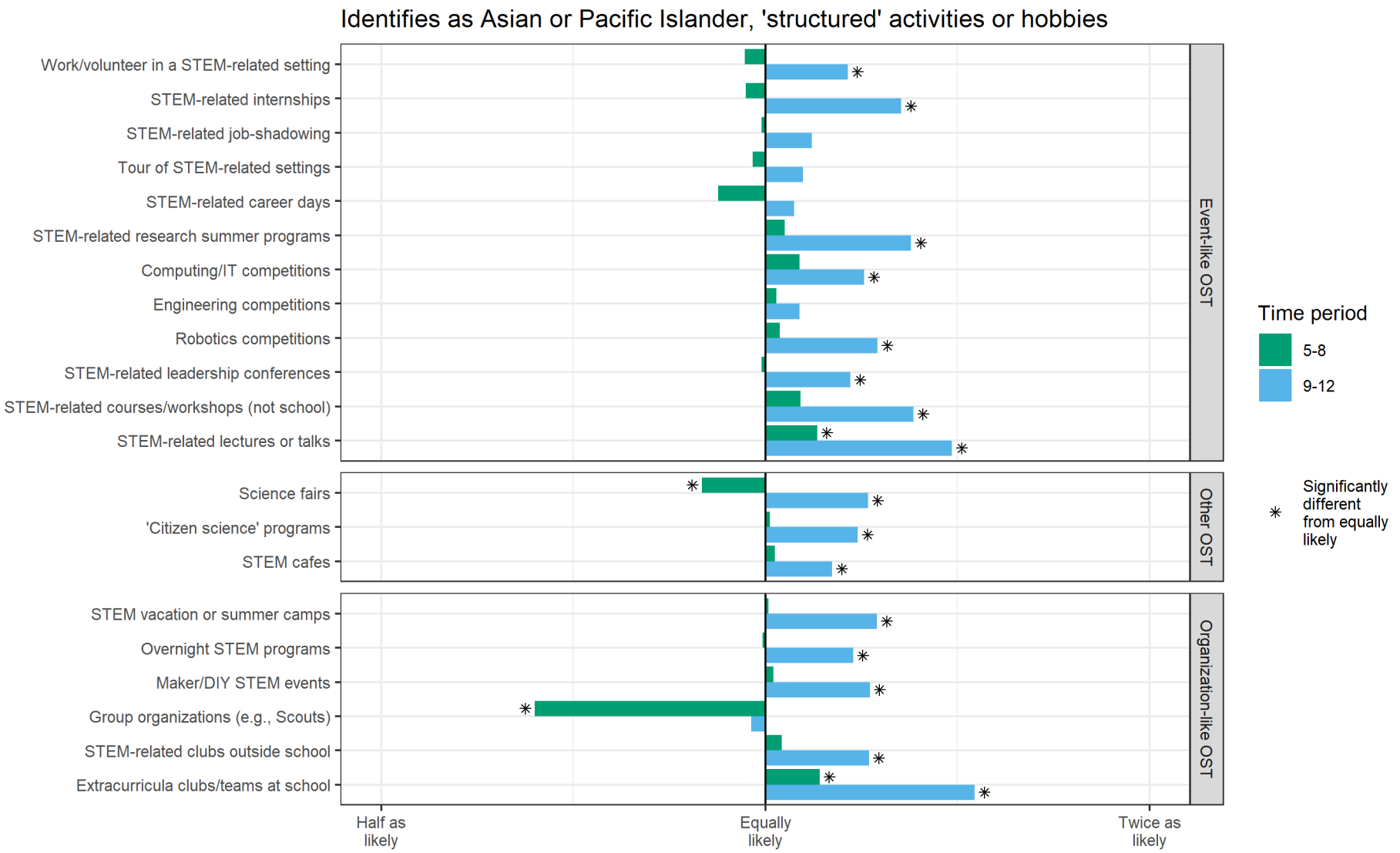
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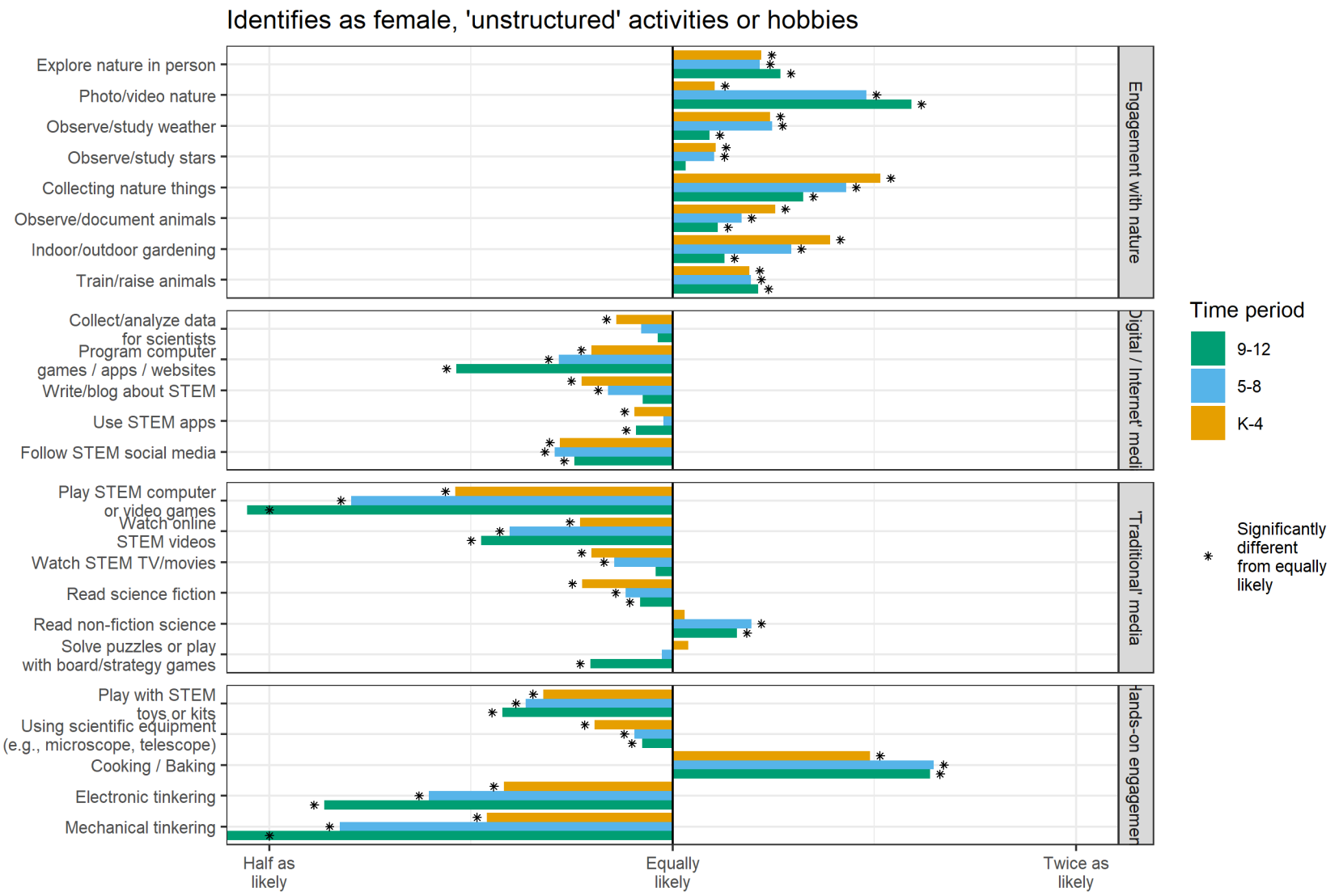
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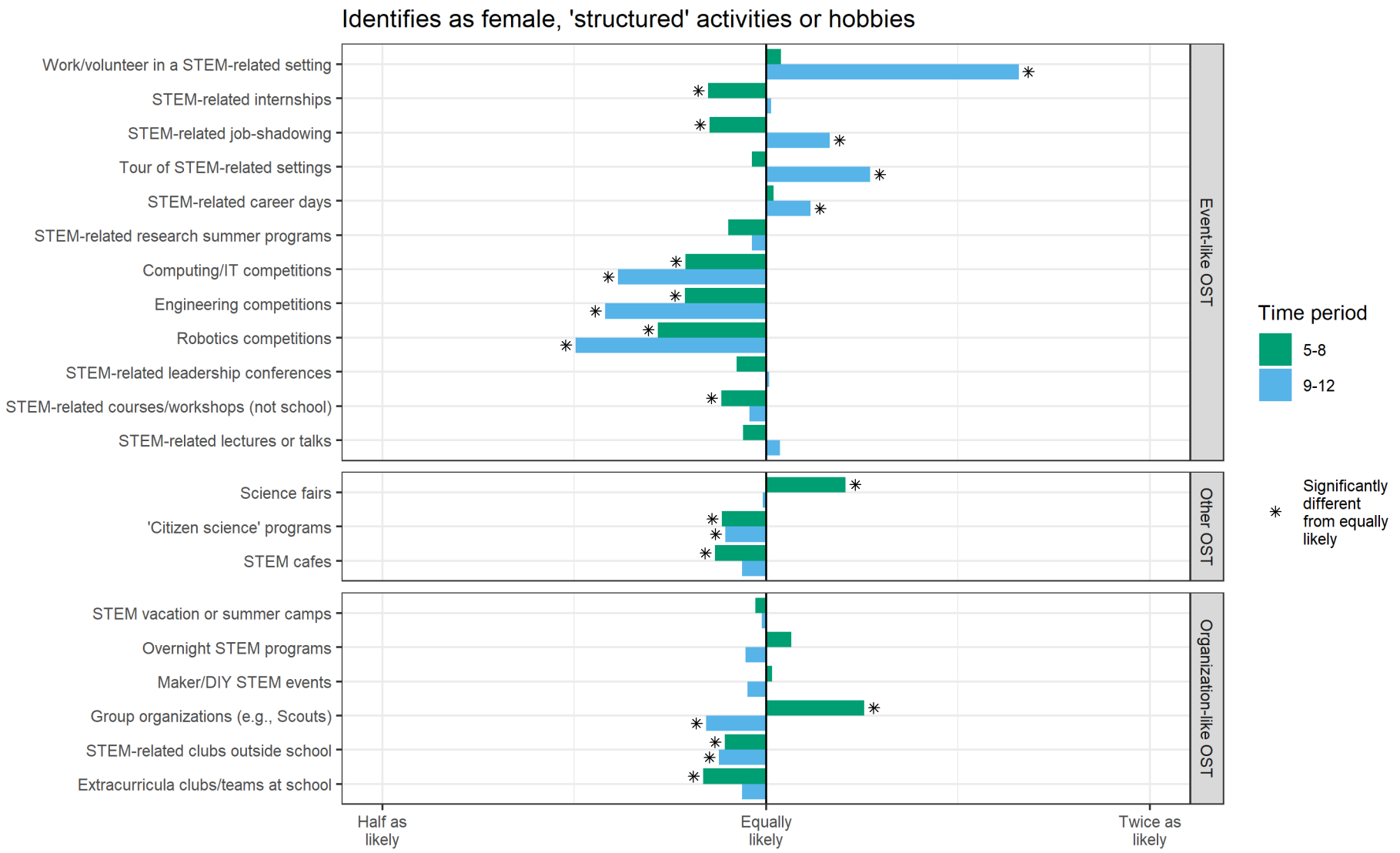
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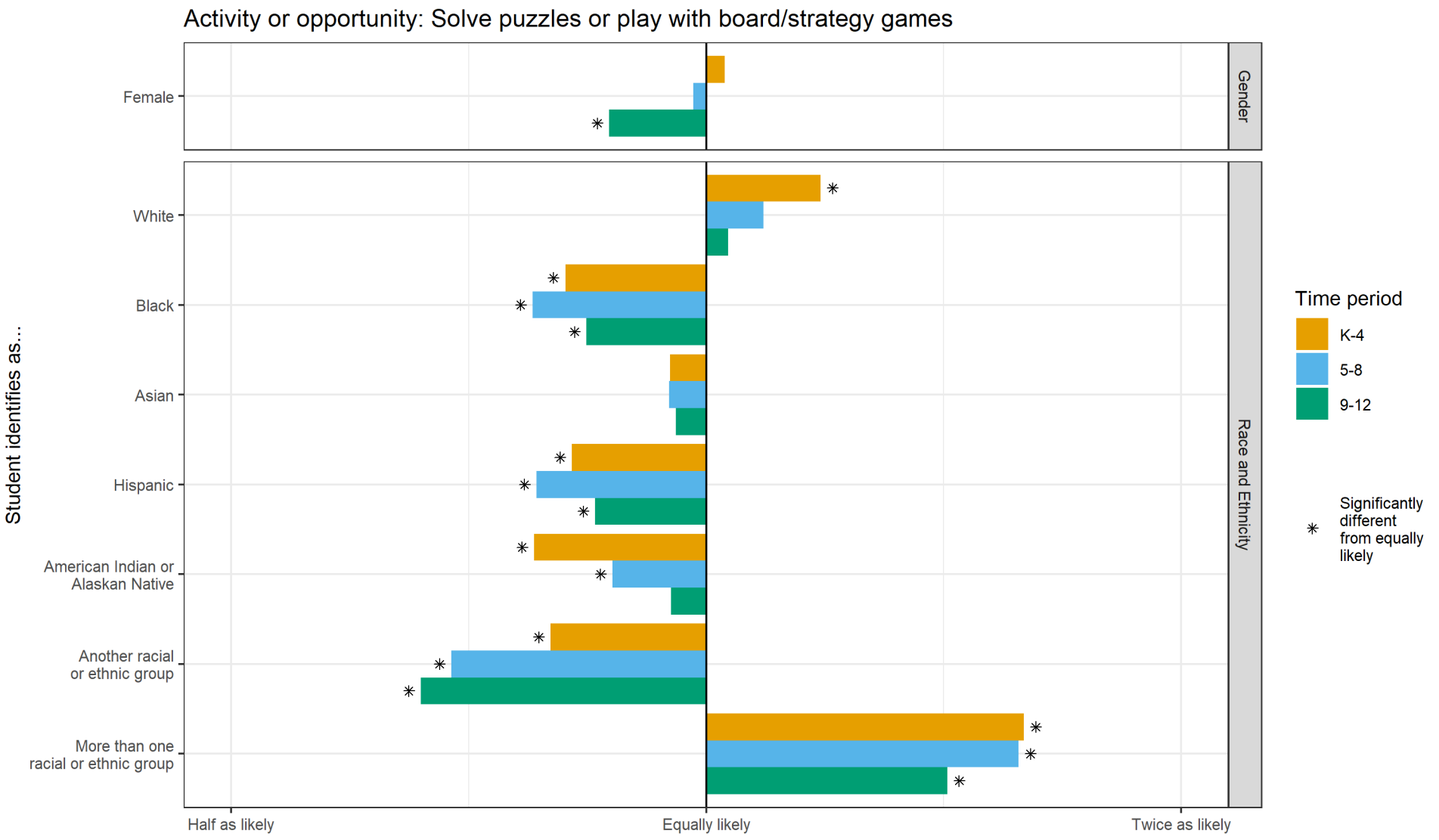
Participation by activity

Mechanical tinkering	Electronic tinkering	Cooking and baking	Using STEM equipment	Playing with STEM toys	Puzzles and board games
Read science non-fiction	Read science fiction	Watch STEM TV / movies	Watch online STEM videos	Play STEM video games	Follow STEM social media
Use STEM apps	Write/blog about STEM	Program games/apps	Train/raise animals	Gardening	Observe animals/birds
Collect nature things	Observe or study stars	Observe or study weather	Photo or video nature	Explore nature	Collect data for scientists
Club or team (school)	Club or team (outside)	Group orgs. (e.g., Scouts)	Maker/DIY STEM events	Overnight programs	STEM cafes
STEM summer camp	'Citizen science' prog.	STEM talks or lectures	STEM courses or workshops	STEM leaders conf.	Science fairs
Robotics competitions	Engineering competitions	Computing/IT competitions	STEM research prog.	STEM career days	Tour of STEM settings
STEM job shadowing	STEM internships	STEM work or volunteering	Interact with STEM mentor	Interact with role model	Interact w/ STEM career
Work w/older STEM student	Take on leader role	Mentor/tutor young student	Do hands-on STEM activity	Program with art or design	Real world problems
Use equip. to collect data	Build STEM models	Design/do own project	Work on a team	Present data to others	Learn about STEM careers

K-4
5-8
9-12

5-8
K-12

Any


Activity or opportunity: Solve puzzles or play with board/strategy games
Student identifies as...
Female
White
Black
Asian
Hispanic
American Indian or Alaskan Native
Another racial or ethnic group
More than one racial or ethnic group
Gender
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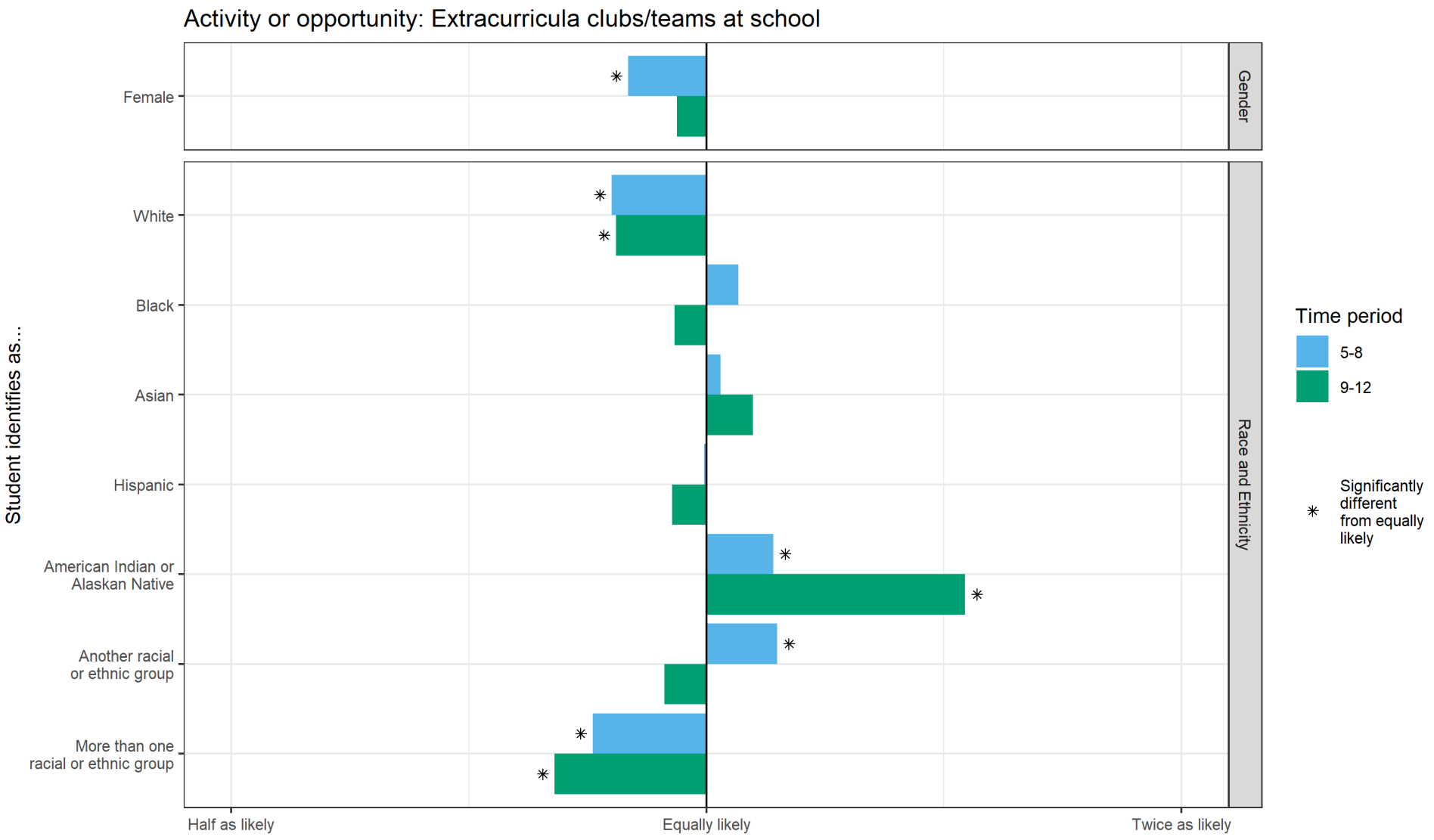
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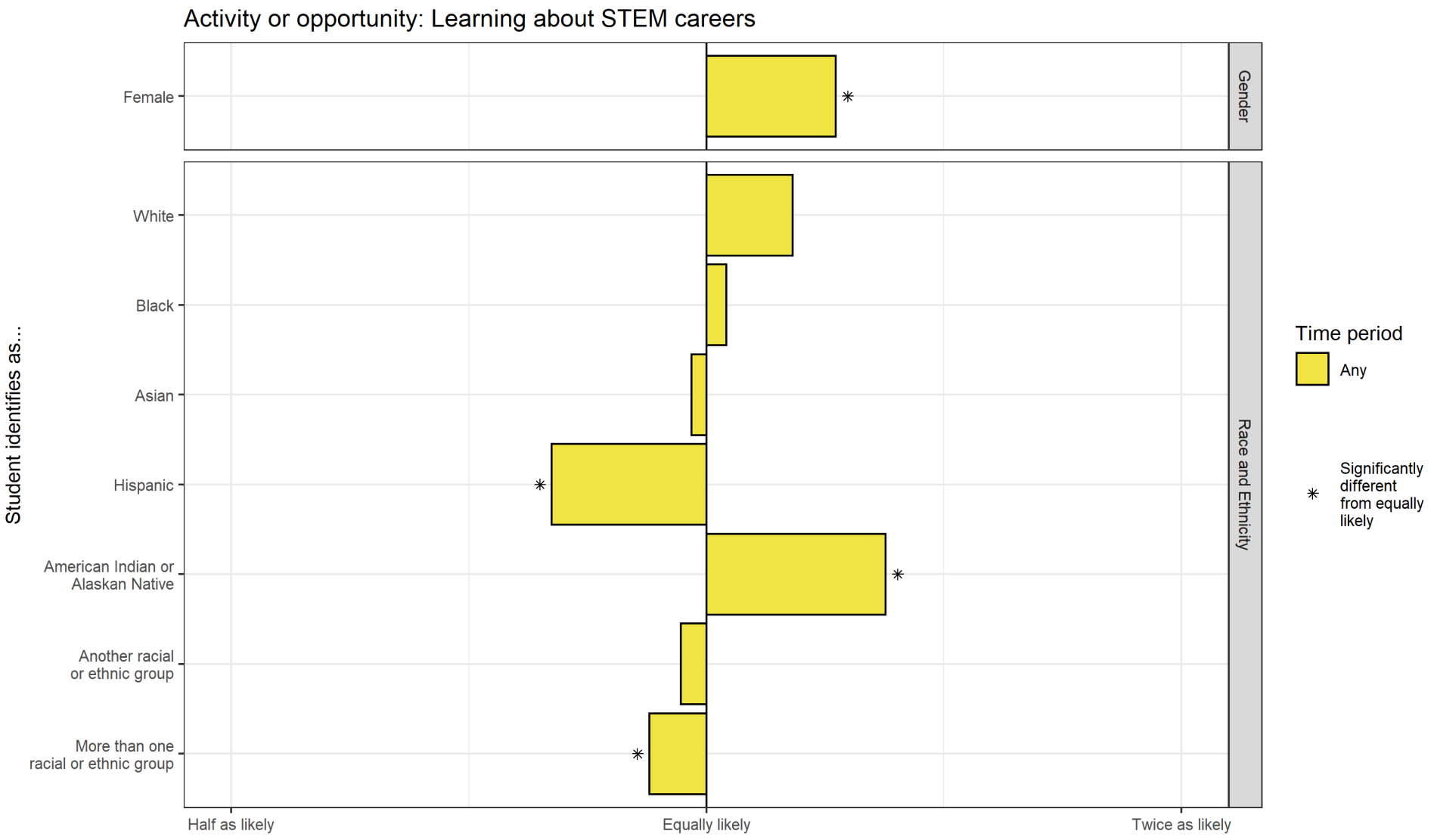
Activity or opportunity: Learning about STEM careers
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We realize this was a lot of information to take in at once.

Any questions?

Discussion Questions

What actions can you take as a result of what you learned/heard at the webinar?

What questions still need to be answered, but require additional research?

Thank you

This work was supported by NSF Grant Nos. 1612375 and 1611985 Any views are the authors own and do not necessarily reflect the views of the National Science Foundation

Upcoming NGCP Webinars

national center for women & INFORMATION TECHNOLOGY

Gender Equity in Online STEM Learning

Wednesday, September 2, 2020

Neurodiversity and STEM Education

Monday, September 21, 2020

National Girls Collaborative Project

NATIONAL GIRLS COLLABORATIVE PROJECT

Register on the NGCP Website

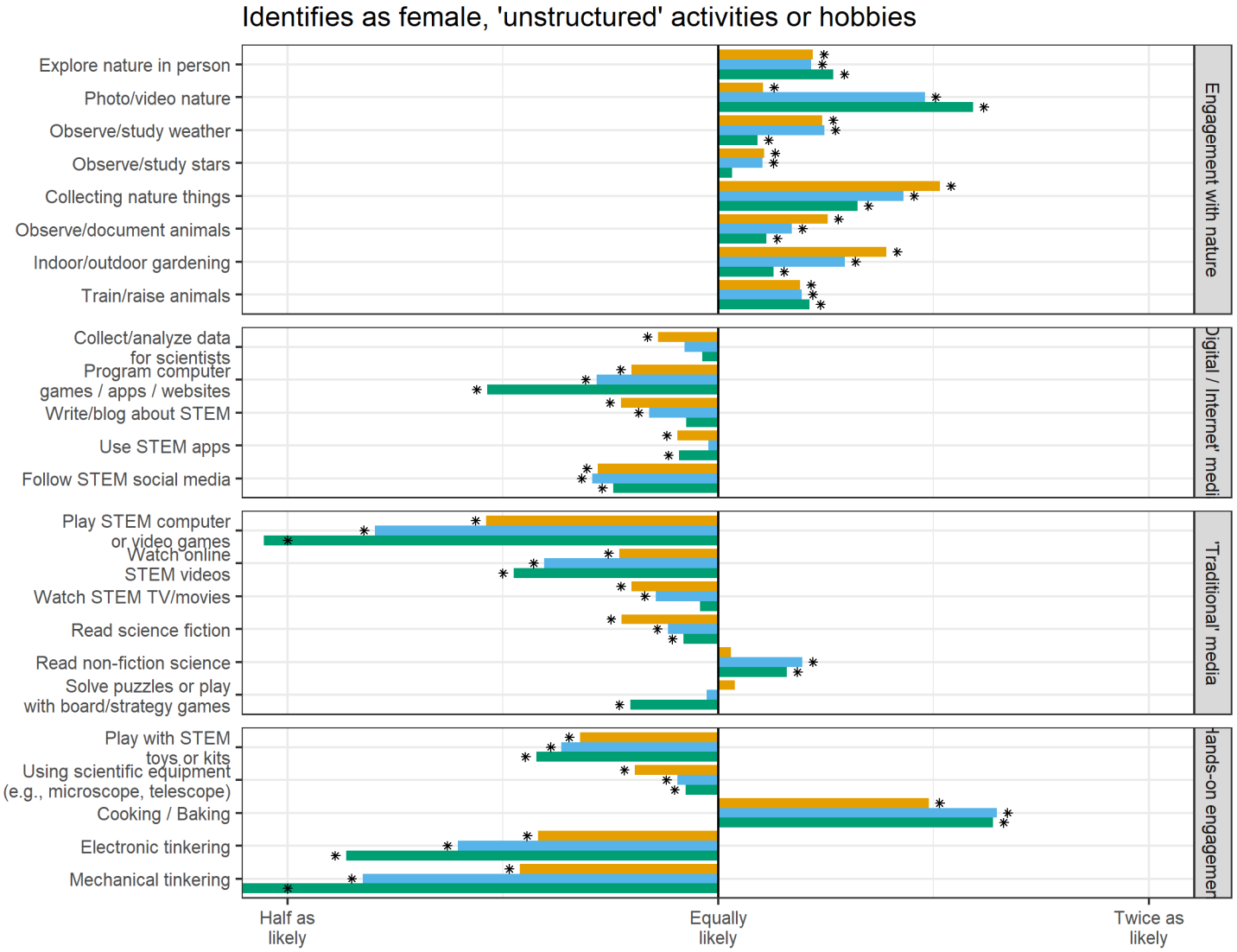
Participation by demographic

Student identifies as...

Female	Asian or Pacific Islander
White	Native American or Alaskan Native
Black	Another racial/ethnic group not listed
Hispanic	More than one racial and/or ethnic group

To activities…

Back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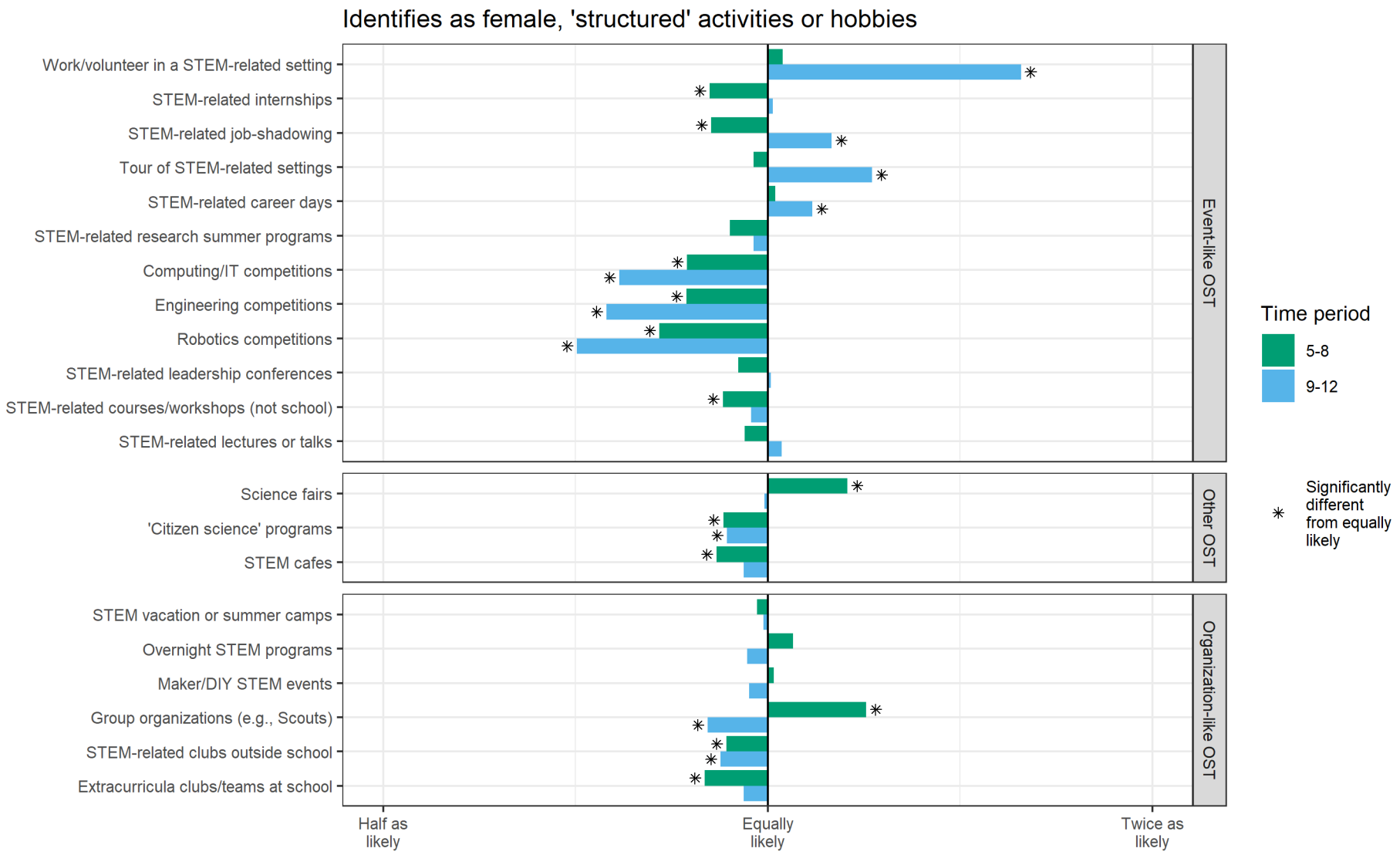
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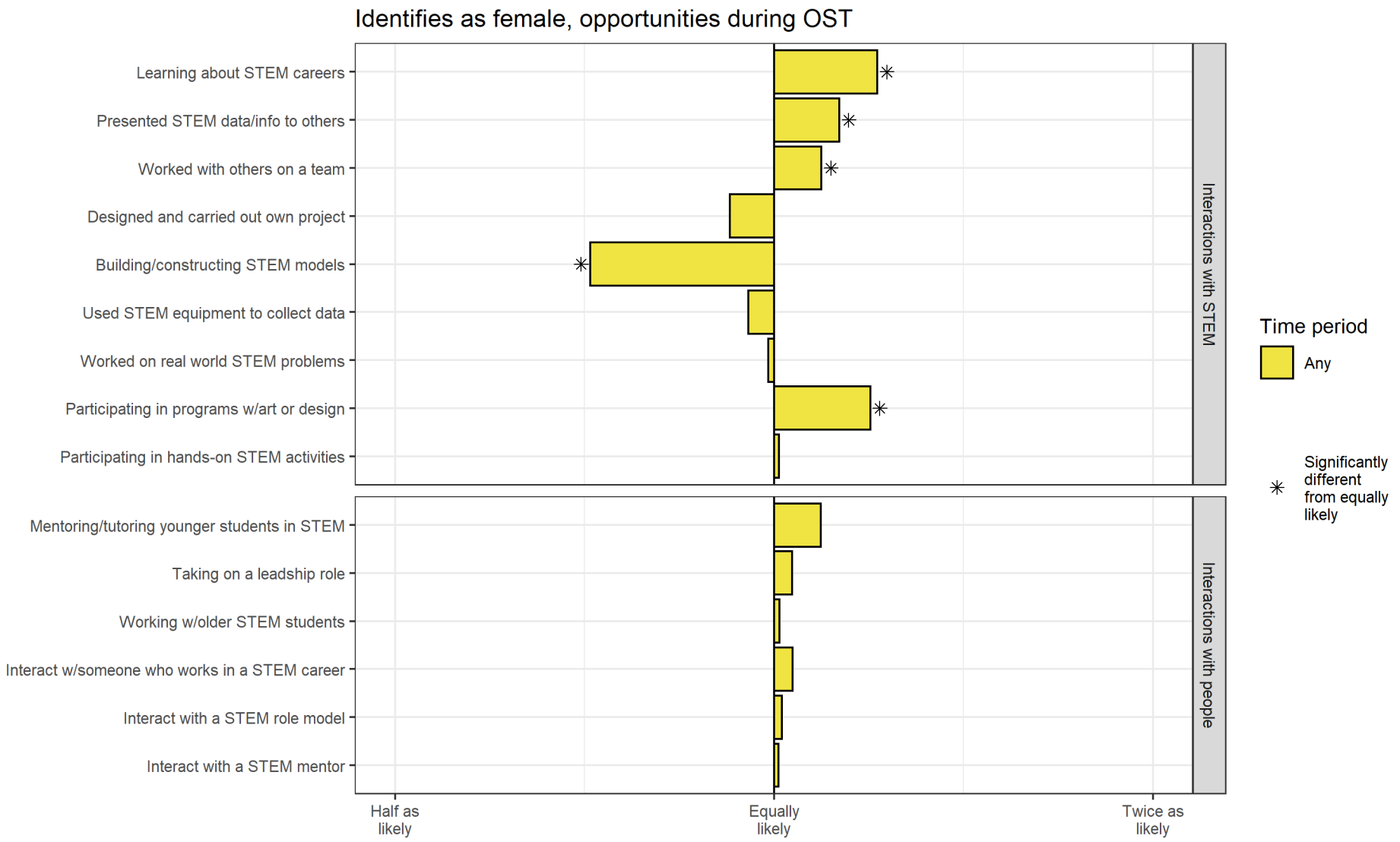
Identifies as female, opportunities during OST
Learning about STEM careers
Presented STEM data/info to others
Worked with others on a team
Designed and carried out own project
Building/constructing STEM models
Used STEM equipment to collect data
Worked on real world STEM problems
Participating in programs w/art or design
Participating in hands-on STEM activities
Interactions with STEM
Mentoring/tutoring younger students in STEM
Taking on a leadship role
Working w/older STEM students
Interact w/someone who works in a STEM career
Interact with a STEM role model
Interact with a STEM mentor
Interactions with people
Half as likely
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Time period
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Significantly different from equally likely

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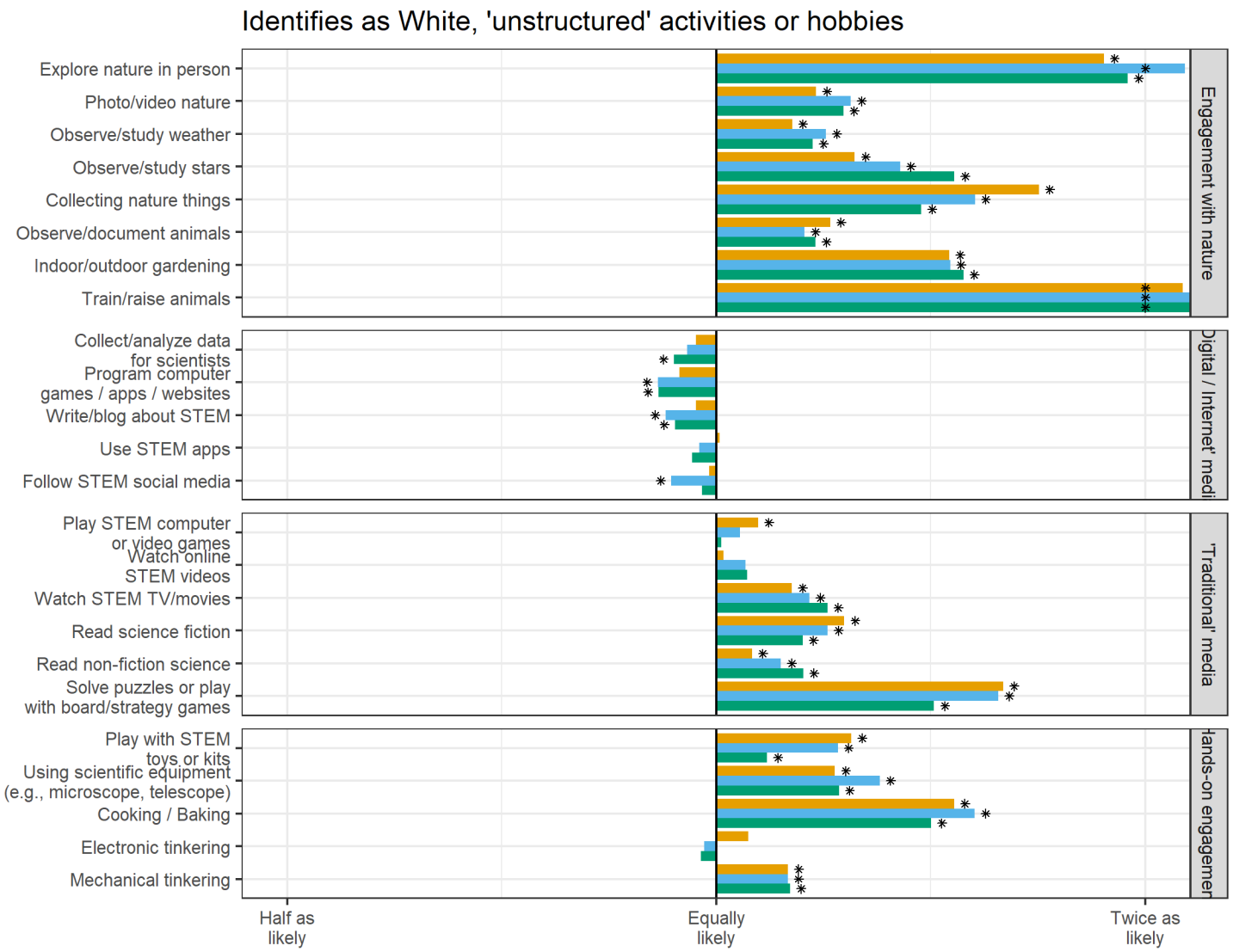
Identifies as White, 'unstructured' activities or hobbies
Explore nature in person
Photo/video nature
Observe/study weather
Observe/study stars
Collecting nature things
Observe/document animals
Indoor/outdoor gardening
Train/raise animals
Engagement with nature
Collect/analyze data for scientists
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Write/blog about STEM
Use STEM apps
Follow STEM social media
Digital / Internet' medi
Play STEM computer or video games
Watch online STEM videos
Watch STEM TV/movies
Read science fiction
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Solve puzzles or play with board/strategy games
'Traditional' media
Play with STEM toys or kits
Using scientific equipment (e.g., microscope, telescope)
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Electronic tinkering
Mechanical tinkering
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Half as likely
Equally likely
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5-8
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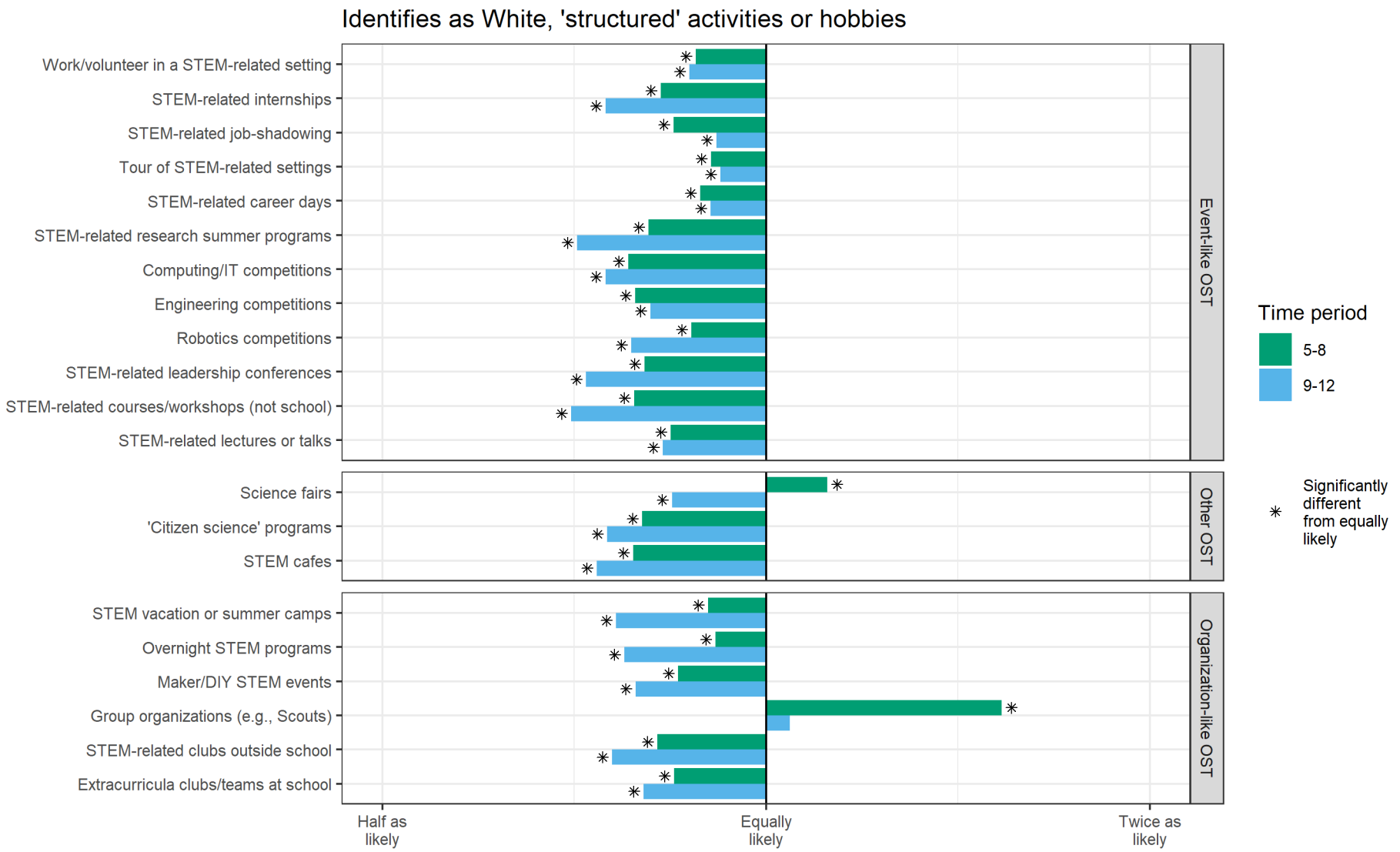
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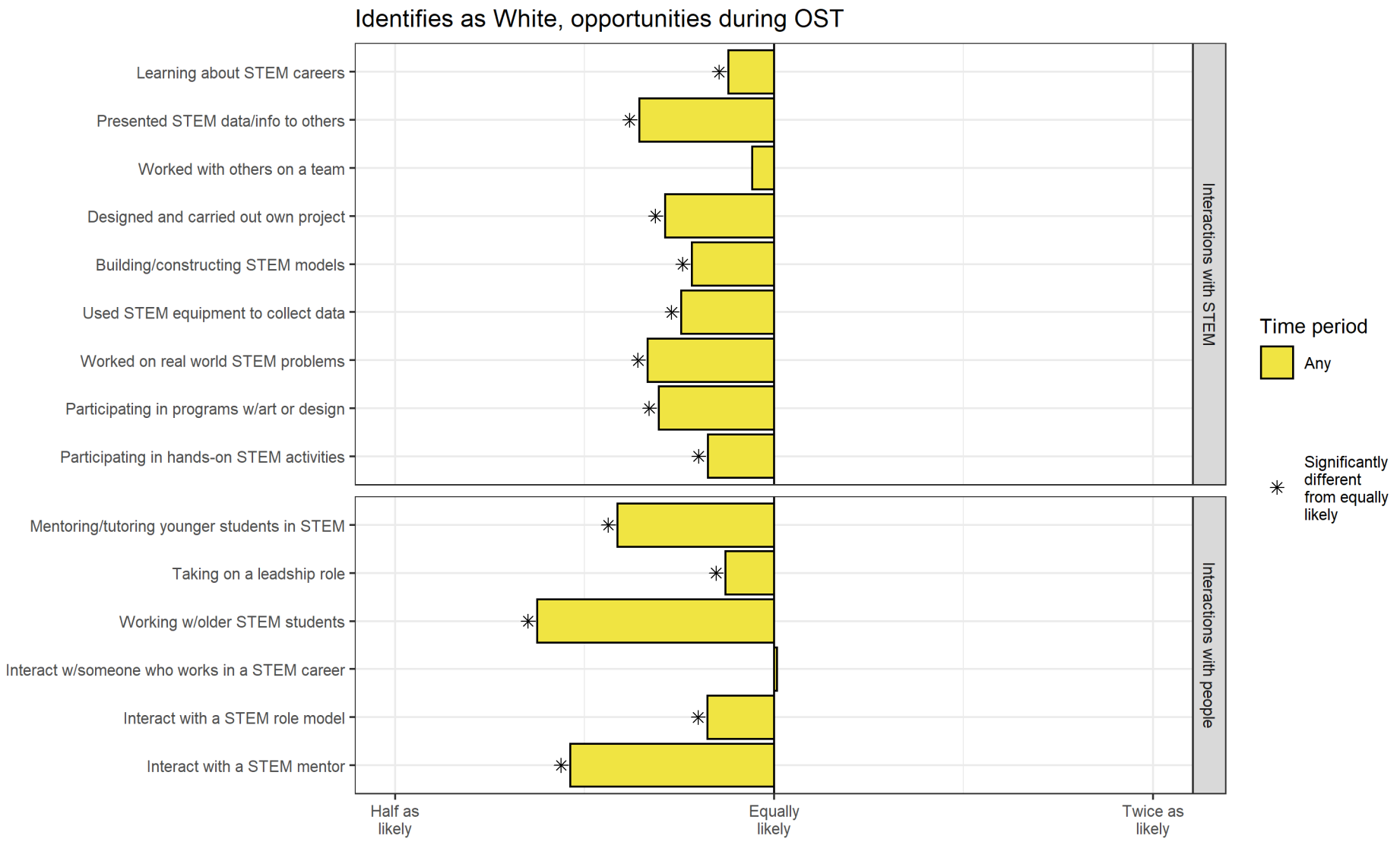
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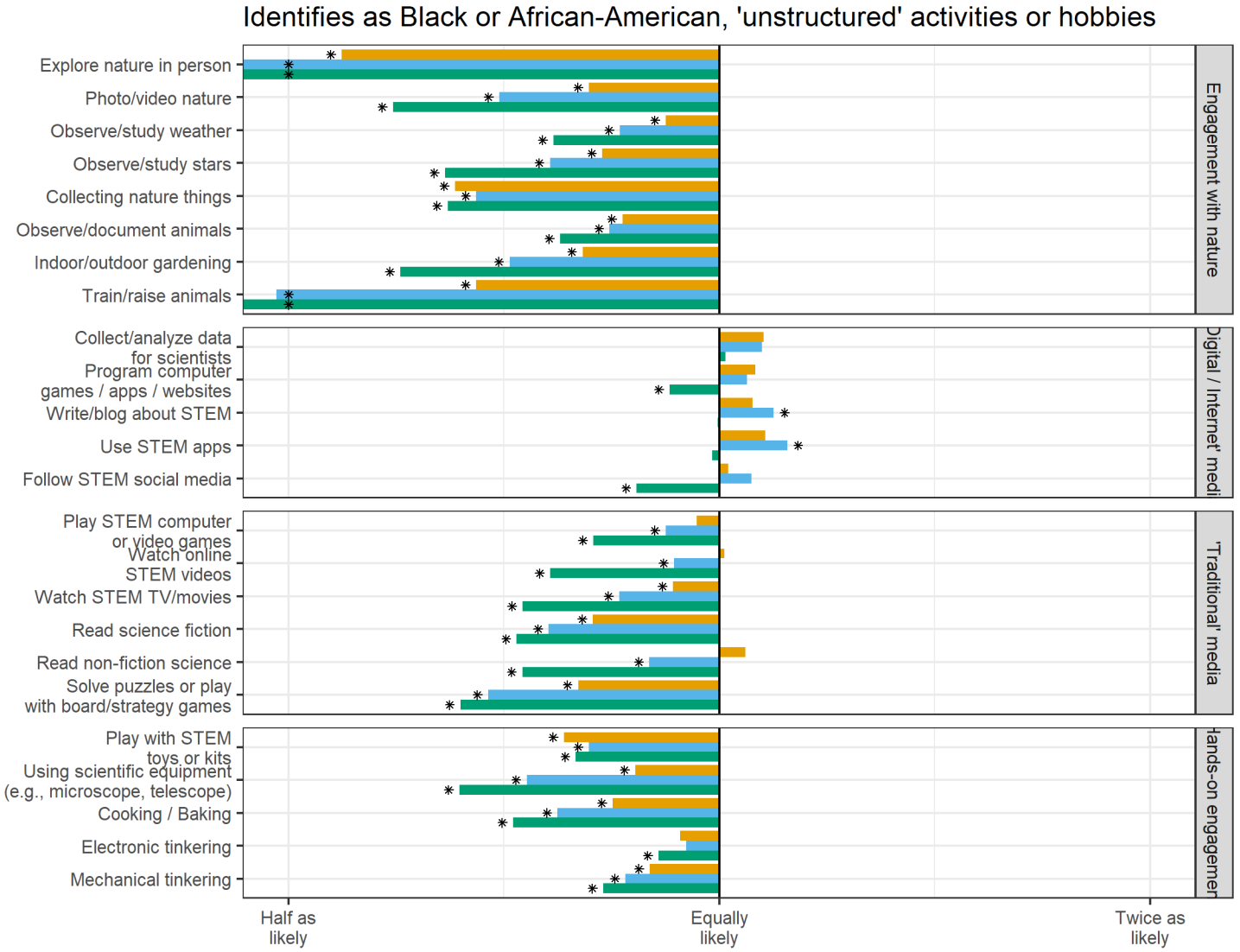
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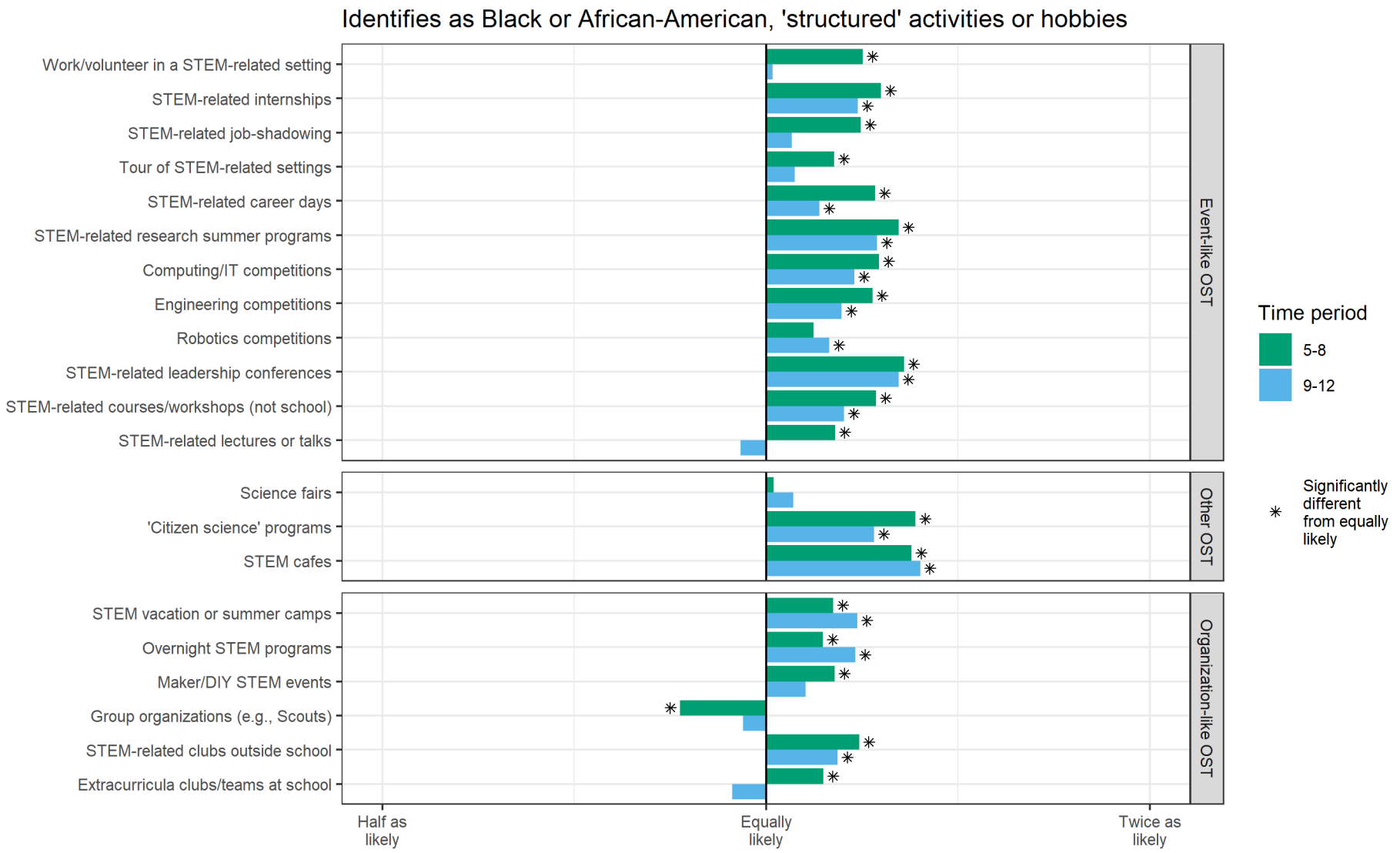
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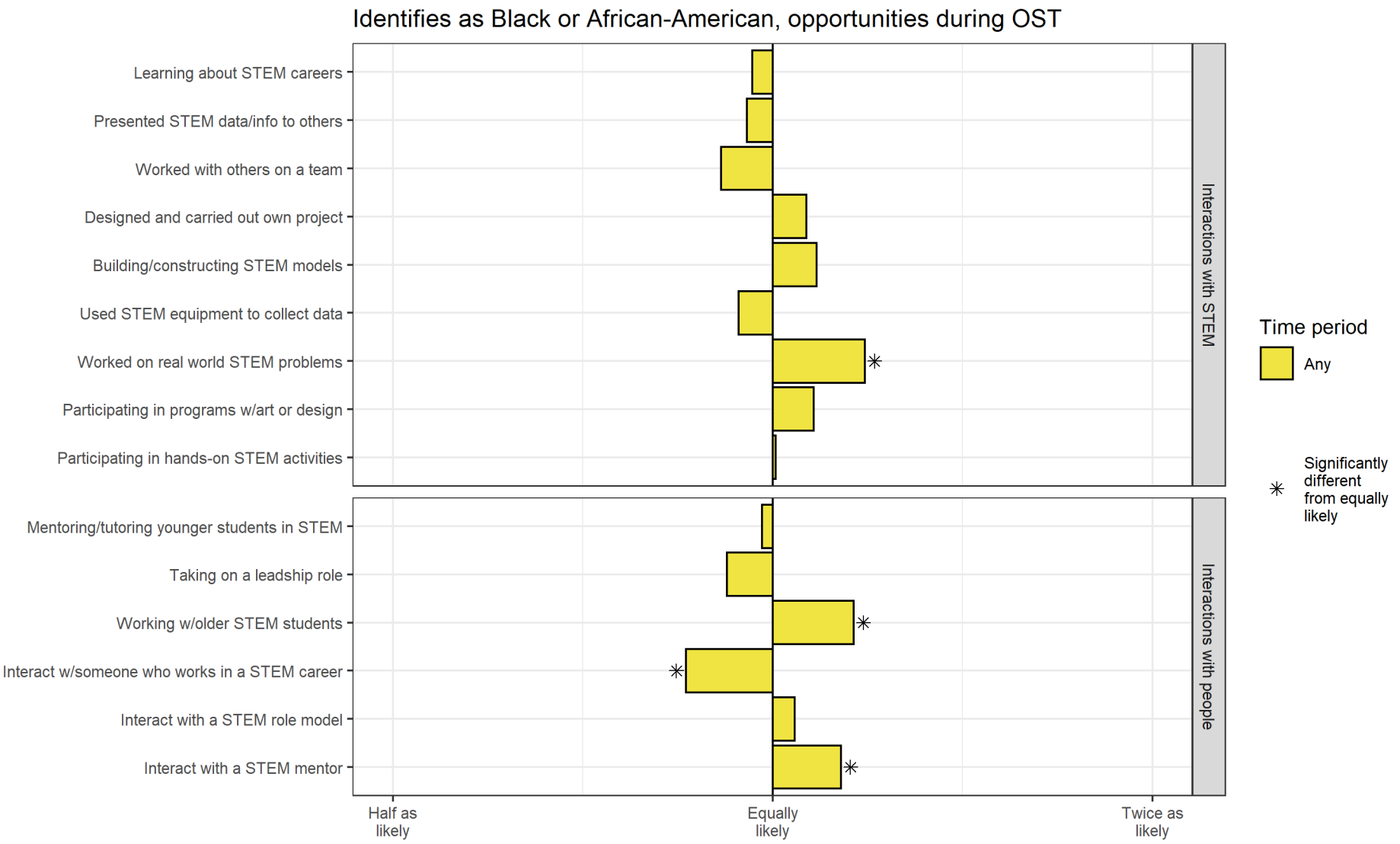
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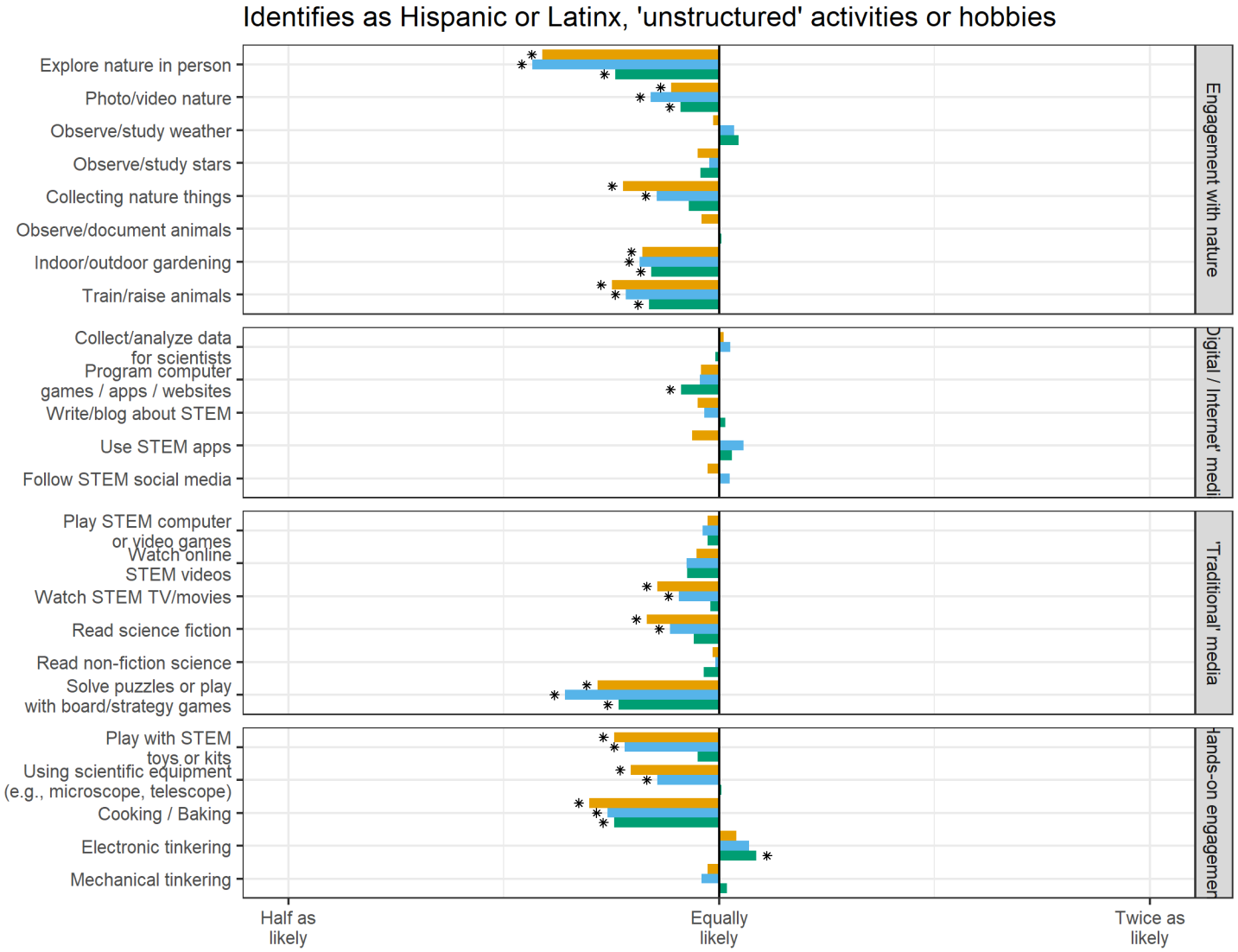
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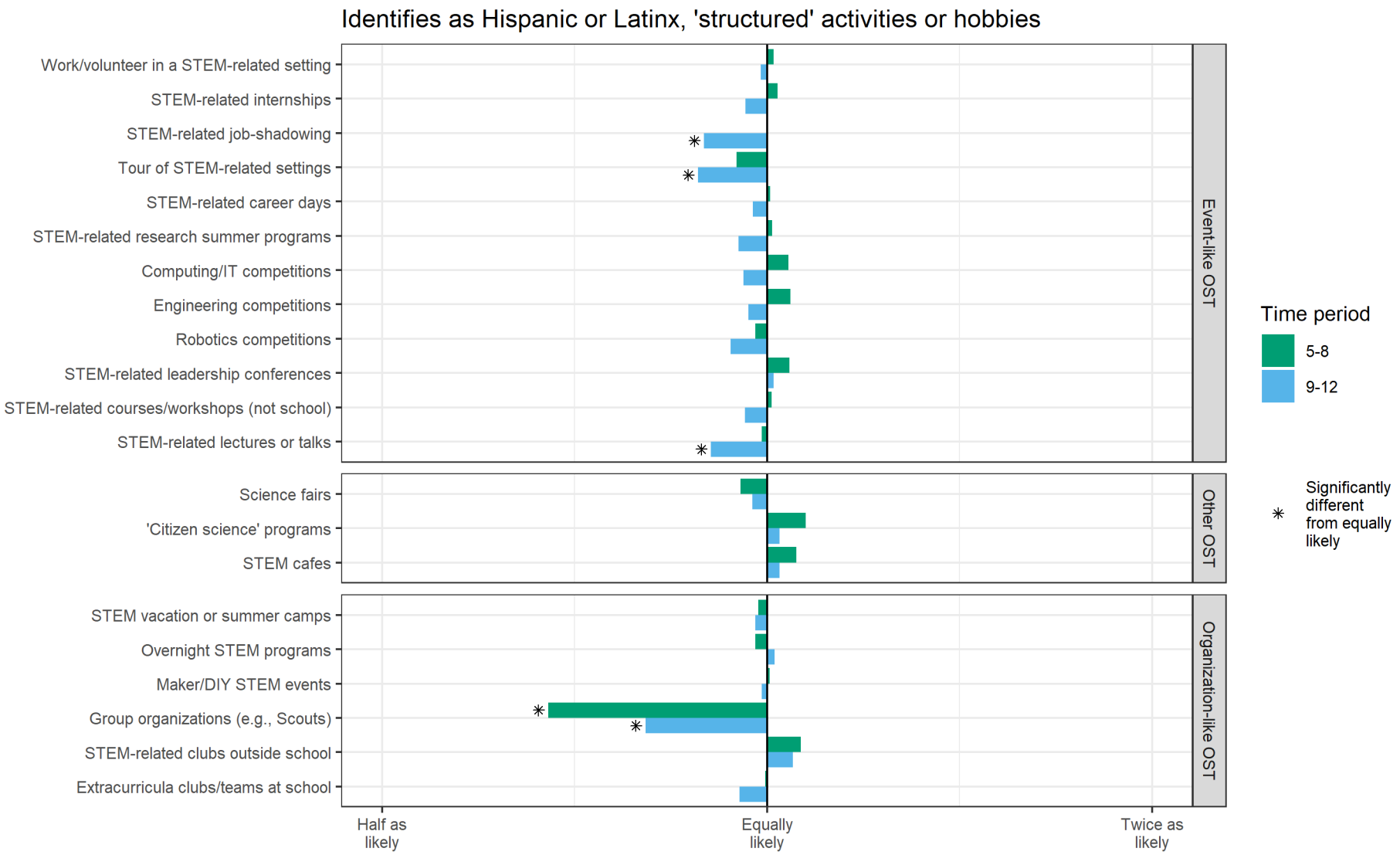
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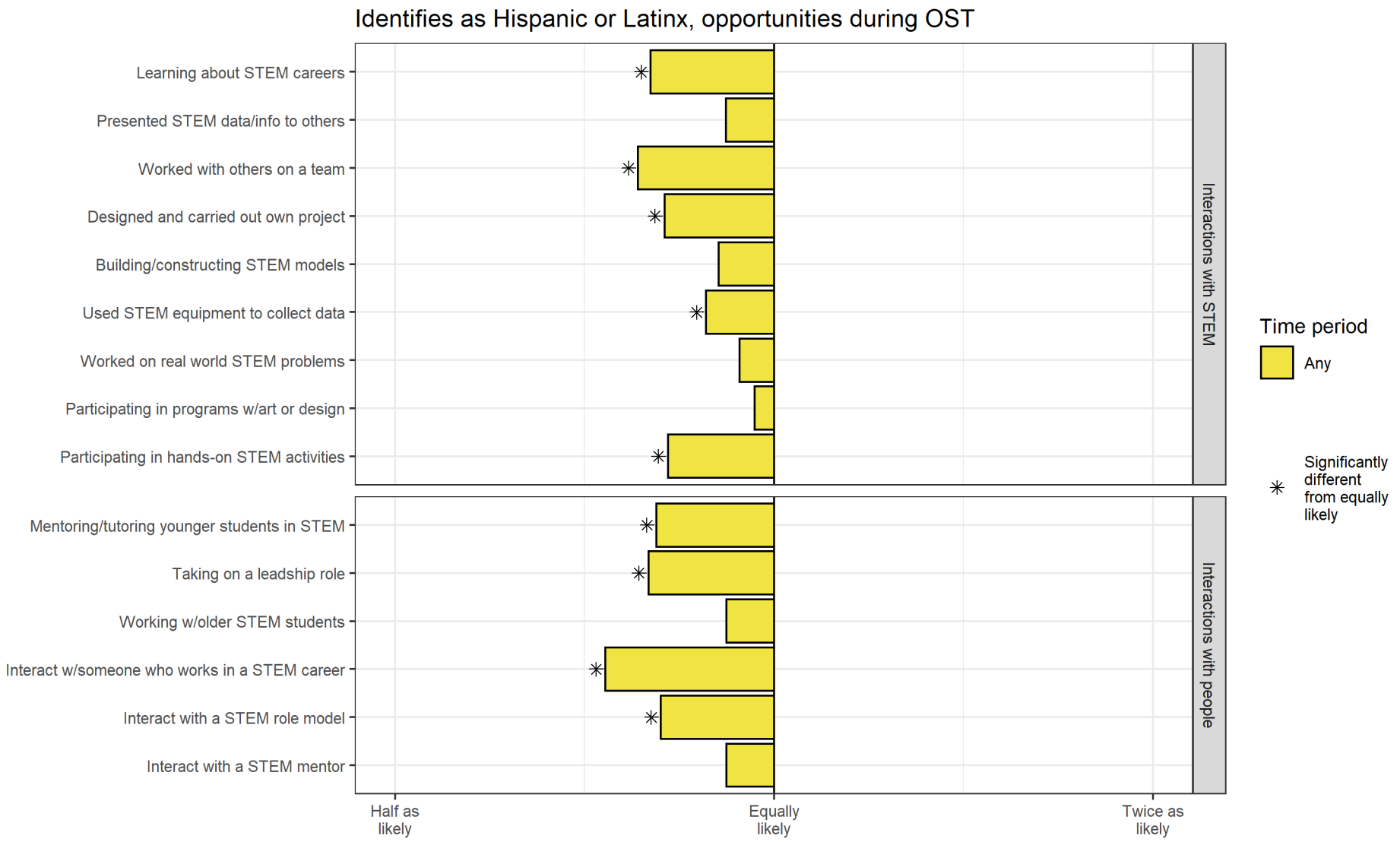
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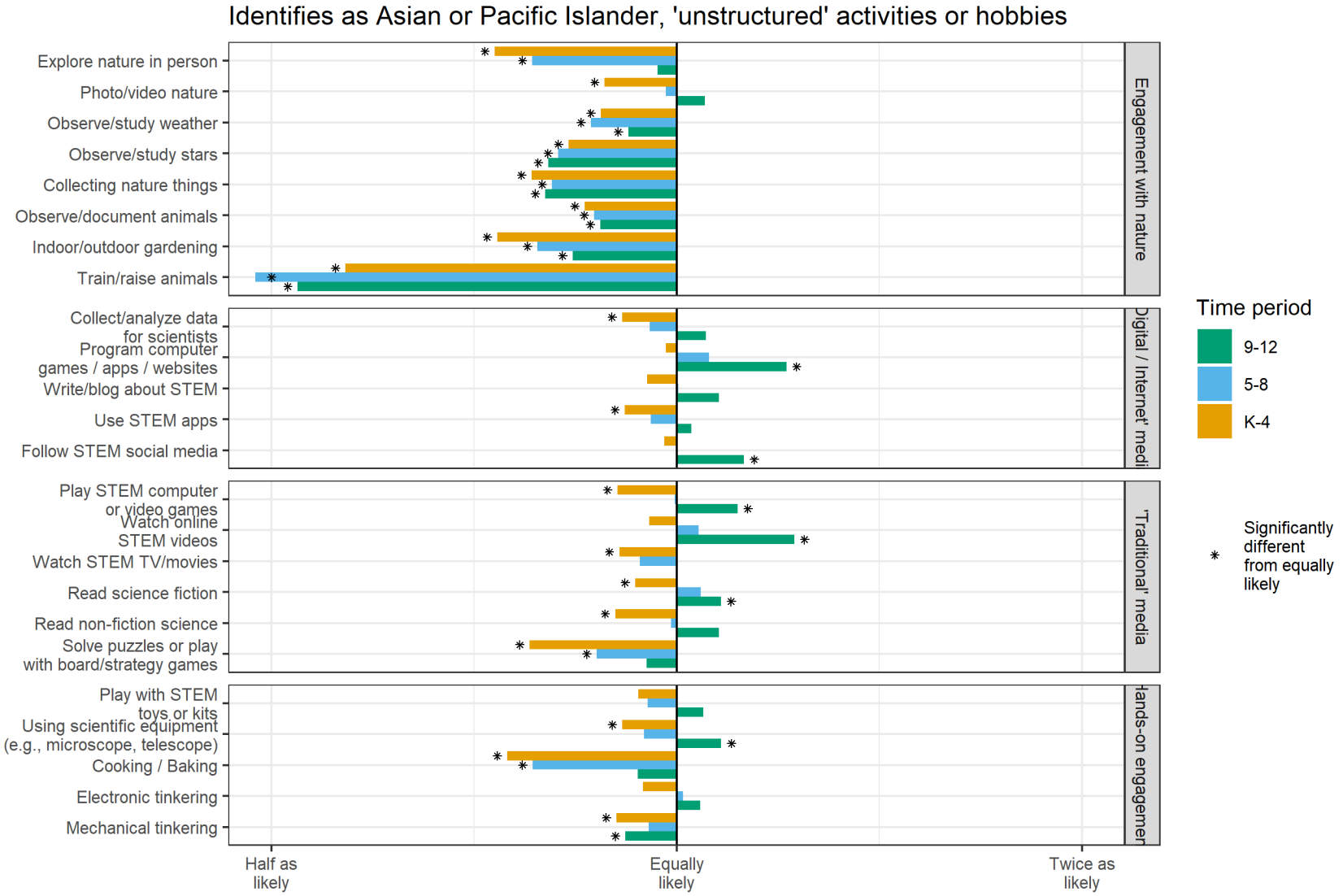
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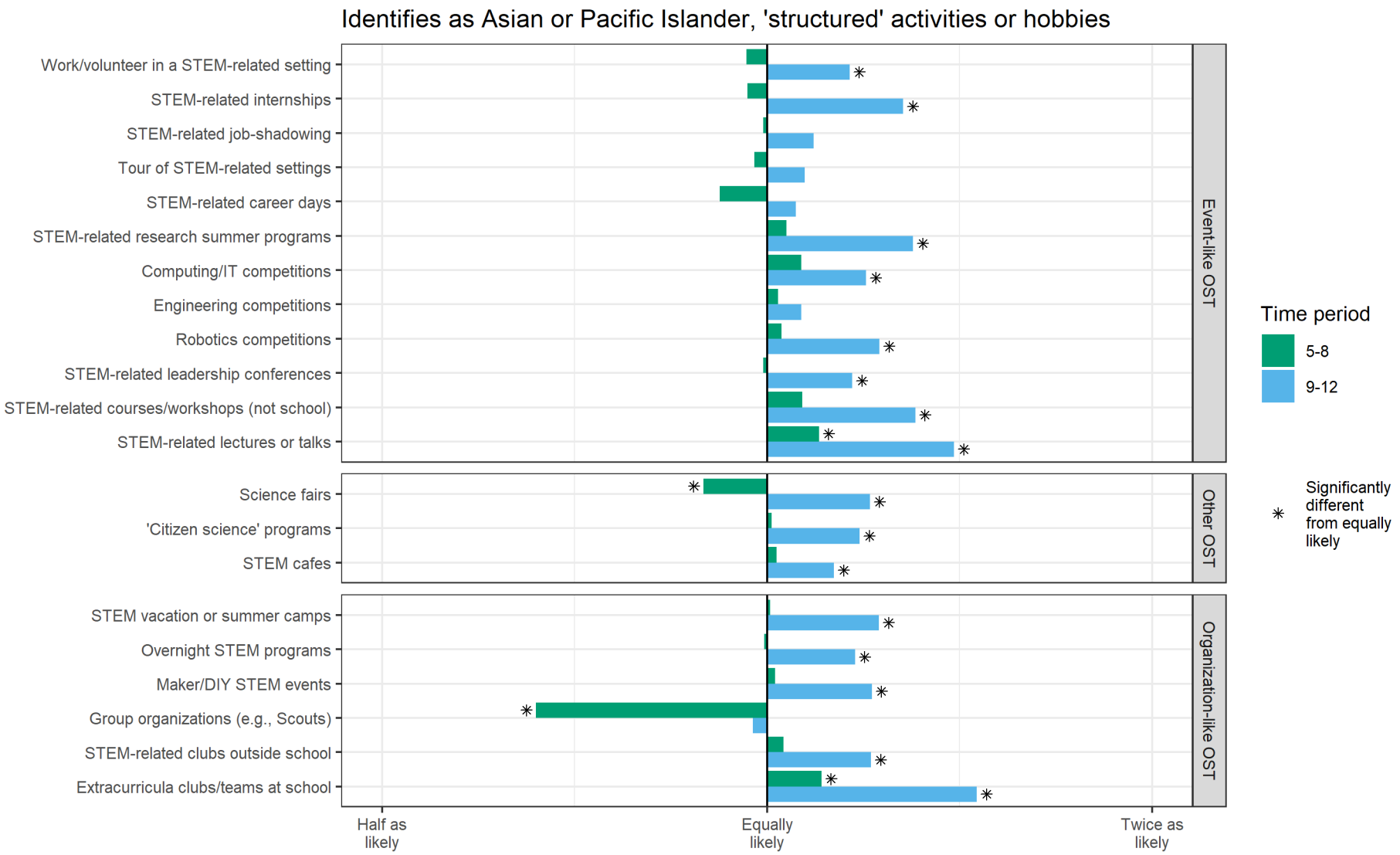
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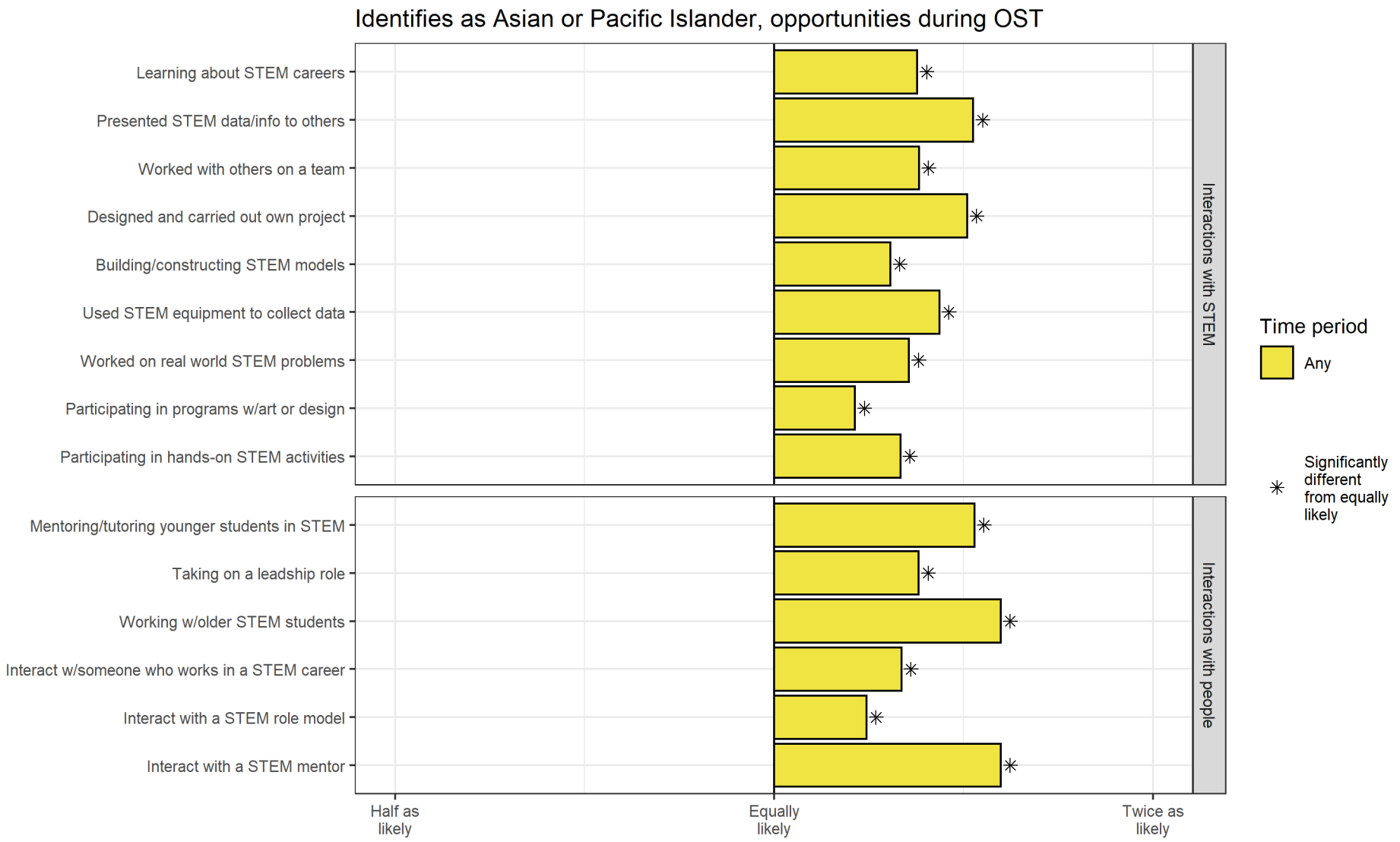
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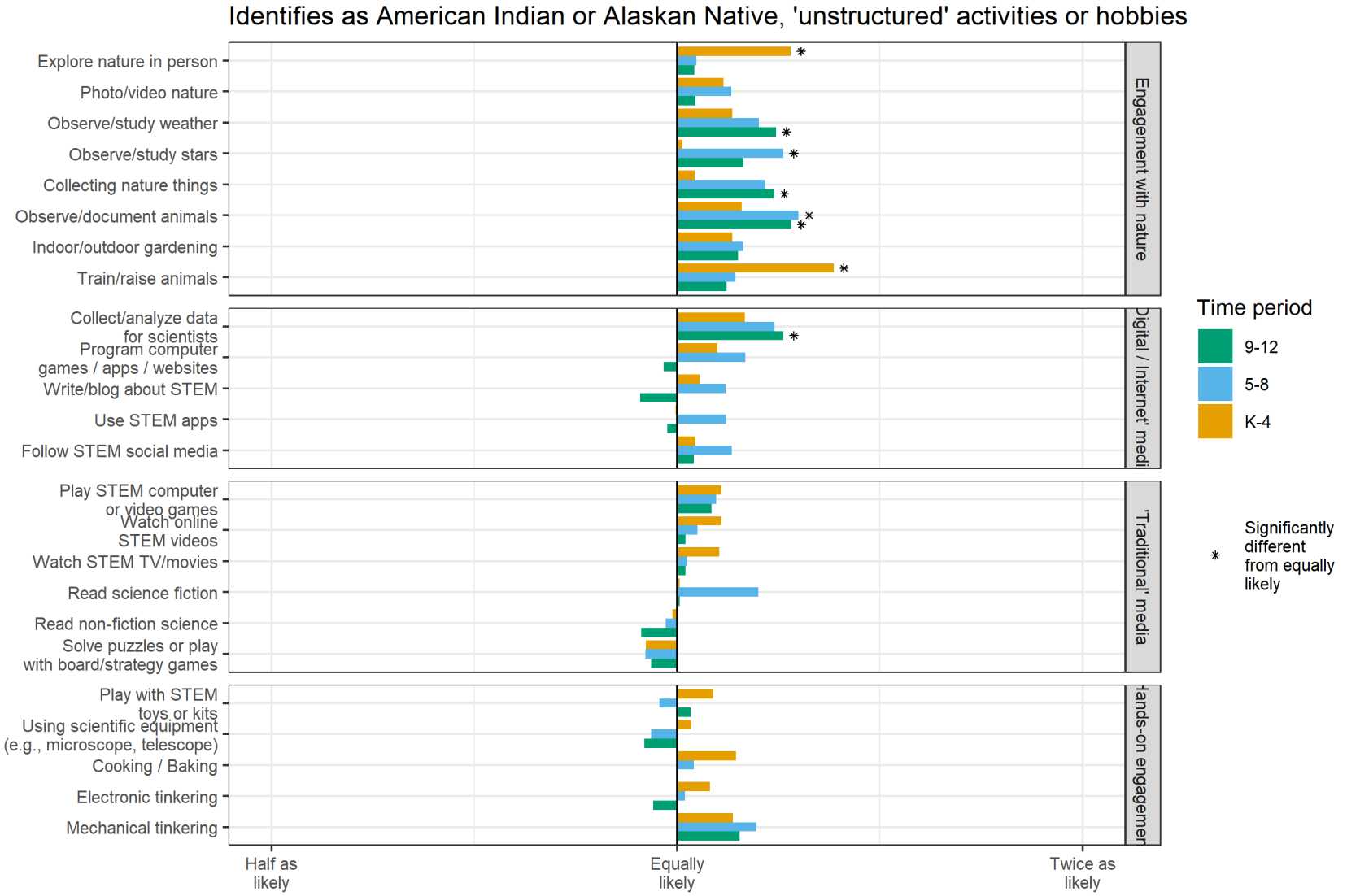
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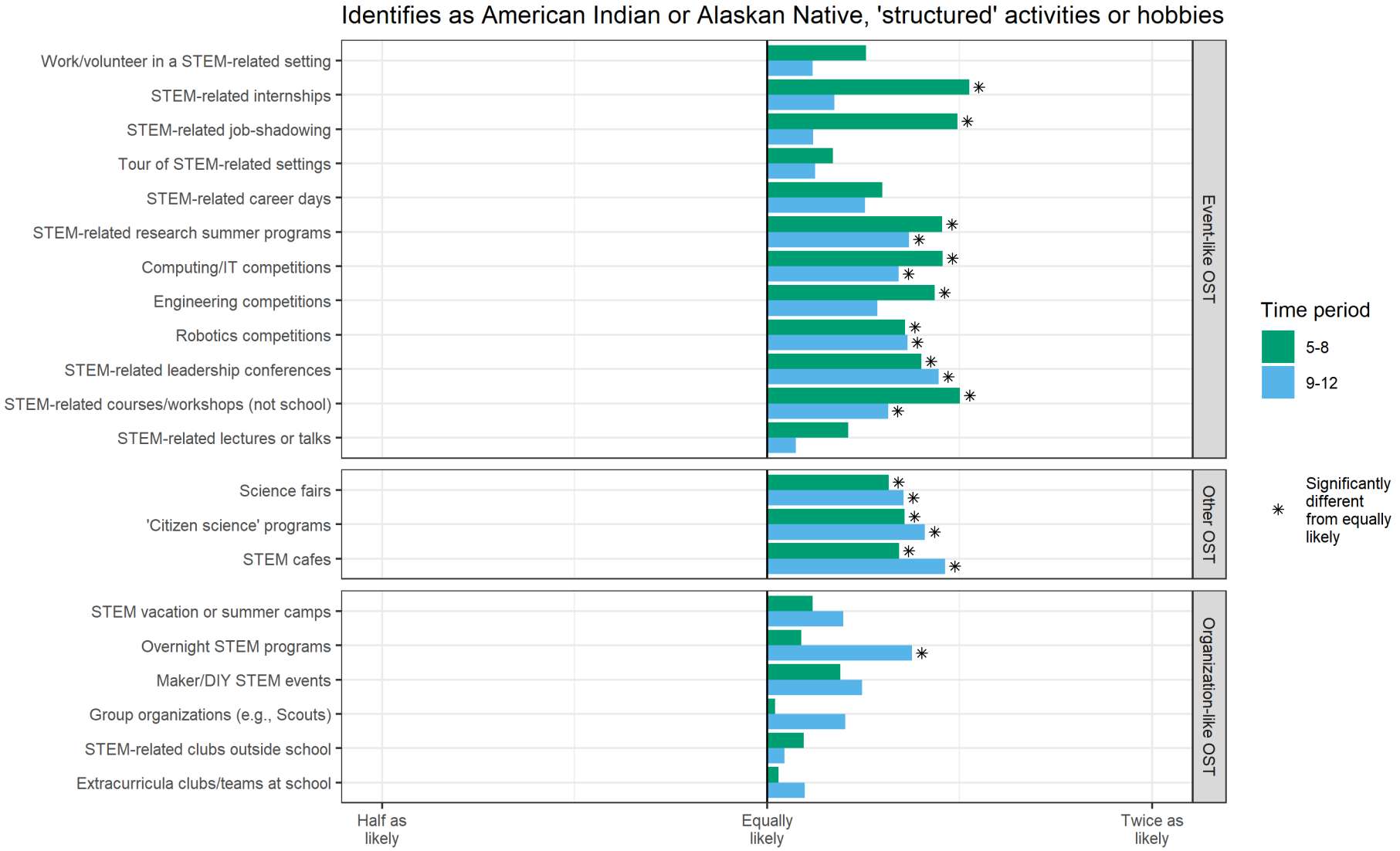
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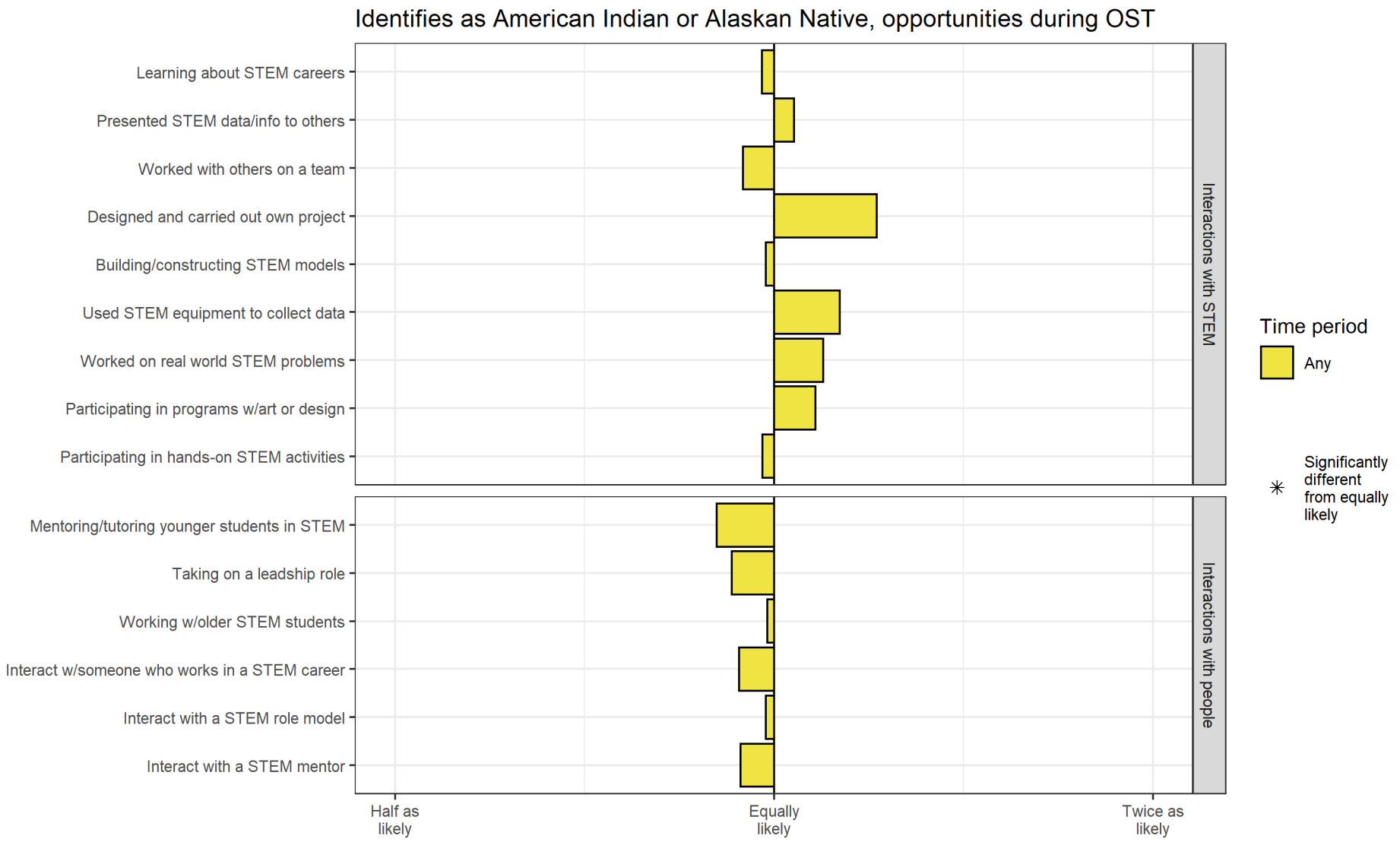
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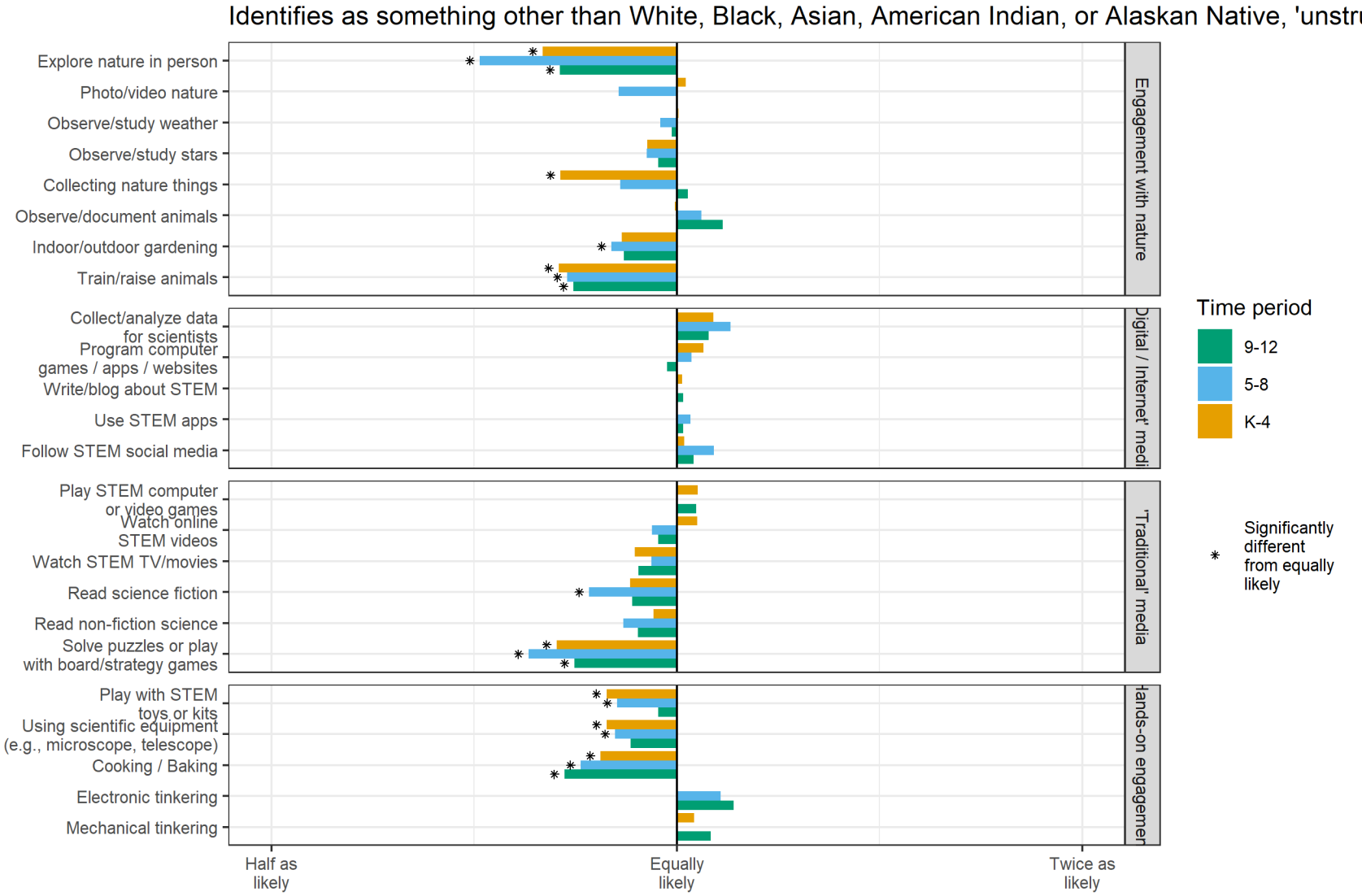
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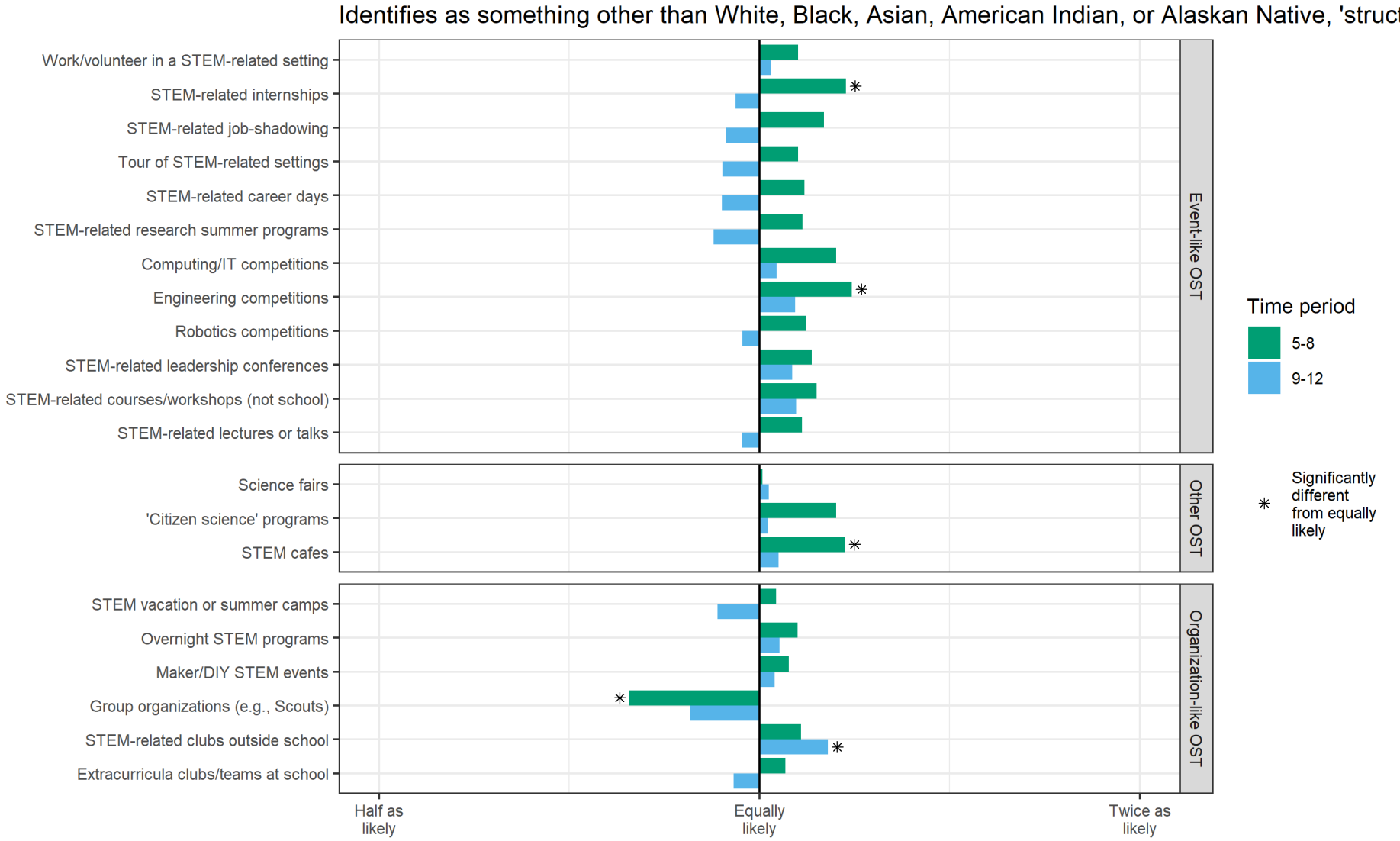
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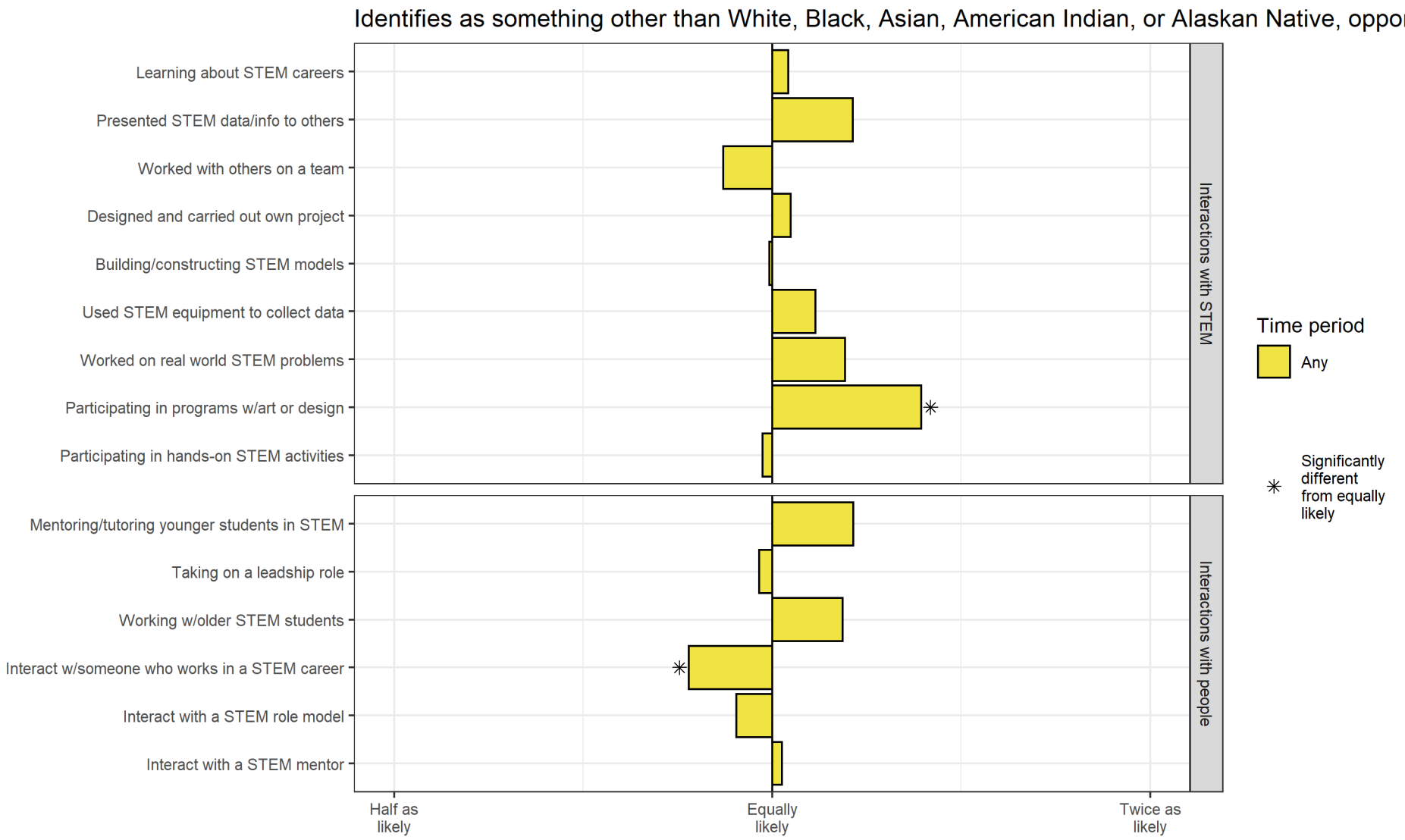
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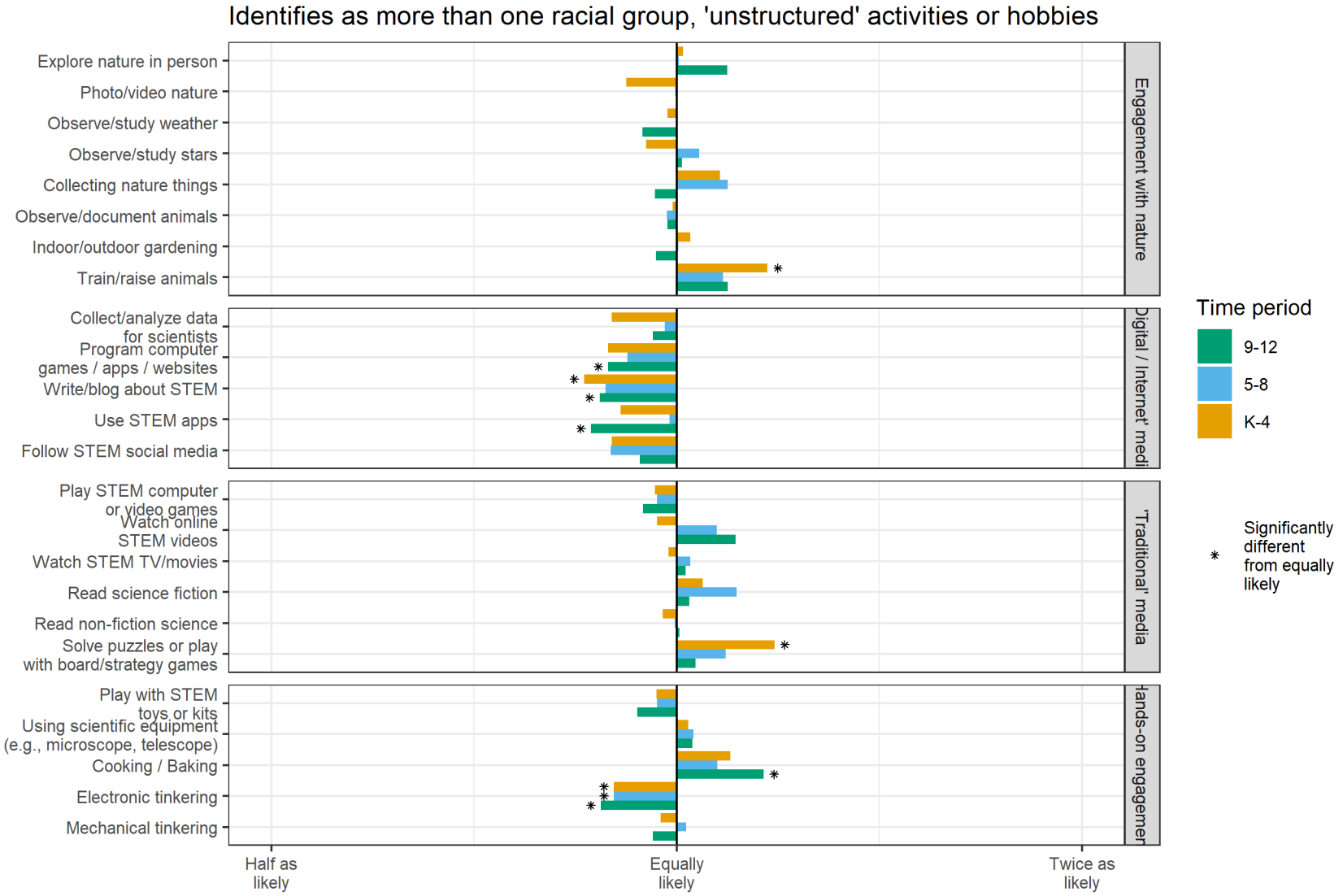
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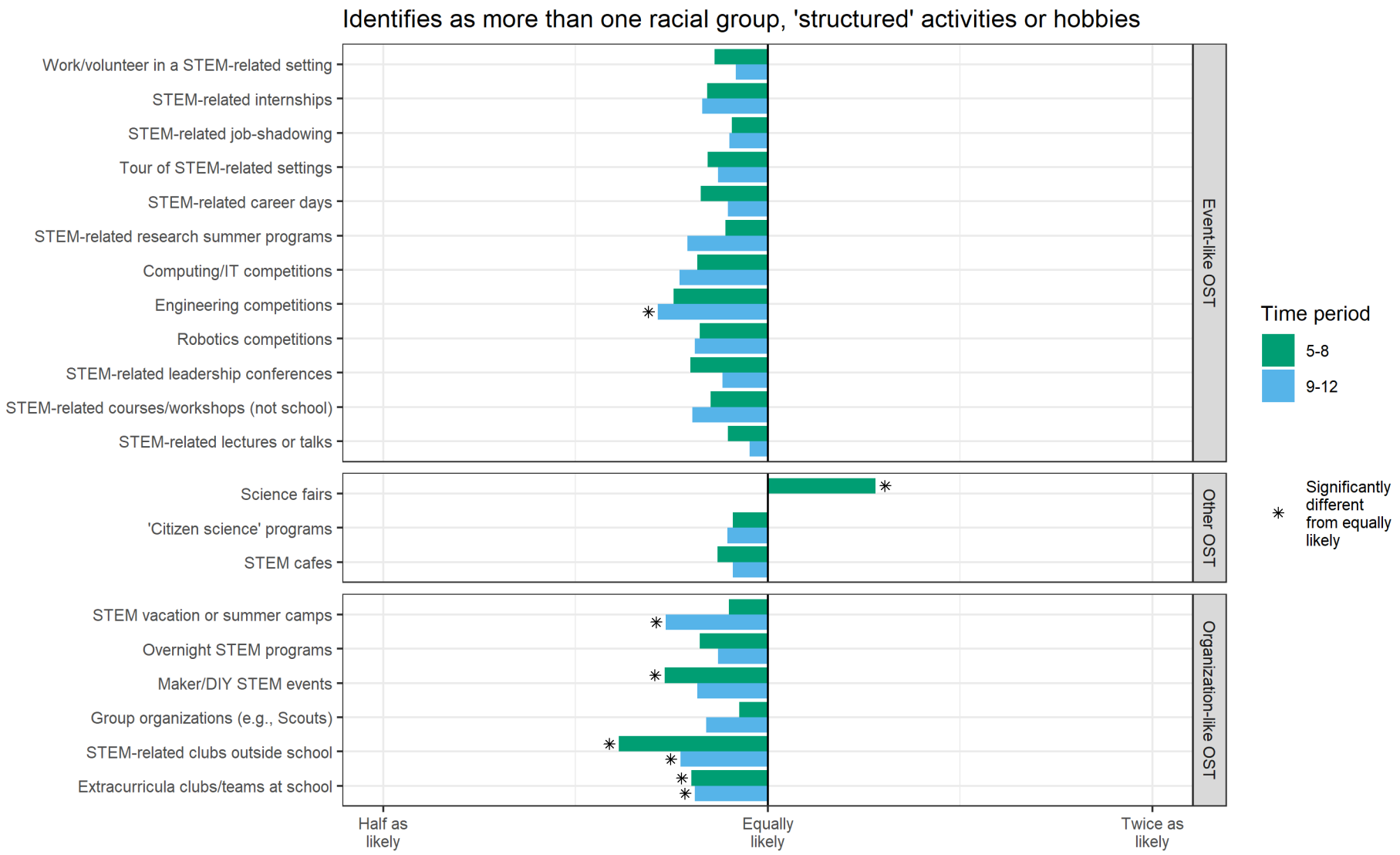
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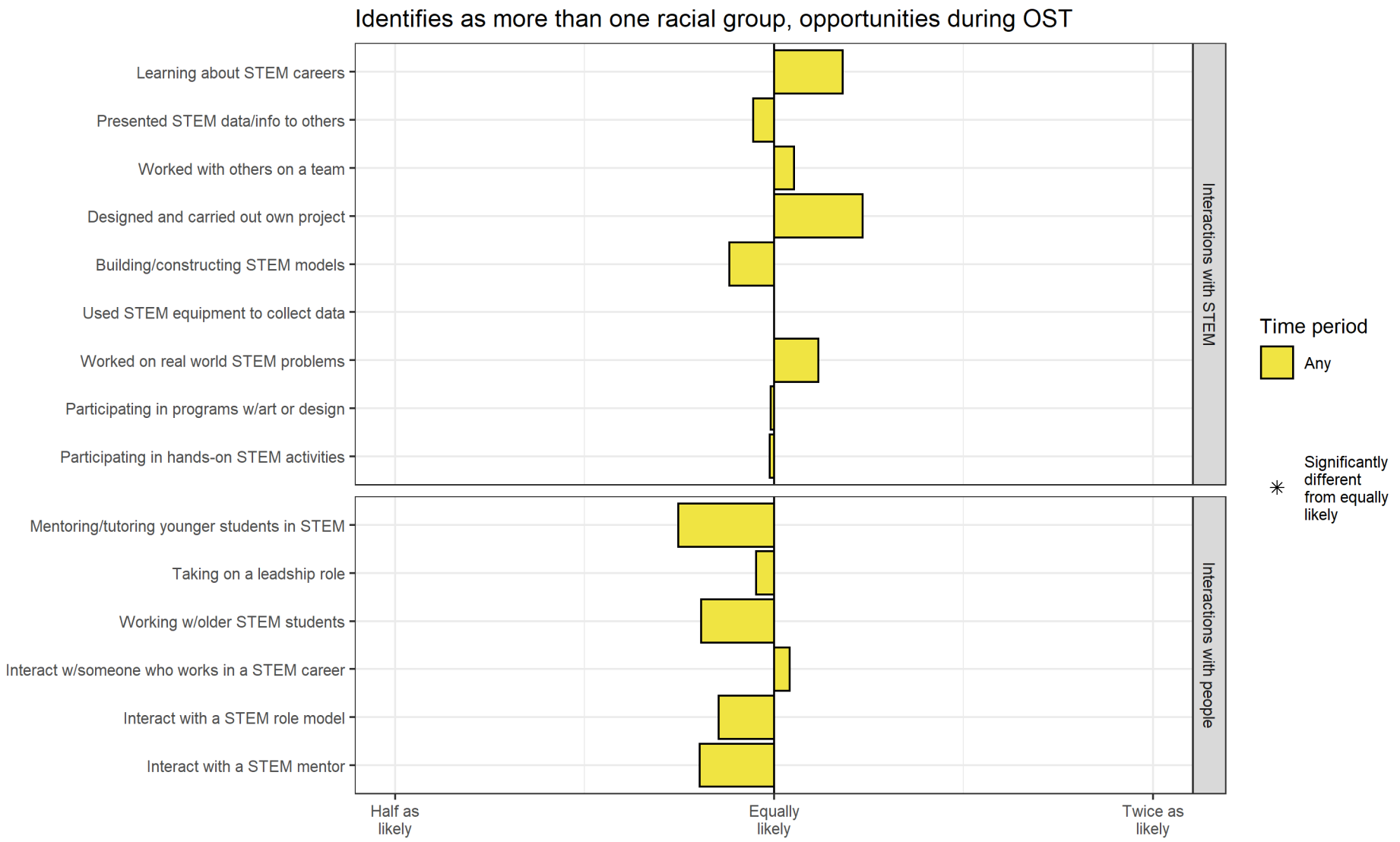
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Participation by activity

Mechanical tinkering	Electronic tinkering	Cooking and baking	Using STEM equipment	Playing with STEM toys	Puzzles and board games
Read science non-fiction	Read science fiction	Watch STEM TV / movies	Watch online STEM videos	Play STEM video games	Follow STEM social media
Use STEM apps	Write/blog about STEM	Program games/apps	Train/raise animals	Gardening	Observe animals/birds
Collect nature things	Observe or study stars	Observe or study weather	Photo or video nature	Explore nature	Collect data for scientists
Club or team (school)	Club or team (outside)	Group orgs. (e.g., Scouts)	Maker/DIY STEM events	Overnight programs	STEM cafes
STEM summer camp	'Citizen science' prog.	STEM talks or lectures	STEM courses or workshops	STEM leaders conf.	Science fairs
Robotics competitions	Engineering competitions	Computing/IT competitions	STEM research prog.	STEM career days	Tour of STEM settings
STEM job shadowing	STEM internships	STEM work or volunteering	Interact with STEM mentor	Interact with role model	Interact w/ STEM career
Work w/older STEM student	Take on leader role	Mentor/tutor young student	Do hands-on STEM activity	Program with art or design	Real world problems
Use equip. to collect data	Build STEM models	Design/do own project	Work on a team	Present data to others	Learn about STEM careers

K-4
5-8
9-12

5-8
K-12

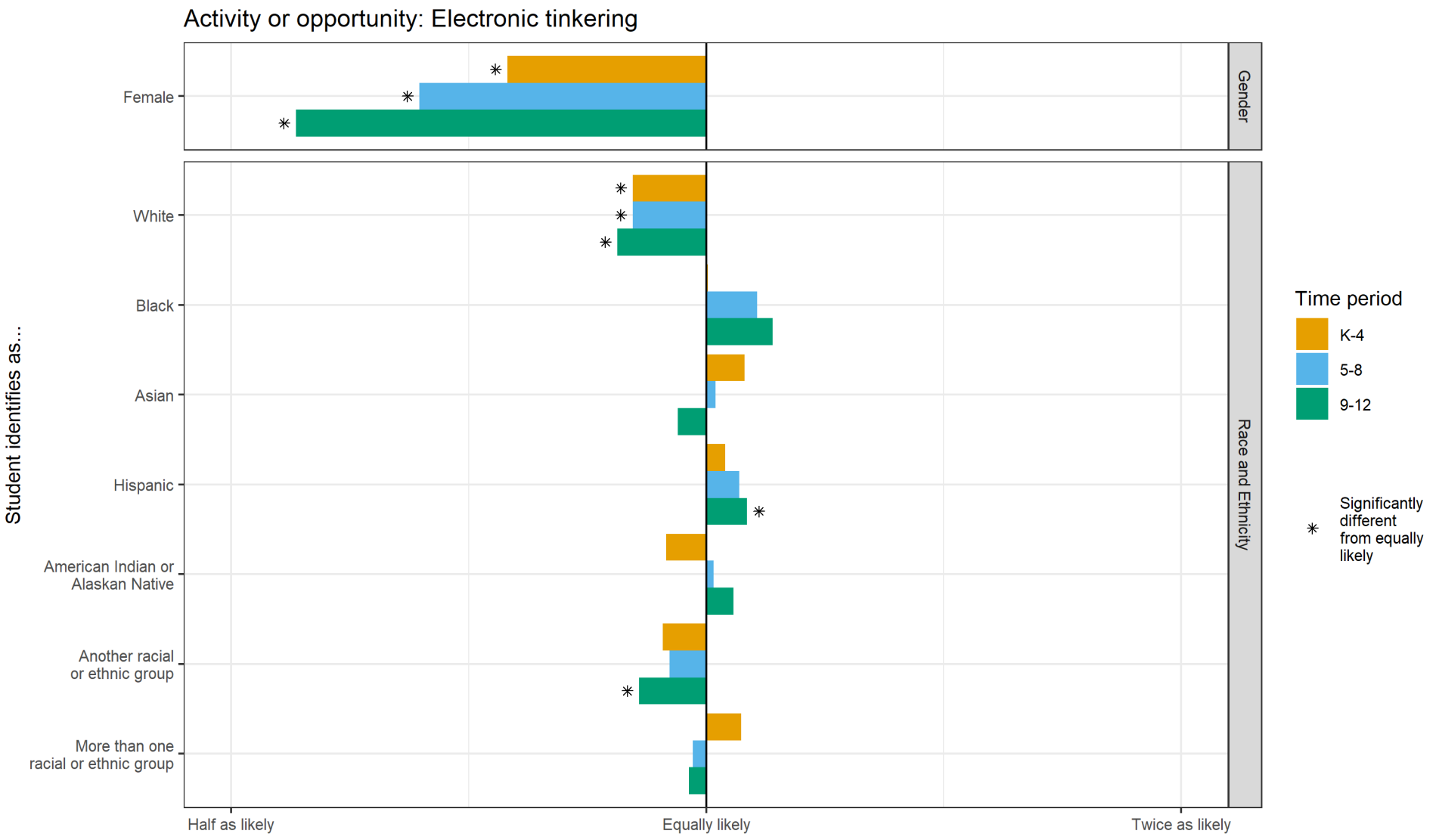
Any

To demographics…

Back

Activity or opportunity: Mechanical tinkering
Student identifies as...
Female
White
Black
Asian
Hispanic
American Indian or Alaskan Native
Another racial or ethnic group
More than one racial or ethnic group
Gender
Race and Ethnicity
Half as likely
Equally likely
Twice as likely
Time period
K-4
5-8
9-12
Significantly different from equally likely

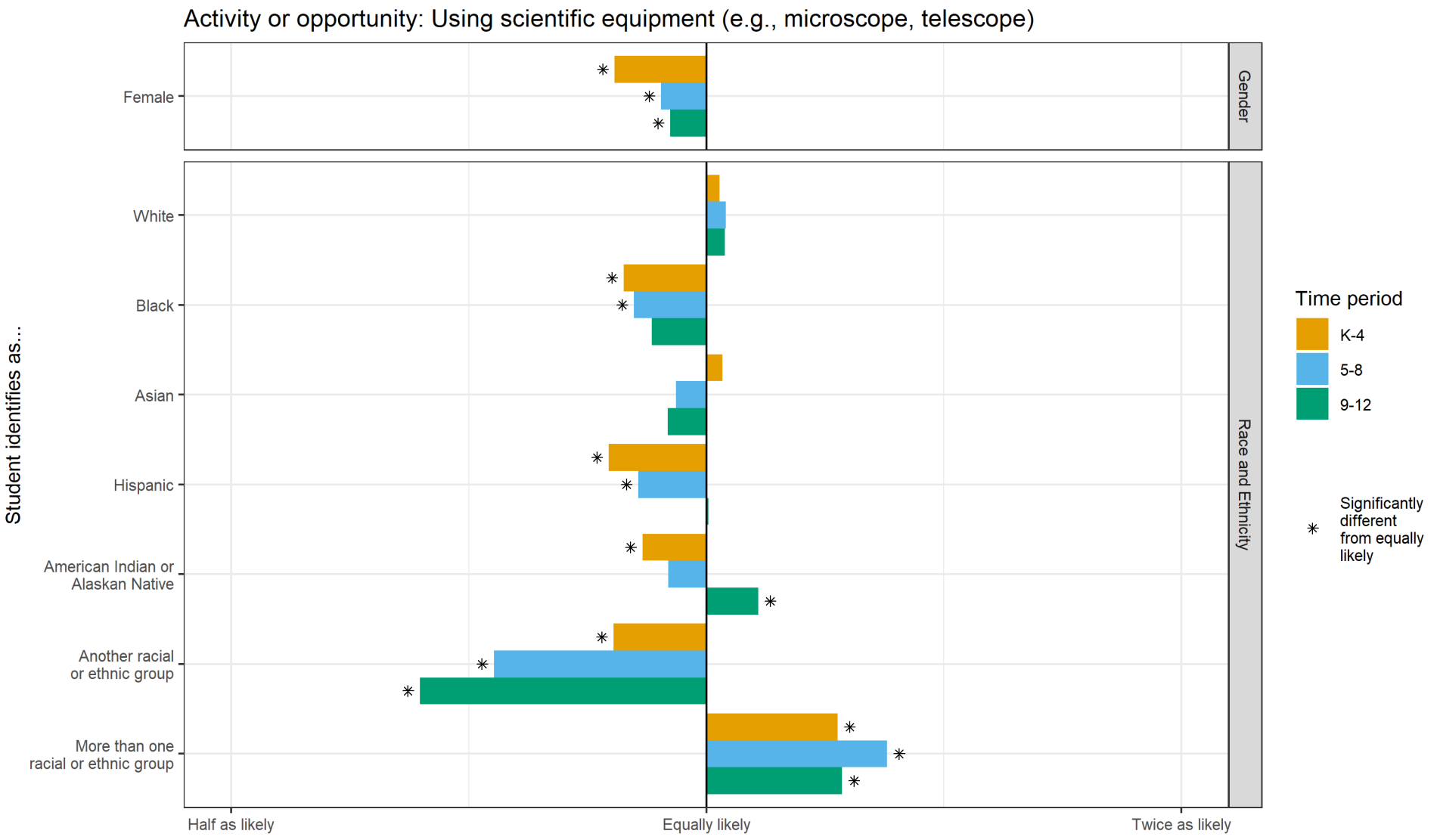
Back


Activity or opportunity: Electronic tinkering
Student identifies as...
Female
White
Black
Asian
Hispanic
American Indian or Alaskan Native
Another racial or ethnic group
More than one racial or ethnic group
Gender
Race and Ethnicity
Half as likely
Equally likely
Twice as likely
Time period
K-4
5-8
9-12
Significantly different from equally likely

Back

Activity or opportunity: Cooking / Baking
Female
White
Black
Asian
Hispanic
American Indian or Alaskan Native
Another racial or ethnic group
More than one racial or ethnic group
Gender
Race and Ethnicity
Student identifies as...
Half as likely
Equally likely
Twice as likely
Time period
K-4
5-8
9-12
Significantly different from equally likely

Back


Activity or opportunity: Using scientific equipment (e.g., microscope, telescope)
Student identifies as...
Female
White
Black
Asian
Hispanic
American Indian or Alaskan Native
Another racial or ethnic group
More than one racial or ethnic group
Gender
Race and Ethnicity
Half as likely
Equally likely
Twice as likely
Time period
K-4
5-8
9-12
Significantly different from equally likely

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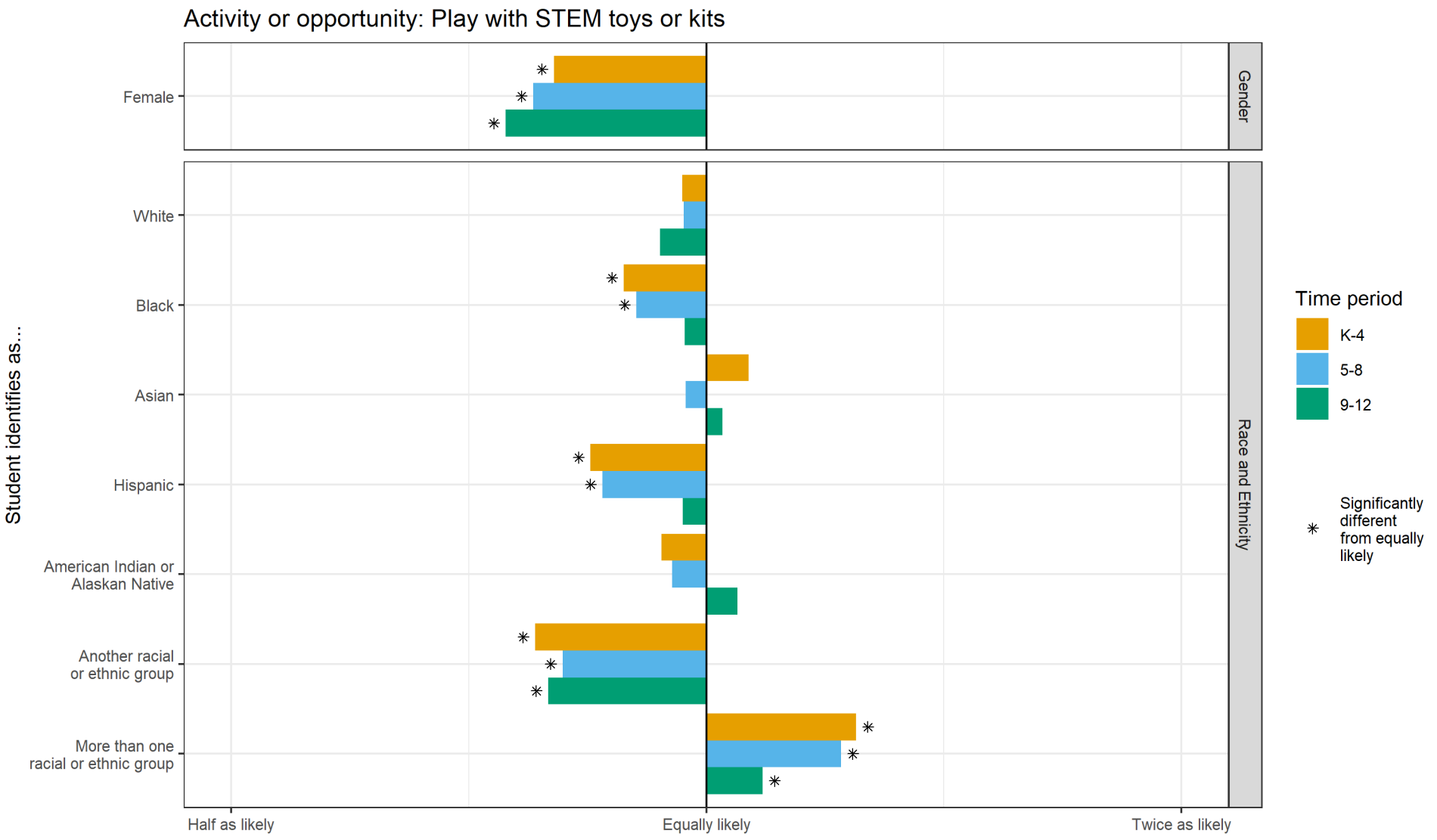
Activity or opportunity: Play with STEM toys or kits
Student identifies as...
Female
Gender
White
Black
Asian
Hispanic
American Indian or Alaskan Native
Another racial or ethnic group
More than one racial or ethnic group
Race and Ethnicity
Half as likely
Equally likely
Twice as likely
Time period
K-4
5-8
9-12
Significantly different from equally likely

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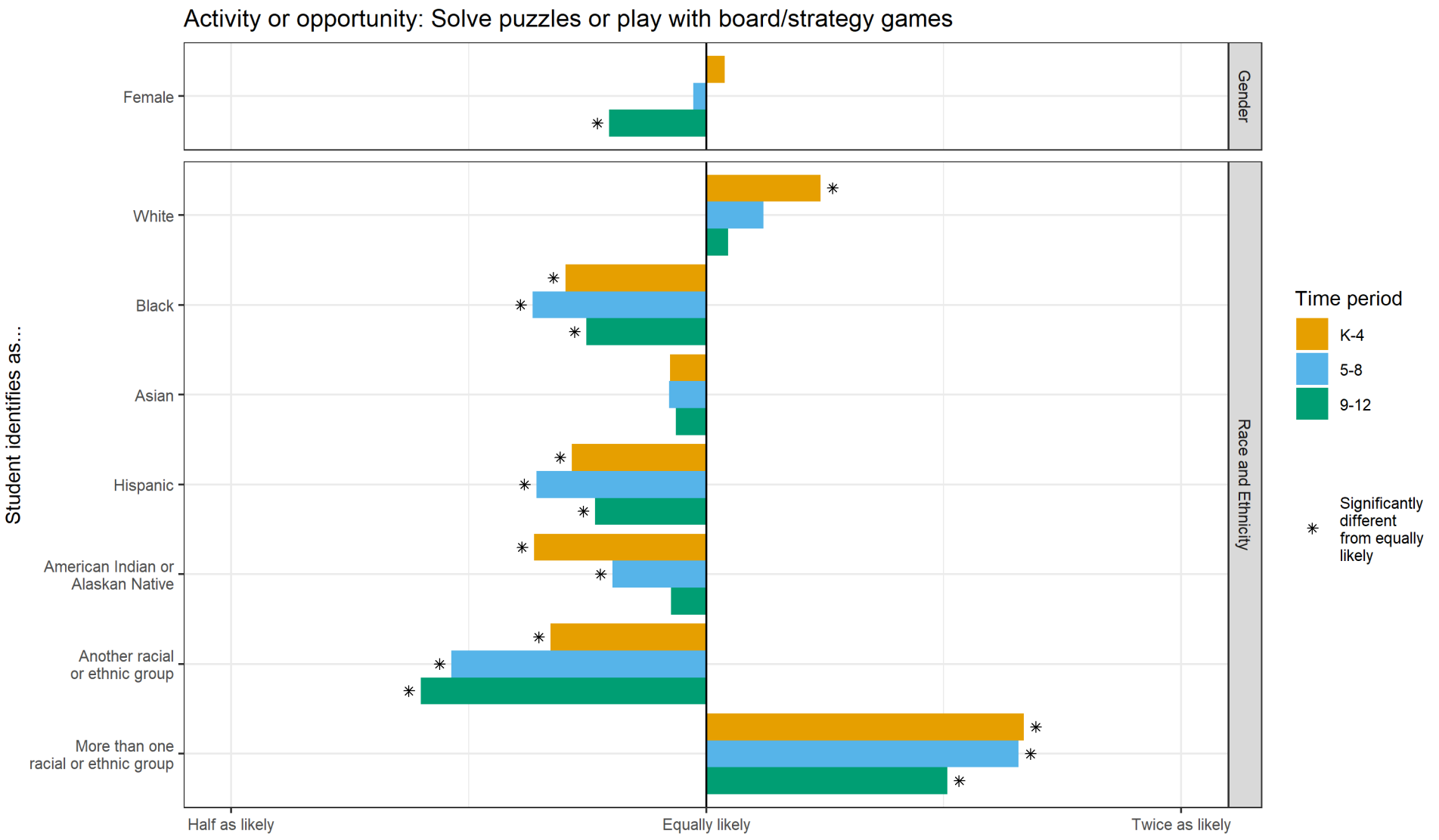
Activity or opportunity: Solve puzzles or play with board/strategy games
Student identifies as...
Female
White
Black
Asian
Hispanic
American Indian or Alaskan Native
Another racial or ethnic group
More than one racial or ethnic group
Gender
Race and Ethnicity
Half as likely
Equally likely
Twice as likely
Time period
K-4
5-8
9-12
Significantly different from equally likely

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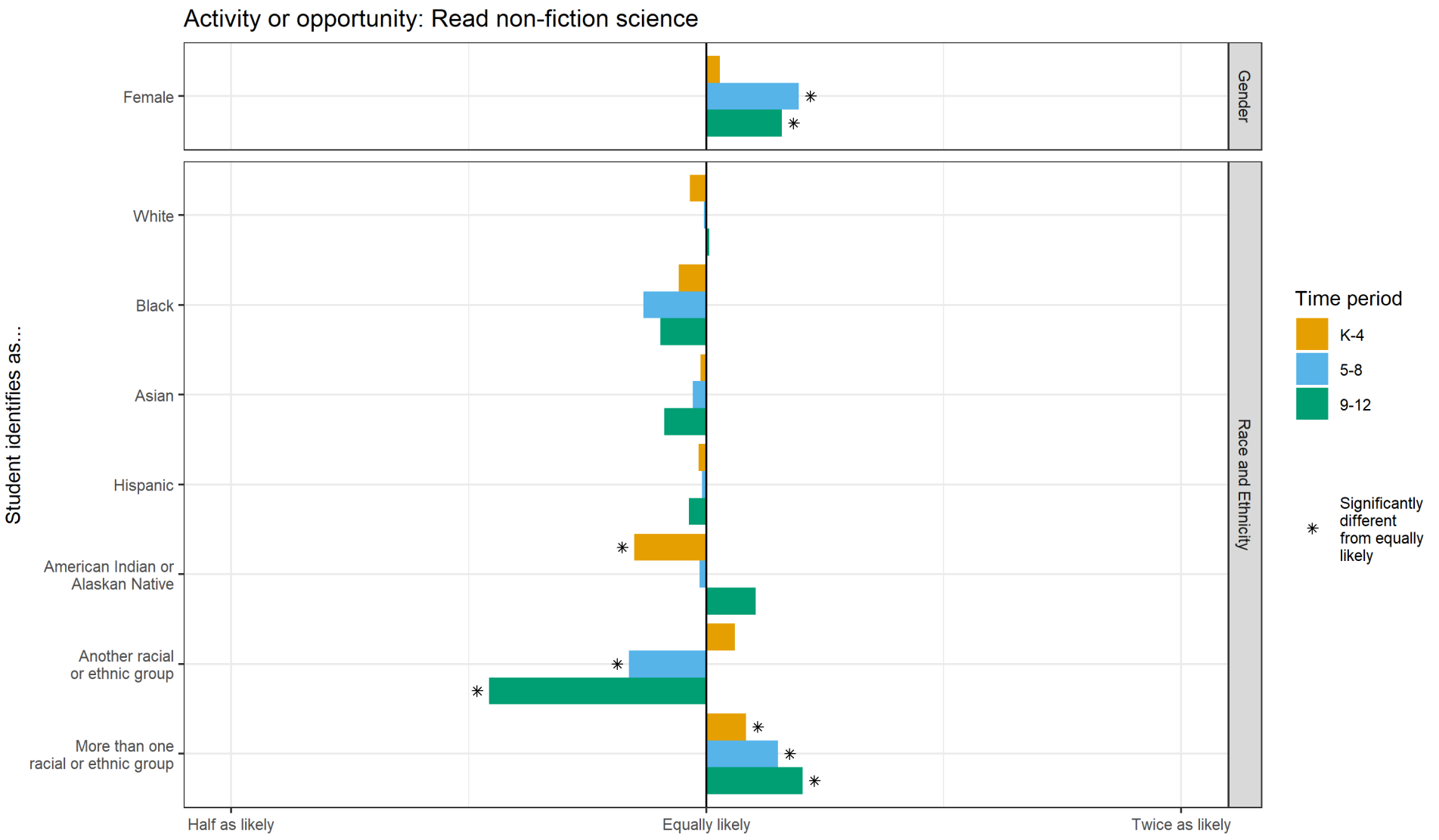
Activity or opportunity: Read non-fiction science
Female
Gender
White
Black
Asian
Hispanic
American Indian or Alaskan Native
Another racial or ethnic group
More than one racial or ethnic group
Race and Ethnicity
Student identifies as...
Half as likely
Equally likely
Twice as likely
Time period
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5-8
9-12
Significantly different from equally likely

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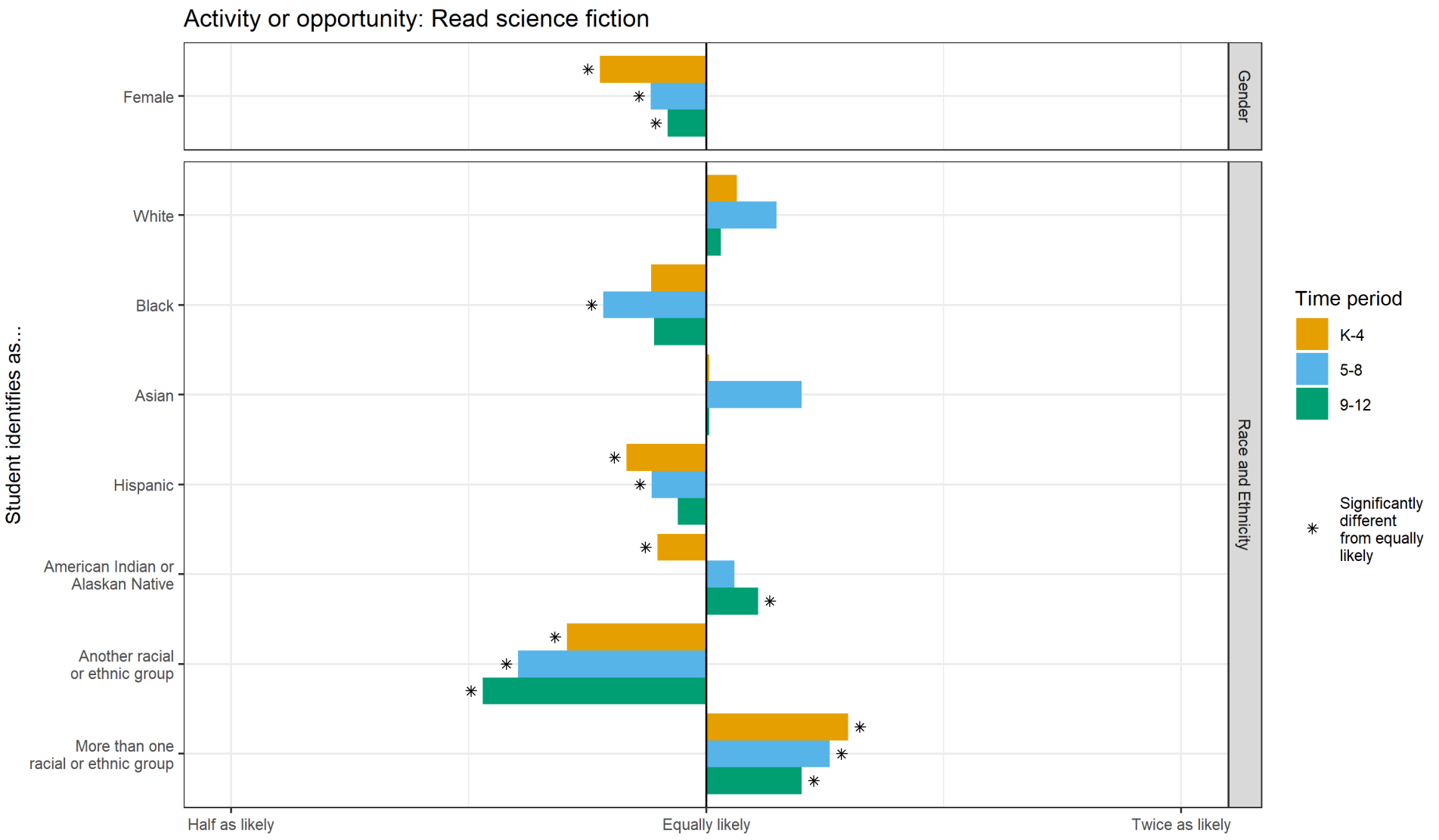
Activity or opportunity: Read science fiction
Student identifies as...
Female
Gender
White
Black
Asian
Hispanic
American Indian or Alaskan Native
Another racial or ethnic group
More than one racial or ethnic group
Race and Ethnicity
Half as likely
Equally likely
Twice as likely
Time period
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Significantly different from equally likely

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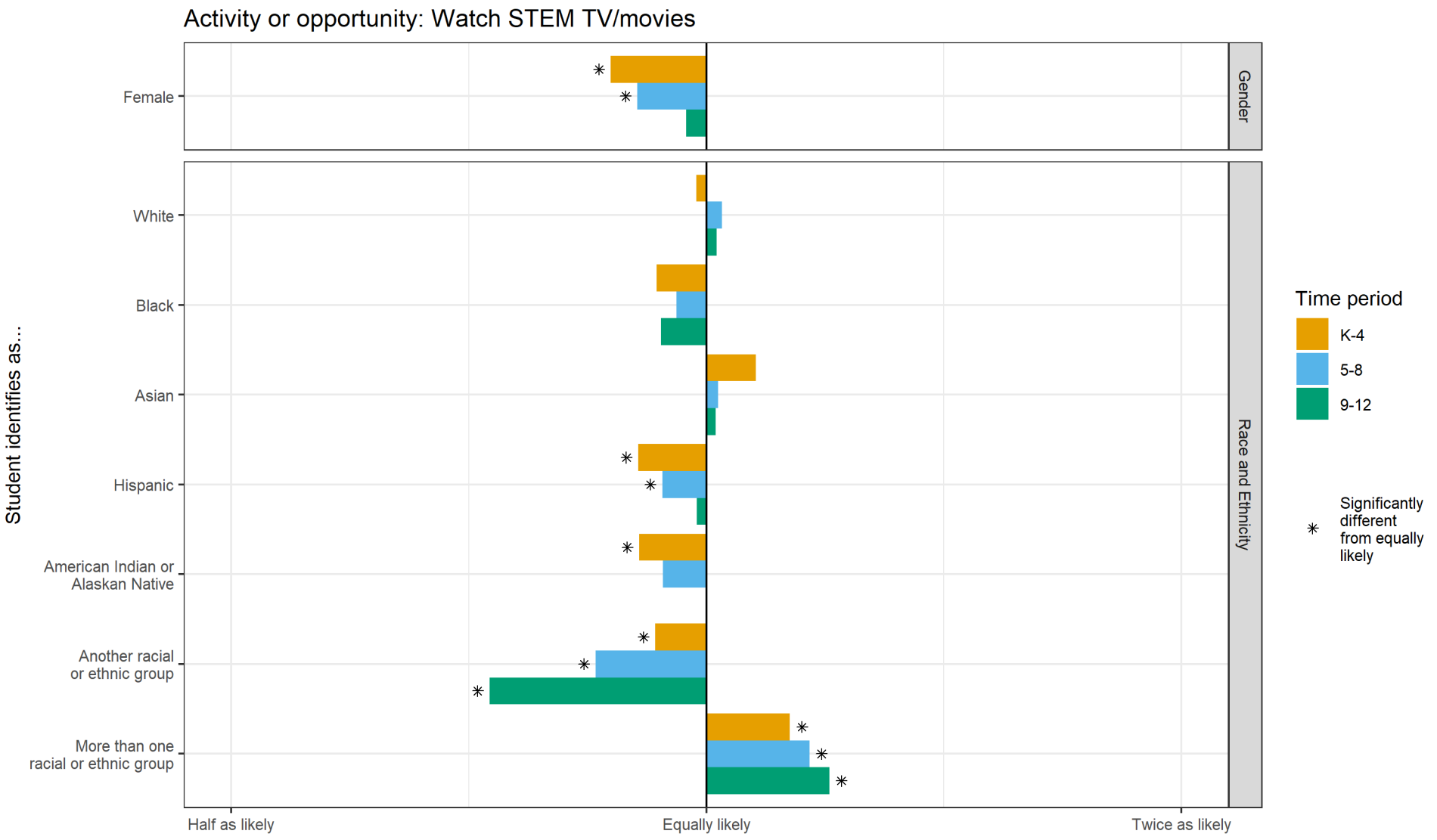
Activity or opportunity: Watch STEM TV/movies
Student identifies as...
Female
Gender
White
Black
Asian
Hispanic
American Indian or Alaskan Native
Another racial or ethnic group
More than one racial or ethnic group
Race and Ethnicity
Half as likely
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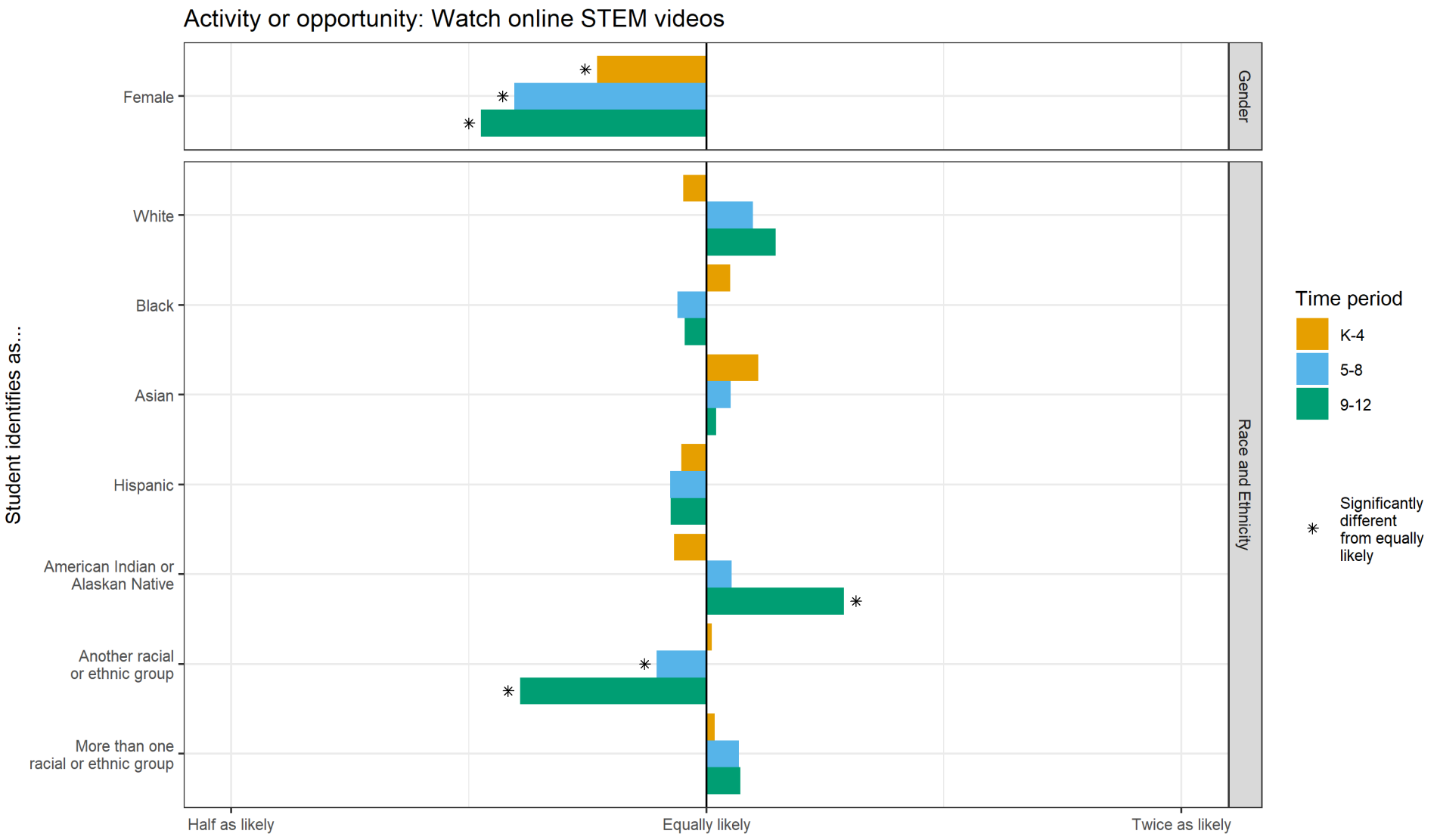
Activity or opportunity: Watch online STEM videos
Student identifies as...
Female
White
Black
Asian
Hispanic
American Indian or Alaskan Native
Another racial or ethnic group
More than one racial or ethnic group
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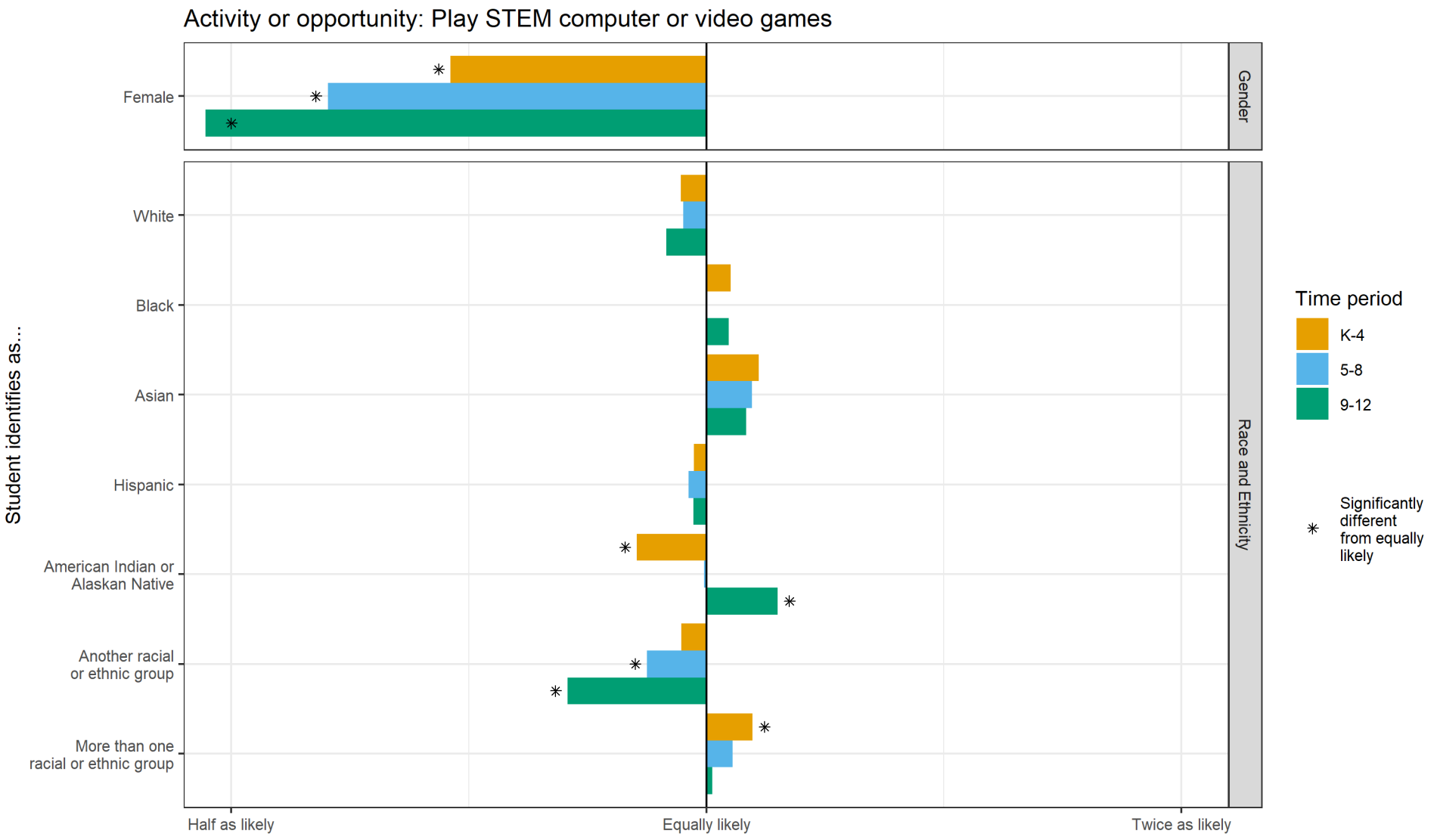
Activity or opportunity: Play STEM computer or video games
Female
Gender
White
Black
Asian
Hispanic
American Indian or Alaskan Native
Another racial or ethnic group
More than one racial or ethnic group
Race and Ethnicity
Student identifies as...
Half as likely
Equally likely
Twice as likely
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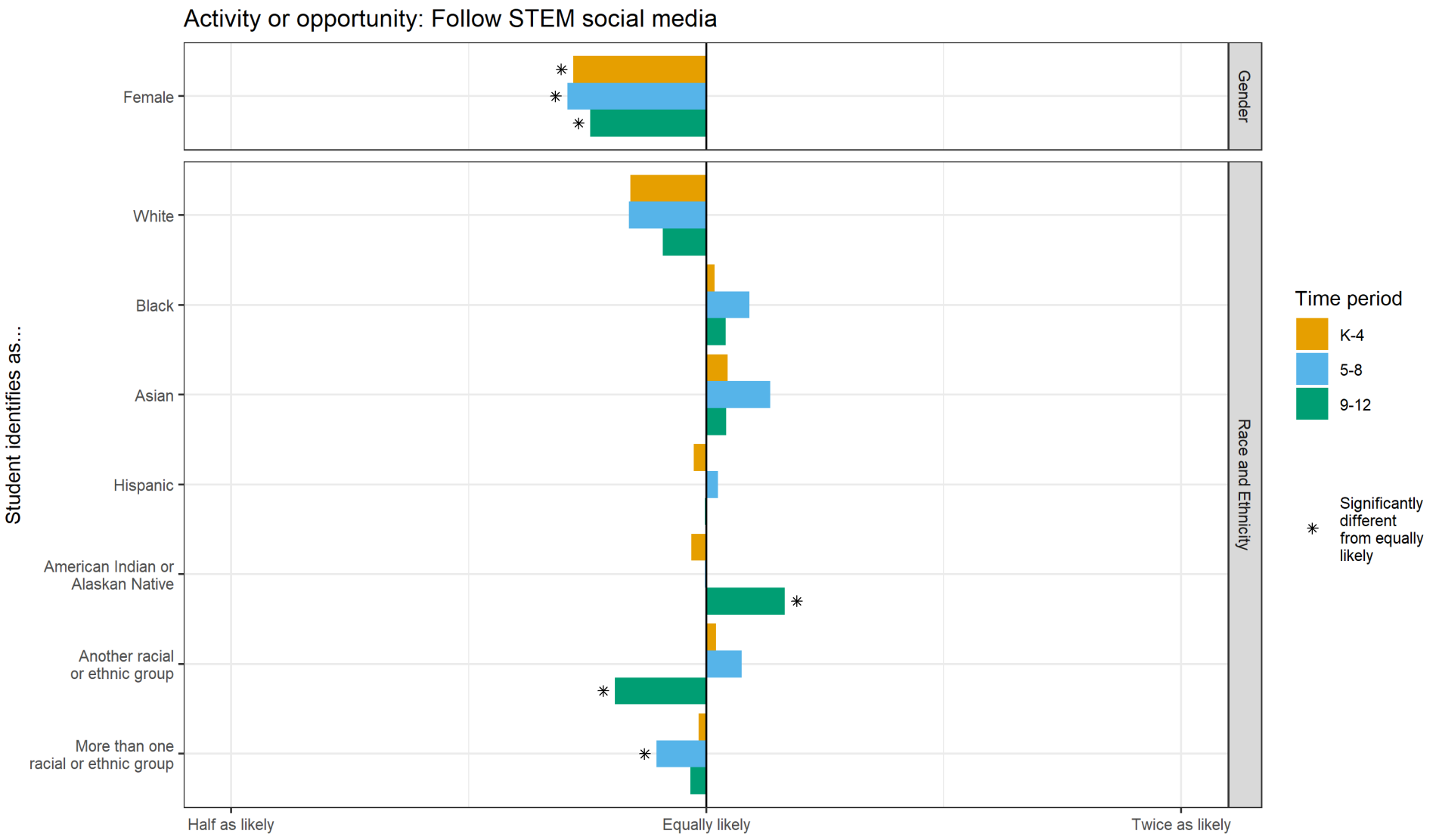
Activity or opportunity: Follow STEM social media
Student identifies as...
Female
White
Black
Asian
Hispanic
American Indian or Alaskan Native
Another racial or ethnic group
More than one racial or ethnic group
Gender
Race and Ethnicity
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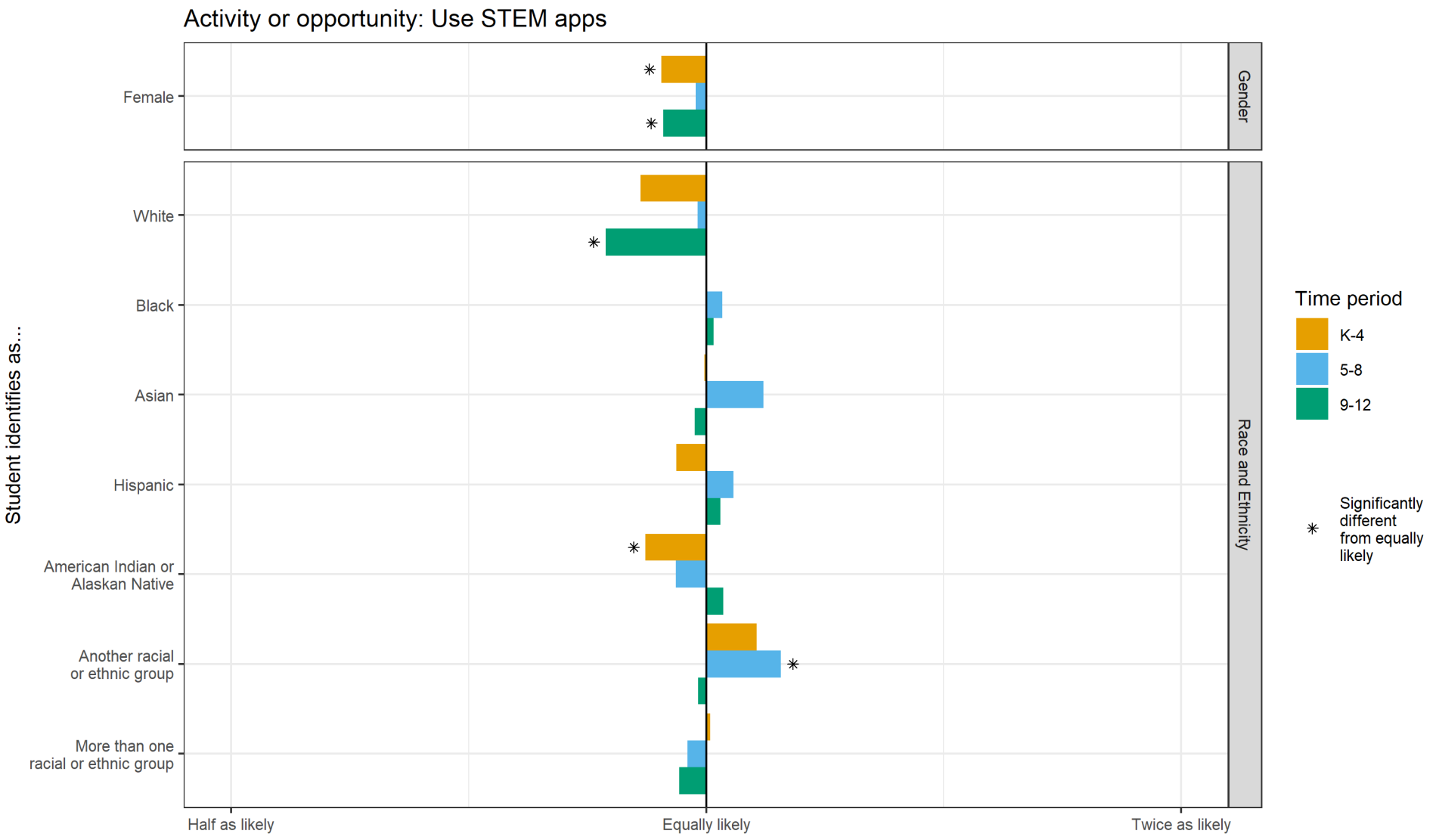
Activity or opportunity: Use STEM apps
Student identifies as...
Female
White
Black
Asian
Hispanic
American Indian or Alaskan Native
Another racial or ethnic group
More than one racial or ethnic group
Gender
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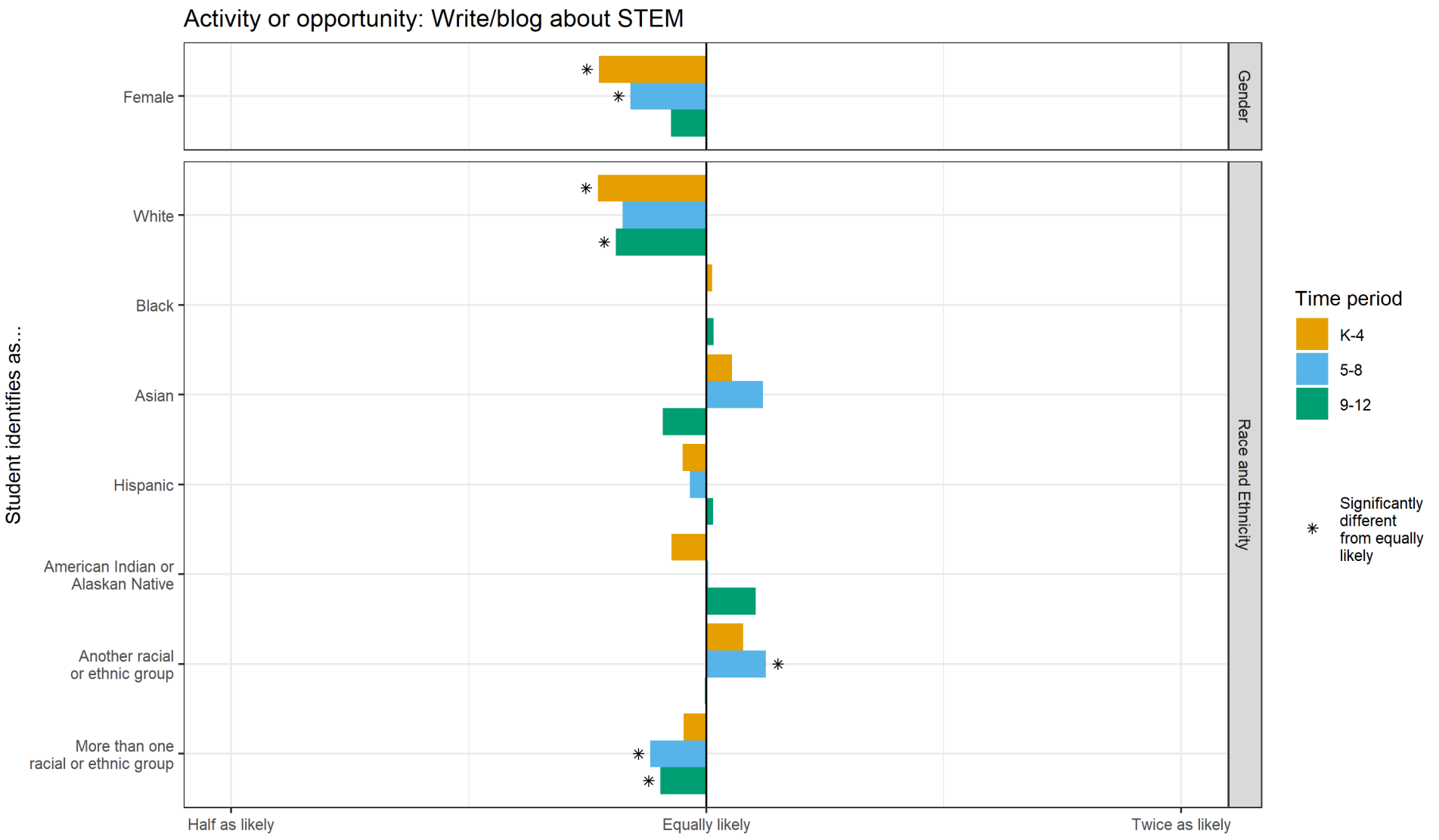
Activity or opportunity: Write/blog about STEM
Student identifies as...
Female
White
Black
Asian
Hispanic
American Indian or Alaskan Native
Another racial or ethnic group
More than one racial or ethnic group
Gender
Race and Ethnicity
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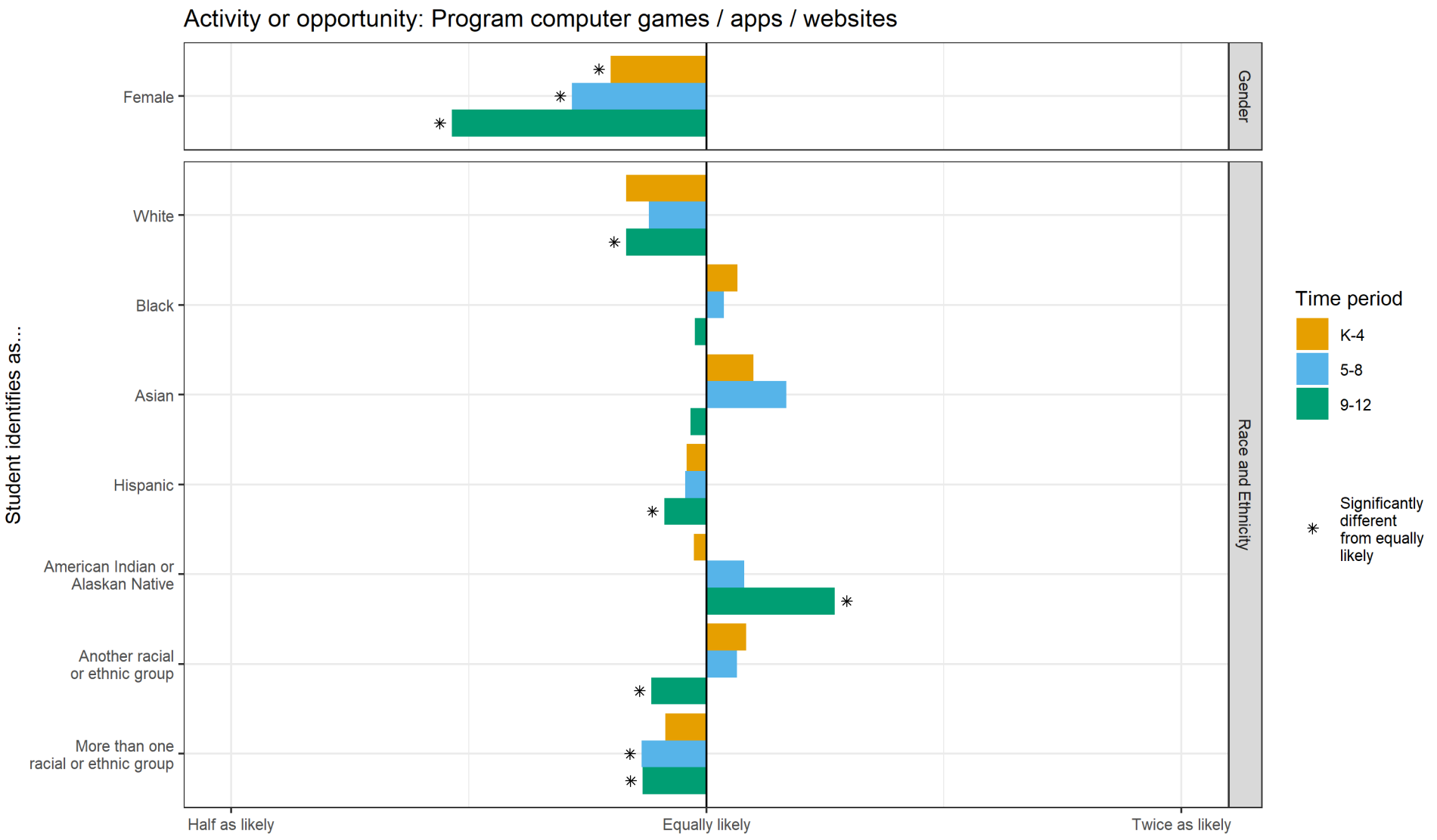
Activity or opportunity: Program computer games / apps / websites
Student identifies as...
Female
Gender
White
Black
Asian
Hispanic
American Indian or Alaskan Native
Another racial or ethnic group
More than one racial or ethnic group
Race and Ethnicity
Half as likely
Equally likely
Twice as likely
Time period
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9-12
Significantly different from equally likely

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Activity or opportunity: Train/raise animals
Student identifies as...
Female
White
Black
Asian
Hispanic
American Indian or Alaskan Native
Another racial or ethnic group
More than one racial or ethnic group
Gender
Race and Ethnicity
Half as likely
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Twice as likely
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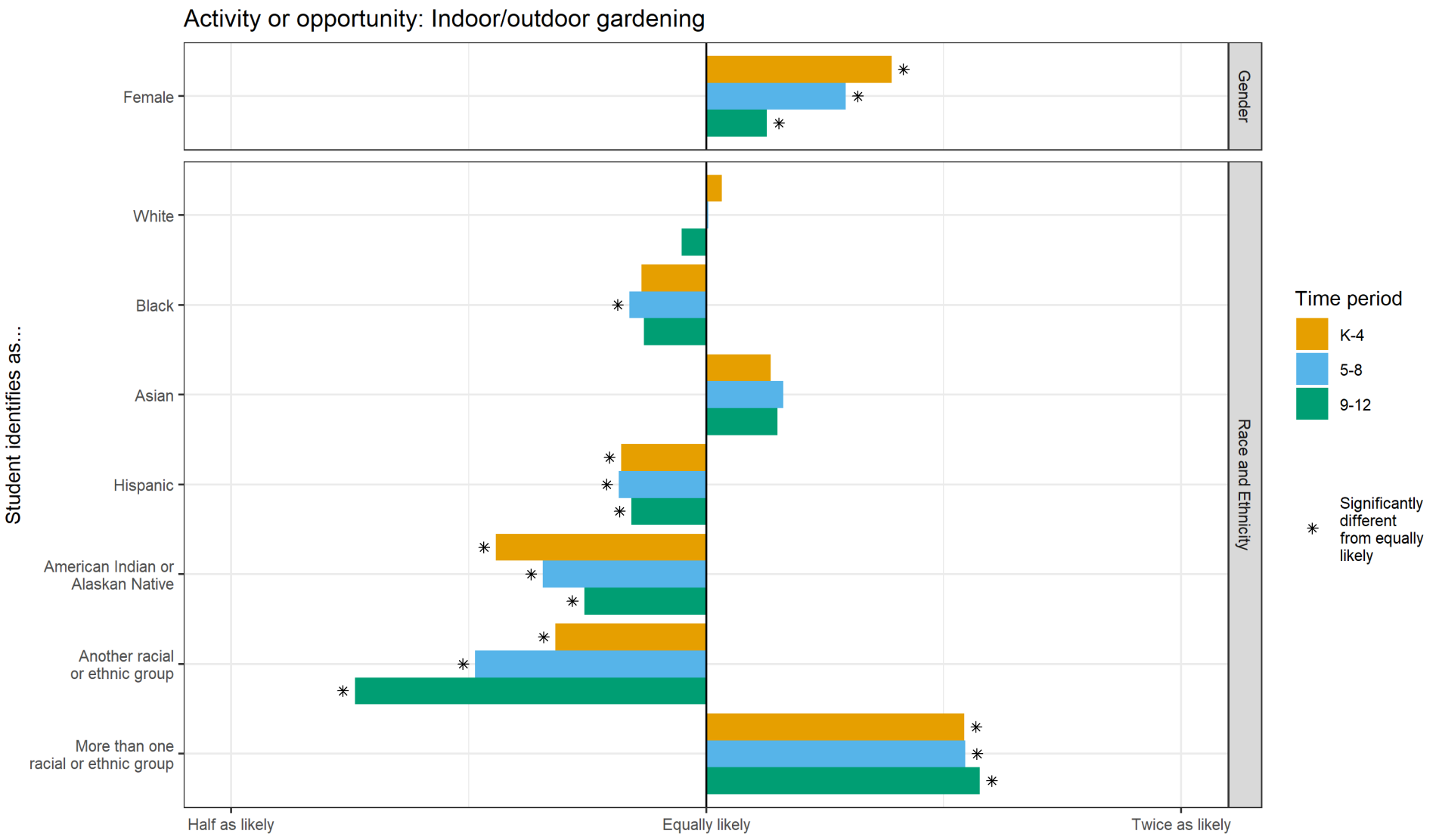
Activity or opportunity: Indoor/outdoor gardening
Student identifies as...
Female
White
Black
Asian
Hispanic
American Indian or Alaskan Native
Another racial or ethnic group
More than one racial or ethnic group
Gender
Race and Ethnicity
Half as likely
Equally likely
Twice as likely
Time period
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9-12
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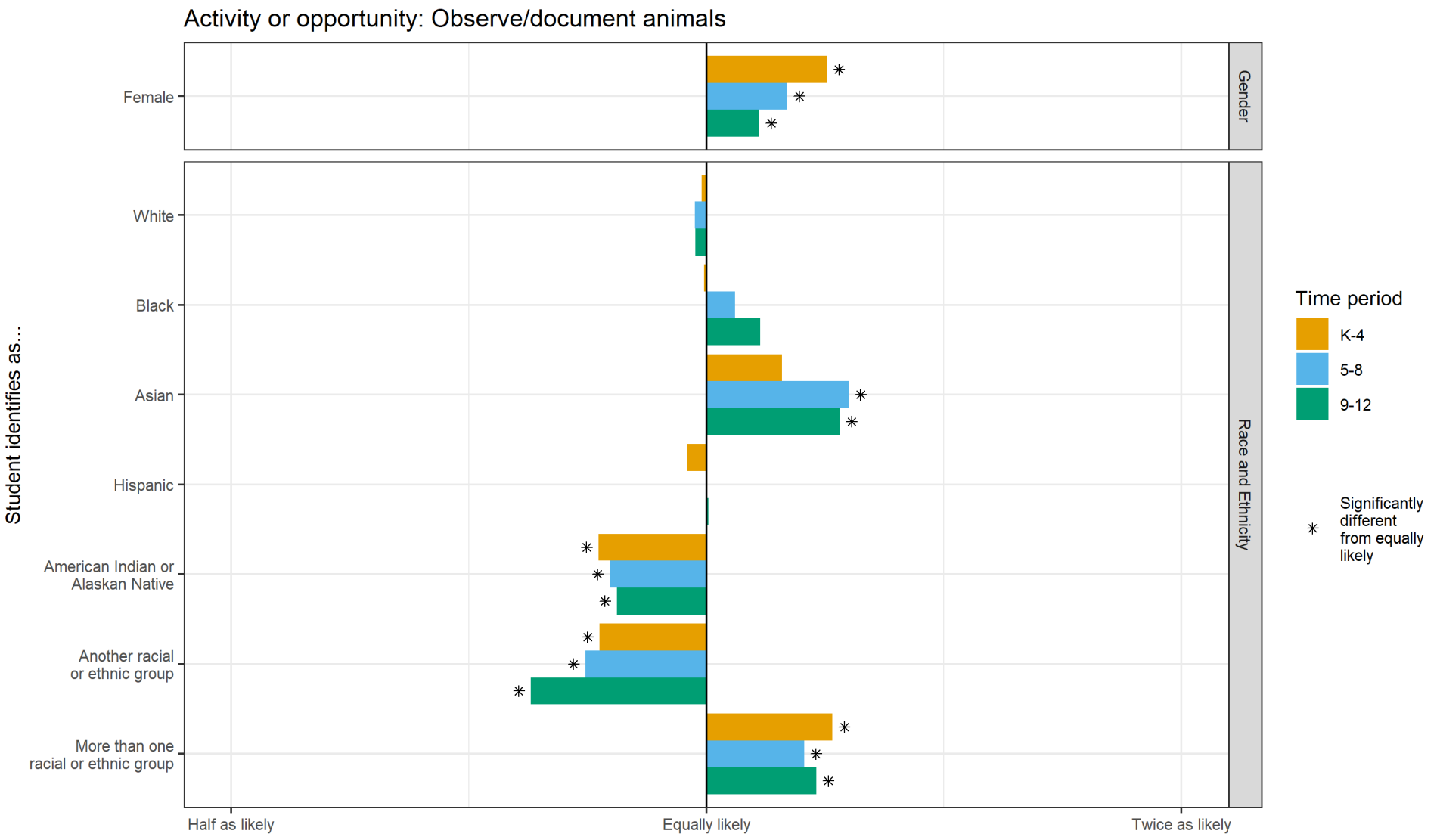
Activity or opportunity: Observe/document animals
Female
Gender
White
Black
Asian
Hispanic
American Indian or Alaskan Native
Another racial or ethnic group
More than one racial or ethnic group
Race and Ethnicity
Student identifies as...
Half as likely
Equally likely
Twice as likely
Time period
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Significantly different from equally likely

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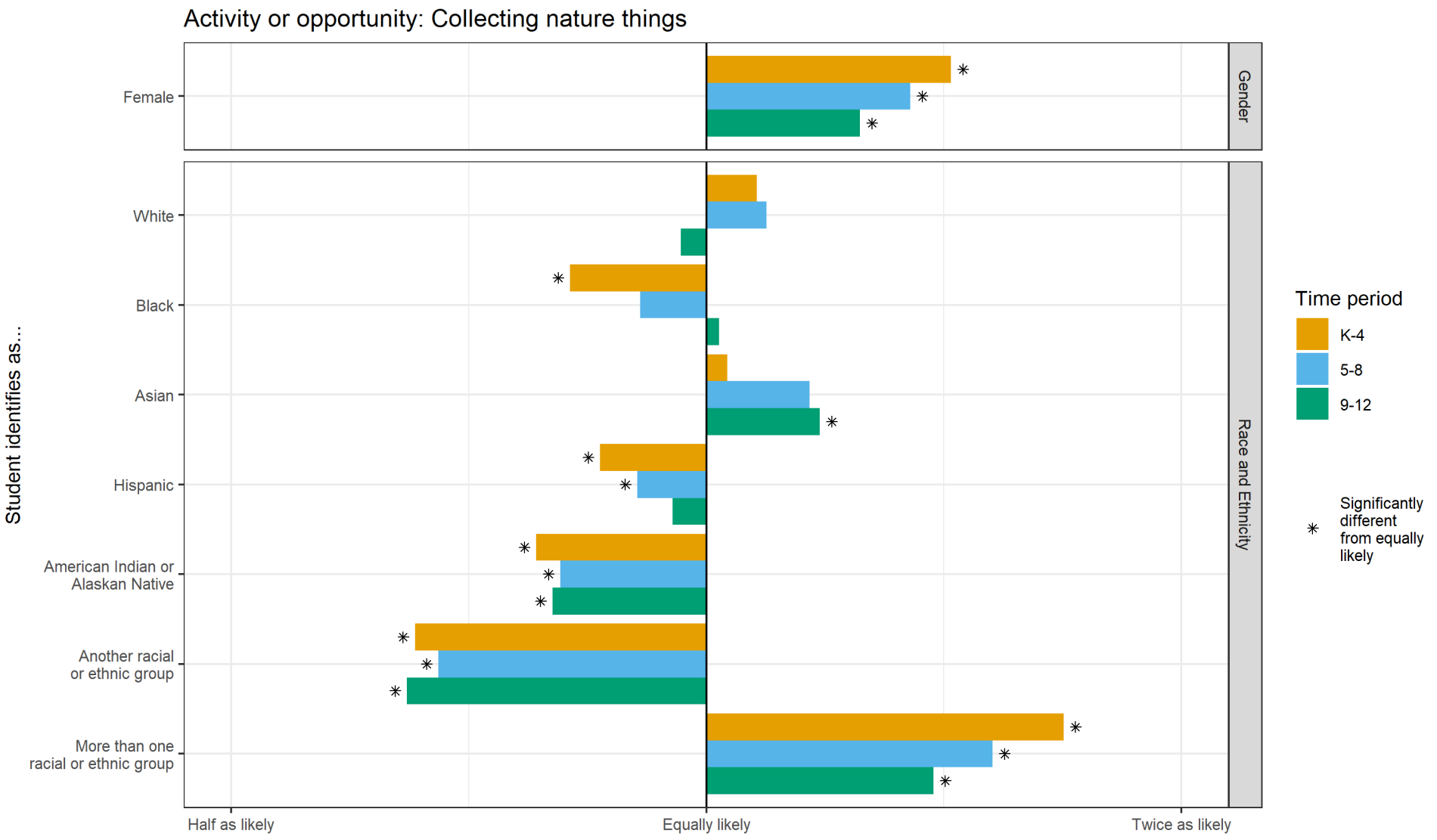
Activity or opportunity: Collecting nature things
Female
White
Black
Asian
Hispanic
American Indian or Alaskan Native
Another racial or ethnic group
More than one racial or ethnic group
Gender
Race and Ethnicity
Student identifies as...
Half as likely
Equally likely
Twice as likely
Time period
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9-12
Significantly different from equally likely

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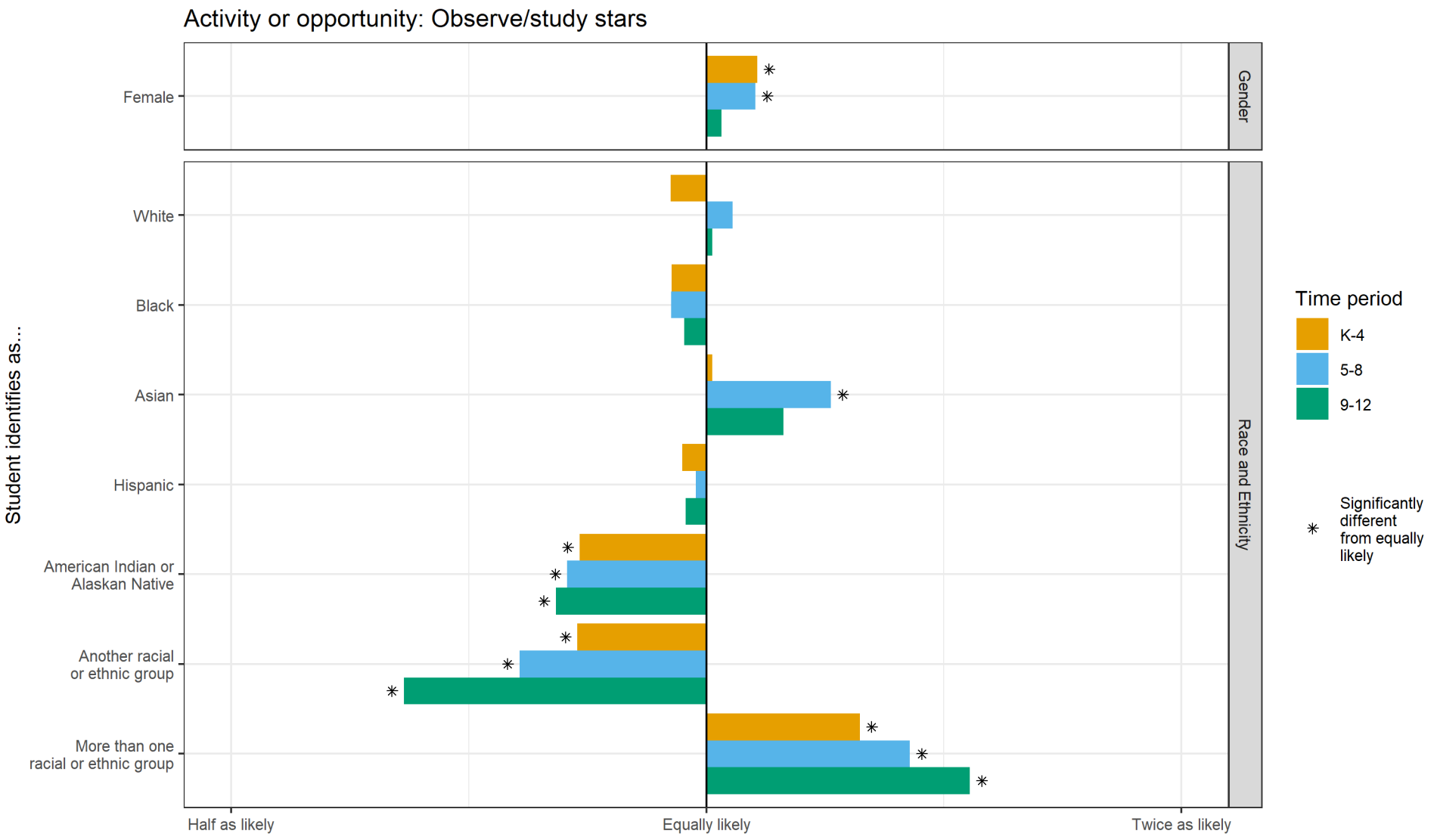
Activity or opportunity: Observe/study stars
Student identifies as...
Female
White
Black
Asian
Hispanic
American Indian or Alaskan Native
Another racial or ethnic group
More than one racial or ethnic group
Gender
Race and Ethnicity
Half as likely
Equally likely
Twice as likely
Time period
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9-12
Significantly different from equally likely

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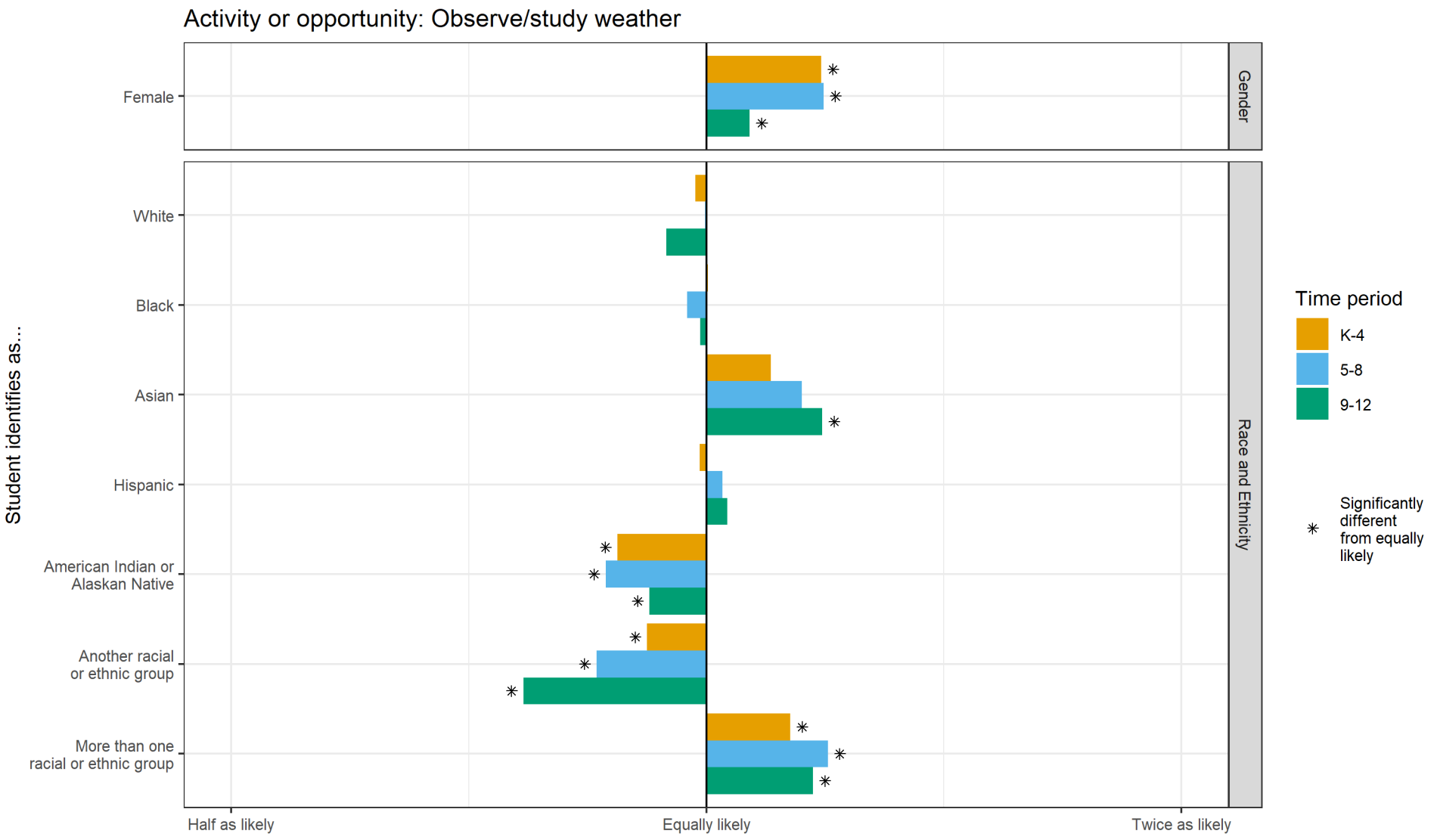
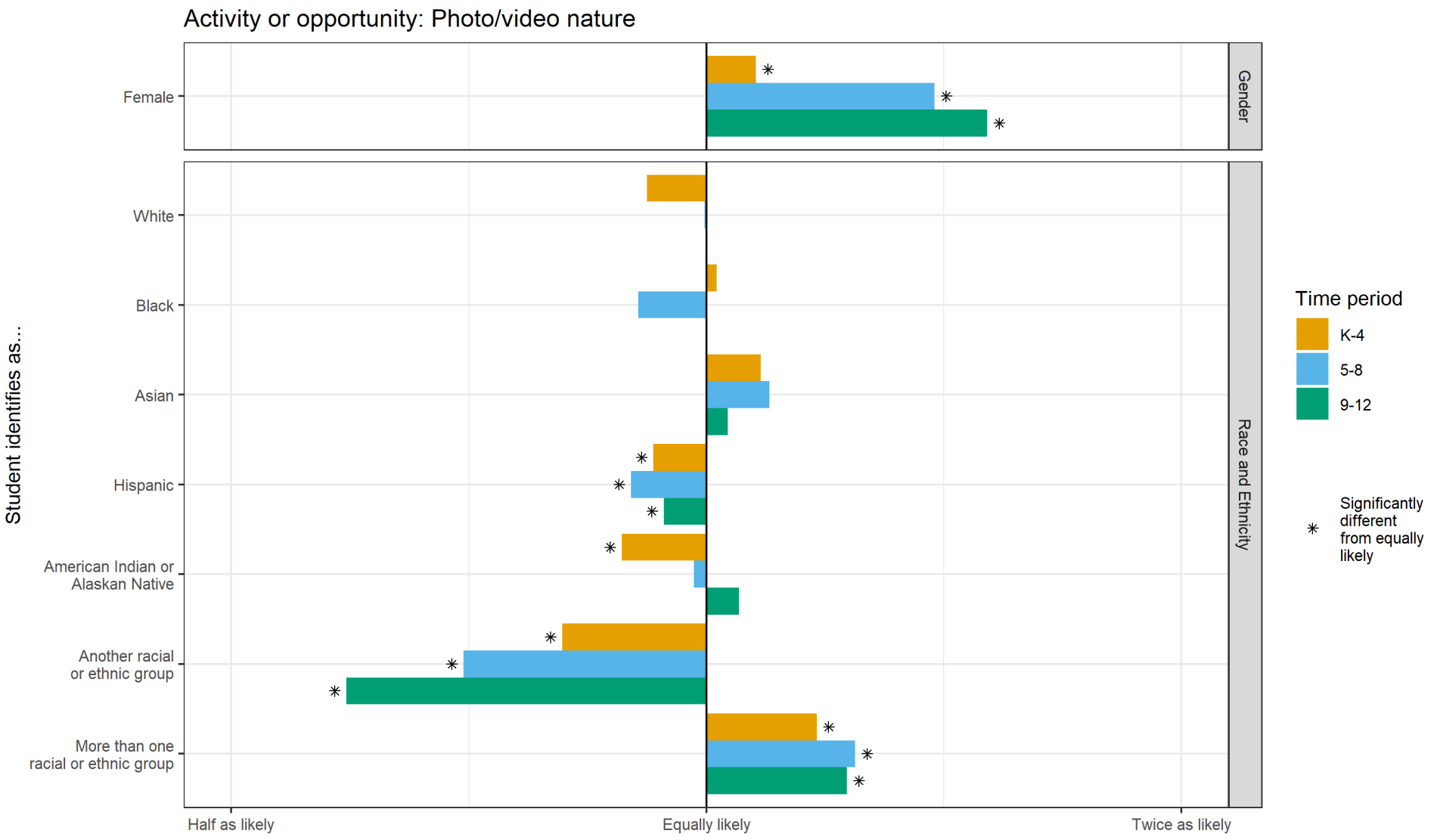

Activity or opportunity: Observe/study weather
Female
Gender
White
Black
Asian
Hispanic
American Indian or Alaskan Native
Another racial or ethnic group
More than one racial or ethnic group
Race and Ethnicity
Student identifies as...
Half as likely
Equally likely
Twice as likely
Time period
K-4
5-8
9-12
Significantly different from equally likely

Back


Activity or opportunity: Photo/video nature
Student identifies as...
Female
Gender
White
Black
Asian
Hispanic
American Indian or Alaskan Native
Another racial or ethnic group
More than one racial or ethnic group
Race and Ethnicity
Half as likely
Equally likely
Twice as likely
Time period
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Significantly different from equally likely

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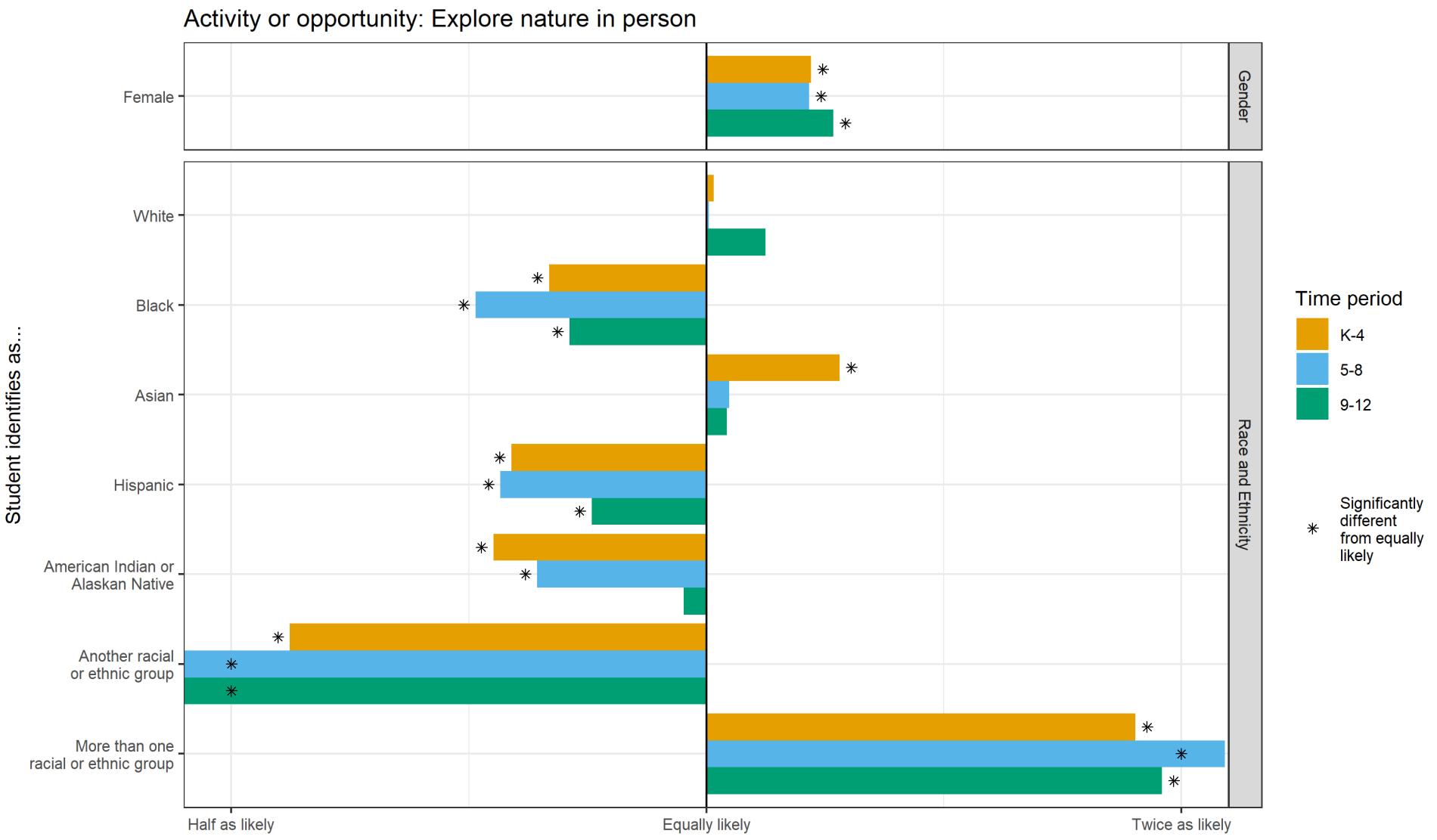
Activity or opportunity: Explore nature in person
Student identifies as...
Female
White
Black
Asian
Hispanic
American Indian or Alaskan Native
Another racial or ethnic group
More than one racial or ethnic group
Gender
Race and Ethnicity
Half as likely
Equally likely
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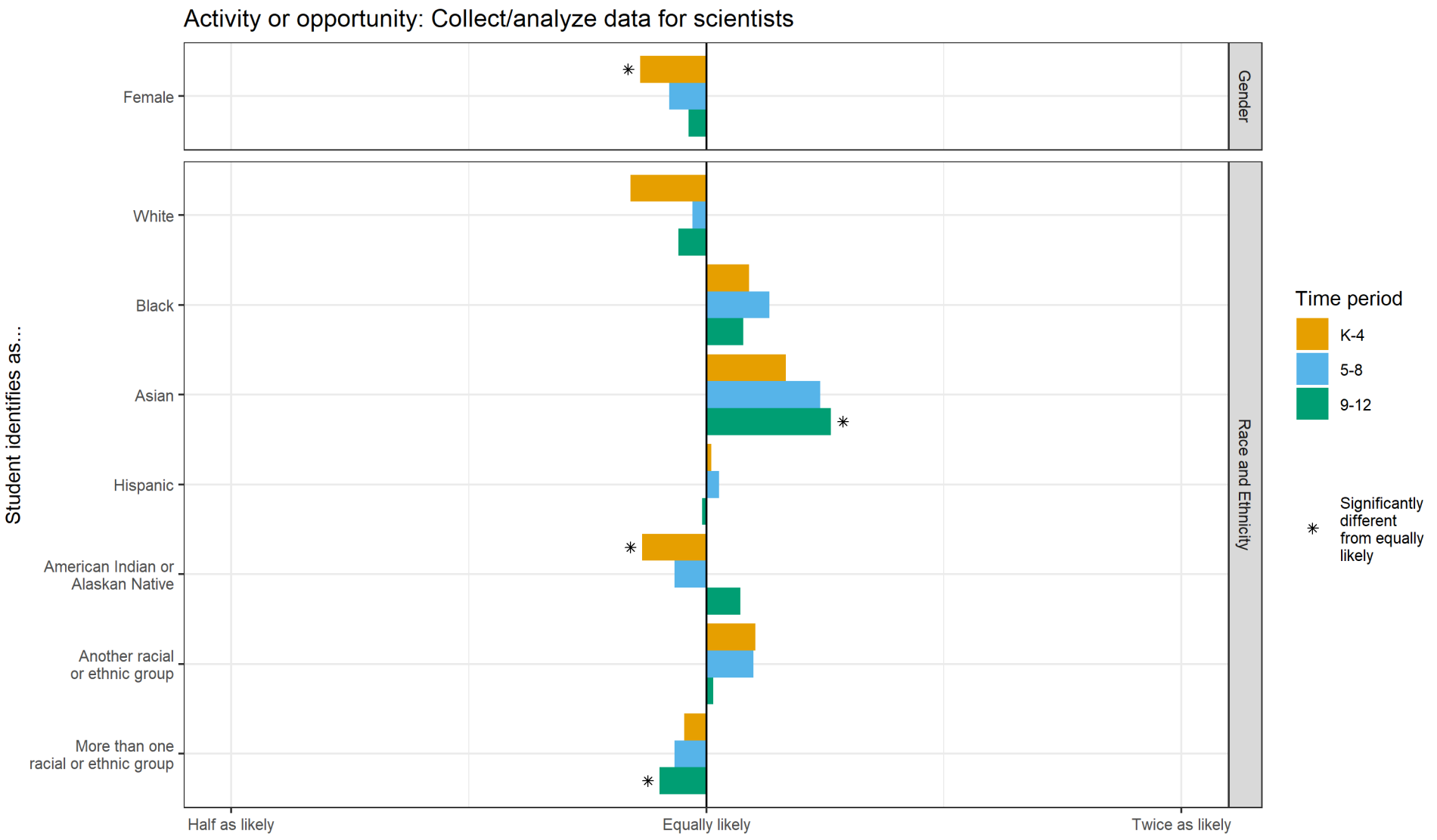
Activity or opportunity: Collect/analyze data for scientists
Female
White
Black
Asian
Hispanic
American Indian or Alaskan Native
Another racial or ethnic group
More than one racial or ethnic group
Gender
Race and Ethnicity
Student identifies as...
Half as likely
Equally likely
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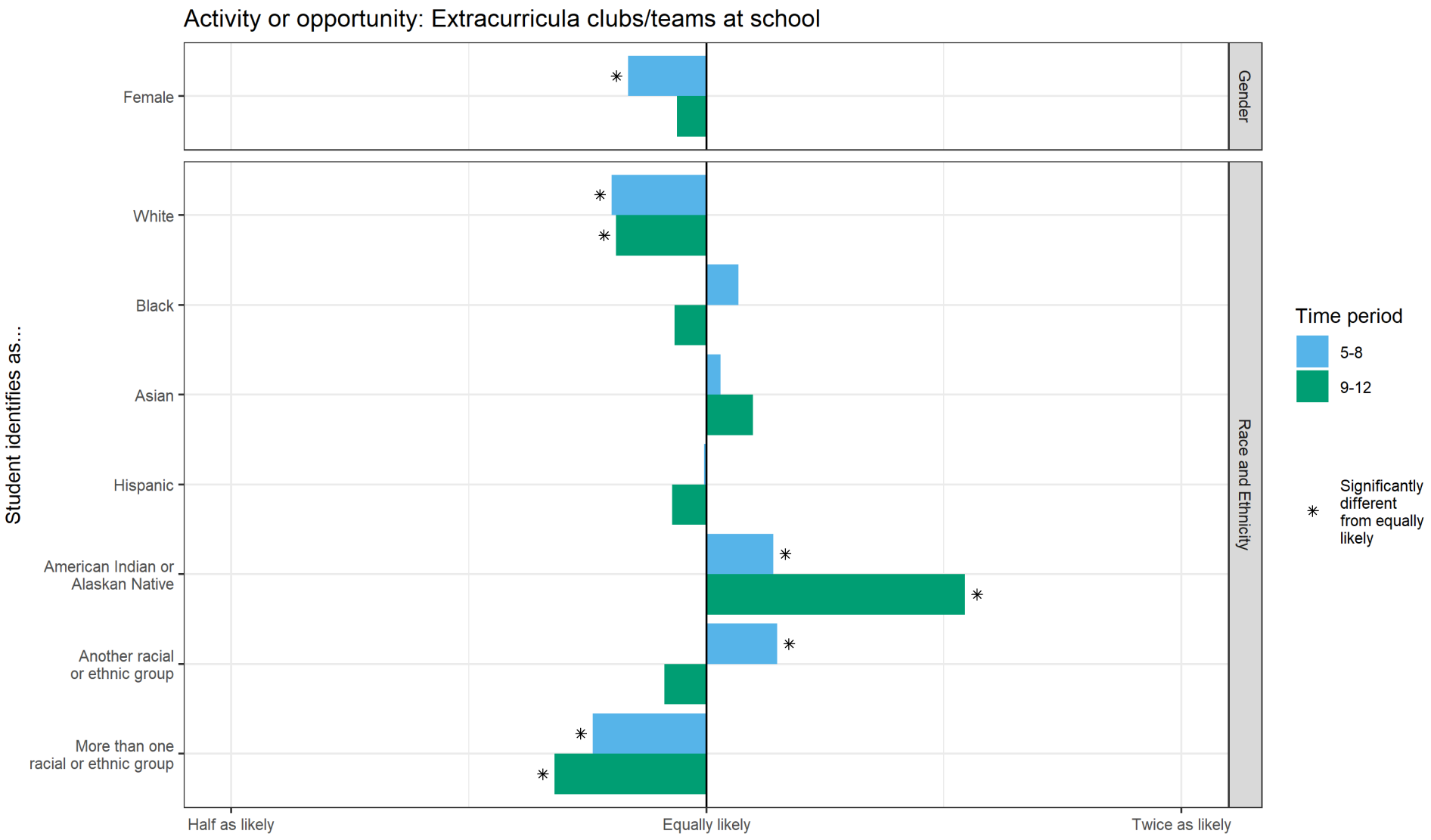
Activity or opportunity: Extracurricula clubs/teams at school
Student identifies as...
Female
Gender
White
Black
Asian
Hispanic
American Indian or Alaskan Native
Another racial or ethnic group
More than one racial or ethnic group
Race and Ethnicity
Half as likely
Equally likely
Twice as likely
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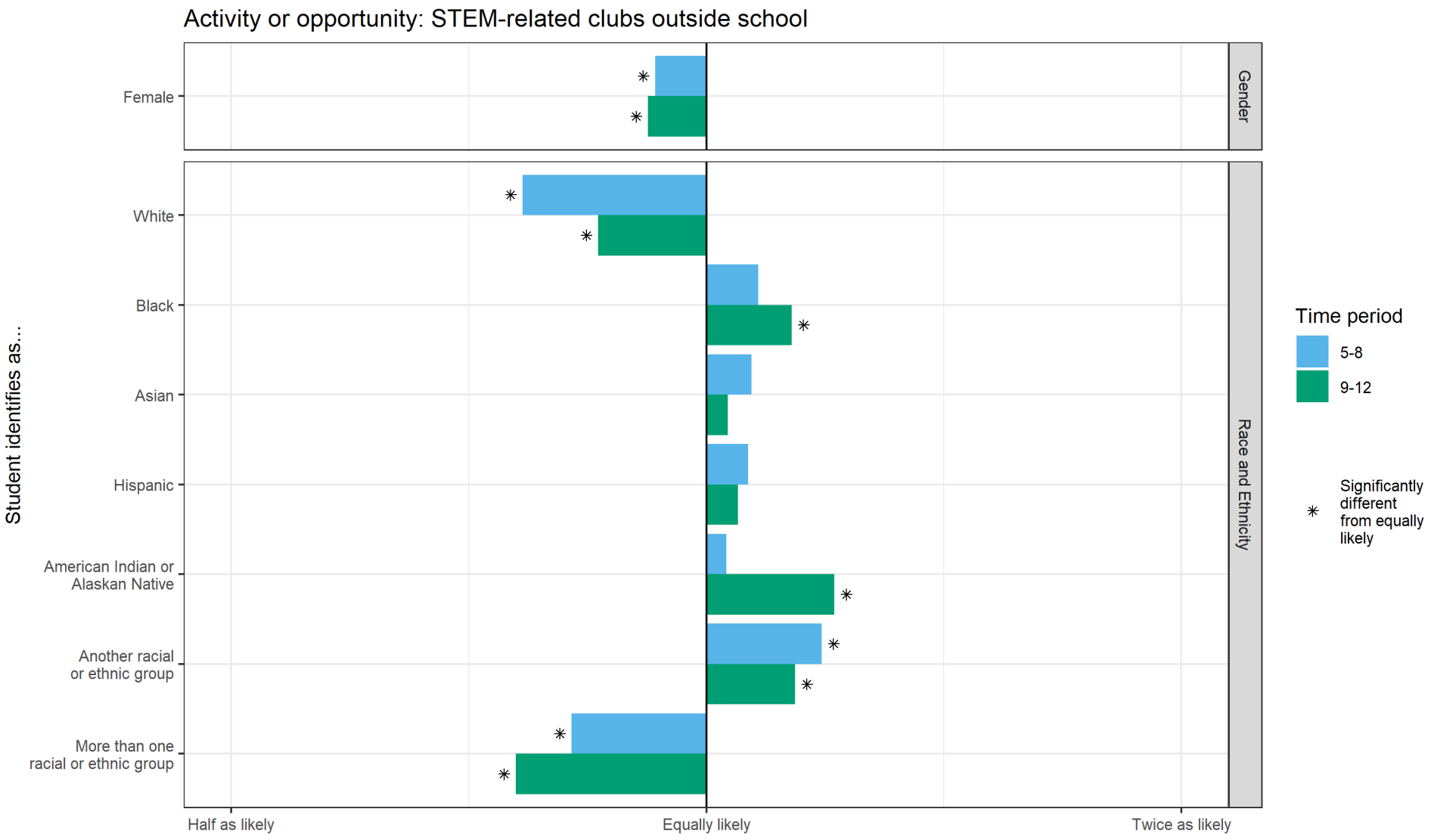
Activity or opportunity: STEM-related clubs outside school
Student identifies as...
Female
White
Black
Asian
Hispanic
American Indian or Alaskan Native
Another racial or ethnic group
More than one racial or ethnic group
Gender
Race and Ethnicity
Half as likely
Equally likely
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Time period
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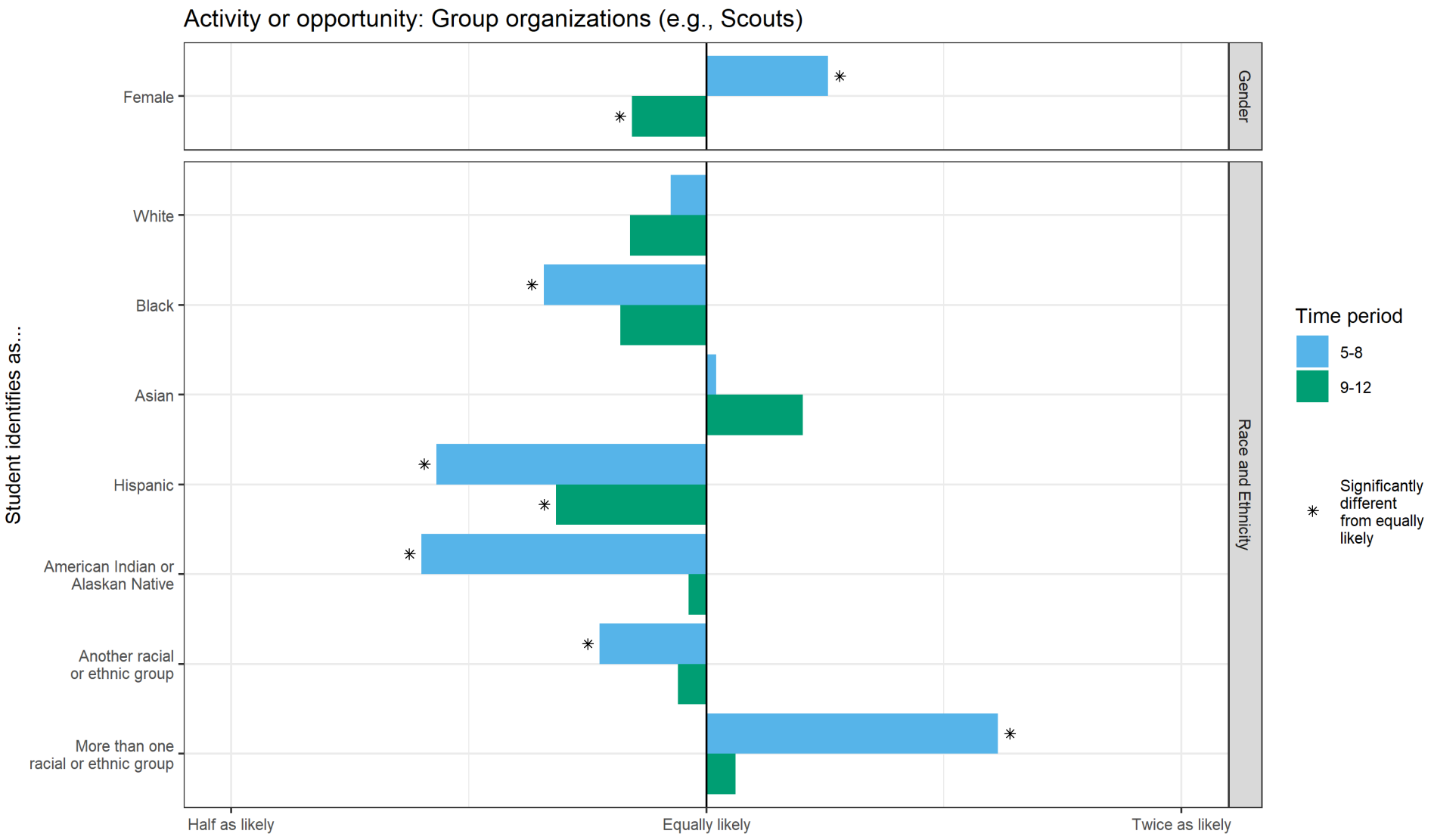
Activity or opportunity: Group organizations (e.g., Scouts)
Student identifies as...
Female
White
Black
Asian
Hispanic
American Indian or Alaskan Native
Another racial or ethnic group
More than one racial or ethnic group
Gender
Race and Ethnicity
Half as likely
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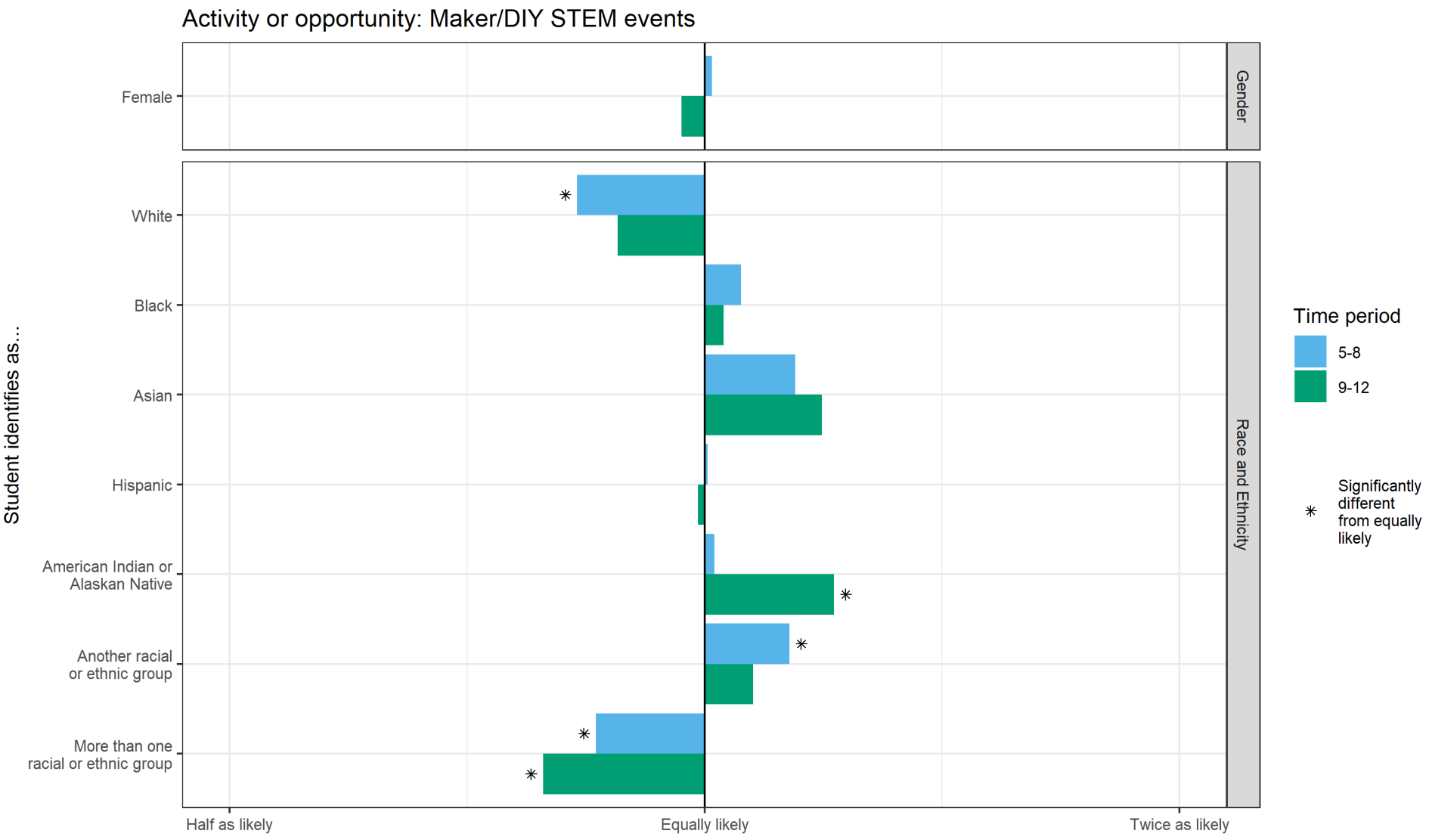
Activity or opportunity: Maker/DIY STEM events
Student identifies as...
Female
White
Black
Asian
Hispanic
American Indian or Alaskan Native
Another racial or ethnic group
More than one racial or ethnic group
Gender
Race and Ethnicity
Half as likely
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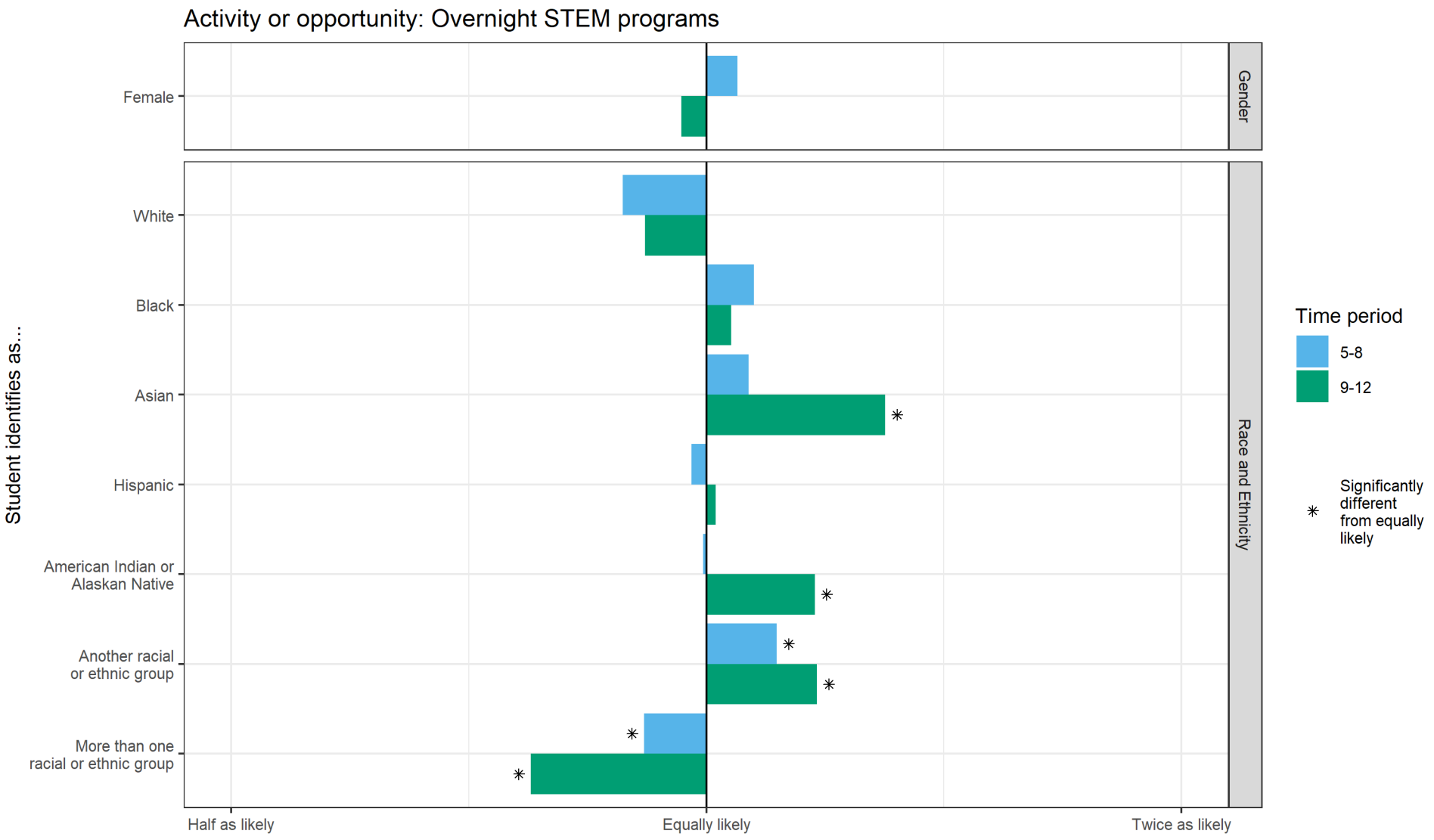
Activity or opportunity: Overnight STEM programs
Student identifies as...
Female
Gender
White
Black
Asian
Hispanic
American Indian or Alaskan Native
Another racial or ethnic group
More than one racial or ethnic group
Race and Ethnicity
Half as likely
Equally likely
Twice as likely
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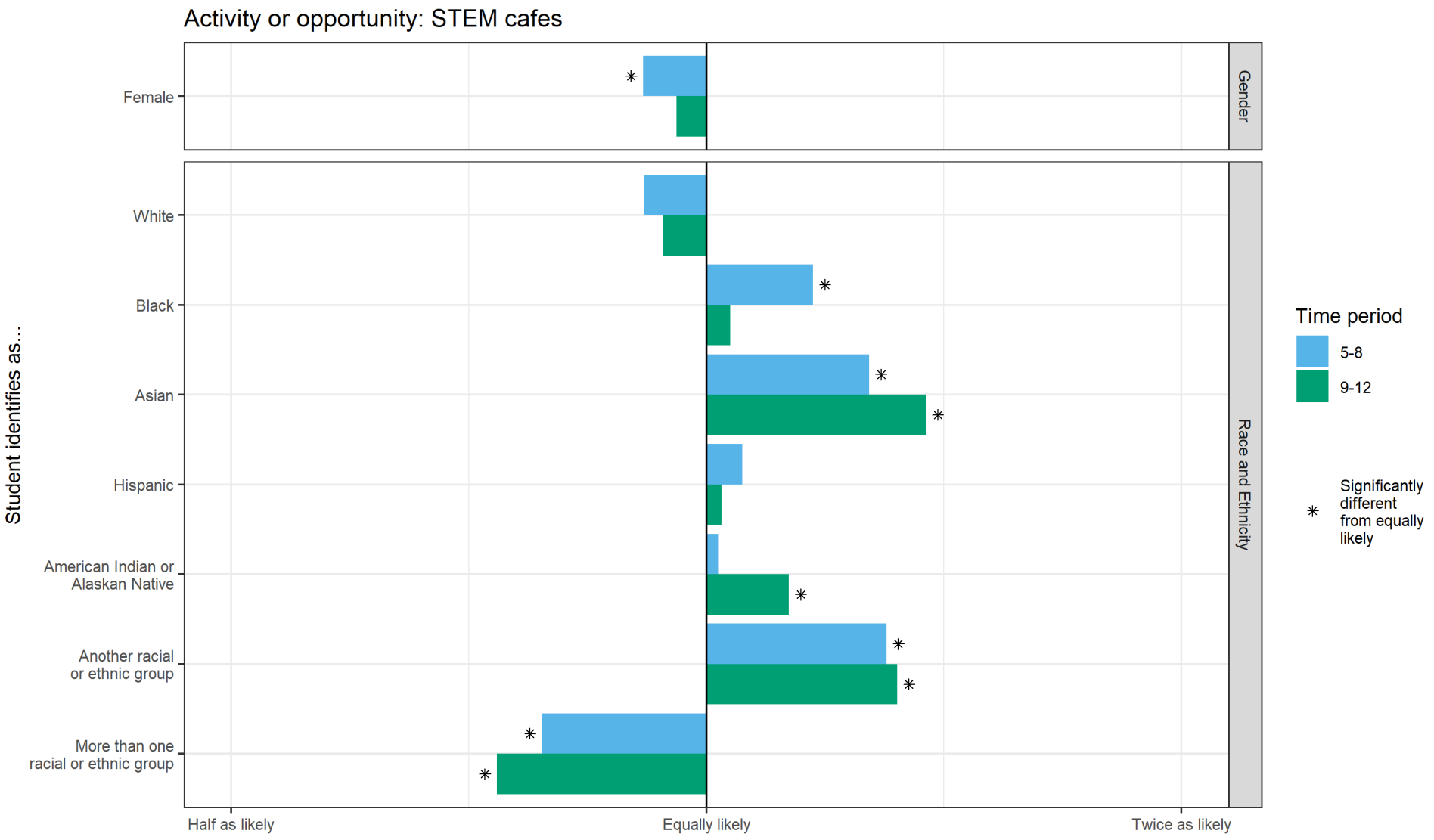
Activity or opportunity: STEM cafes
Student identifies as...
Female
White
Black
Asian
Hispanic
American Indian or Alaskan Native
Another racial or ethnic group
More than one racial or ethnic group
Gender
Race and Ethnicity
Half as likely
Equally likely
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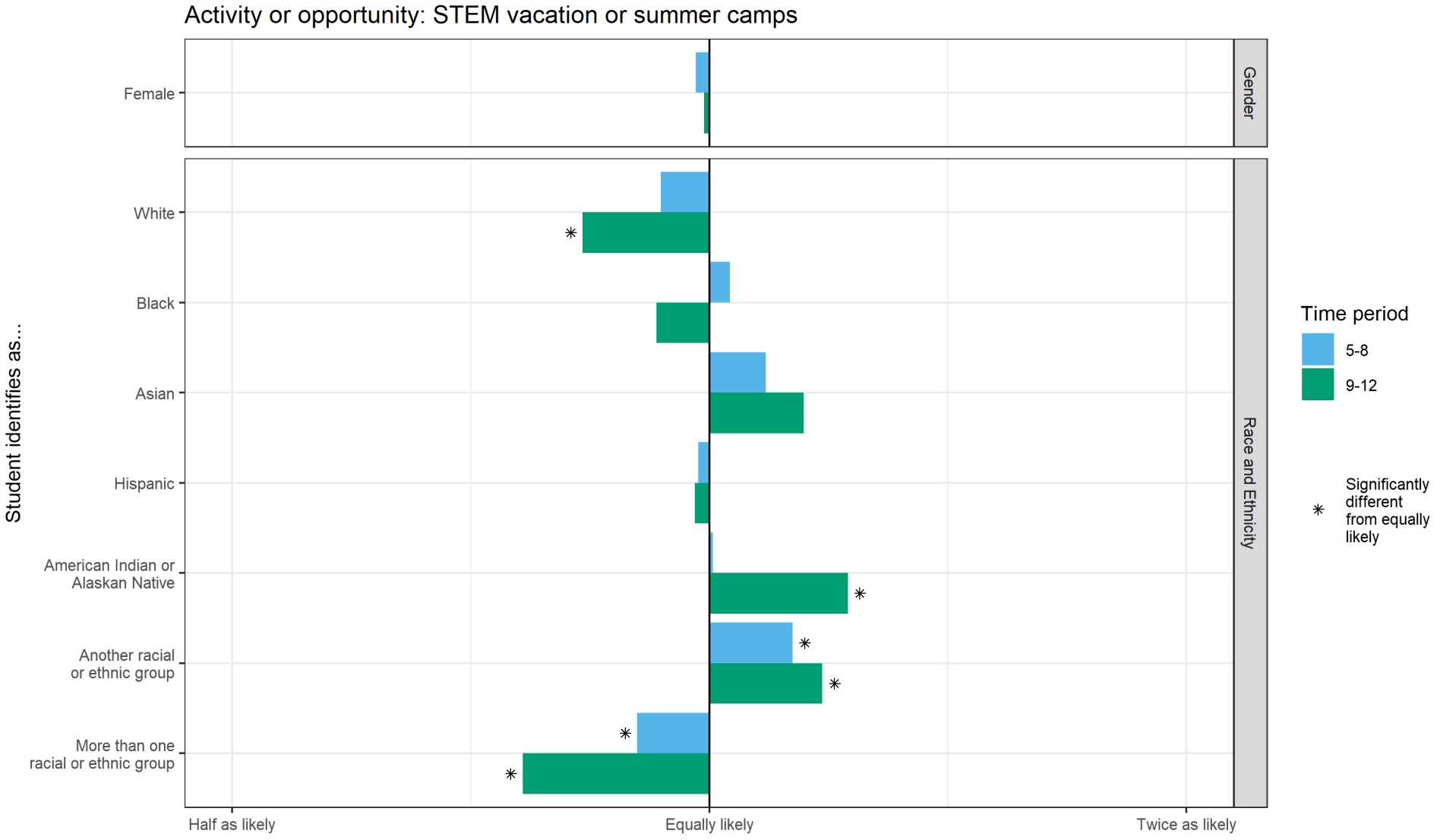
Activity or opportunity: STEM vacation or summer camps
Female
Gender
White
Black
Asian
Hispanic
American Indian or Alaskan Native
Another racial or ethnic group
More than one racial or ethnic group
Race and Ethnicity
Student identifies as...
Half as likely
Equally likely
Twice as likely
Time period
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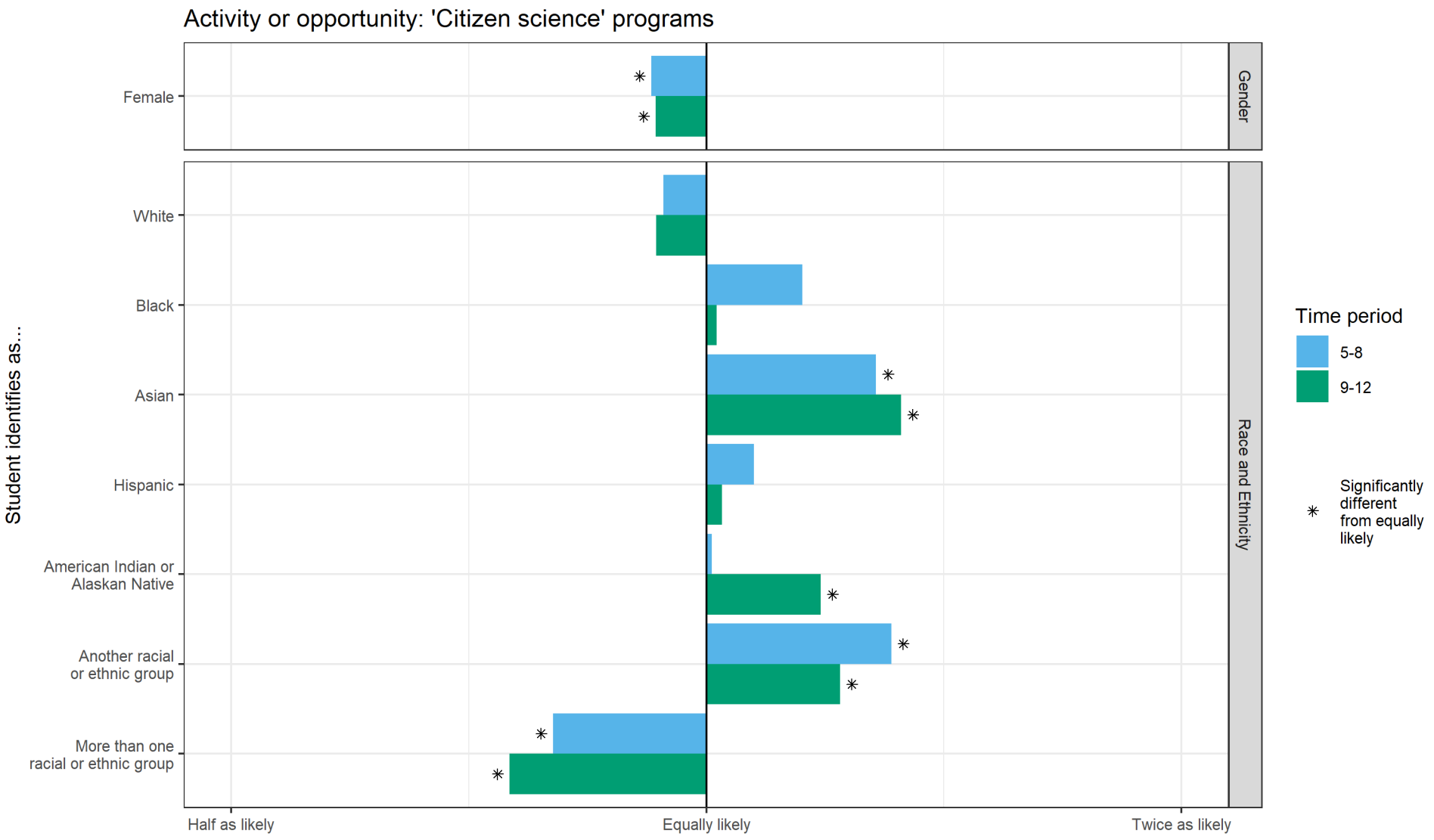
Activity or opportunity: 'Citizen science' programs
Student identifies as...
Female
White
Black
Asian
Hispanic
American Indian or Alaskan Native
Another racial or ethnic group
More than one racial or ethnic group
Gender
Race and Ethnicity
Half as likely
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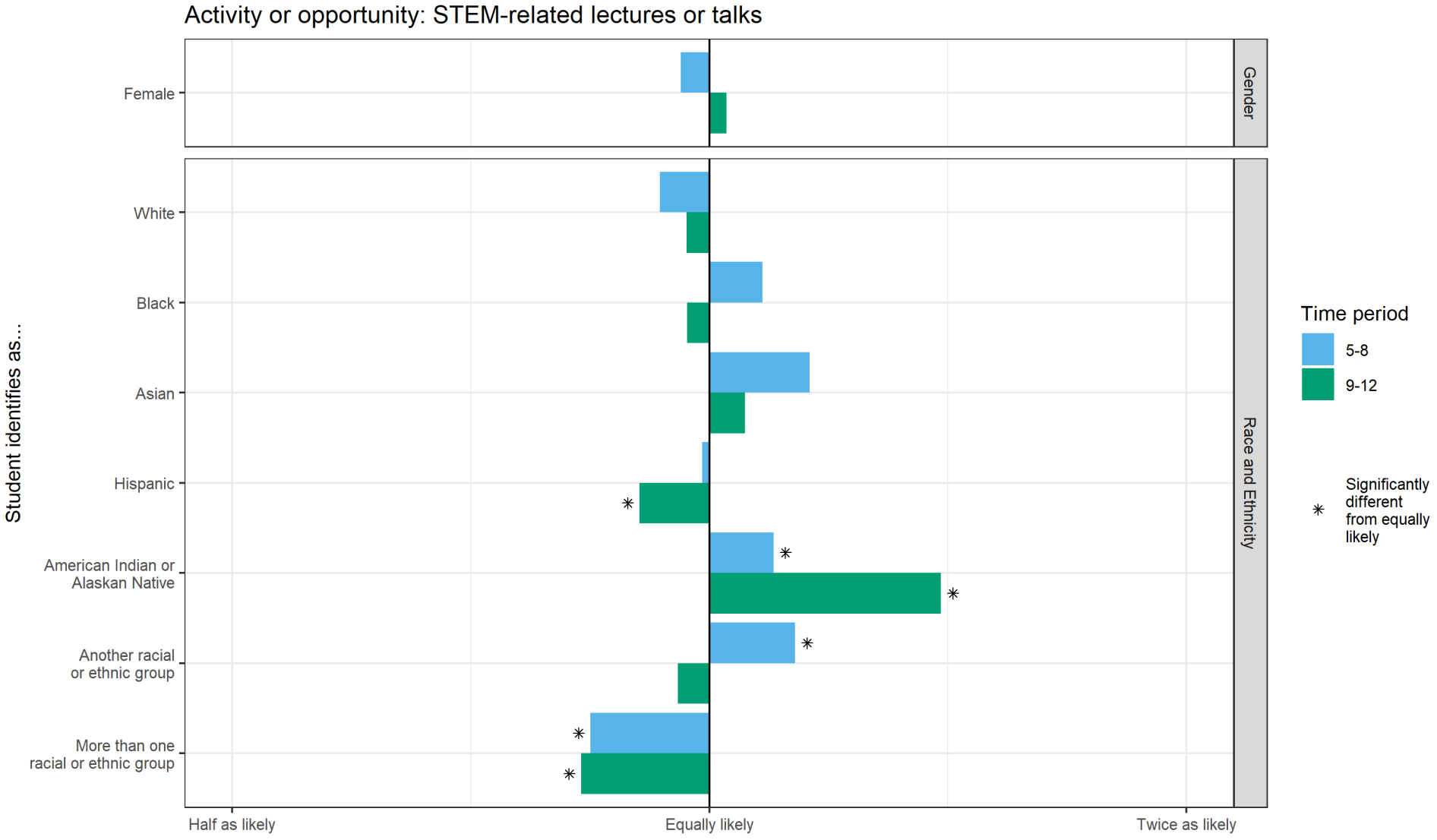
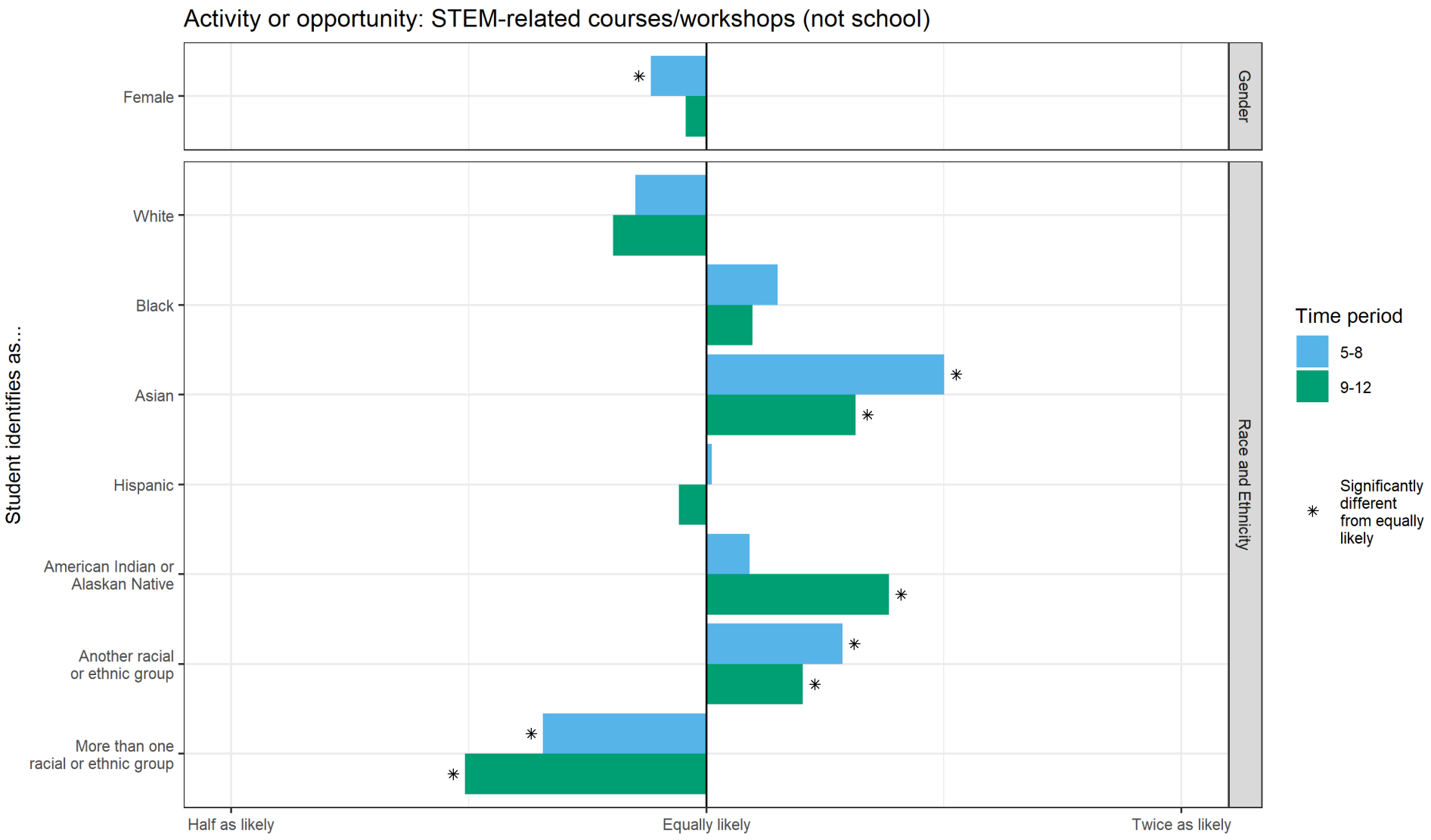

Activity or opportunity: STEM-related lectures or talks
Student identifies as...
Female
White
Black
Asian
Hispanic
American Indian or Alaskan Native
Another racial or ethnic group
More than one racial or ethnic group
Gender
Race and Ethnicity
Half as likely
Equally likely
Twice as likely
Time period
5-8
9-12
Significantly different from equally likely

Back


Activity or opportunity: STEM-related courses/workshops (not school)
Student identifies as...
Female
Gender
White
Black
Asian
Hispanic
American Indian or Alaskan Native
Another racial or ethnic group
More than one racial or ethnic group
Race and Ethnicity
Half as likely
Equally likely
Twice as likely
Time period
5-8
9-12
Significantly different from equally likely

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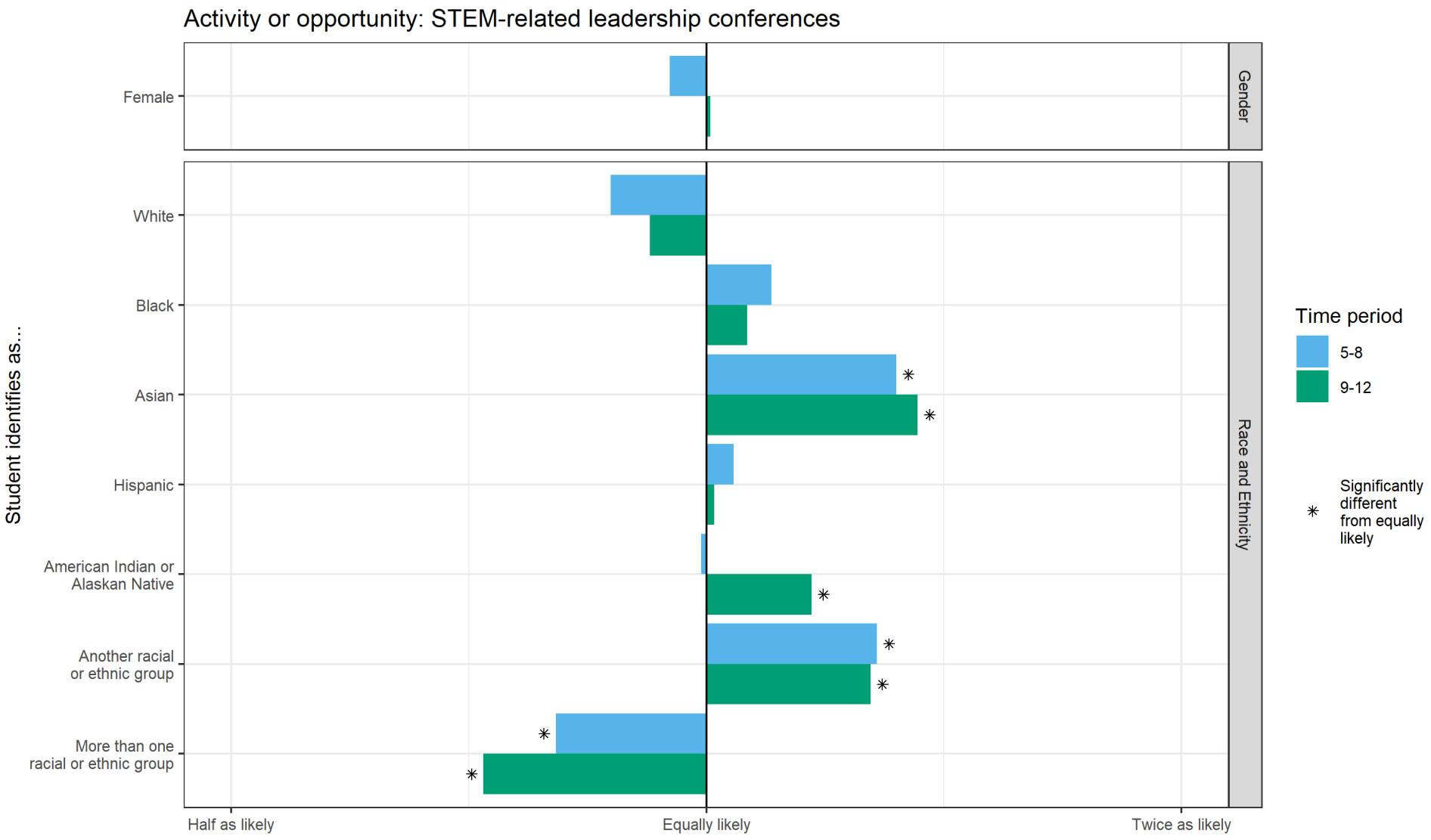
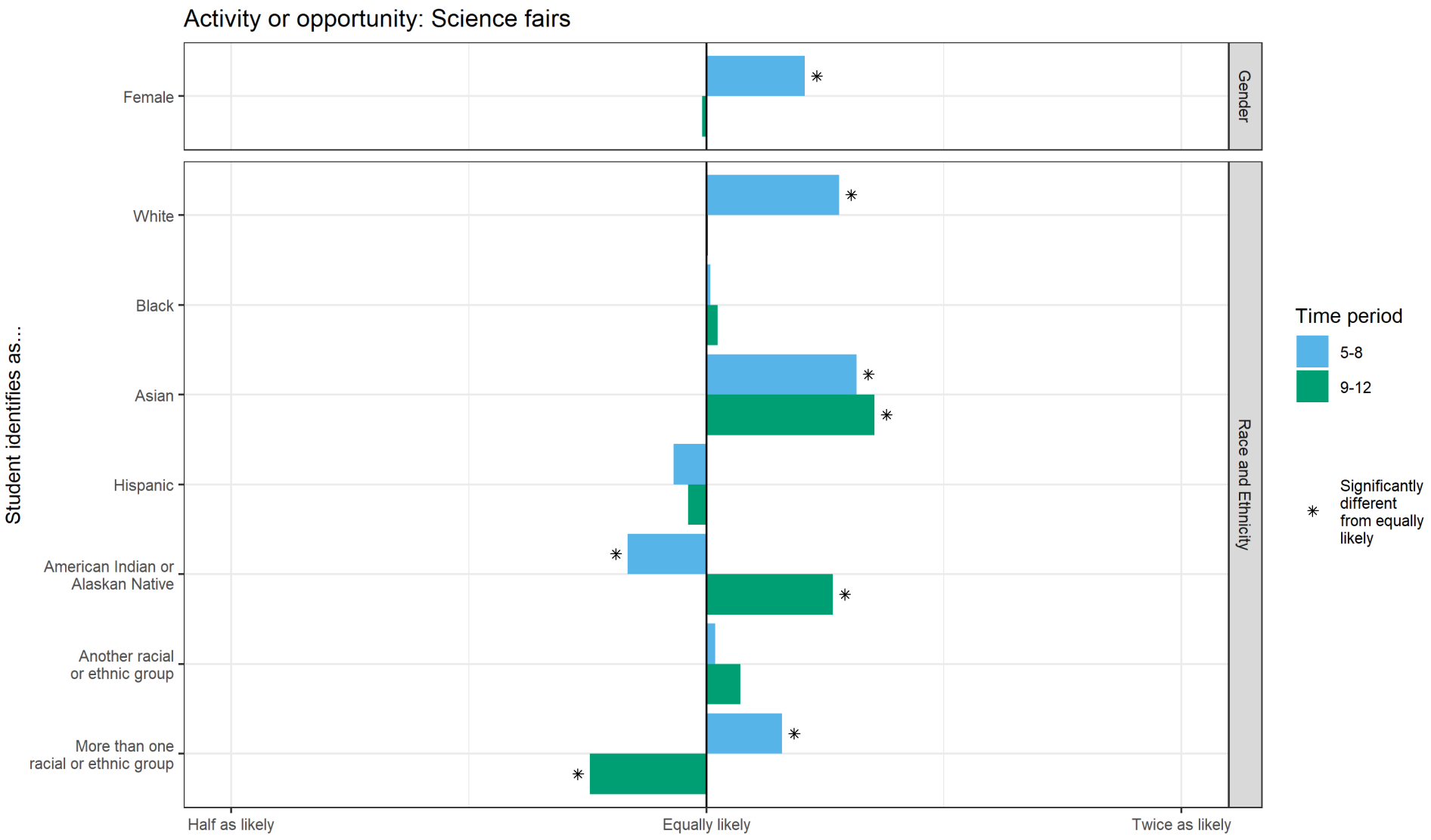
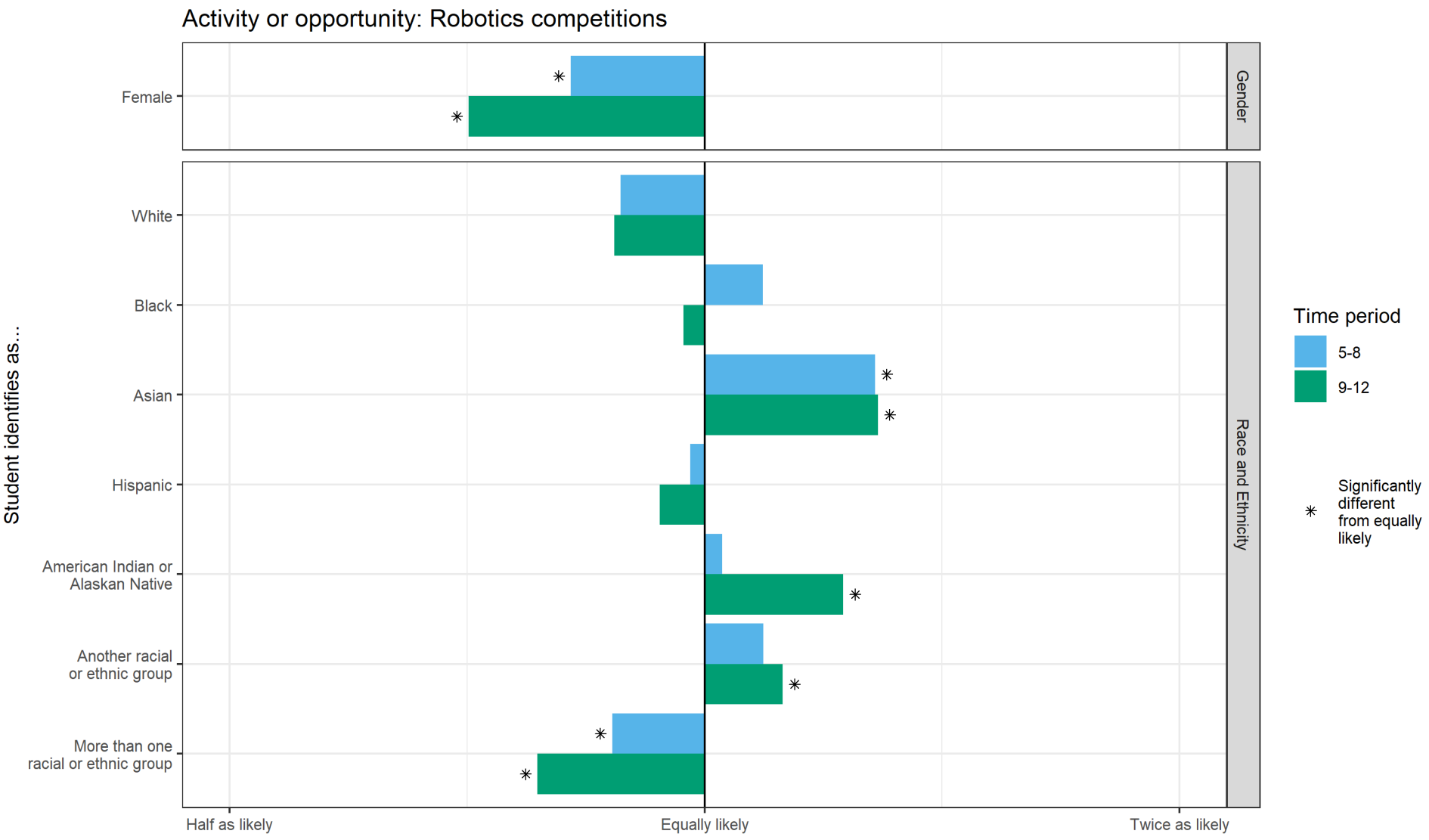

Activity or opportunity: STEM-related leadership conferences
Student identifies as...
Female
Gender
White
Black
Asian
Hispanic
American Indian or Alaskan Native
Another racial or ethnic group
More than one racial or ethnic group
Race and Ethnicity
Half as likely
Equally likely
Twice as likely
Time period
5-8
9-12
Significantly different from equally likely

Back


Activity or opportunity: Science fairs
Student identifies as...
Female
White
Black
Asian
Hispanic
American Indian or Alaskan Native
Another racial or ethnic group
More than one racial or ethnic group
Gender
Race and Ethnicity
Half as likely
Equally likely
Twice as likely
Time period
5-8
9-12
Significantly different from equally likely

Back


Activity or opportunity: Robotics competitions
Female
Gender
White
Black
Asian
Hispanic
American Indian or Alaskan Native
Another racial or ethnic group
More than one racial or ethnic group
Race and Ethnicity
Student identifies as...
Half as likely
Equally likely
Twice as likely
Time period
5-8
9-12
Significantly different from equally likely

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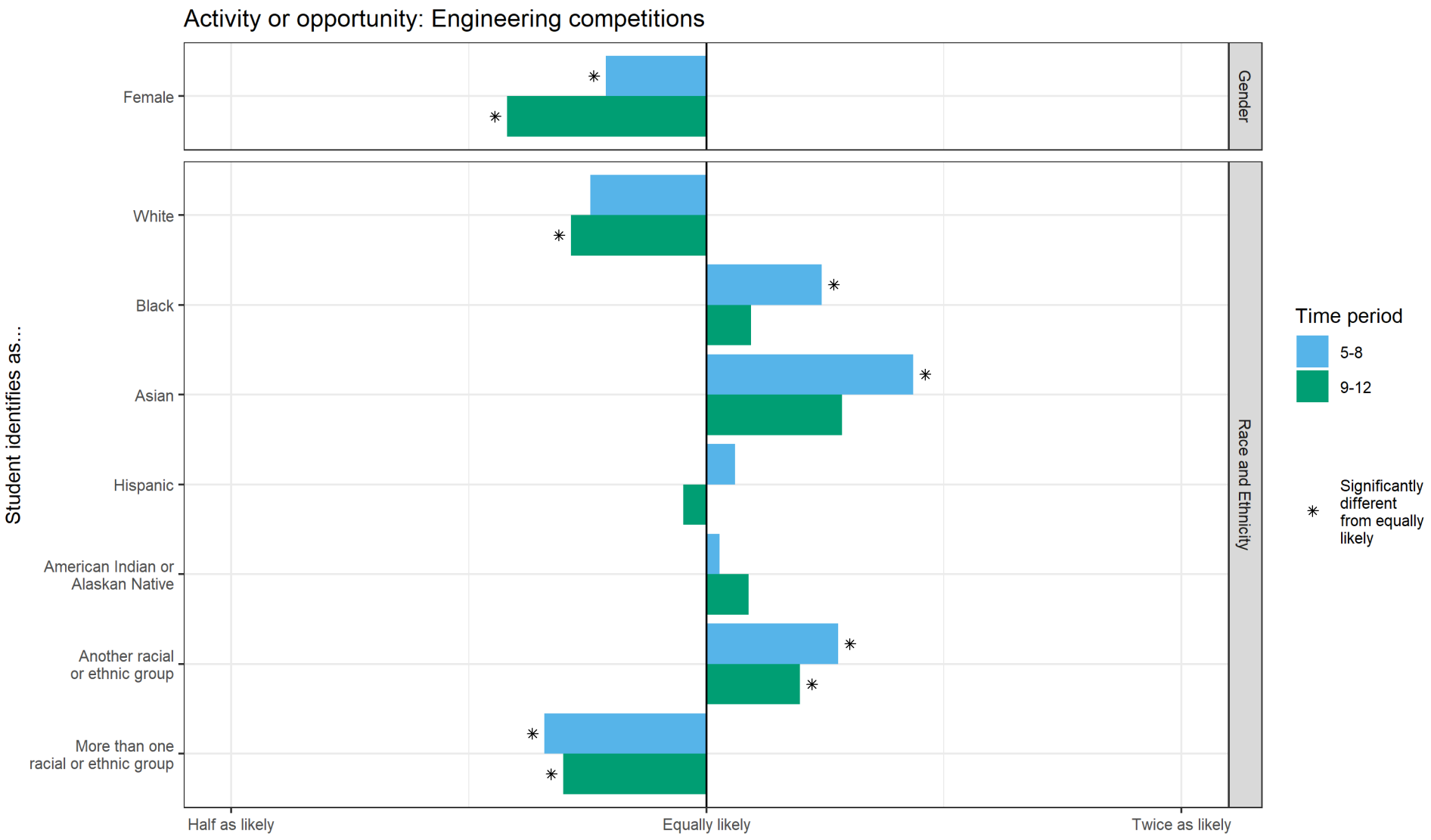
Activity or opportunity: Engineering competitions
Female
White
Black
Asian
Hispanic
American Indian or Alaskan Native
Another racial or ethnic group
More than one racial or ethnic group
Gender
Race and Ethnicity
Student identifies as...
Half as likely
Equally likely
Twice as likely
Time period
5-8
9-12
Significantly different from equally likely

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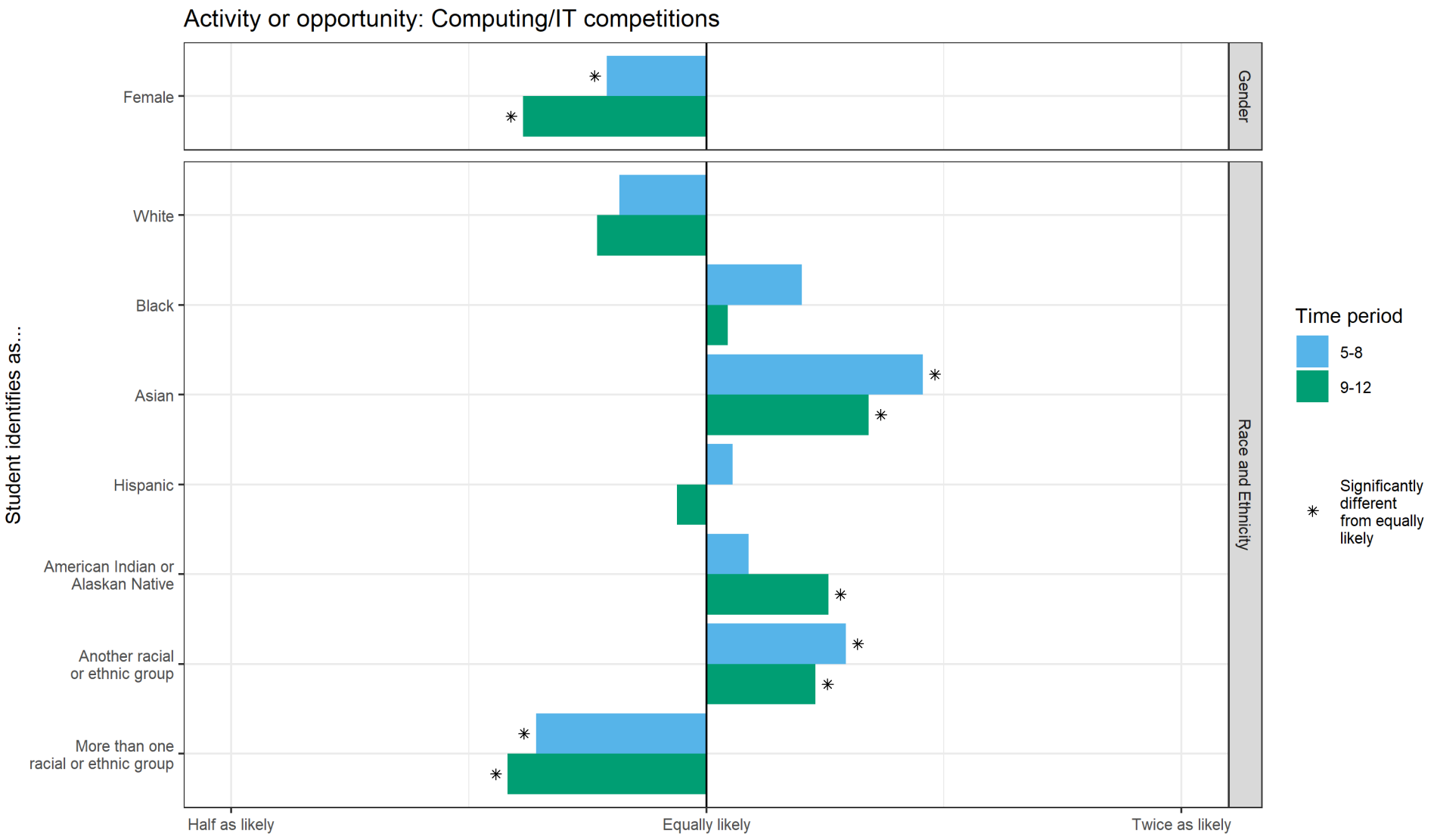
Activity or opportunity: Computing/IT competitions
Student identifies as...
Female
White
Black
Asian
Hispanic
American Indian or Alaskan Native
Another racial or ethnic group
More than one racial or ethnic group
Gender
Race and Ethnicity
Half as likely
Equally likely
Twice as likely
Time period
5-8
9-12
Significantly different from equally likely

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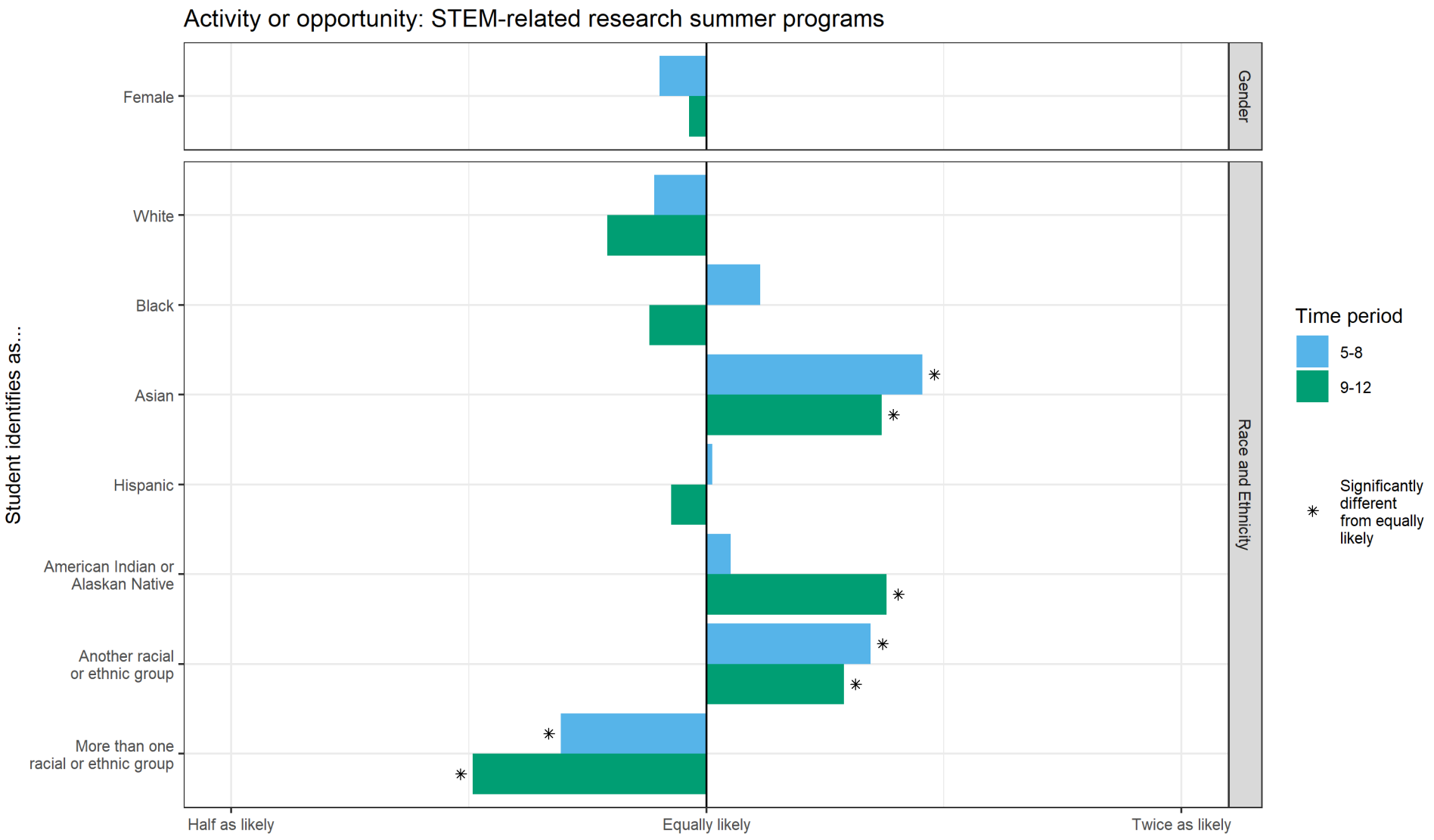
Activity or opportunity: STEM-related research summer programs
Student identifies as...
Female
White
Black
Asian
Hispanic
American Indian or Alaskan Native
Another racial or ethnic group
More than one racial or ethnic group
Gender
Race and Ethnicity
Half as likely
Equally likely
Twice as likely
Time period
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9-12
Significantly different from equally likely

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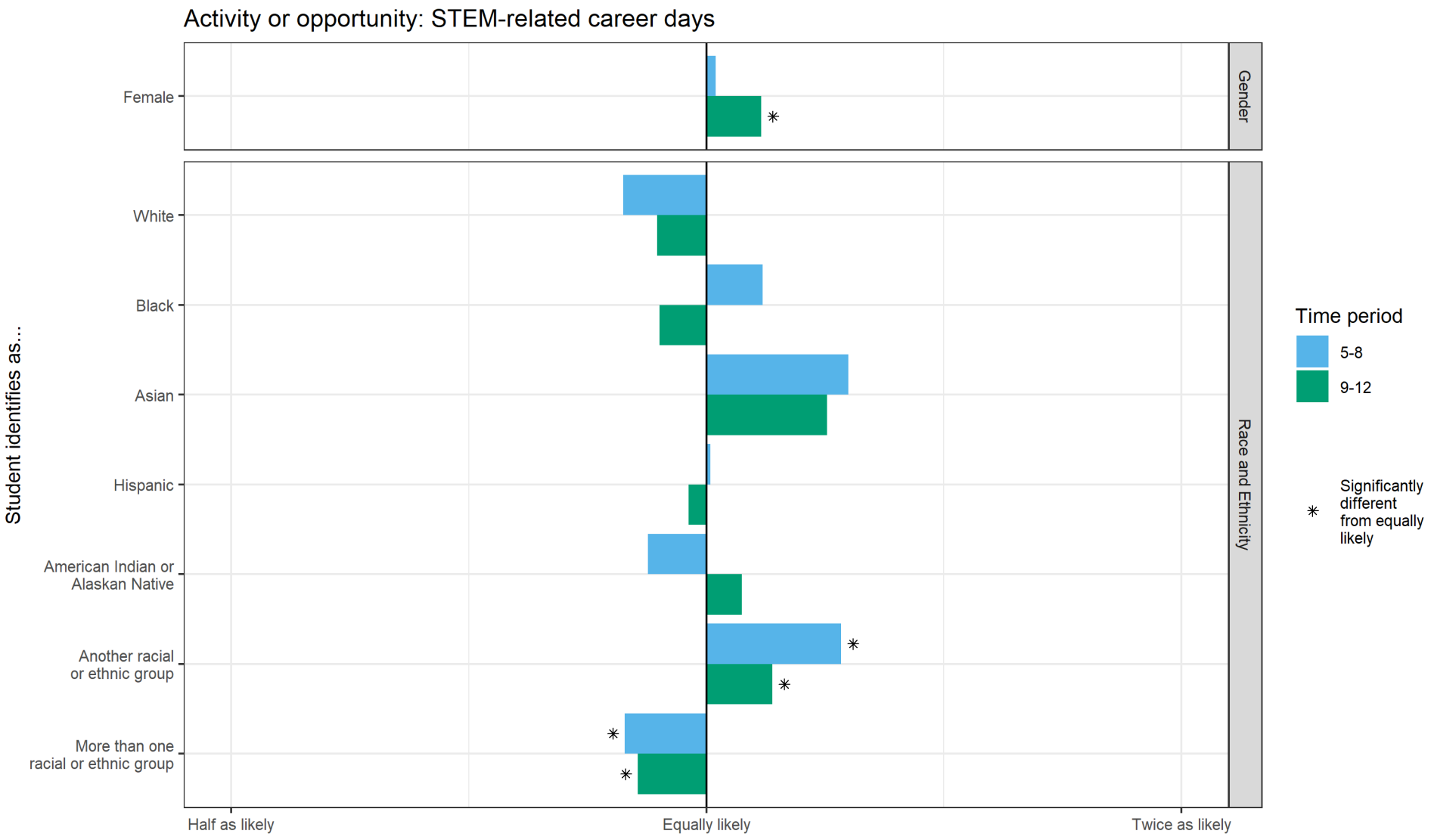
Activity or opportunity: STEM-related career days
Student identifies as...
Female
White
Black
Asian
Hispanic
American Indian or Alaskan Native
Another racial or ethnic group
More than one racial or ethnic group
Gender
Race and Ethnicity
Half as likely
Equally likely
Twice as likely
Time period
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9-12
Significantly different from equally likely

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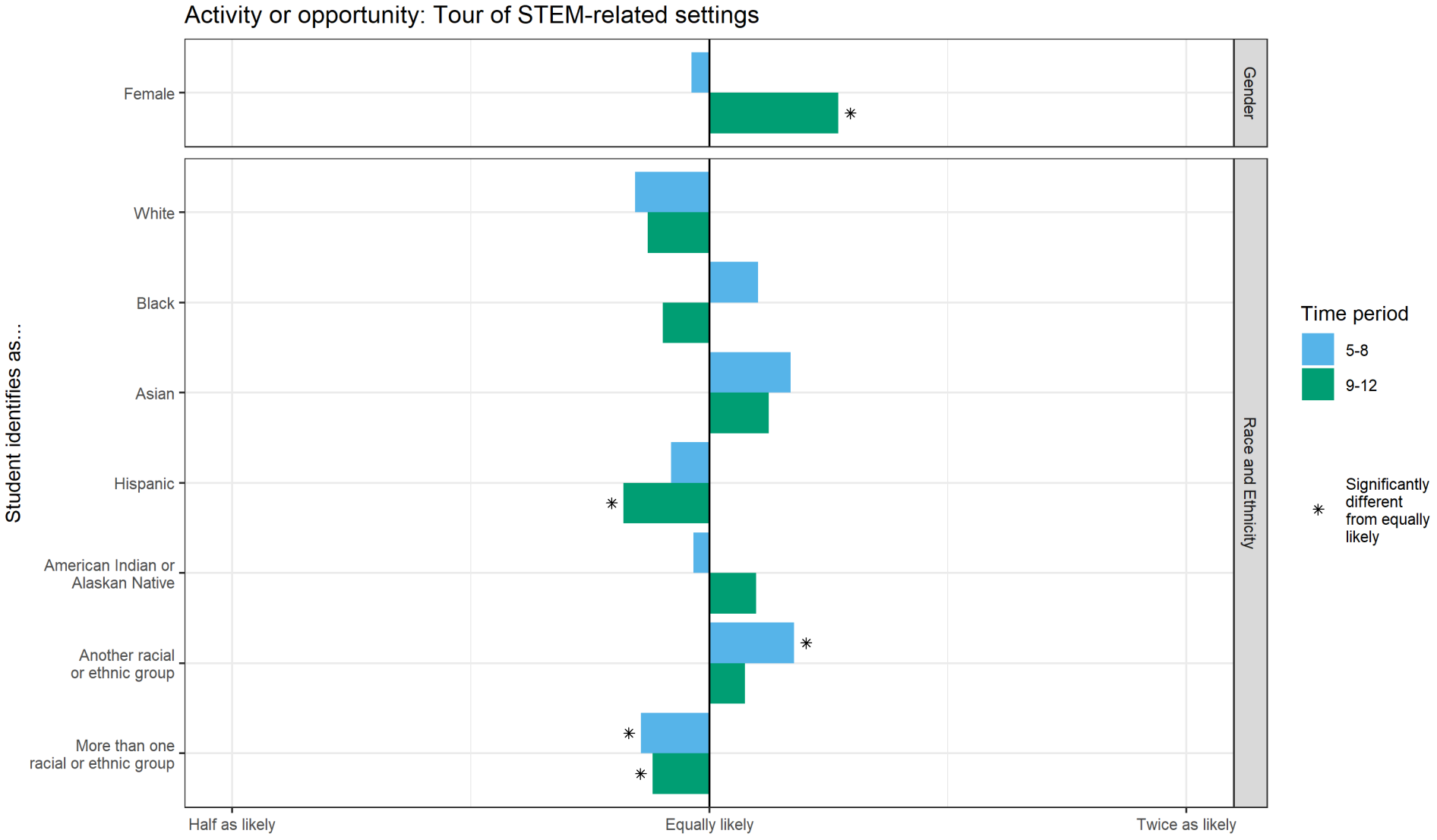
Activity or opportunity: Tour of STEM-related settings
Student identifies as...
Female
Gender
White
Black
Asian
Hispanic
American Indian or Alaskan Native
Another racial or ethnic group
More than one racial or ethnic group
Race and Ethnicity
Half as likely
Equally likely
Twice as likely
Time period
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9-12
Significantly different from equally likely

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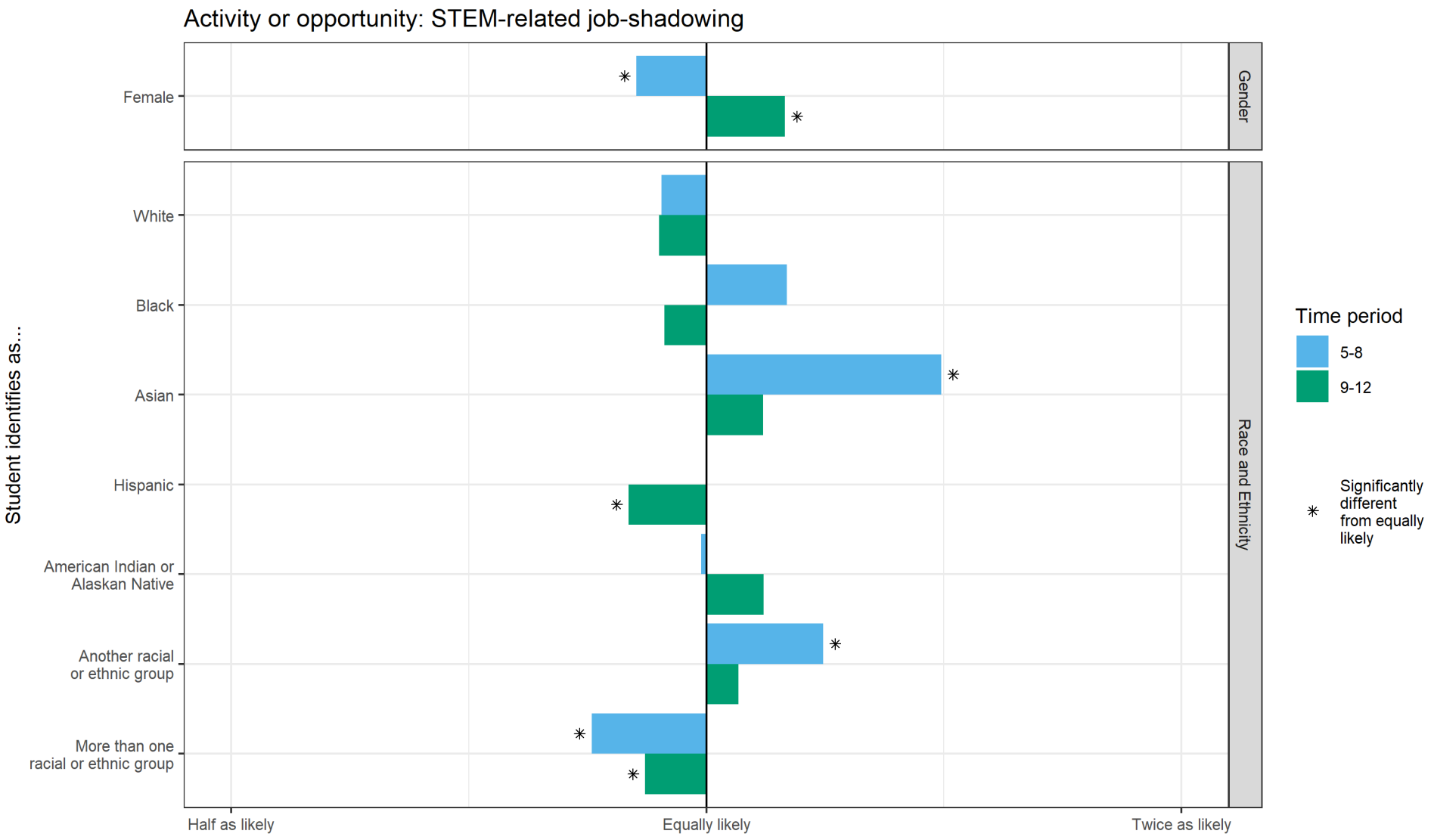
Activity or opportunity: STEM-related job-shadowing
Student identifies as...
Female
Gender
White
Black
Asian
Hispanic
American Indian or Alaskan Native
Another racial or ethnic group
More than one racial or ethnic group
Race and Ethnicity
Half as likely
Equally likely
Twice as likely
Time period
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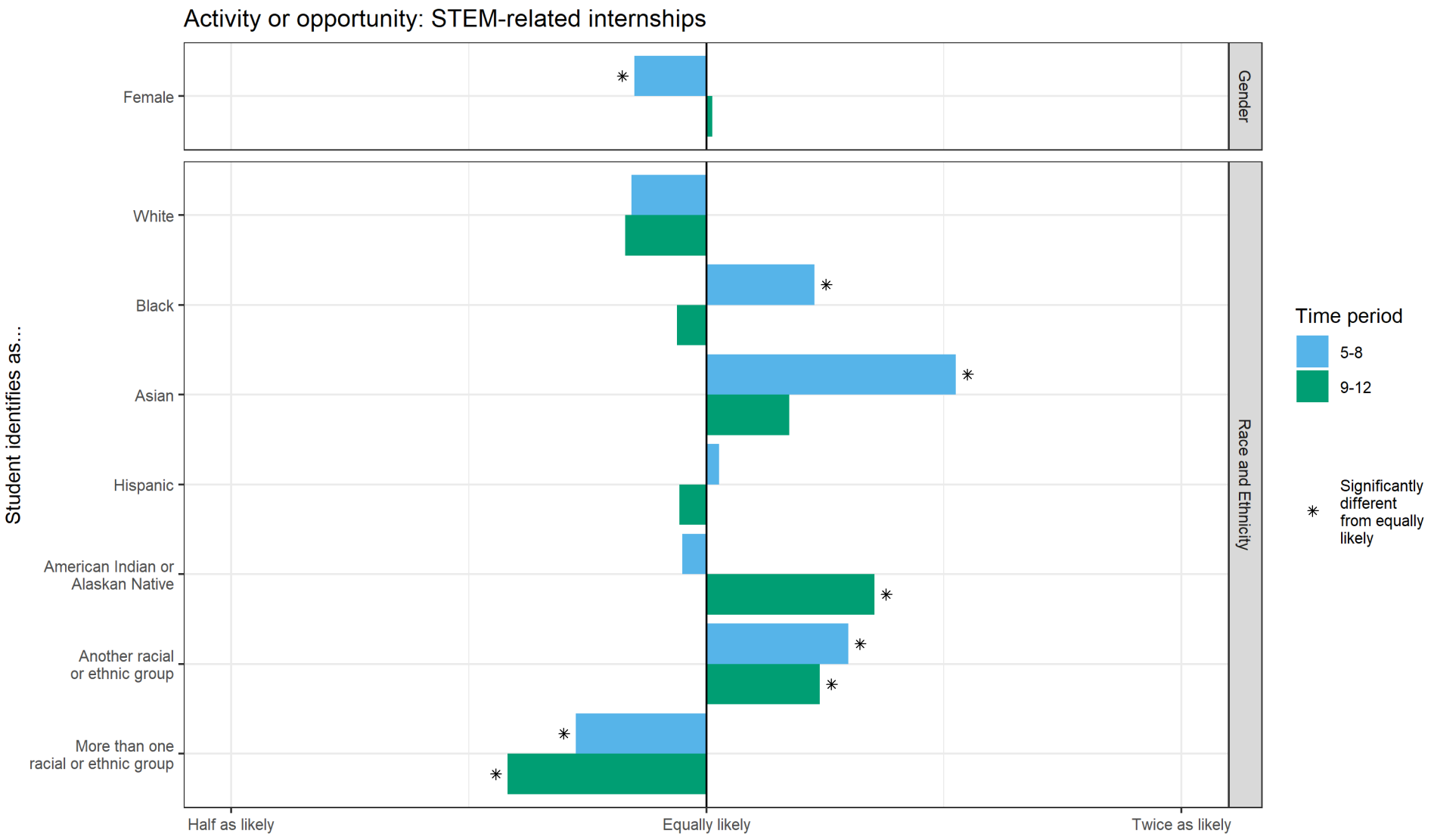
Activity or opportunity: STEM-related internships
Student identifies as...
Female
White
Black
Asian
Hispanic
American Indian or Alaskan Native
Another racial or ethnic group
More than one racial or ethnic group
Gender
Race and Ethnicity
Half as likely
Equally likely
Twice as likely
Time period
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9-12
Significantly different from equally likely

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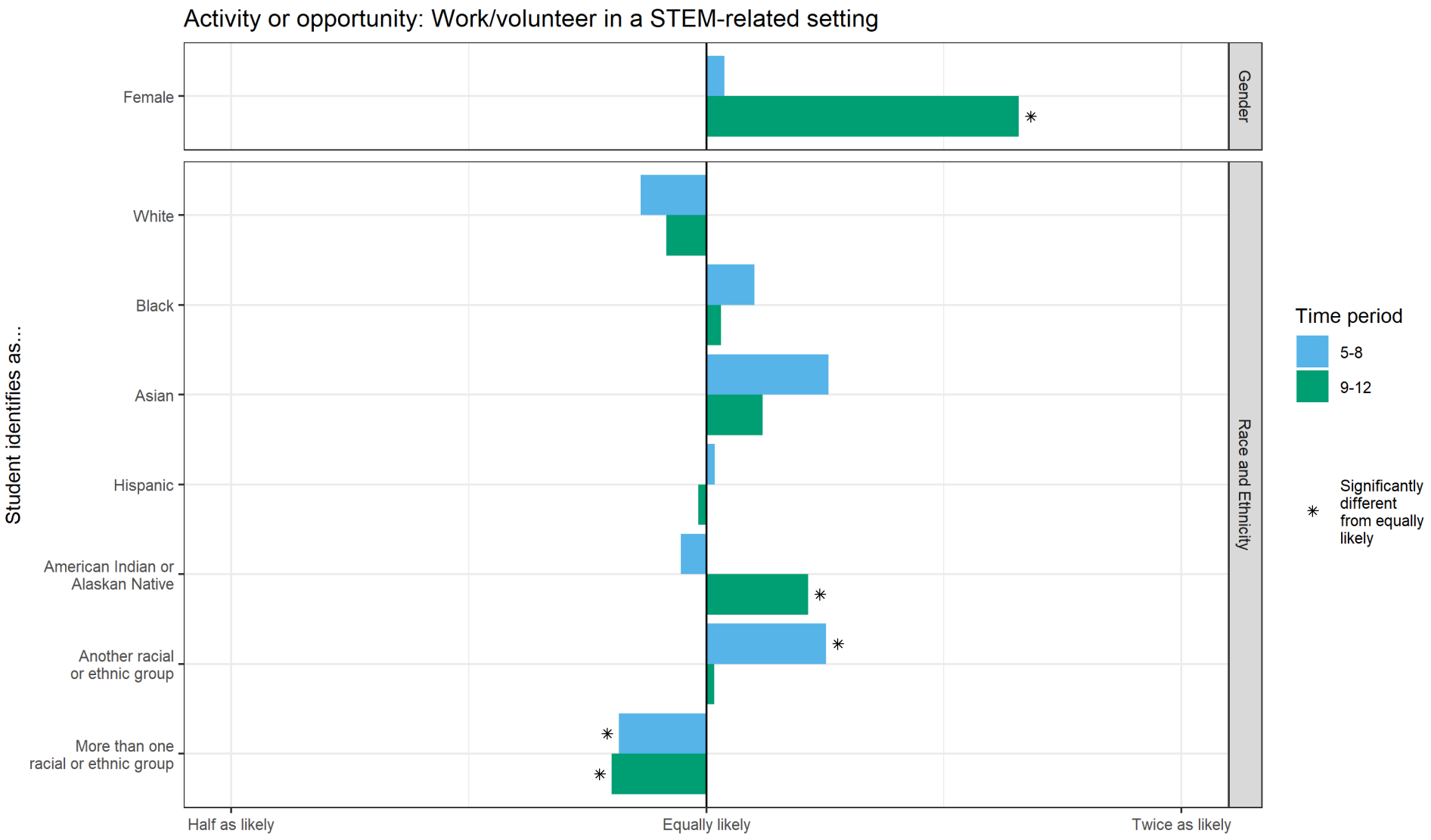
Activity or opportunity: Work/volunteer in a STEM-related setting
Student identifies as...
Female
Gender
White
Black
Asian
Hispanic
American Indian or Alaskan Native
Another racial or ethnic group
More than one racial or ethnic group
Race and Ethnicity
Half as likely
Equally likely
Twice as likely
Time period
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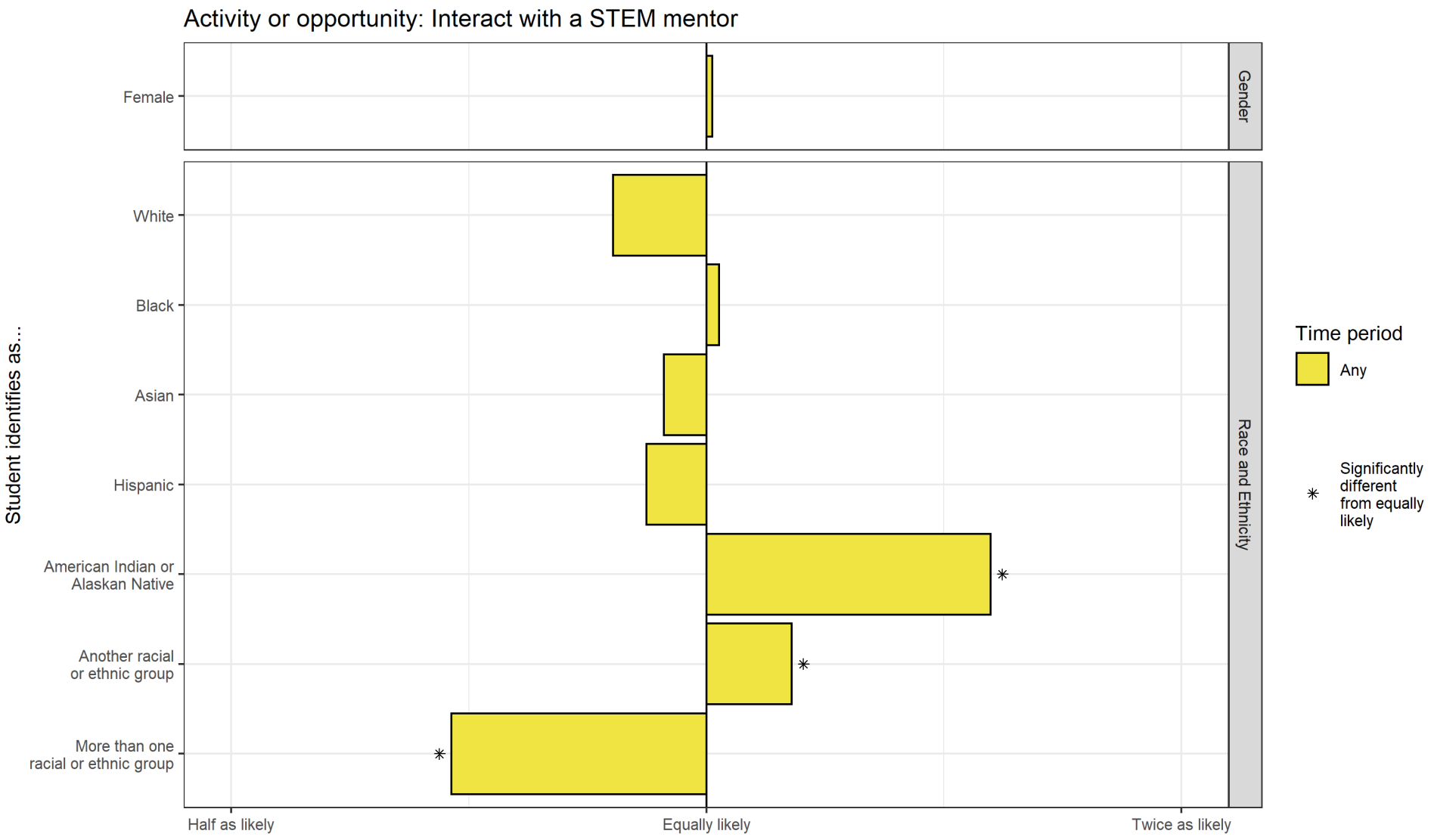
Activity or opportunity: Interact with a STEM mentor
Female
Gender
White
Black
Asian
Hispanic
American Indian or Alaskan Native
Another racial or ethnic group
More than one racial or ethnic group
Race and Ethnicity
Student identifies as...
Half as likely
Equally likely
Twice as likely
Time period
Any
Significantly different from equally likely

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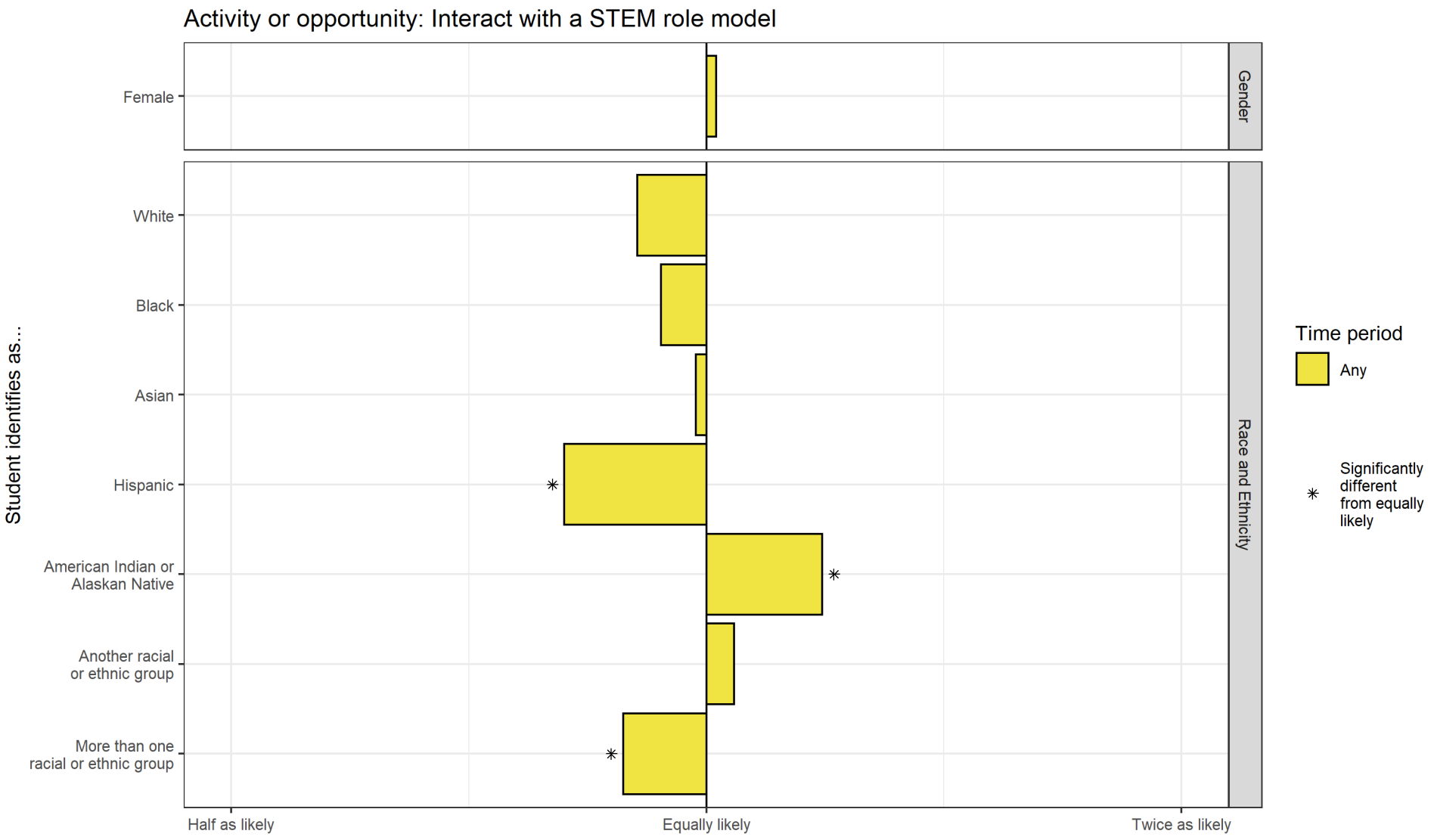
Activity or opportunity: Interact with a STEM role model
Student identifies as...
Female
White
Black
Asian
Hispanic
American Indian or Alaskan Native
Another racial or ethnic group
More than one racial or ethnic group
Gender
Race and Ethnicity
Half as likely
Equally likely
Twice as likely
Time period
Any
Significantly different from equally likely

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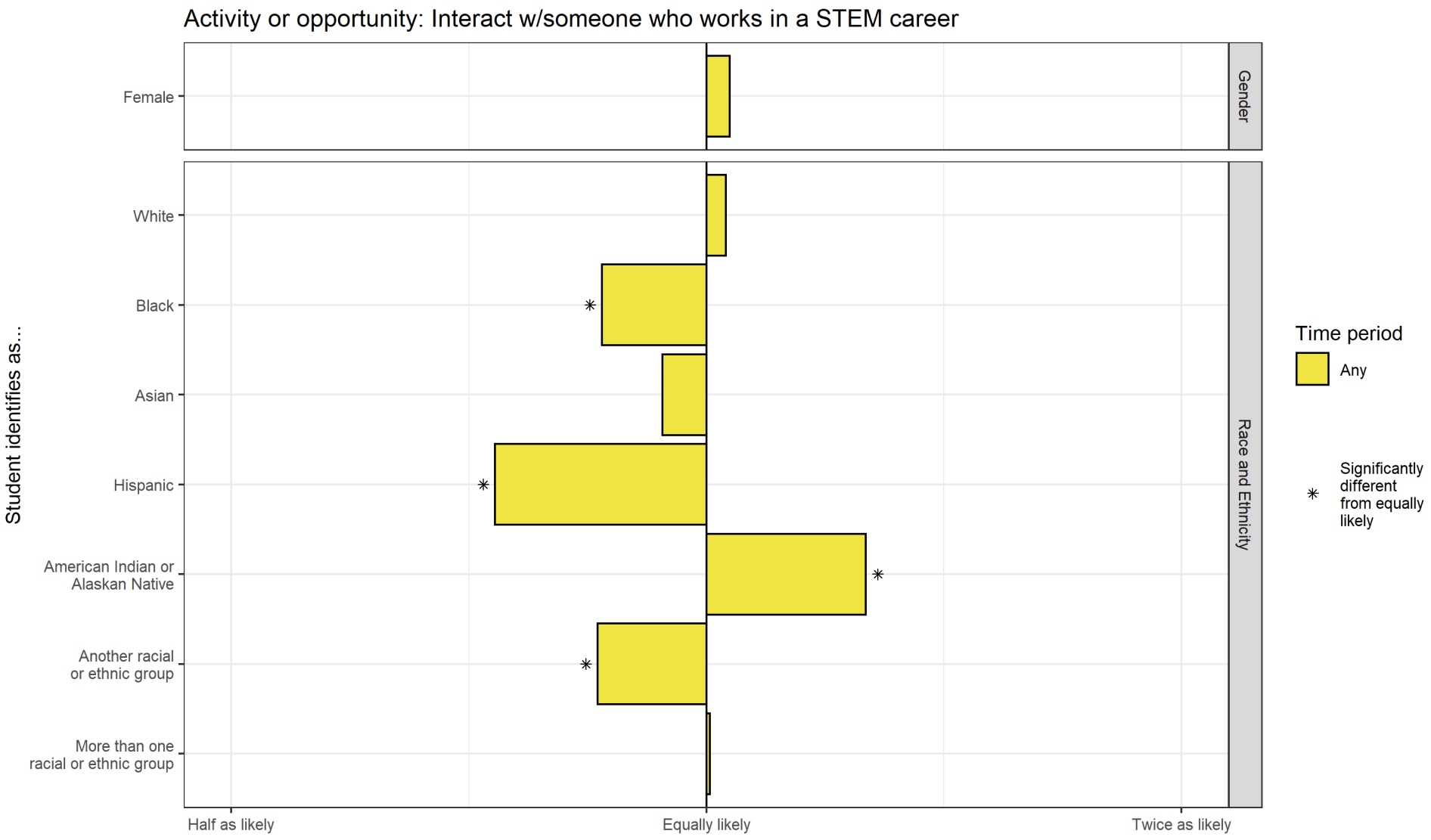
Activity or opportunity: Interact w/someone who works in a STEM career
Student identifies as...
Female
Gender
White
Black
Asian
Hispanic
American Indian or Alaskan Native
Another racial or ethnic group
More than one racial or ethnic group
Race and Ethnicity
Half as likely
Equally likely
Twice as likely
Time period
Any
Significantly different from equally likely

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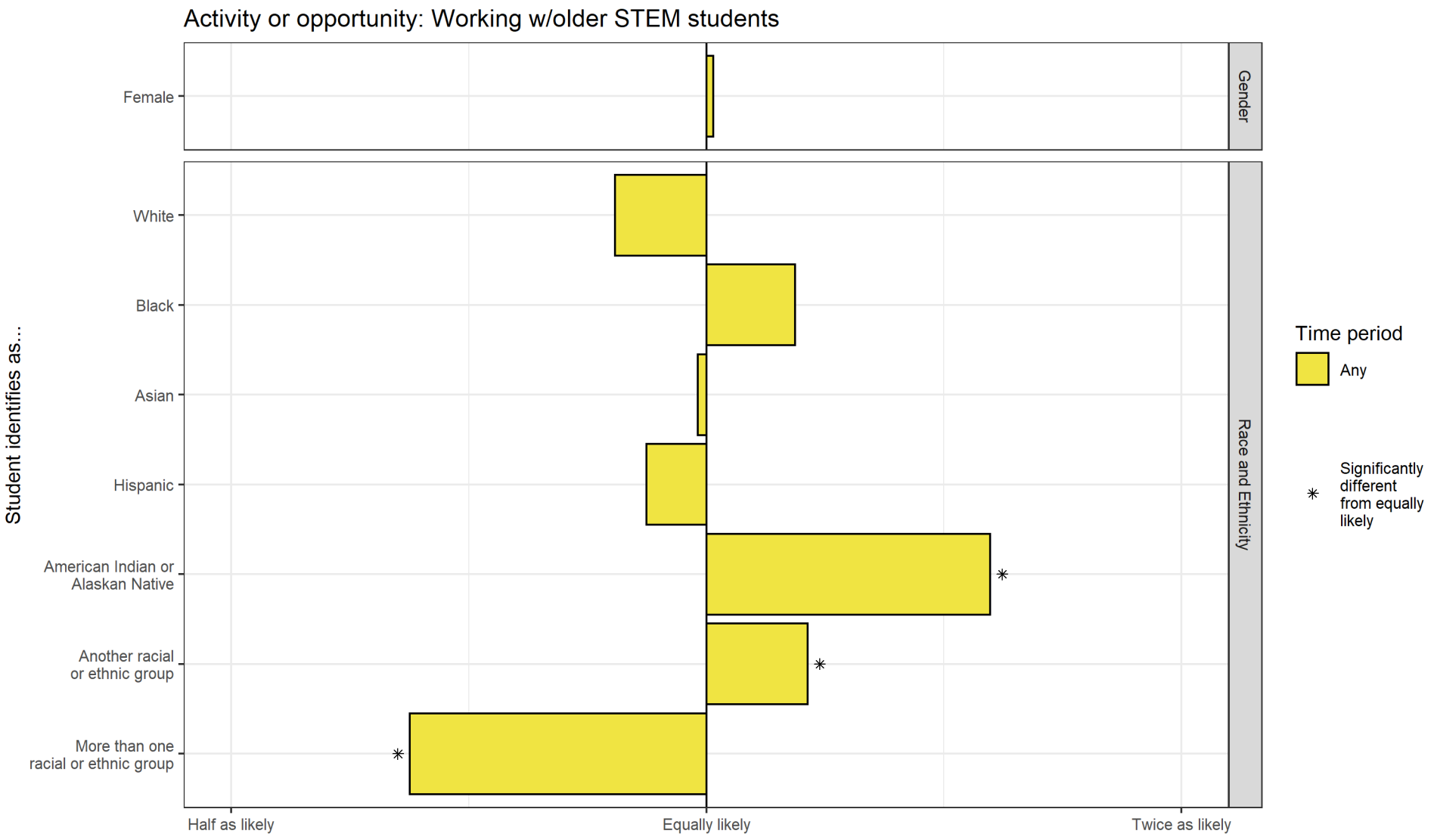
Activity or opportunity: Working w/older STEM students
Student identifies as...
Female
White
Black
Asian
Hispanic
American Indian or Alaskan Native
Another racial or ethnic group
More than one racial or ethnic group
Gender
Race and Ethnicity
Half as likely
Equally likely
Twice as likely
Time period
Any
Significantly different from equally likely

Back

Activity or opportunity: Taking on a leadship role
Student identifies as...
Female
White
Black
Asian
Hispanic
American Indian or Alaskan Native
Another racial or ethnic group
More than one racial or ethnic group
Gender
Race and Ethnicity
Half as likely
Equally likely
Twice as likely
Time period
Any
Significantly different from equally likely

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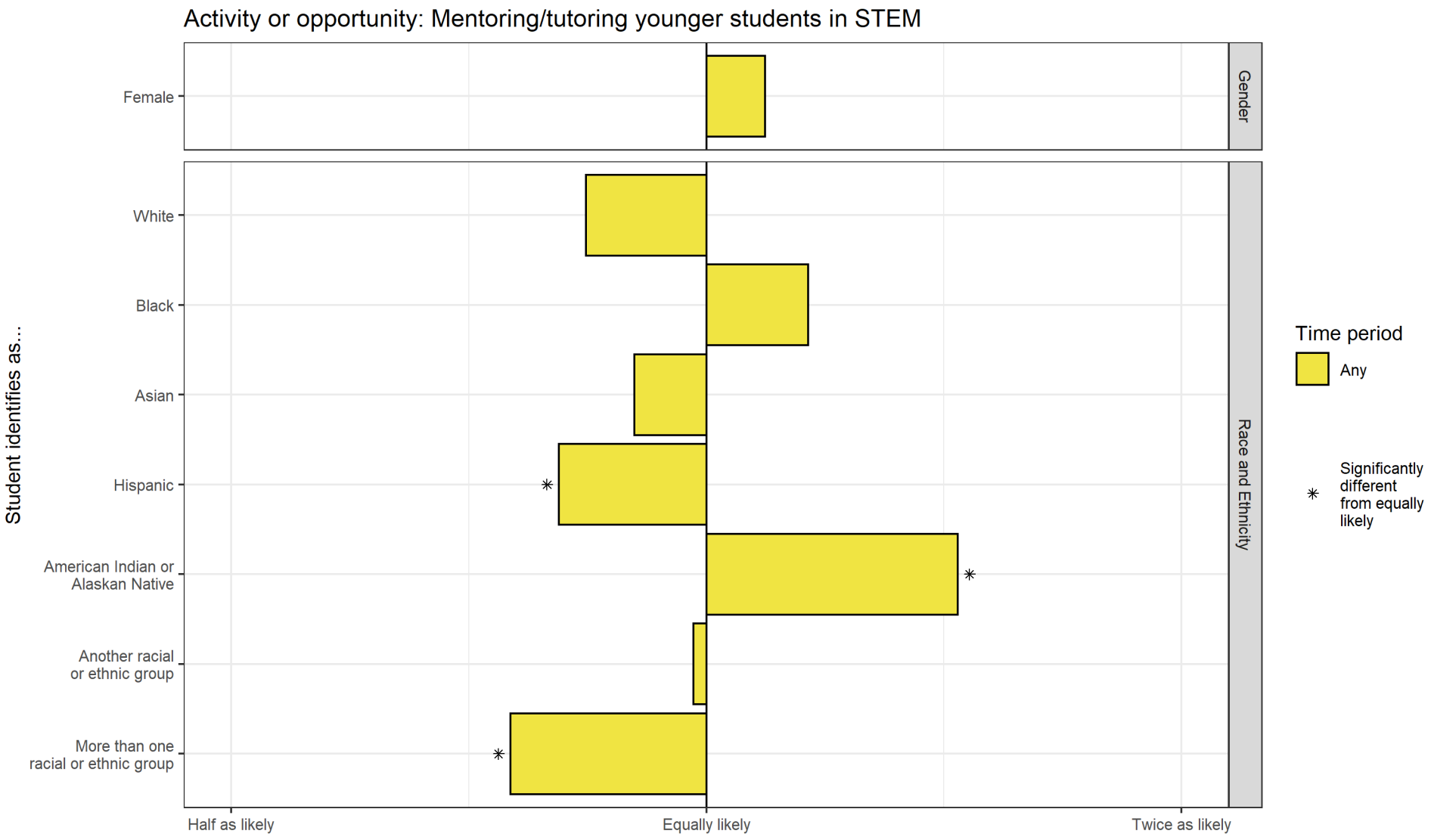
Activity or opportunity: Mentoring/tutoring younger students in STEM
Female
Gender
White
Black
Asian
Hispanic
American Indian or Alaskan Native
Another racial or ethnic group
More than one racial or ethnic group
Race and Ethnicity
Student identifies as...
Half as likely
Equally likely
Twice as likely
Time period
Any
Significantly different from equally likely

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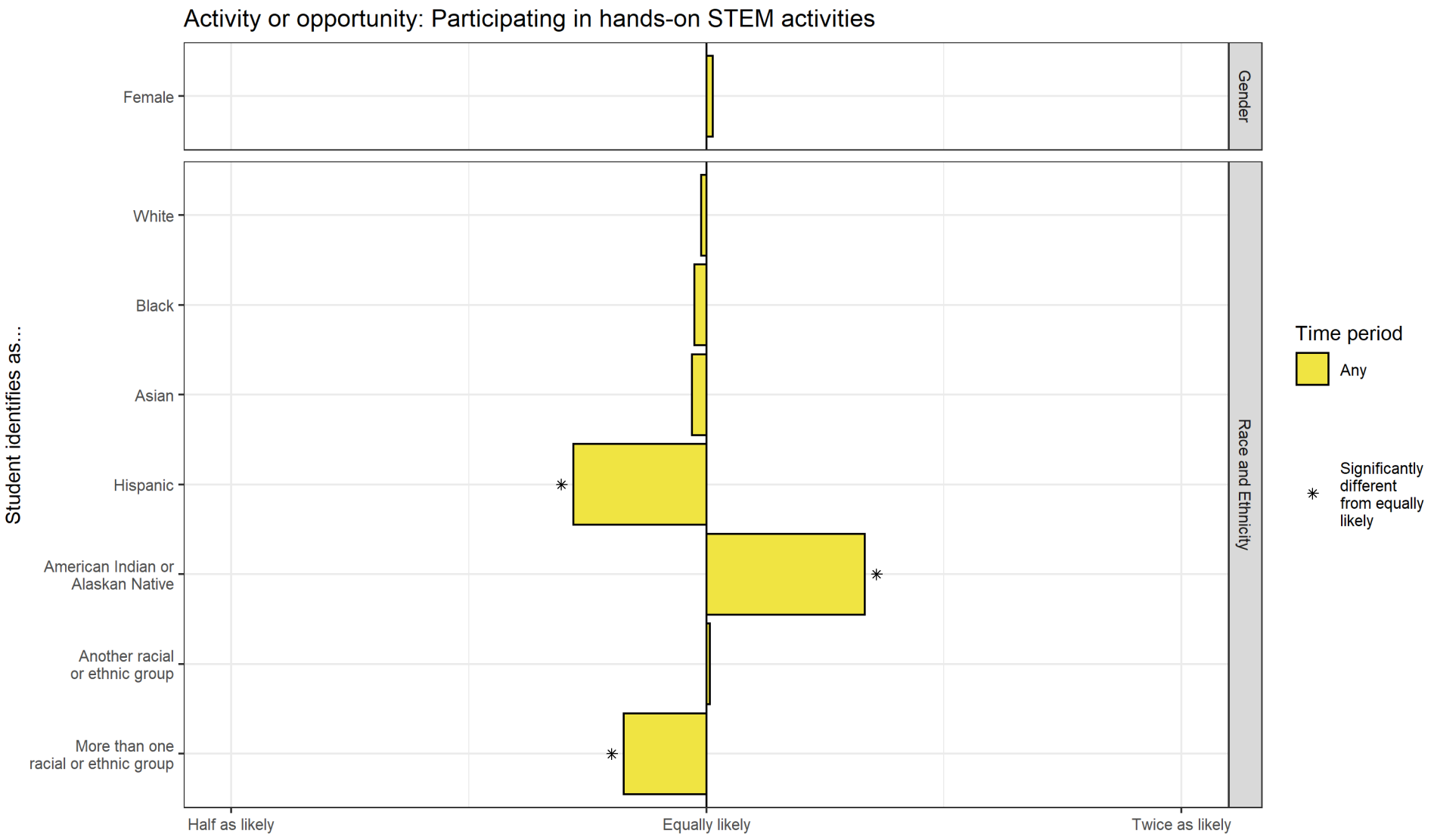
Activity or opportunity: Participating in hands-on STEM activities
Female
Gender
White
Black
Asian
Hispanic
American Indian or Alaskan Native
Another racial or ethnic group
More than one racial or ethnic group
Race and Ethnicity
Student identifies as...
Half as likely
Equally likely
Twice as likely
Time period
Any
Significantly different from equally likely

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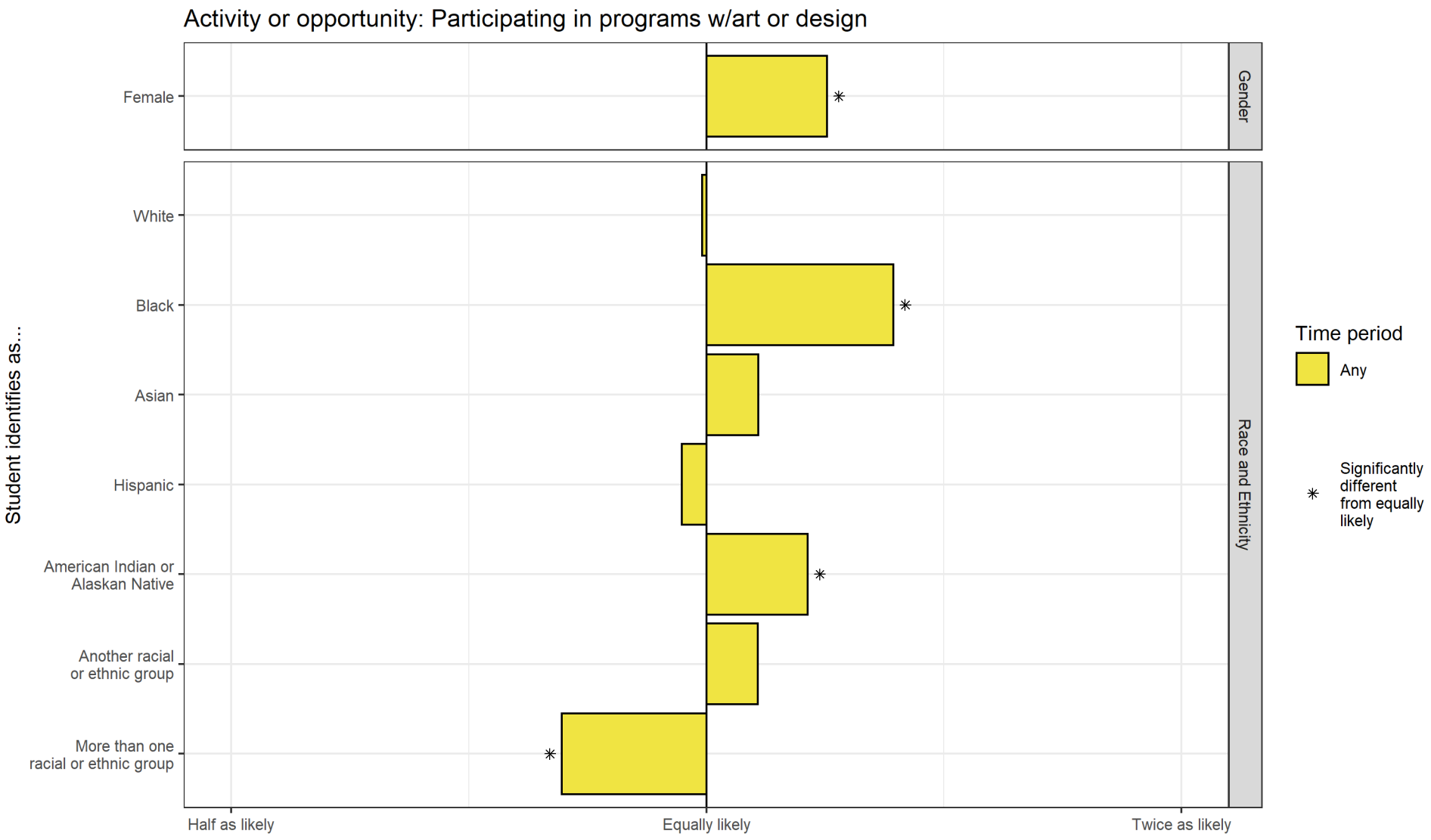
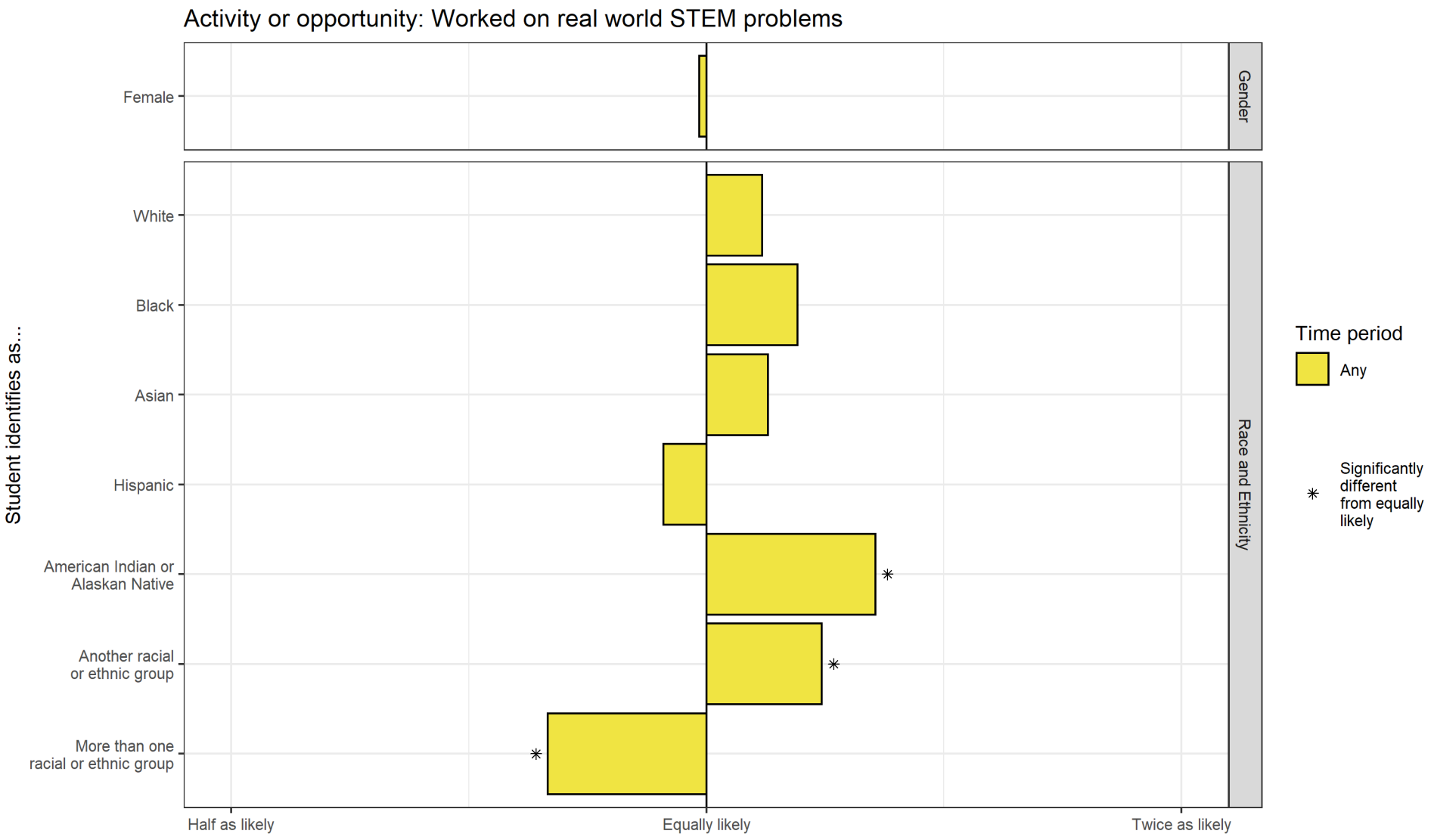

Activity or opportunity: Participating in programs w/art or design
Female
Gender
White
Black
Asian
Hispanic
American Indian or Alaskan Native
Another racial or ethnic group
More than one racial or ethnic group
Race and Ethnicity
Student identifies as...
Half as likely
Equally likely
Twice as likely
Time period
Any
Significantly different from equally likely

Back


Activity or opportunity: Worked on real world STEM problems
Female
Gender
White
Black
Asian
Hispanic
American Indian or Alaskan Native
Another racial or ethnic group
More than one racial or ethnic group
Race and Ethnicity
Student identifies as...
Half as likely
Equally likely
Twice as likely
Time period
Any
Significantly different from equally likely

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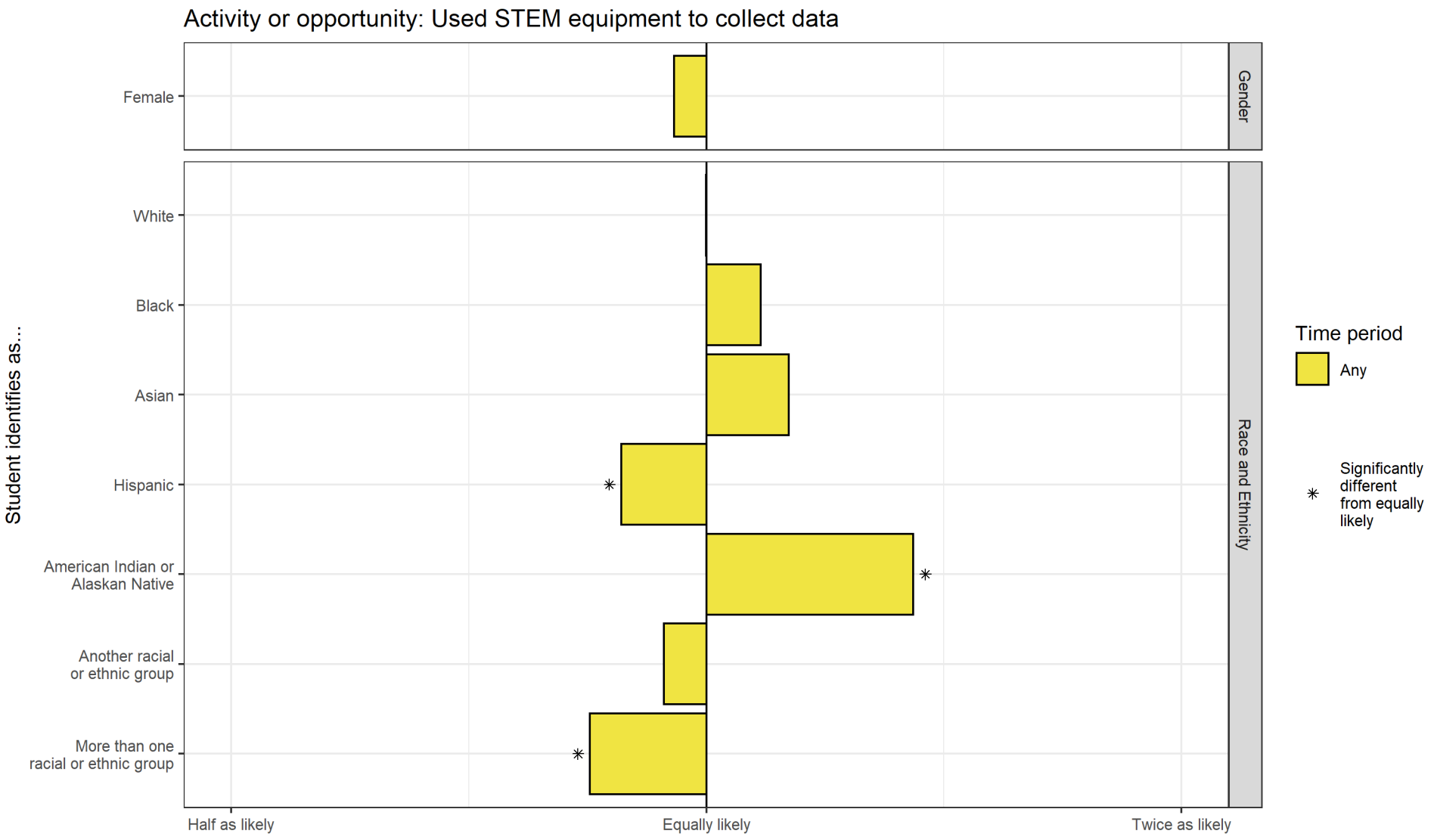
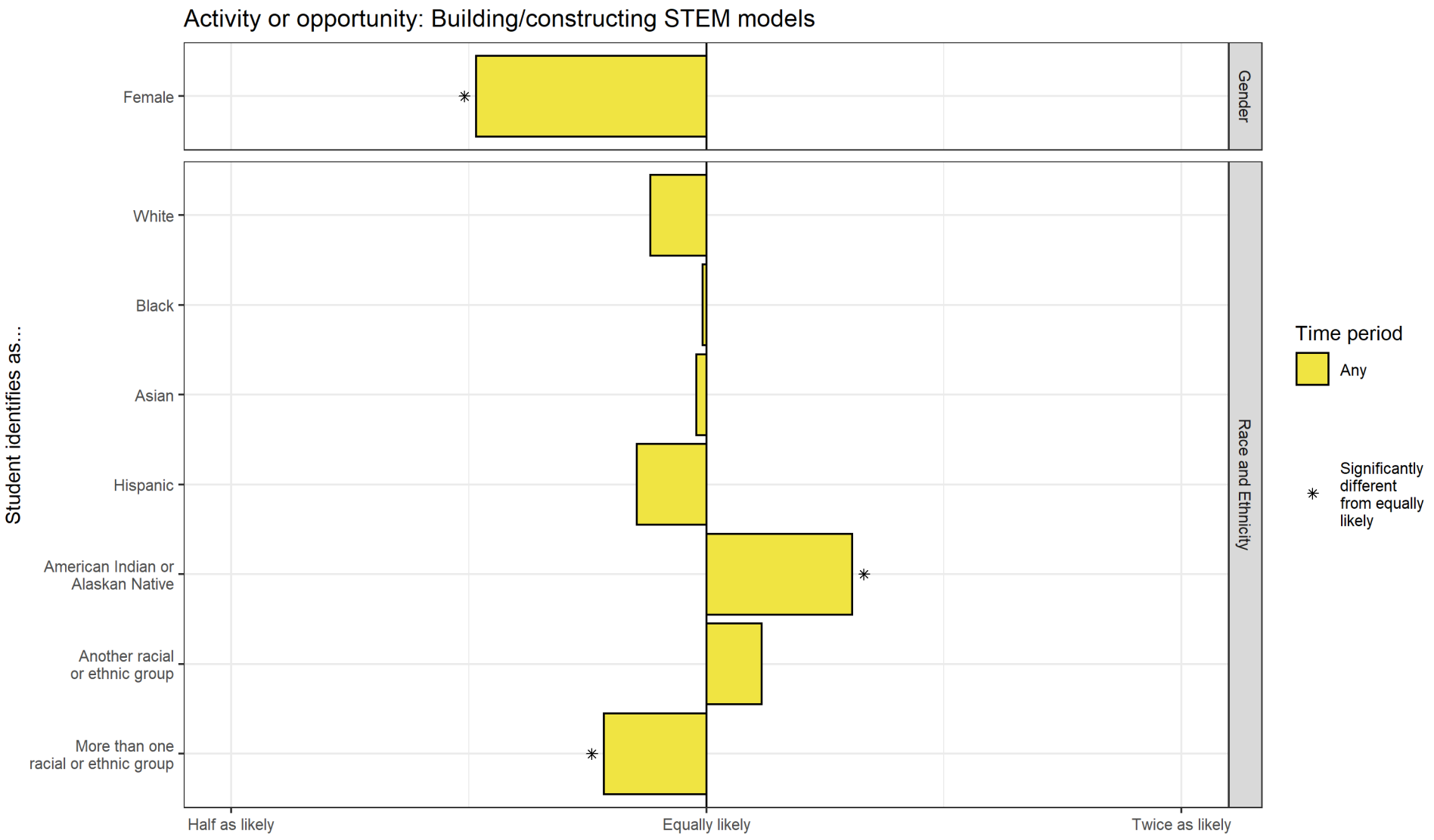

Activity or opportunity: Used STEM equipment to collect data
Female
Gender
White
Black
Asian
Hispanic
American Indian or Alaskan Native
Another racial or ethnic group
More than one racial or ethnic group
Race and Ethnicity
Student identifies as...
Half as likely
Equally likely
Twice as likely
Time period
Any
Significantly different from equally likely

Back


Activity or opportunity: Building/constructing STEM models
Student identifies as...
Female
Gender
White
Black
Asian
Hispanic
American Indian or Alaskan Native
Another racial or ethnic group
More than one racial or ethnic group
Race and Ethnicity
Half as likely
Equally likely
Twice as likely
Time period
Any
Significantly different from equally likely

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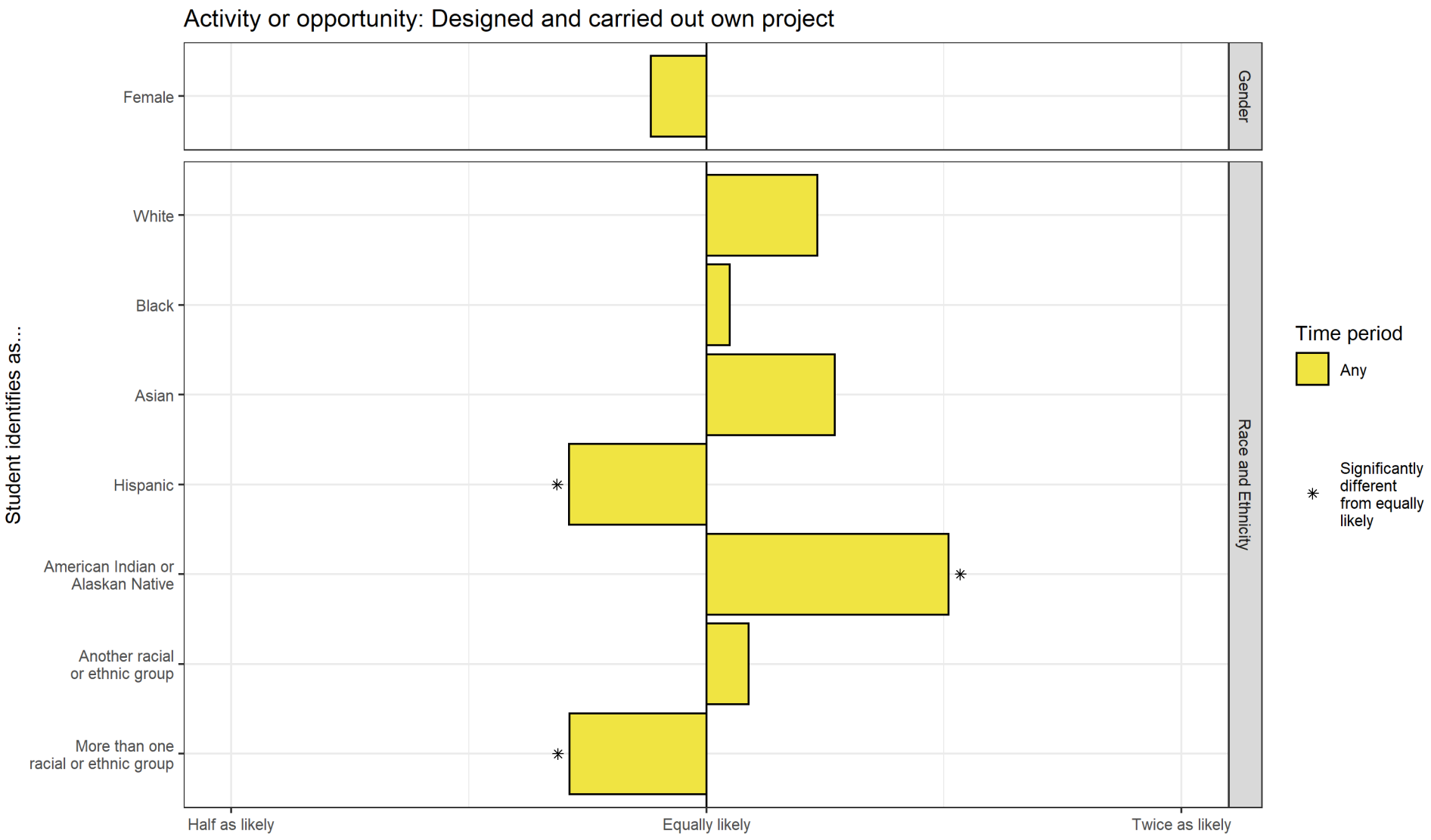
Activity or opportunity: Designed and carried out own project
Female
Gender
White
Black
Asian
Hispanic
American Indian or Alaskan Native
Another racial or ethnic group
More than one racial or ethnic group
Race and Ethnicity
Student identifies as...
Half as likely
Equally likely
Twice as likely
Time period
Any
Significantly different from equally likely

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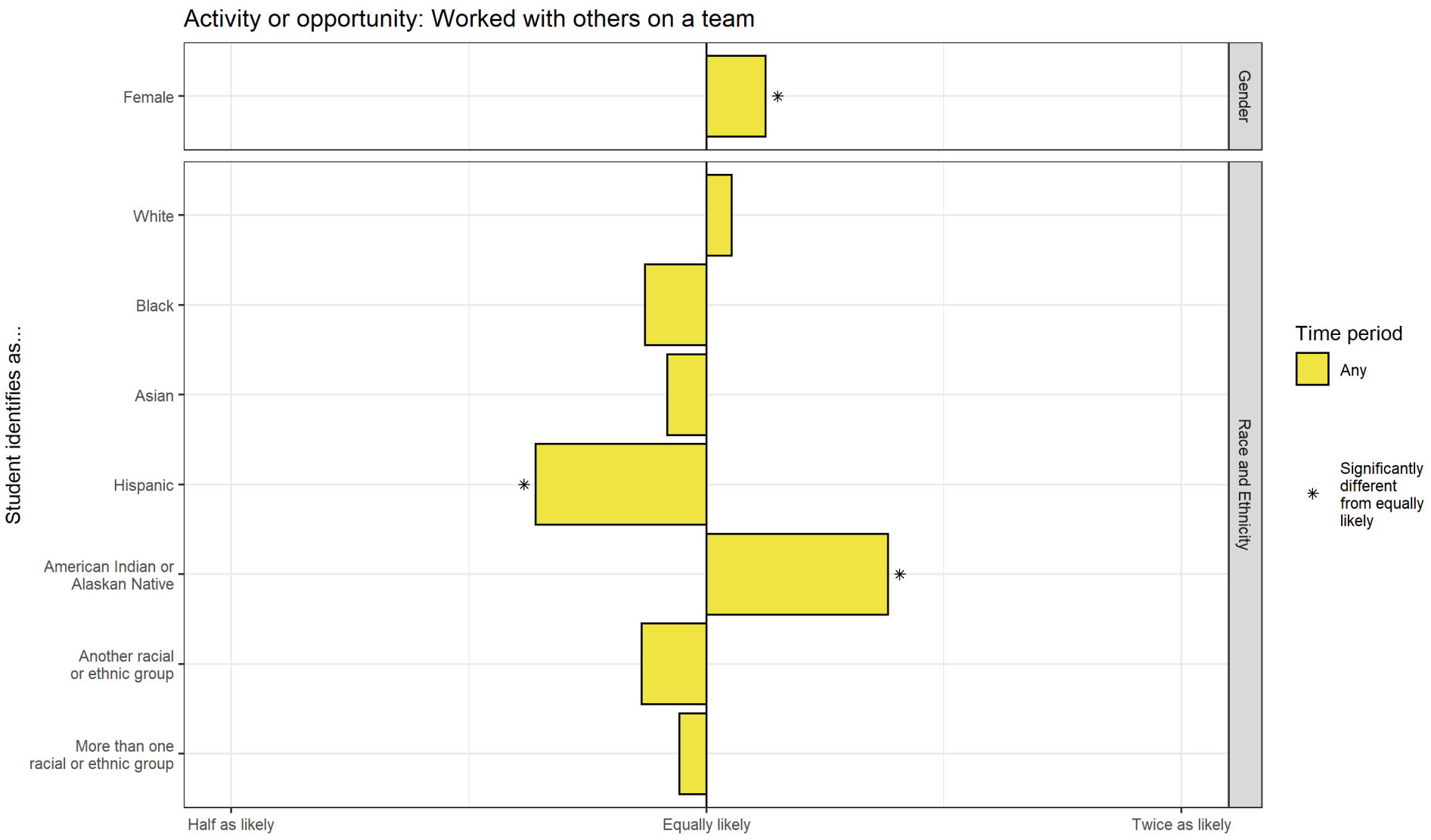
Activity or opportunity: Worked with others on a team
Student identifies as...
Female
White
Black
Asian
Hispanic
American Indian or Alaskan Native
Another racial or ethnic group
More than one racial or ethnic group
Gender
Race and Ethnicity
Half as likely
Equally likely
Twice as likely
Time period
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Significantly different from equally likely

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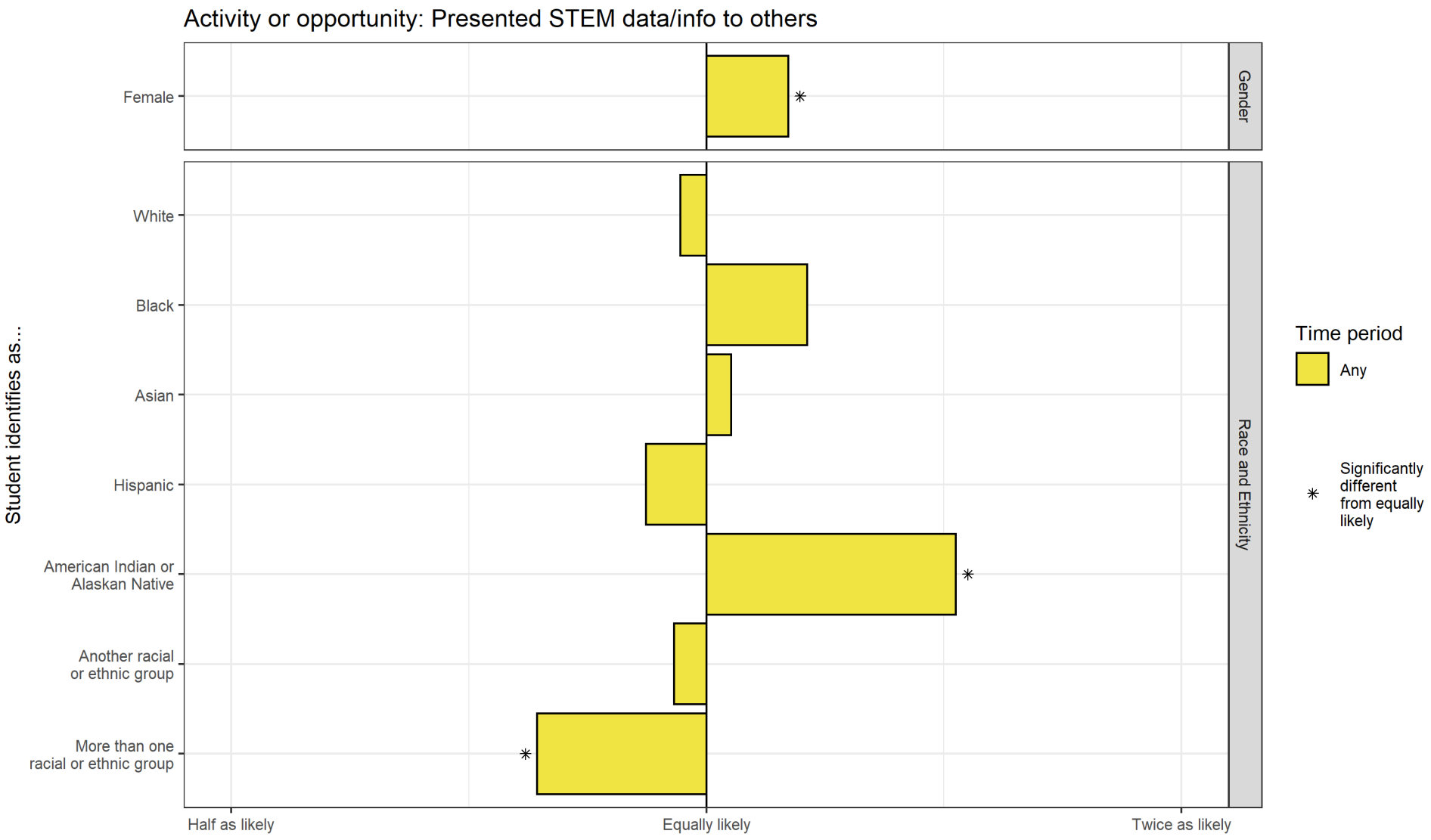
Activity or opportunity: Presented STEM data/info to others
Female
Gender
White
Black
Asian
Hispanic
American Indian or Alaskan Native
Another racial or ethnic group
More than one racial or ethnic group
Race and Ethnicity
Student identifies as...
Half as likely
Equally likely
Twice as likely
Time period
Any
Significantly different from equally likely

Back

Activity or opportunity: Learning about STEM careers
Female
Gender
White
Black
Asian
Hispanic
American Indian or Alaskan Native
Another racial or ethnic group
More than one racial or ethnic group
Race and Ethnicity
Student identifies as...
Half as likely
Equally likely
Twice as likely
Time period
Any
Significantly different from equally likely