

Exploring and Preparing for Faculty Careers

What are the expectations for graduate and postdoctoral training?

What skills do you need to get a faculty position ?

Delivered by: **Rachel Care, PhD**
Interim Program Director for Academic Careers
Office of Career and Professional Development
University of California, San Francisco

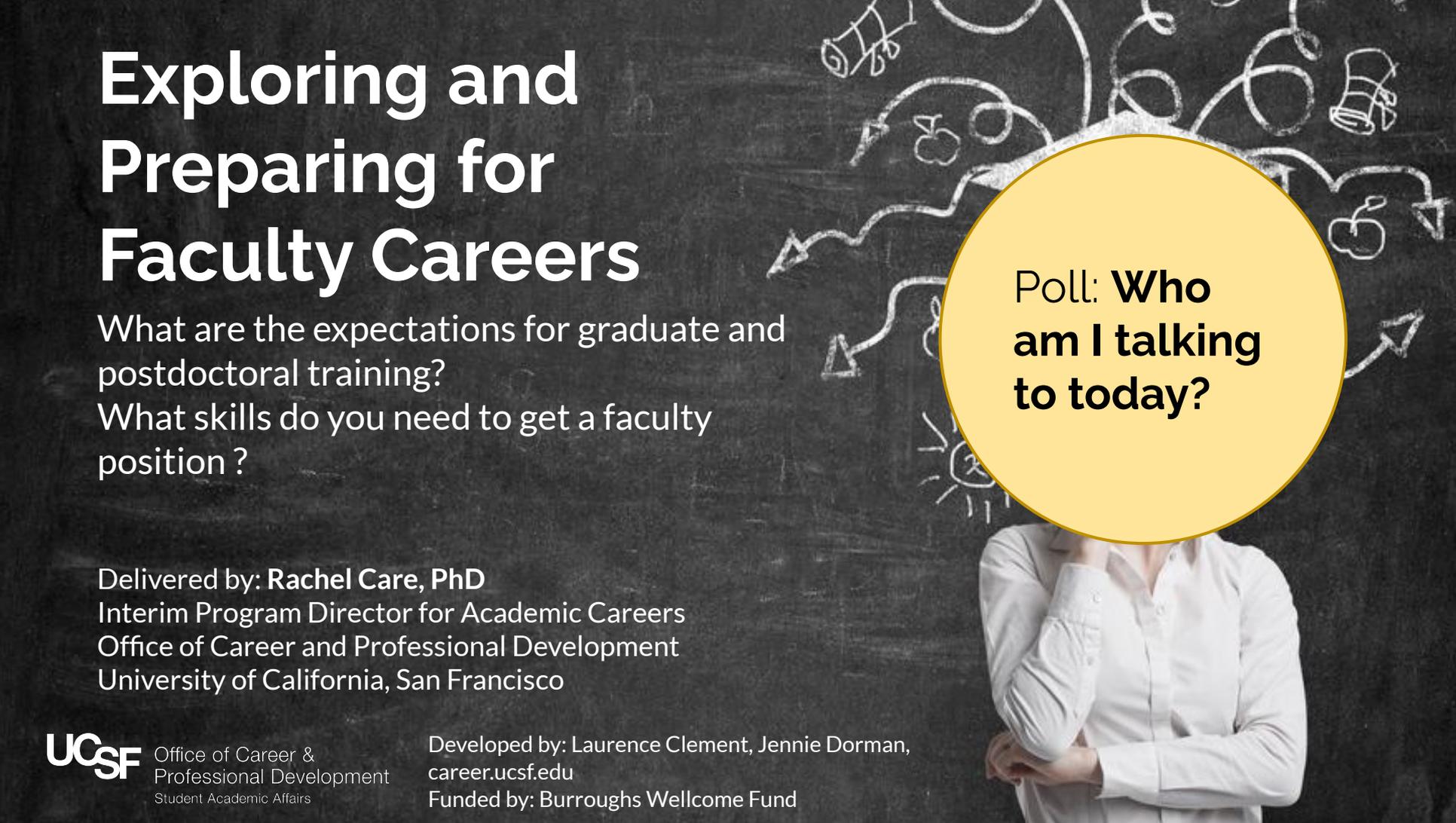


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Poll: **Who am I talking to today?**

Questions we often get

Since I passed my quals, I have felt lost. I am not sure that I am spending my time on the right things, or that I am making enough progress in the lab.

I rarely meet with my PI, so I am not sure if I am on the track to success.

I want to get teaching experience, but my PI doesn't want me to. What should I do?

Do I really need to apply to a K99 award to get a faculty position?

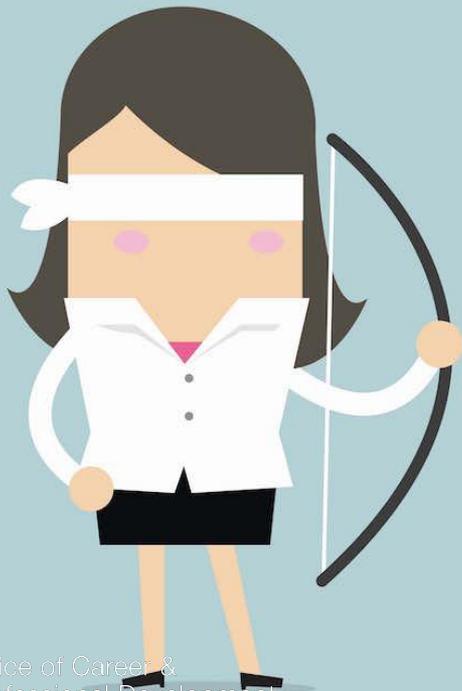
What should I be spending my time doing in the next 6 months?



The reason?



The reason?



Graduate and postdoctoral trainees should have clear objectives that are tailored to their career interests:

Career-Based Training Goals

Without these goals, trainees will be struggling to prepare adequately for the careers of their choice.



backward design your training



What learning experiences do you need to achieve these goals?
What activities should you prioritize to better prepare?

How will you know you are ready to start applying for this career?
What evidence of readiness do hiring committees look at?

What is your career goal?
What should be the outcome of your time in graduate/postdoctoral training?

It's more complicated!

Work hard!

X publications

I want a faculty position!

ACTIVITIES

EVIDENCE

OUTCOME

What learning experiences do you need to achieve these goals?
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It's more complicated!



You have only a limited amount of time outside the bench: what experiences should you prioritize?



Each type of position requires different types of evidence of ability or competency.



There are multiple types of faculty positions in the U.S

goals for today's session



Be able to use the Academic Career Readiness Assessment (ACRA) tool to determine what skills and experiences you will need to further develop to be competitive for a faculty position



Be able to list the qualifications hiring committees really look at when making their hiring decisions



Be able to differentiate between different types of institutions in the US, based on their Carnegie category

Types of Institutions Where You Could Be a Faculty In the US

What it takes to get tenure
there

And what environment it
provides for research and
teaching



Research- Intensive Institutions

(R1)



RESEARCH-INTENSIVE INSTITUTIONS (R1s*)

ENVIRONMENT:

- Access to graduate students and postdoctoral scholars
- Access to high research budget, state-of-the-art facilities & equipment
- Peers are often renowned scientists, Institutional prestige
- Low teaching load



RESEARCH-INTENSIVE INSTITUTIONS (R1s*)

TO GET **TENURE** AT THIS TYPE OF INSTITUTION:

- Large grants
- Regular publications in high-impact journals
- National & international recognition and collaborations



*The Carnegie Classification of Institutions of Higher Education™

Poll: **What
proportion of
U.S. institutions
are R1
institutions?**

What proportion of U.S. institutions are R1 institutions?

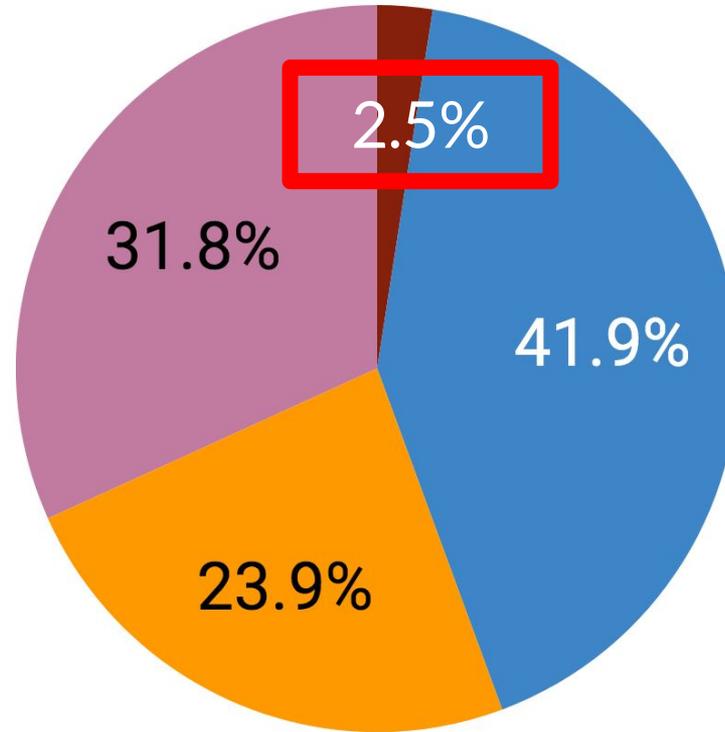
A. 2.5%

B. 22.5%

C. 42.5%

D. 62.5%

- R1 Institutions
- Research- and Teaching-Focused Institutions
- Teaching-Only Institutions
- Other (including Med Centers)

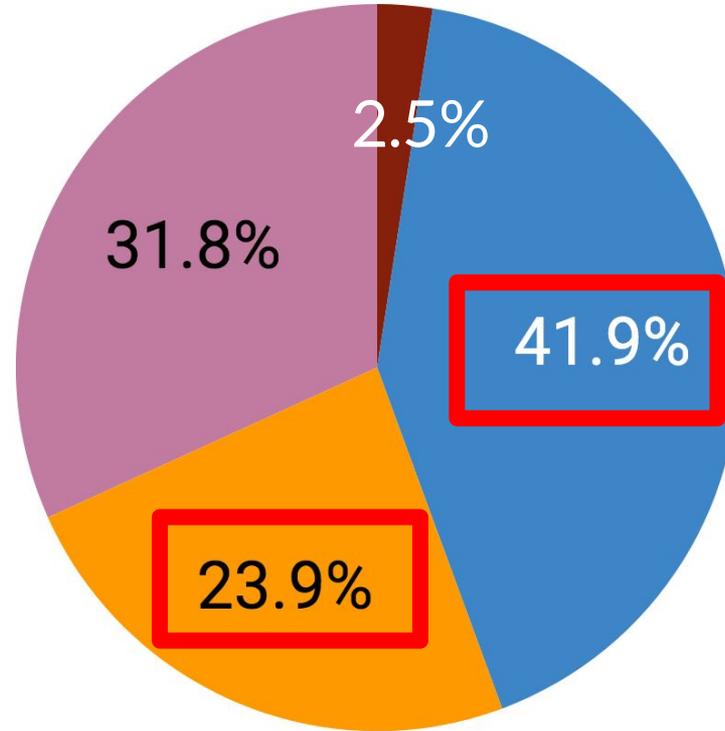


Answer: 2.5%

Source: The Carnegie Classification of Institutions of Higher Education™
<http://carnegieclassifications.iu.edu/index.php>

4,665 higher education institutions in the U.S.

- R1 Institutions
- Research- and Teaching-Focused Institutions
- Teaching-Only Institutions
- Other (including Med Centers)



Source: The Carnegie Classification of Institutions of Higher Education TM
<http://carnegieclassifications.iu.edu/index.php>

4,665 higher education institutions in the U.S.

Research- and Teaching-Focused Institutions

(RT)



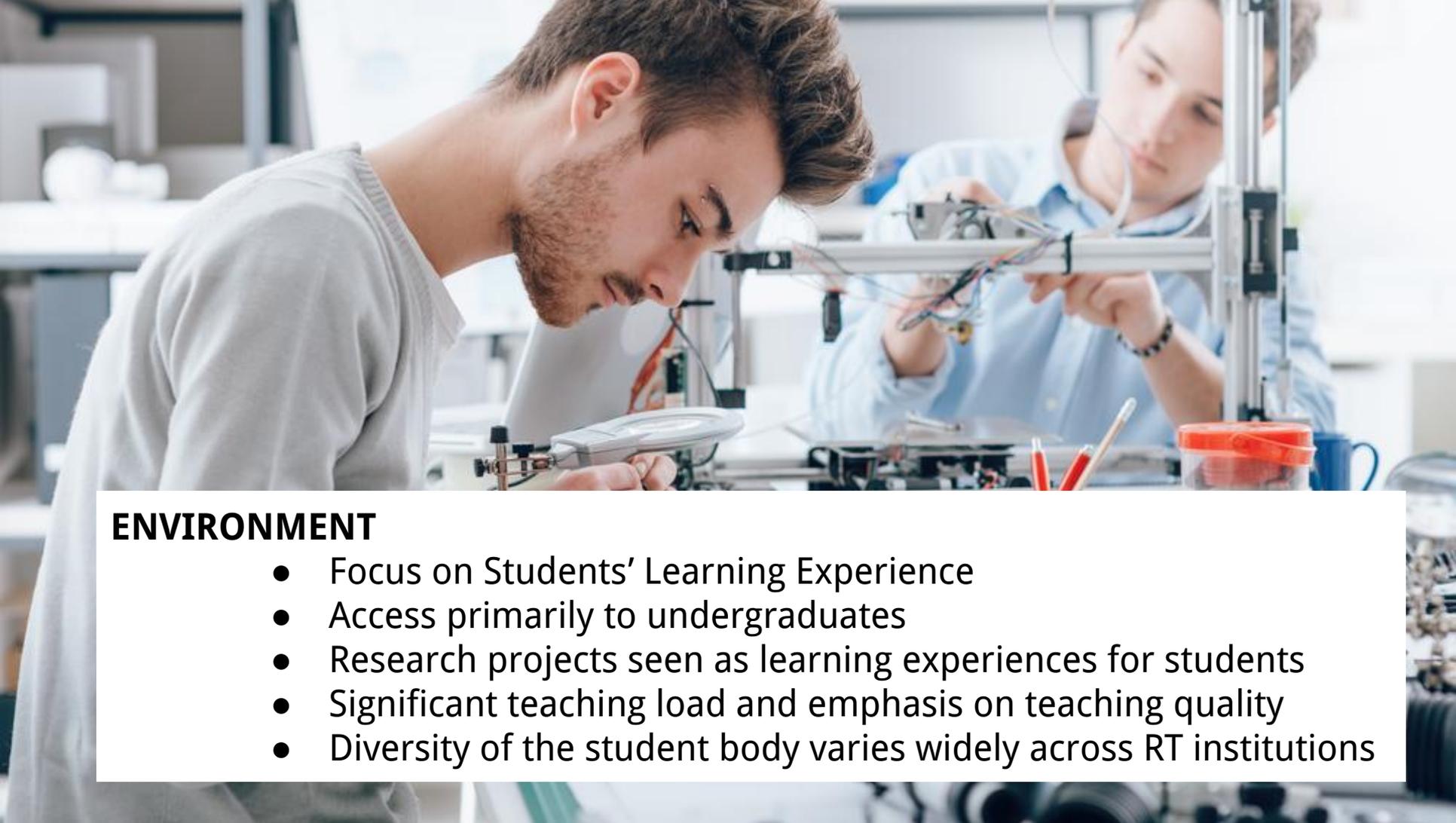
Rhodes College, Memphis, Tennessee
Liberal Arts College (or Baccalaureate* College)
Private, Non-Profit

Research- and Teaching-Focused Institutions

(RT)

**San Francisco State
University**
M1 institution:
**Master's Colleges &
Universities: Larger
Programs**





ENVIRONMENT

- Focus on Students' Learning Experience
- Access primarily to undergraduates
- Research projects seen as learning experiences for students
- Significant teaching load and emphasis on teaching quality
- Diversity of the student body varies widely across RT institutions

Research- and Teaching-Focused Institutions (RT)

TO GET **TENURE** AT THIS TYPE OF INSTITUTION:

- Balancing research with a significant teaching load
- Publication and funding expectations vary widely across institutions (from R1-level to very low requirements)
- Startup budget vary
- High teaching and mentoring expectations



Teaching-Only
Institutions
(T)

Community
College
(or Associate's
College)
Public



Kingsborough Community College, New York, NY

ENVIRONMENT:

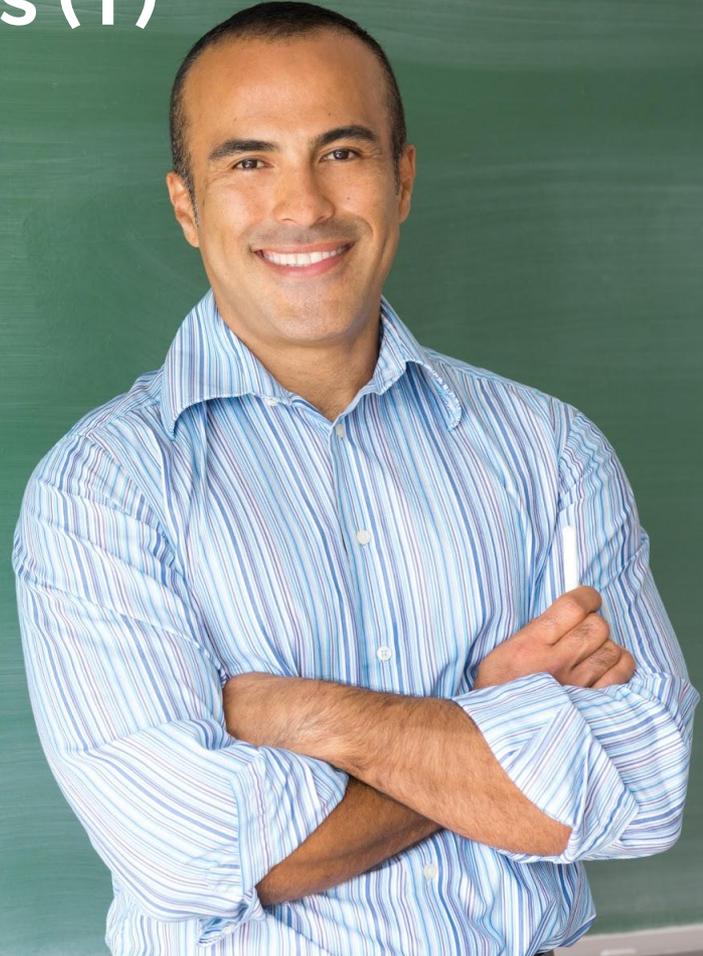
- No research at all, except for students, through internship experiences
- Very high teaching load for the faculty
- Student body is extremely diverse



Teaching-Only Institutions (T)

TO GET **TENURE** AT THIS TYPE OF INSTITUTION:

- Teaching effectiveness, support of diverse student needs, and collegiality are important
- Tenure is usually more of a formality: selection happens at the hiring level



Research-Intensive Institutions (R)



Research & Teaching Focused (RT)



Teaching-Only Institutions (T)



How to get tenure at these institutions

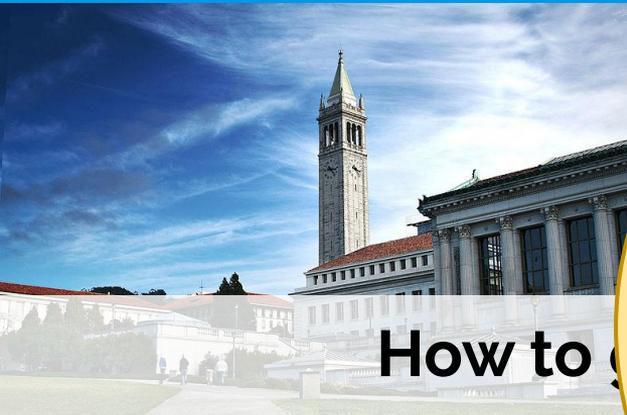
Research



Teaching & diversity



Research-Intensive Institutions (R)



How to

Research



Research & Teaching Focused (RT)



Poll:
Which faculty positions are more appealing to you?

Research Teaching

Teaching-Only Institutions (T)



Institutions

Teaching & diversity





What learning experiences do you need to achieve these goals?
What activities should you prioritize to better prepare?

What evidence of readiness do hiring committees look at?

How will you know you are ready to start applying?

What is your career goal?

What should be the outcome of your graduate/postdoctoral training?

Next step



What learning experiences do you need to achieve these goals?
What activities should you prioritize to better prepare?

What evidence of readiness do hiring committees look at?

What is your career goal?

What should be the outcome of your time in graduate/postdoctoral training?

A man in a light blue button-down shirt stands in front of a chalkboard. He is smiling and pointing his right index finger upwards towards a single glowing yellow key. The chalkboard is covered with numerous white chalk-drawn keys of various shapes and sizes. The glowing key is positioned in the upper right quadrant of the board. The man's left hand is partially visible, resting near his waist.

**What does it take to get
hired at these institutions?**

**Research-Intensive
Institutions (R)**

**Research &
Teaching
Focused (RT)**

**Teaching-Only
Institutions (T)**



**How to get hired at these institutions:
The Academic Career Readiness Assessment (ACRA)**
“What are the significant contributors to hiring decisions?”

n=4 faculty
(5 institutions)
validated by 38 faculty

n=9 faculty
(10 institutions)
validated by 22 faculty

n=4 faculty
(4 institutions)
validated by 11 faculty

Hiring profiles



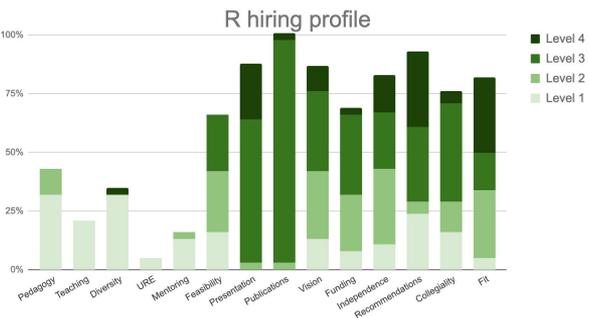
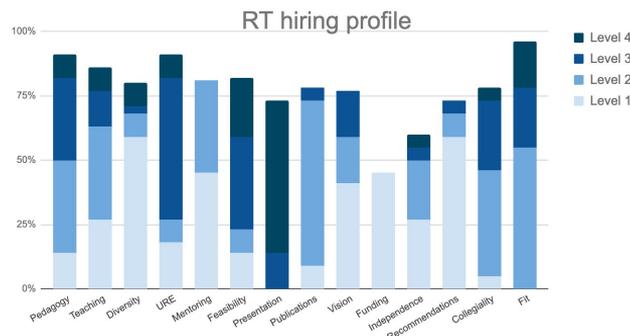
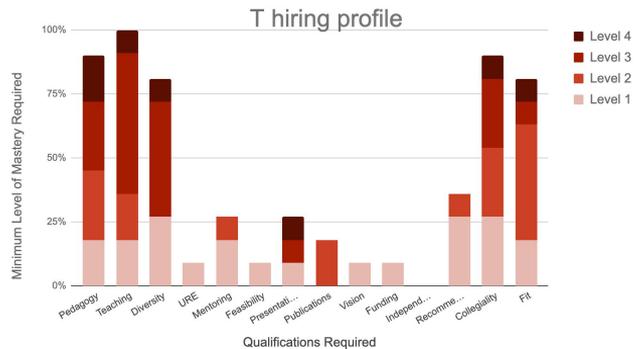
T institutions
(n=11)



RT institutions
(n=22)



R institutions
(n=38)



Different institutions have different hiring priorities

Hiring profiles



T institutions
(n=11)



RT institutions
(n=22)

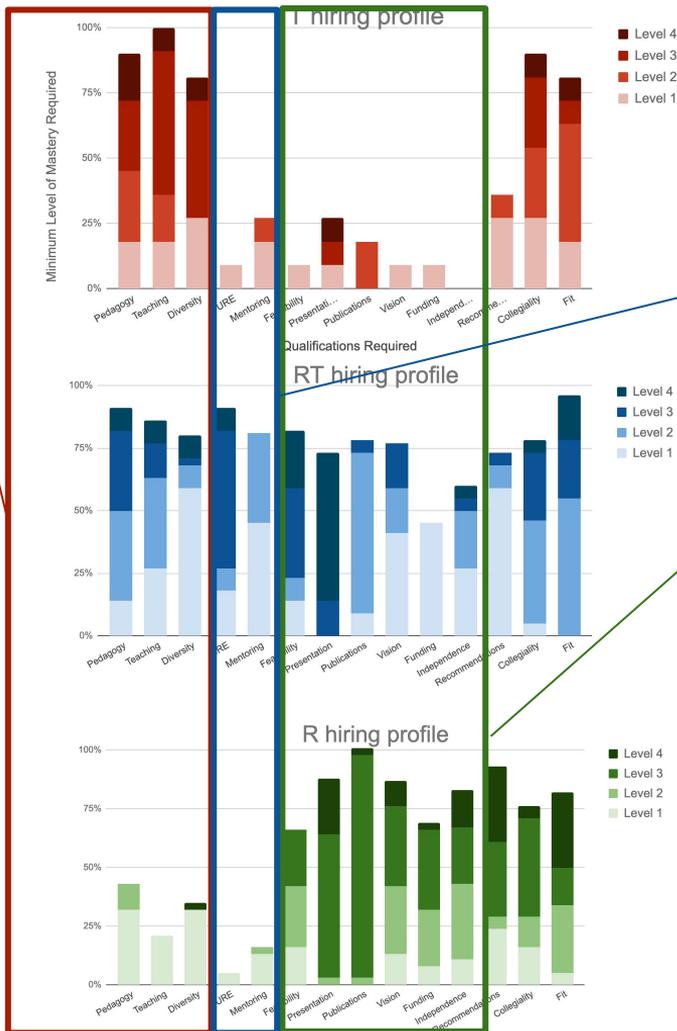


R institutions
(n=38)

Teaching- and
diversity
related
qualifications

Mentoring-related
qualifications

Research-related
qualifications



Download ACRA:
bit.ly/ACRA2020

Learn more:
career.ucsf.edu/ACRA



Academic Career Readiness Assessment UCSF OCPD 2020.pdf



Open with Google Docs



The Academic Career Readiness Assessment (ACRA)

Qualification

Level 1

Level 2

Level 3

Level 4

Teaching Practices

Candidate shows awareness of their limited teaching abilities and is interested in developing teaching skills.	Level 1 & Candidate is familiar with the evidence supporting the use of active learning strategies in the classroom.	Level 2 & Candidate demonstrates that they can use active learning strategies effectively in the classroom.	Level 3 & Candidate reflects on own teaching effectiveness and uses an iterative process to teaching to improve curriculum (1).
T 91% Required	18%	27%	27%
RT 91% Required	14%	36%	32%
R 42%	32%	11%	9%

Teaching Experience

Candidate has had significant responsibilities (2) as a teaching assistant.	Candidate has been fully responsible for organizing (3) and teaching a course.	Candidate has been fully responsible for organizing (3) and teaching a course with a comparable student population (4).	Candidate has been fully responsible for organizing (3) and teaching a variety of courses (5) with a comparable student population (4).
T 100% Required	18%	18%	55%
RT 86% Required	27%	36%	14%
R 21%	21%		9%

Commitment and Ability to Serve a Diverse Student Population

Candidate demonstrates the sensitivity, respect for individuals of all backgrounds, and the interpersonal skills to interact with them.	Level 1 & Candidate has immersed self in a diverse community, or has mentored, advised or taught diverse populations of students.	Level 2 & Candidate has used strategies to support learning of diverse populations of students.	Level 3 & Candidate can articulate a personal experience with equity or social justice that inspires them to improve learning experiences of diverse populations of students. (6)
T 82% Required	27%		45%
RT 82% Required	59%	9%	3%
R 34%	32%		3%



T institutions
(n=11)



RT institutions
(n=22)



R institutions
(n=38)

T





T institutions
(n=11)



RT institutions
(n=22)



R institutions
(n=38)

RT

Inclusion of Undergraduate Research Experiences in Research Plan

T	9%
RT	91% Required
R	5%

Candidate demonstrates a clear understanding that they will be working with undergraduate and/or Master's students.	Level 1 & Candidate understands the implications of doing research with non-PhD students on scope of project.	Level 2 & Research plan is specifically tailored to the institution's undergraduate and/or Master's population.	Level 3 & Candidate is able to propose projects of different calibers for different student populations. (7)
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9%	18%	9%	55%	9%
----	-----	----	-----	----

Experience Conducting Research with Students

T	27%
RT	82% Required
R	16%

Candidate can articulate a scientific mentoring philosophy that meets the needs of the non-PhD student population served by this institution.	Level 1 & Candidate has experience conducting research with non-PhD students	Level 2 & Research conducted with non-PhD students produced preliminary data.	Level 3 & Data produced by non-PhD students was included in a scientific poster or paper.
---	--	---	---

18%	9%
45%	36%
13%	3%

Qualification

Level 1

Level 2

Level 3

Level 4

Research Feasibility with Available Resources

Candidate demonstrates ability to develop a research program within the limitations of the start-up funds. (8)	Level 1 & Candidate demonstrates the ability to independently manage and run the equipment required for their research program. (9)	Level 2 & Research program is feasible in the institution's research and geographic environment, which includes some minor constraints. (10)	Level 3 & Research plan is tailored to the non-R1 institution's highly limited resources. (11)
--	---	--	--

T	9%	9%			
RT	82% Required	14%	9%	38%	23%
R	66% Required	16%	26%	24%	

Verbal Communication of Research

Can present research clearly and effectively to labmates.	Can present science clearly to scientists in the same sub-discipline (for example, to other microbiologists).	Can present science clearly and effectively to scientists outside of subfield.	Can present science clearly and effectively and can spark the interest of scientists outside of subfield and non-PhD students.
---	---	--	--

T	27%	9%		9%	9%
RT	73% Required			14%	59%
R	87% Required		3%	61%	24%

Publications

Candidate has produced a few papers, regardless of authorship or impact.	Candidate has produced first author papers during postdoc and (12) PhD (regardless of impact) (13).	Candidate has produced first author papers during postdoc and (12) PhD, with at least one paper contributing significantly to the field (14).	Candidate has produced first author papers during postdoc and (12) PhD, at least one of which was published in Cell, Nature, or Science (15).
--	---	---	---

New T	18%		18%		
RT	77% Required	9%	64%	5%	
R	100% Required		3%	95%	3%

T institutions
(n=11)

RT institutions
(n=22)

R institutions
(n=38) **RT**



T institutions
(n=11)



RT institutions
(n=22)



R institutions
(n=38)

R

Research Vision & Strategy

		Research program is exciting (16) with a clear direction and includes explicit, feasible steps to attain this direction over the first couple of years.	Level 1 & There is an interesting, broad, research question that fills important gaps in the field and provides direction for the next 5 to 10 years.	Level 2 & The research question is broken down into smaller, feasible projects that use appropriate methods to answer the question.	Level 3 & The candidate has demonstrated experience successfully implementing this or a similar vision independently. (17)
T	9%	9%			
RT	77% Required	41%	18%	18%	
R	87% Required	13%	29%	34%	11%

Funding Plan

		Candidate can suggest specific funding agencies and program names to fund proposed research program. (18)	Level 1 & Proposed research program is ambitious and impactful enough to be funded by an R01 grant. (19)	Level 2 & Candidate has developed specific aims that can be realistically achieved with a first R01 grant. (20)	Level 3 & Candidate has developed a funding plan beyond the first R01 grant. (21)
T	9%	9%			
RT	45%	45%			
R	68% Required	8%	24%	34%	3%

Research Independence

		Candidate has the technical expertise to run their proposed research program independently. (22)	Level 1 & Candidate shows ability to lead a research program, by developing own ideas and new collaborations independently. (23)	Level 2 & Candidate's proposed research program does not appear to be in competition with their current advisor's. (24)	Level 3 & Candidate can provide evidence of independence through advisor's recommendation letter.
T	0%				
RT	59% Required	27%	23%	5%	5%
R	82% Required	11%	32%	24%	16%



T institutions
(n=11)

T



RT institutions
(n=22)

RT



R institutions
(n=38)

R

Qualification

Level 1

Level 2

Level 3

Level 4

Recommendations

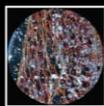
		Enthusiastic and personalized recommendations from both PD and PhD advisors. (25)	Level 1 & letters from other respected scientists who are well known by the search committee AND who know the candidate well. (26)	Level 2 & letters emphasize candidate's ability to be successful as a principal investigator.	Level 3 & letters emphasize that the candidate shows the potential to become a leader in the field.
T	36%	27%	9%		
RT	73% Required	59%	9%	5%	
R	92% Required	24%	5%	32%	32%

Collegiality

		Candidate demonstrates the ability to interact with colleagues in a professional manner.	Levels 1 & Candidate demonstrates the interpersonal skills well-suited for the department's culture. (27)	Level 2 & Candidate demonstrates willingness to share ideas and resources with colleagues. (28)	Level 3 & Candidate demonstrates the ability to develop collaborative projects with colleagues. (29)
T	91% Required	27%	27%	27%	9%
RT	77% Required	5%	41%	27%	5%
R	76% Required	16%	13%	42%	5%

Fit

		Candidate has sought experiences that align with the institution's teaching/ research mission. (30)	Level 1 & Research or teaching disciplines meet the needs of the department. (31)	Level 2 & Candidate has the ability and determination to handle the high workload. (32)	Level 3 & Candidate highlights potential synergies with others in department or institution.
T	82% Required	18%	45%	9%	9%
RT	95% Required		55%	23%	18%
R	82% Required	5%	29%	16%	32%



LSE

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CBE—Life Sciences Education, Vol. 19, No. 2 | Article

The Academic Career Readiness Assessment: Clarifying Training Expectations for Future Biomedical Life Scientists

Laurence Clement [✉](#), Jennie B. Dorman, and Richard McGee

Adele Wolfson, Monitoring Editor

Published Online: 26 May 2020 | <https://doi.org/10.1187/cbe.19-11-0235>

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Get the paper:
bit.ly/ACRApaper

R institutions

Significant contributors to hiring decisions



Research program:

Clear vision and strategy
Fundable research plan
Independence



Publications:

Impact is what matters (not necessarily impact factor)



Recommendations:

From advisors and PIs
Need to be stellar



Grants and fellowships:

Not required BUT may help indirectly because a **Funding Plan is important**



Fit for position

This is less essential, but in some instances, the research field will matter for the position
Possible synergy with colleagues may matter

RT institutions

Significant contributors to hiring decisions



Fit for position

Disciplinary fit in teaching,
No overlap with other faculty in
research

Don't want to be your backup plan



Research program:

Feasibility with limited resources
Undergraduates must be
included



Verbal communication:

Spikes interest of non-experts
and undergraduates



Teaching:

Experience - involvement matters
Teaching Potential matters



Publications:

Variable - depends on the
teaching/research balance



Collegiality:

Are you a good colleague?
Can you share?

T institutions

Significant contributors to hiring decisions



Fit for position

Disciplinary fit in teaching matters:
can you teach what we need you to teach?



Teaching:

Experience - involvement matters
Teaching Potential matters



Collegiality:

Are you a good colleague?
Can you share?



Commitment to Diversity:

Respect, Authenticity
Reflectiveness, Experience

To summarize

Significant contributors to hiring decisions

R

Productivity &
Long-term fundability



RT

Learning needs of
students (research
and classroom)



T

Learning needs of
students from all
backgrounds





What learning experiences do you need to achieve these goals?
What activities should you prioritize to better prepare?

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What is your career goal?

What should be the outcome of your time in graduate/postdoctoral training?

Next step



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Use the ACRA survey to self-assess

Qualification	Your level	ACRA target level
Teaching Experience	4	3
Teaching Practices	1	3
Publications	2	2



Get the survey:
bit.ly/ACRASurvey

Identify the qualifications
you have achieved

Identify the qualifications
where you need to grow

Use the ACRA survey to self-assess

Qualification	Your level	ACRA target level
Teaching Experience	4	3
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Publications	2	2

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Identify the qualifications you have achieved

Identify the qualifications where you need to grow





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Use the ACRA survey:
Make a training plan

Qualification	Your level	ACRA target level
Teaching Experience	4	3
Teaching Practices	1	3
Publications	2	2

Training Plan



Top 4 qualifications	Activity
Teaching Practices	Register to STEP-UP course in May
Recommendations	<ol style="list-style-type: none">1. Schedule a counseling appointment to discuss current relationship with my PI2. Reach out to faculty I met at the conference last September and ask them for feedback on my research plans

Programs for Faculty Career Competencies

OCPD's programs map to the ACRA qualifications

Positions	Teaching Focused Faculty Positions					
	Research & Teaching Focused Faculty Positions					
Competency	Teaching Experience	Pedagogical Practices	Ability to Serve a Diverse Student Population	Recommendations	Undergraduate Research Experiences in Research Plan	Experience Conducting Research with Students
Programs	Introduction to Evidence-Based Pedagogy Course Learn to teach inclusively <i>Graduate students may receive credit as GRAD 302</i>			Manage Up How to build relationships and navigate opportunities	Inclusive Research Mentor Course Learn to mentor inclusively	
	Teaching Residency Teach lab courses USF, SFSU, CCSF		Inclusive Mentoring Fellows Hire a CCSF intern		Inclusive Mentoring Fellows Hire a CCSF intern	
Positions	Research & Teaching Focused Faculty Positions					
	Research Focused Faculty Positions					
Competency	Publications, Scholarship	Research Vision & Strategy	Funding Plan	Research Independence	Research Feasibility with Available Resources	Verbal Communication of Research
Programs	Planning Your Academic Career Course: Developing your independent research program <i>Graduate students may receive credit as GRAD 201</i>					Planning Your Academic Career Demonstration: Giving a chalk talk
	Planning Your Academic Career Video series: Applying for faculty positions Workshop: Getting feedback on your application materials					

Teaching Focused Faculty Positions

Research & Teaching Focused Faculty Positions

Teaching Experience

Pedagogical Practices

Ability to Serve a Diverse Student Population

Recommendations

Introduction to Evidence-Based Pedagogy Course

Learn to teach inclusively

Graduate students may receive credit as GRAD 302

Teaching Residency

Teach lab courses USF, SFSU, CCSF

Inclusive Mentoring Fellows

Hire a CCSF intern

Manage Up
How to build relationships and navigate opportunities

Research & Teaching Focused Faculty Positions

**Undergraduate
Research
Experiences in
Research Plan**

**Experience
Conducting
Research with
Students**

Inclusive Research Mentor Course
Learn to mentor inclusively

Inclusive Mentoring Fellows
Hire a CCSF intern

Research & Teaching Focused Faculty Positions

Research Focused Faculty Positions

**Publications,
Scholarship**

**Research Vision &
Strategy**

Funding Plan

**Research
Independence**

**Research
Feasibility
with Available
Resources**

**Verbal
Communication
of Research**

Planning Your Academic Career

Course: Developing your independent research program

Graduate students may receive credit as GRAD 201

Planning Your Academic Career

Video series: Applying for faculty positions

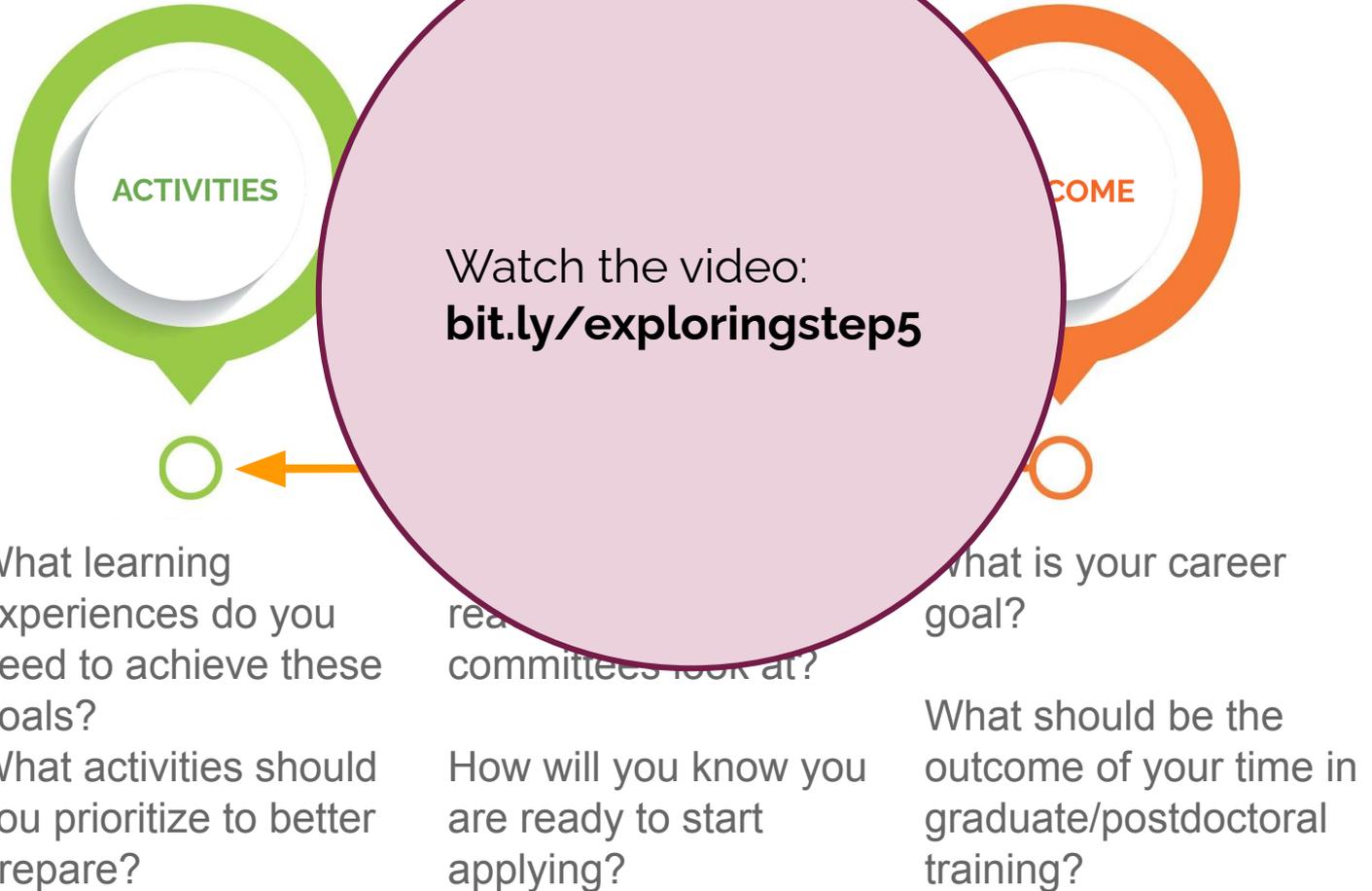
Workshop: Getting feedback on your application materials

**Planning Your
Academic Career**
Demonstration:
Giving a chalk talk

Next step

Discuss your training plan with your PI and other mentors

Watch Step 5 video for sample language to use before and during this meeting



Next step

Discuss your training plan with your PI and other mentors

Watch Step 5 video for sample language to use before and during this meeting



What learning experiences do you need to achieve these goals?
What activities should you prioritize to better prepare?

Watch the video:
bit.ly/exploringstep5

read
committees look at?

How will you know you are ready to start applying?



Talk to us:
career.ucsf.edu/appointments

What will you do next?

Schedule **20 minutes** to take the survey

Watch the Step 5 video (only **8 minutes!**)

Join the Faculty Career Series:
bit.ly/FacultyCareerSeries

Talk to an OCPD counselor:
career.ucsf.edu/appointments

Reach out to me:
rachel.care@ucsf.edu

Programs next week

Apply, Step 1:

Assess your strengths and weaknesses as a faculty candidate

Apply, Step 2:

Set up an effective job search