Understanding Extracurricular Activities' Impact on Employment Outcomes

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Presentation Outline

- Introduction

- Research questions

- Data sources

- Results

- Conclusion and Implications

Introduction

Extra-curricular activities include:

- **Student organizations**

- **Student clubs**

- **Off campus organizations**

- Internships

- Study abroad

Introduction

Benefits of Participation in Extra-curricular Activities

- Increase sense of belonging

- Increase satisfaction with educational experience

- Develop skills and connections that lead to better student outcomes and career success

Research Questions

- Who participates in extracurricular activities?

- Is participation associated with student success?

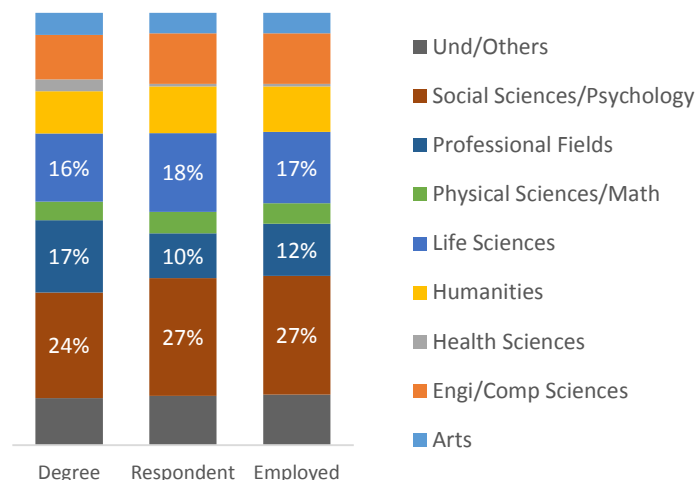- Are there long-term employment benefits?

Data Sources

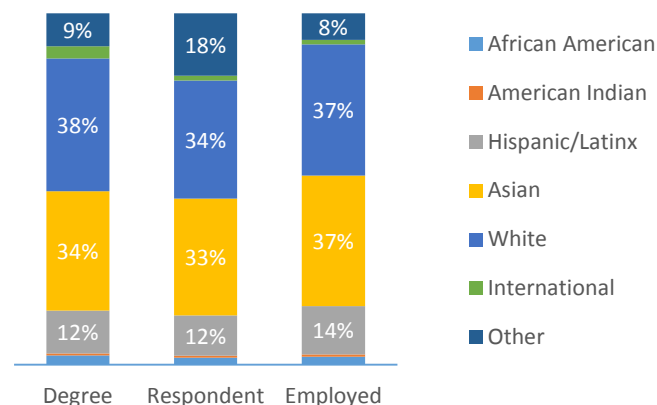|	Undergraduate Participation in Extracurricular Activities	Employment Outcomes	Demographic & Background Data
Data Source	University of California Undergraduate Experience Survey (UCUES)—a census survey administered every two years	California Employment Development Department (EDD)	UC Data Warehouse at Office of the President
Example Data	Self-reported participation in extracurricular activities such as clubs, sports, etc.	Employment industries and earnings	Ethnicity, discipline, graduation GPA

Population

- In 2008, 63,534 responded to UCUES. The response rate is 39%.

- About 11,000 students responded to UCUES questions of extracurricular activities.

- 7,300 (8%) graduated in 2008, 2009 or 2010.

- About 4,500 alumni were found in the employment data set.

Share of population by discipline

Legend:
- Und/Others
- Social Sciences/Psychology
- Professional Fields
- Physical Sciences/Math
- Life Sciences
- Humanities
- Health Sciences
- Engi/Comp Sciences
- Arts

	Degree	Respondent	Employed
Life Sciences	16%	18%	17%
Professional Fields	17%	10%	12%
Social Sciences/Psychology	24%	27%	27%

Share of population by race/ethnicity

Legend:
- African American
- American Indian
- Hispanic/Latinx
- Asian
- White
- International
- Other

	Degree	Respondent	Employed
Other	9%	18%	8%
White	38%	34%	37%
Asian	34%	33%	37%
Hispanic/Latinx	12%	12%	14%

UC Undergraduate Education Survey (UCUES) question:
During this academic year, have you been involved in any of the following activities or organizations

	Participant or member	Officer or leader	Neither
Academic (e.g., math club, philosophy club)			
Advocacy (e.g., Amnesty International, Living Wage Advocacy, Sierra Club)			
Campus sports club (e.g., rugby club, Kendo club)			
Campus varsity team (e.g., basketball, softball, soccer)			
Governing bodies (e.g., student government, IFC, panhellenic, residence hall)			
Greek fraternity or sorority			
Honor society			
Media (e.g., campus newspaper, radio station)			
Performing group (e.g., school band, dance team)			
Political (e.g., Young Republicans, College Democrats)			
Recreational (e.g., chess club, bike club, rock climbing club)			
Religious (e.g., Korean Campus Ministry, World Peace Buddhist Club)			
Service (e.g., Special Olympics volunteers Club, Jewish Social Action Committee)			
Other campus-based club or organization			
Off-campus club or organization			

For each respondent, we created a Participation Status Measure:

OFFICER in at least one activity OR
MEMBER in at least one activity OR
NON-PARTICIPANT in any activity

Results

We looked at the distribution of Participation Status by various demographic measures and by discipline. In the charts to follow, it was observed that:
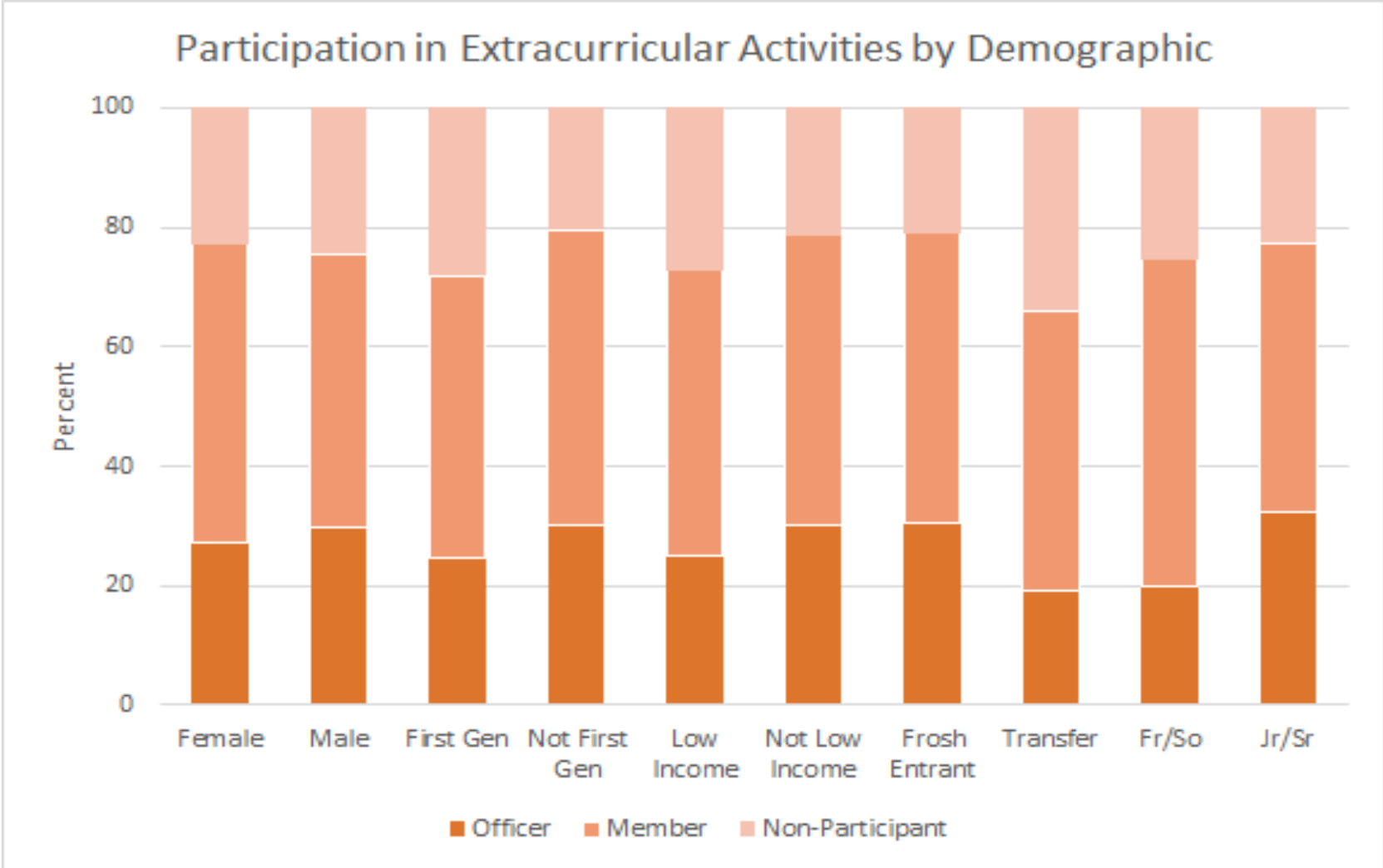
First Generation, Low Income and Transfer Students had the highest percentages of Non-Participants

Hispanic and Latino Students had the highest percentage of Non-Participants while Asians had the highest percentage of Officers

Health Science Majors had the highest rate of participation while those in Physical Sciences had the lowest rate of participation
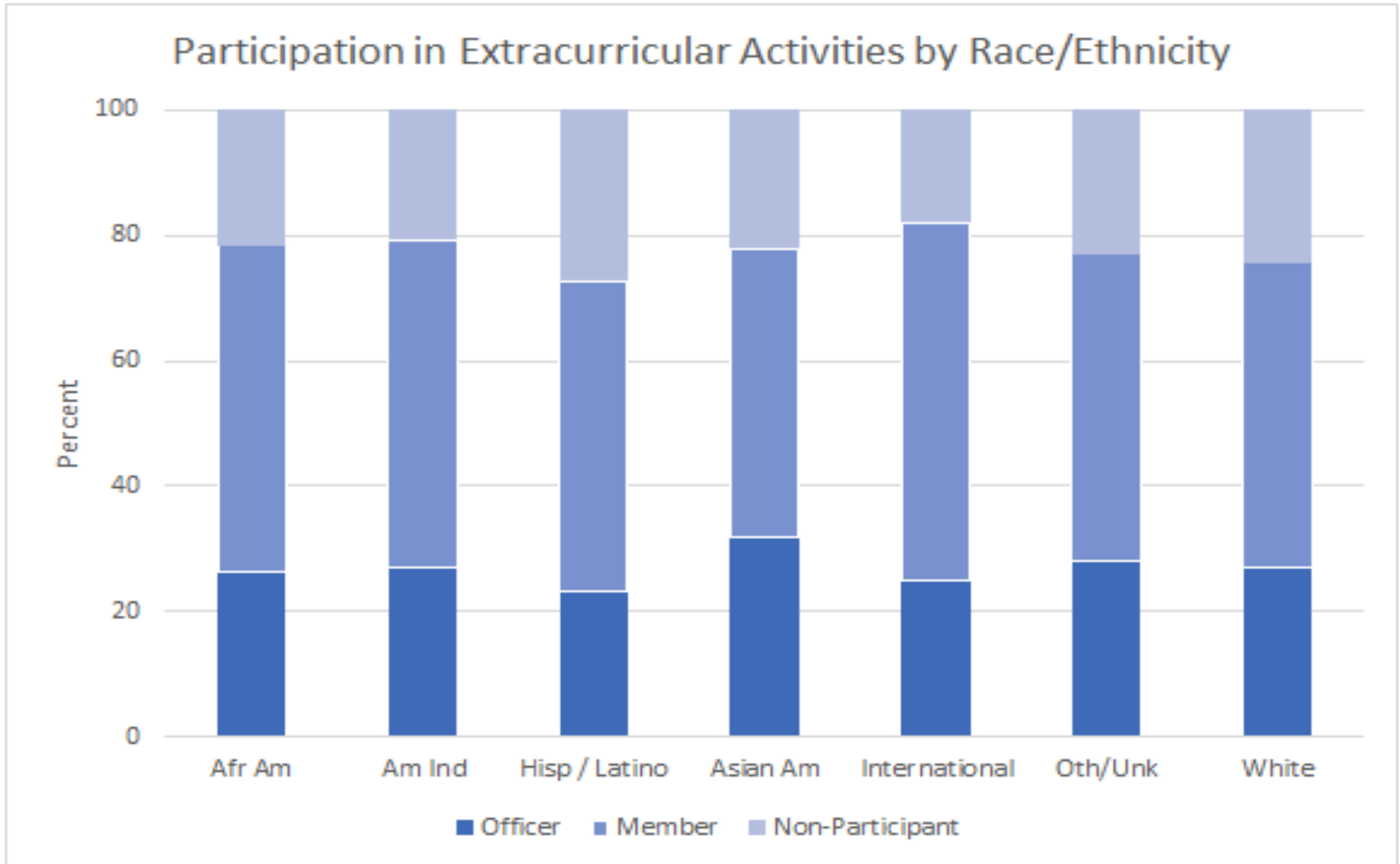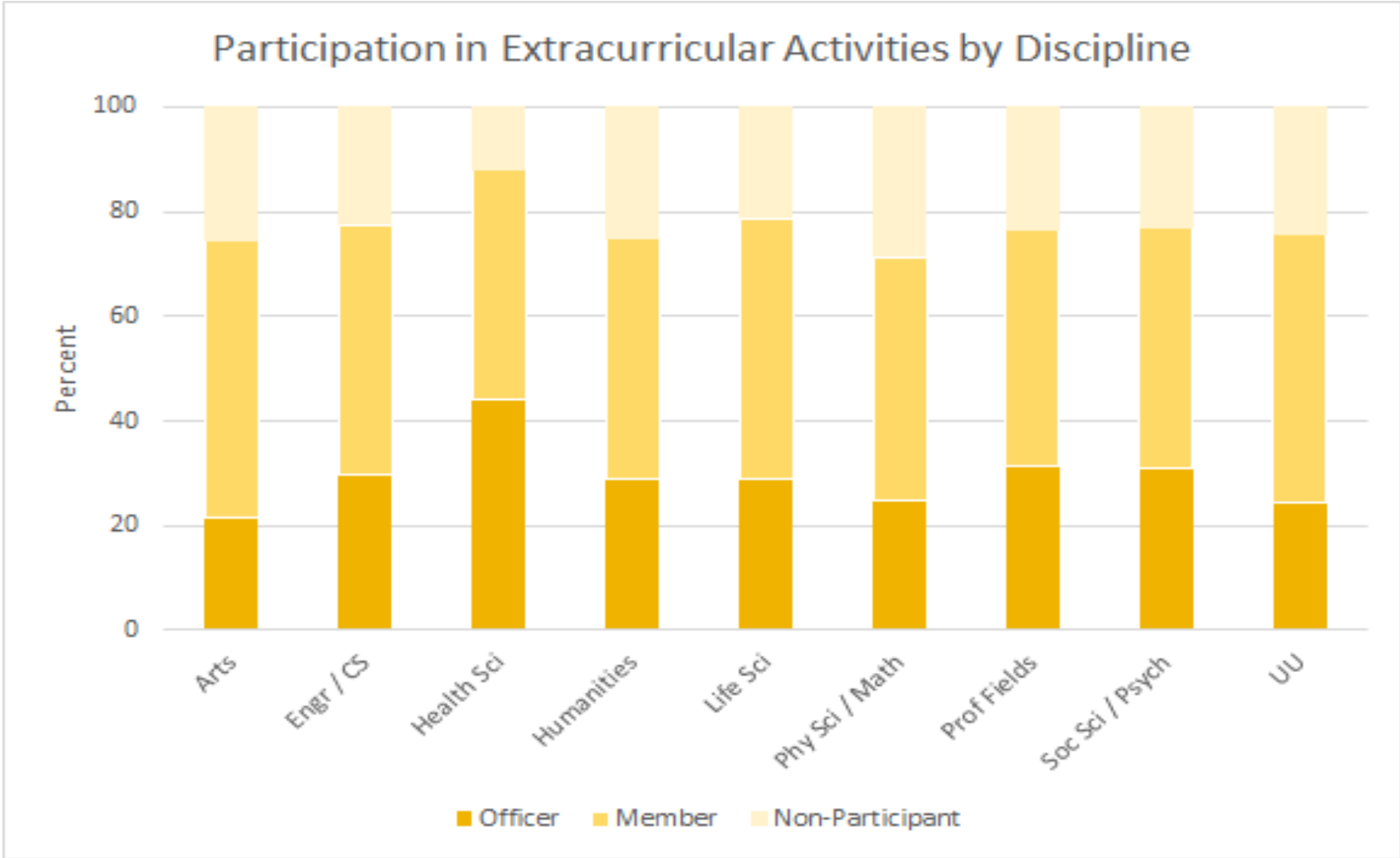
Results

Participation in Extracurricular Activities by Demographic

Results

Participation in Extracurricular Activities by Race/Ethnicity

Results

Participation in Extracurricular Activities by Discipline

Results

Through a series of multinomial logistic regressions, we developed profiles of participants by type of club or organization.

The dependent variable was Participant Status: Members and Officers were compared to Non-Members.

Independent variables included Sex, First Generation Status, Low Income Status, Transfer Status, Class Level, Race/Ethnicity, Discipline, High School GPA, and Graduation GPA.

The next chart summarizes the results. Shades of blue or yellow show where significance levels reached $p<0.05$, $p<0.01$ and $p<0.001$. Darker shades represent greater significance. Negative associations are shown in blue while positive associations are represented by shades of yellow.

For example, the blue areas in the top rows show that females were less likely to participate in clubs/organizations related to sports, politics or recreation. We also see that females were more likely to be a Member (than a Non-Member) of Service or Other Campus groups.

Participant Profiles by Type of Club or Organization

		Academic	Advocacy	Campus Sports	Campus Varsity Team	Governing	Greek	Honor Society	Media	Performing Group	Political	Recreation	Religious	Service	Other Campus Club	Off-Campus Club
Female	1.Member			---	---				-		-	---		+++		
Female	2.Officer		-	---	---		---			--	---	---			+	---
First Generation	1.Member			-	---	-		-	---	-	-		---			
First Generation	2.Officer			-									-			
Low Income	1.Member			--									+		+	
Low Income	2.Officer												+			
Transfer	1.Member															
Transfer	2.Officer															
Junior / Senior	1.Member	+++	+++					+++					---	+		+++
Junior / Senior	2.Officer	+++	+++	+++	++	+++	+++	+++	+	+++	+++	++	+++	+++	+++	+++
African American	1.Member	+					+			++	++				+++	
African American	2.Officer														+++	
Native American	1.Member															
Native American	2.Officer														+	
Hispanic / Latino	1.Member			--	--		--							+++	+++	
Hispanic / Latino	2.Officer															
Asian American	1.Member	+		---	---		---			+	---	-	+++	+++	+++	
Asian American	2.Officer	+++		-			--	+		+				+++	+++	+
International	1.Member												+++	+	+	
International	2.Officer	+	++													
OthUnkRace	1.Member		+												++	
OthUnkRace	2.Officer	+					+						+			+
Arts	1.Member					-	-		++	+++				--		
Arts	2.Officer						-		++	+++				-		
Engr / CompSci	1.Member	+++	---				---		--		---			---		---
Engr / CompSci	2.Officer	+++	---			---	---	+++						---		---
Health Sciences	1.Member	++														
Health Sciences	2.Officer												++			
Humanities	1.Member					-	-		+++							
Humanities	2.Officer								+++							
Life Science	1.Member	+++				-			---		---					
Life Science	2.Officer					-	---									
Phy Sci / Math	1.Member	+++					---				-			-	-	
Phy Sci / Math	2.Officer		-			-	---									
Professional Fields	1.Member	++	--											-		
Professional Fields	2.Officer															
Undeclared / Undecided	1.Member					-		---		++	-	+				
Undeclared / Undecided	2.Officer													-		
HS GPA	1.Member	++			---		+	+++						+++	++	
HS GPA	2.Officer				-	+	+						-	+++		
Graduation GPA	1.Member	+	+	-	-		---	+++			+					
Graduation GPA	2.Officer	+++	++				---	+++								-

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Is participation associated with student success?

Two measures of student success:

- **Belonging factor**
  average of responses to 3 questions:
  *I think I belong at this university,
  satisfaction with academic experience, and
  satisfaction with social experience*

- **Timely Graduation**
  in 2 years (for junior transfers) or
 4 years (for students who started as freshmen).

Results

Participation in student organizations and clubs ⟷ positive ⟷ **Belonging factor**

Students who participated in organizations and clubs **were significantly more likely to report a higher sense of belonging/**satisfaction with academic and social experience,

even after we took into account differences in students' GPA, transfer status, first generation status, gender, and ethnicity.

Results

Participation in student organizations and clubs ←positive→ Belonging factor
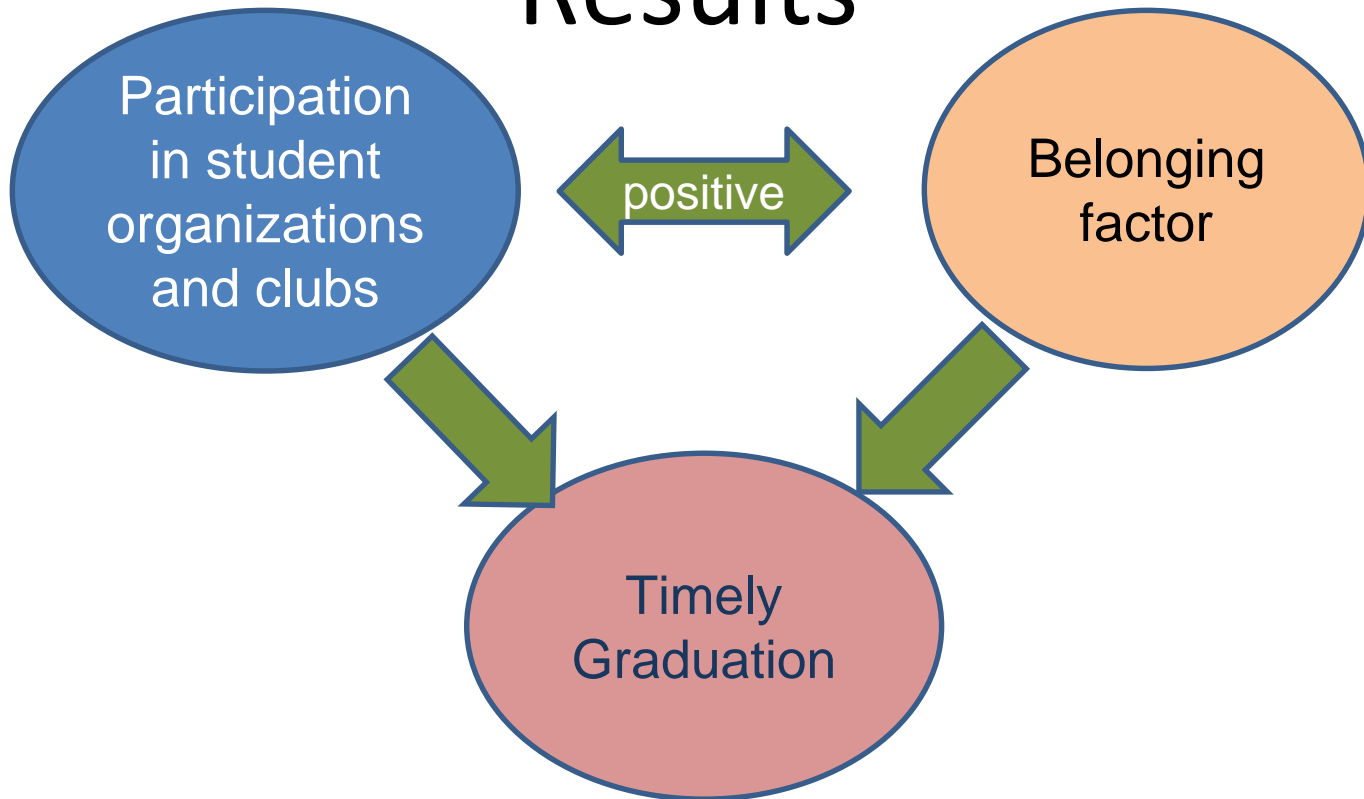
Interpersonal skills
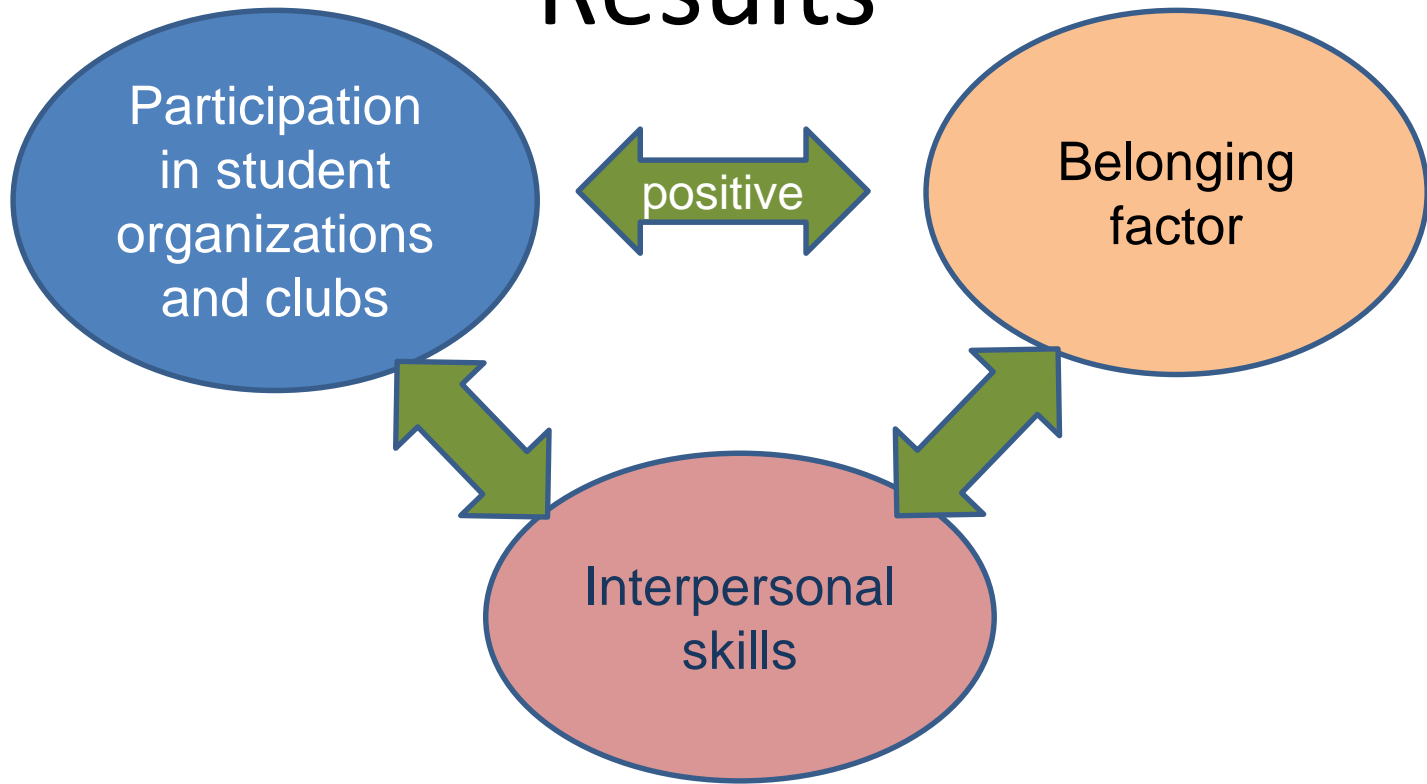
Students who participated in organizations/clubs reported **higher interpersonal skills** in addition to higher sense of belonging and independent of other differences in GPA, transfer status, first generation, gender or ethnicity.

Results

Participation in student organizations and clubs

positive

Belonging factor

Timely Graduation
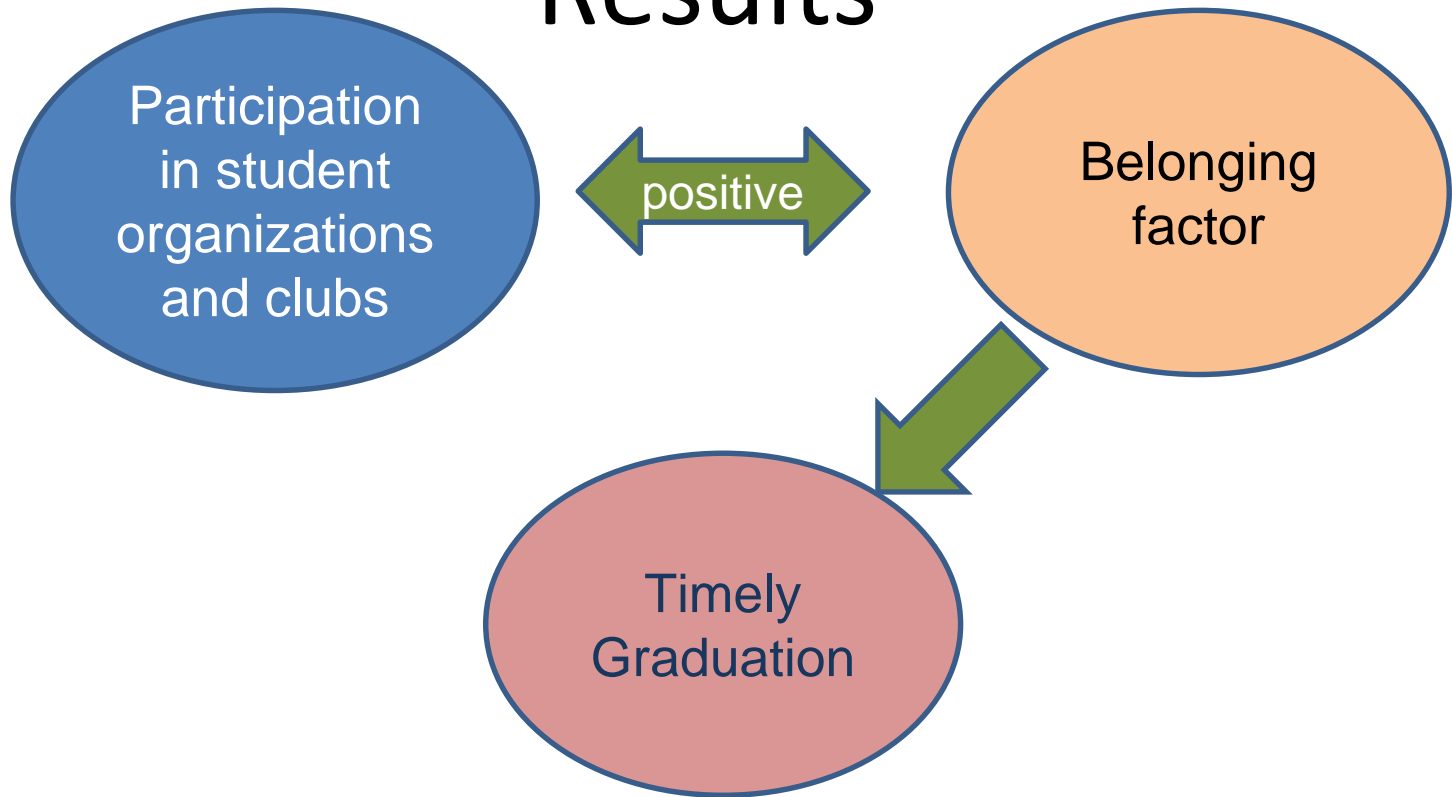
Students with stronger sense of belonging **are more likely to graduate on time**, independent of other differences in GPA, transfer status, first generation, gender or ethnicity.

Results

Students who participate in organizations/clubs **are significantly more likely to graduate on time** (in 2/4 years), in addition to stronger sense of belonging, and independent of other differences in GPA, transfer status, first generation, gender or ethnicity.

Predicting Timely Graduation

	Model 1		Model 2	
	Odds ratio	P value	Odds ratio	P value
Participant in clubs/orgs	1.074	.006		
Leader (officer) in clubs/orgs			1.105	.110
Belonging Factor	1.297	.000	1.342	.000
GPA (>=3.00)	3.615	.000	3.568	.000
Transfer student	0.576	.000	0.574	.000
Women	1.383	.000	1.572	.000
First generation	0.847	.000	.839	.005
Asian American	1.221	.000	1.267	.001
URM	0.705	.000	0.729	.000
International	1.262	.013	1.176	.421
Unknown ethnicity	0.895	.09	0.798	.111
White, non-Hispanic - reference				
N	54,662		10,306	
Nagelkerke r2	15%		13%	

Results

- Being a leader (officer) or a member in a student organization or club is making a positive impact on student success (better social skills and sense of belonging, timely graduation).

- Participation from 1 to 5 hours per week makes a difference compared to no participation.

Results: average earnings 2 and 7 years after graduation

Extracurricular activities	2 years out			7 years out			sorted based on earnings of 7 years out
	Did not Participate	Participated as a member	Participated as a leader	Did not Participate	Participated as a member	Participated as a leader	
honor society	32,017	34,222	43,314	62,546	71,988	78,227	**highest**
club sports	32,529	32,282	35,505	63,531	68,923	73,214	
varsity sports	32,541	31,192	34,039	63,998	70,628	72,679	
campus media	32,587	30,370	36,457	63,964	70,957	70,075	
fraternity or sorority	32,107	34,624	36,068	63,017	74,158	69,791	
performing groups	32,822	29,718	30,938	64,453	61,402	69,451	
student government	32,371	34,083	34,957	63,731	70,468	69,405	
recreational groups	32,379	32,497	41,014	64,098	65,576	68,150	
on-campus club	32,507	30,542	38,067	64,603	62,027	68,082	
political groups	32,566	31,547	39,118	64,306	63,959	65,197	
religious groups	32,682	30,240	35,925	64,377	63,956	65,129	
service groups	32,682	30,240	35,925	64,377	63,956	65,129	
off-campus club	32,619	32,210	33,464	64,792	62,472	61,524	**lowest**
any of above activities	33,026	32,813	37,145	61,311	63,411	68,616	
#	1,198	1,906	1,265	1,167	1,906	1,281	
%	27%	44%	29%	27%	44%	29%	

Indicates highest earnings
Indicates lowest earnings

Results: effect of participation in extracurricular activities on employment earnings

Variable	Model: 2 years out		Model: 7 years out	
	Parameter	*p*	Parameter	*p*
Intercept	58,509	<.0001	91,870	<.0001
Did not participate in any of extracurricular activities	-3,061	**0.0025**	-5,675	**0.002**
Participated in at least one activity as a member	-3,149	**0.0005**	-2,993	0.0669
Participated in at least one activity as a leader (reference)				
African American	-8,285	0.0021	-11,044	0.0226
American Indian	-3,747	0.4406	-194	0.982
Hispanic/latinx	-2,572	0.0311	-6,937	0.0014
Asian	118	0.8945	-291	0.8563
International	-3,901	0.2373	-9,865	0.0992
Other	-121	0.937	-1,337	0.6366
White (reference)				
Arts/Humanities	-29,264	<.0001	-45,143	<.0001
Professional	-15,974	<.0001	-25,948	<.0001
Health professional	-6,491	0.205	-21,566	0.0194
Life sciences	-27,389	<.0001	-36,172	<.0001
Social sciences	-25,848	<.0001	-40,260	<.0001
Others/undeclared	-21,901	<.0001	-34,225	<.0001
Engineering/computer science (reference)				
UCGPA	-44	0.9325	3,097	0.001
n=	4,368		4,354	
Adj R-Square	13%		9%	

Conclusion and Implications

- Differences in participation by first generation status, ethnicity, and discipline

- Positive impact on graduation and student experience

- Positive long-term impact on earnings

Thanks! Questions?

Explore the UC story through data at UC Information Center!
http://www.universityofcalifornia.edu/infocenter