

Creating Pathways to Success for Historically Underserved, Racially Minoritized, and Academically at-risk Students

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about this project

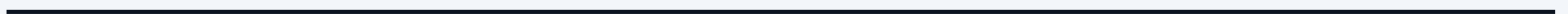
This study was conducted in collaboration with the Office of Decision Support, the Office of Undergraduate Education, and the Office of Student Success. Through providing proactive support operated by first-year college mentors Academic Success Coaches and Student Outreach Specialists (SOS), these student success initiatives aim to improve student outcomes and promote student success. Academically at-risk students include a higher composition of first-generation, Pell recipients, and racially minoritized students relative to the general student population. Students with these characteristics are less likely to enroll in future terms. Identifying success initiatives for this group is imperative to improving retention rates and degree completion.

Collaborators included: Dr. Laurel Pritchard, Dr. John (Skip) Crooker, Dr. Qingmi Shi, Dr. Jeff Orgera, Dr. Jaime Carbajal, and Dr. Ashley Guyer

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1. UNLV/Campus Setting
 2. Scholarly Context
 3. Interventions/Targeted Retention
and Graduation Efforts
 4. Data Analysis
 5. Findings
 6. Conclusions

presentation

outline



01.



campus setting

University of Nevada, Las Vegas

- 30,000+ students
 - 25,000+ Undergrad
- R1 Research University
- 82% acceptance rate
- Average ACT 22
- Pell recipients: 41% FTFT
- Neither parent attended college: 30%

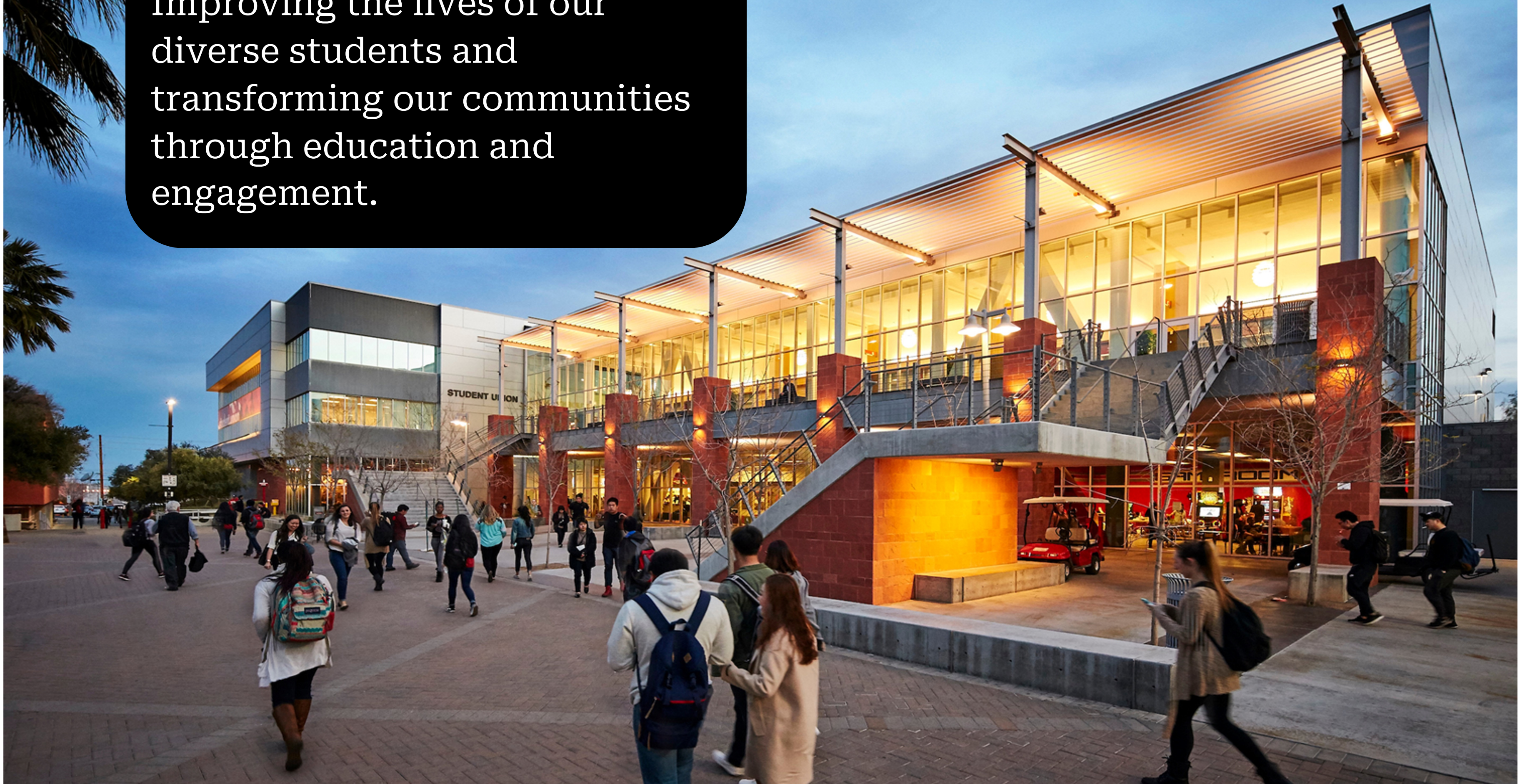


University of Nevada, Las Vegas



- Highly Diverse Campus
 - Designations from the U.S Department of Education:
 - Minority Serving Institution (MSI)
 - Title III-Asian American and Native American, Pacific Islander-Serving Institution (AANAPISI)
 - Title V-Hispanic Serving Institution (HSI)
- Urban Setting
 - 2.7 million people in the Las Vegas Metro area

UNLV Top Tier 2.0 Vision:
Improving the lives of our
diverse students and
transforming our communities
through education and
engagement.



Top Tier Goals and Current Progress: Undergraduate Student Success



Retention

- Current In-Progress Goal for 2022 = 80%
 - Actual rate for 2022 = 76.7%
- Long-term Goal by 2030 = 85%

Four-Year Graduation

- Current In-Progress Goal for 2022 = 23.7%
 - Actual rate for 2022 = 26.4%
- Long-term Goal by 2030 = 30%

02.



scholarly context

Theoretical Background

Departure Theory (Tinto, 1975, 1988, 1996, 2006) - academic & social integration, belonging, co-curricular engagement

Student Involvement Theory (Astin, 1977, 1984, 1993) - pre-college Inputs, college academic and social Environment, and achievement Outputs (I-E-O)

Culturally Engaging Campus Environment (Museus, 2014) - incorporates influence of culturally-affirming environment and culturally-relevant support in success for racially diverse students

03.



**campus support &
targeted interventions**

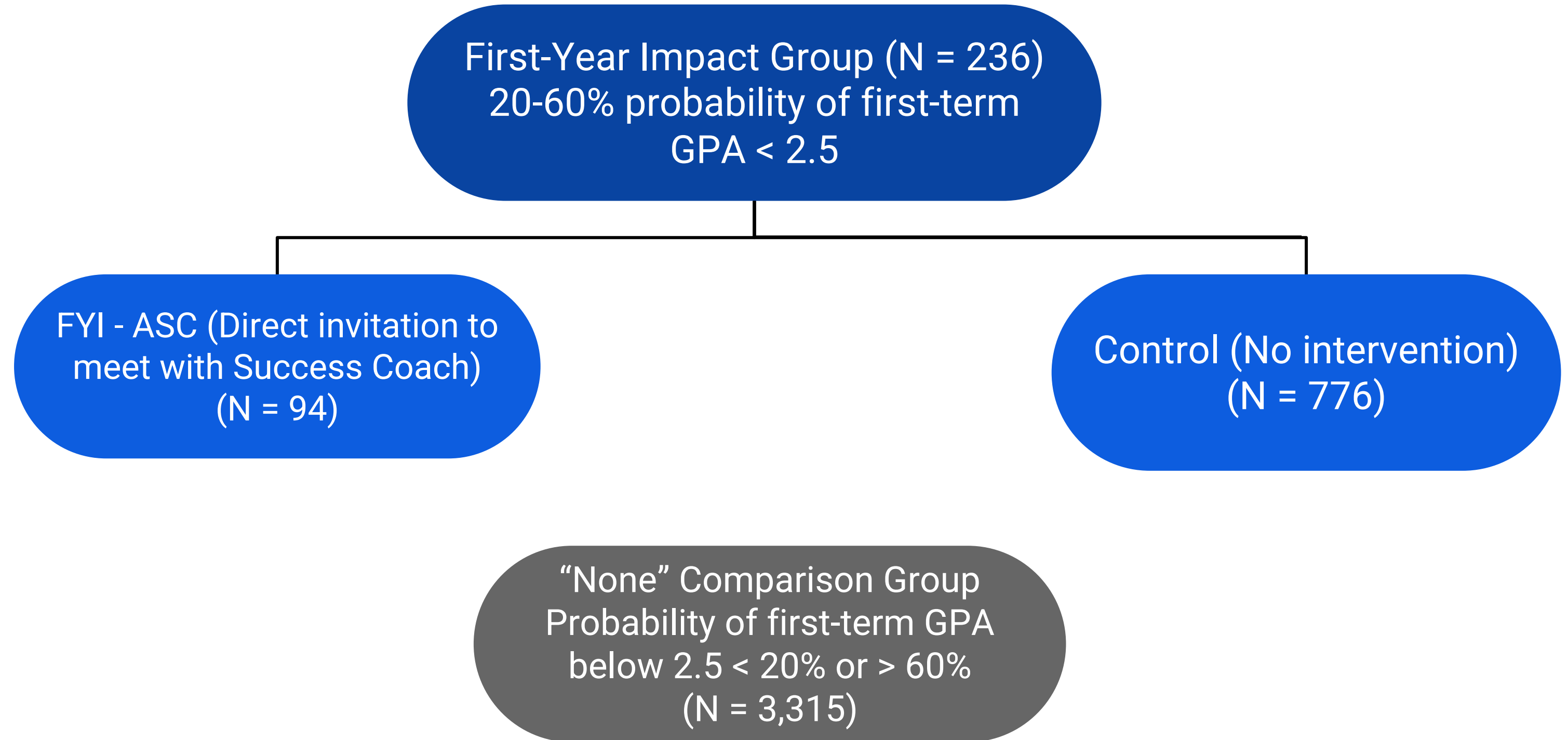
Undergraduate student success at UNLV is defined as **maintaining or exceeding good academic standing; making steady progress** toward timely degree completion by actively **engaging in high-impact learning experiences**, such as research, internships, study abroad, service learning, co-curricular activities, diverse dialogues; and **utilizing resources** to intentionally develop the academic and career competencies necessary to be successful in the workforce and lead in a global society.



Student Success



How students were selected for Targeted Interventions?



Academic Success Coaches partner with students to help them mature as learners in the college environment by developing strategies for success.

- Time Management
- Goal Setting
- Study Skills
- Test Anxiety
- Motivation
- Overcoming Procrastination
- Utilizing College Resources
- Building Rapport with Professors
- Making Friends



Academic Success Center Coaching

Small Group Discussion

- 1. How are academic/social integration, engagement, and cultural responsiveness reflected in student success programs at your own institution?**
- 2. How is this influenced by the population of students you serve?**

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data analysis

Engagement & Outcome Variables

<i>Engagement</i>	Definition
Academic Engagement	LMS Activity by Week
Academic & Social Engagement	Participation in Registered Student Organizations (RSOs) (Interest-based, Fraternity/Sorority, Sports Clubs, or Diversity/Identity-based)
<i>Outcome Variables</i>	
GPA	Term GPA for First Fall and First Spring Term
Retention	Enrollment in Second Fall Term

methodology



Model 1

Fall GPA

Spring GPA

Model 2

Retention to
second Fall

05.



key findings

Treatment Effects on Fall GPA (Fall 2020)

Treatment	Measured Average Treatment Effect
ASC	0.356

Treatment	Actual Fall GPA
ASC	2.632
Control	2.193

	Estimate	Std. Error	t value	Pr(> t)
(Intercept)	-1.2892	0.1854	-6.9520	4.15e-12***
HSGPA	1.2056	0.0520	23.1810	< 2e-16***
IS_ATHLETE	0.5324	0.0964	5.5240	3.50e-08***
IS_CAMPUS_RESIDENT	-0.2184	0.0760	-2.8750	0.00407**
Academic	0.2904	0.0813	3.5710	0.00036***
Greek	0.3006	0.1073	2.801	0.00511**
Special Interest	0.2181	0.0711	3.0680	0.00217**
APPL_FEE_Days	0.0007	0.0002	3.1310	0.00175**
Urban Affairs	0.1759	0.0627	2.8070	0.00502**
Liberal Arts	0.0829	0.0545	1.5220	0.12804
FEMALE	-0.0584	0.0324	-1.8050	0.07112
AIAKN	-0.4739	0.3090	-1.5340	0.12519
ASIAN	0.1695	0.0451	3.7570	0.00018***
BLACK	-0.2004	0.0604	-3.316	0.00092***
HISPA	-0.0991	0.0372	-2.6670	0.00768**
UE_Control	1.9356	0.5088	3.8040	0.00014***
UE_ASC	1.16094	0.3675	3.1590	0.00159**
HSGPA:UE_Control	-0.7176	0.1692	-4.241	2.28e-05***
APPL_FEE_Days:UE_ASC	-0.0039	0.0014	-2.8570	0.00429**

Note: ** $p < .01$, *** $p < .001$

Residual Standard Error: 1.02 on 4308 degrees of freedom

Multiple R-squared: 0.2402, Adjusted R-squared: 0.2372

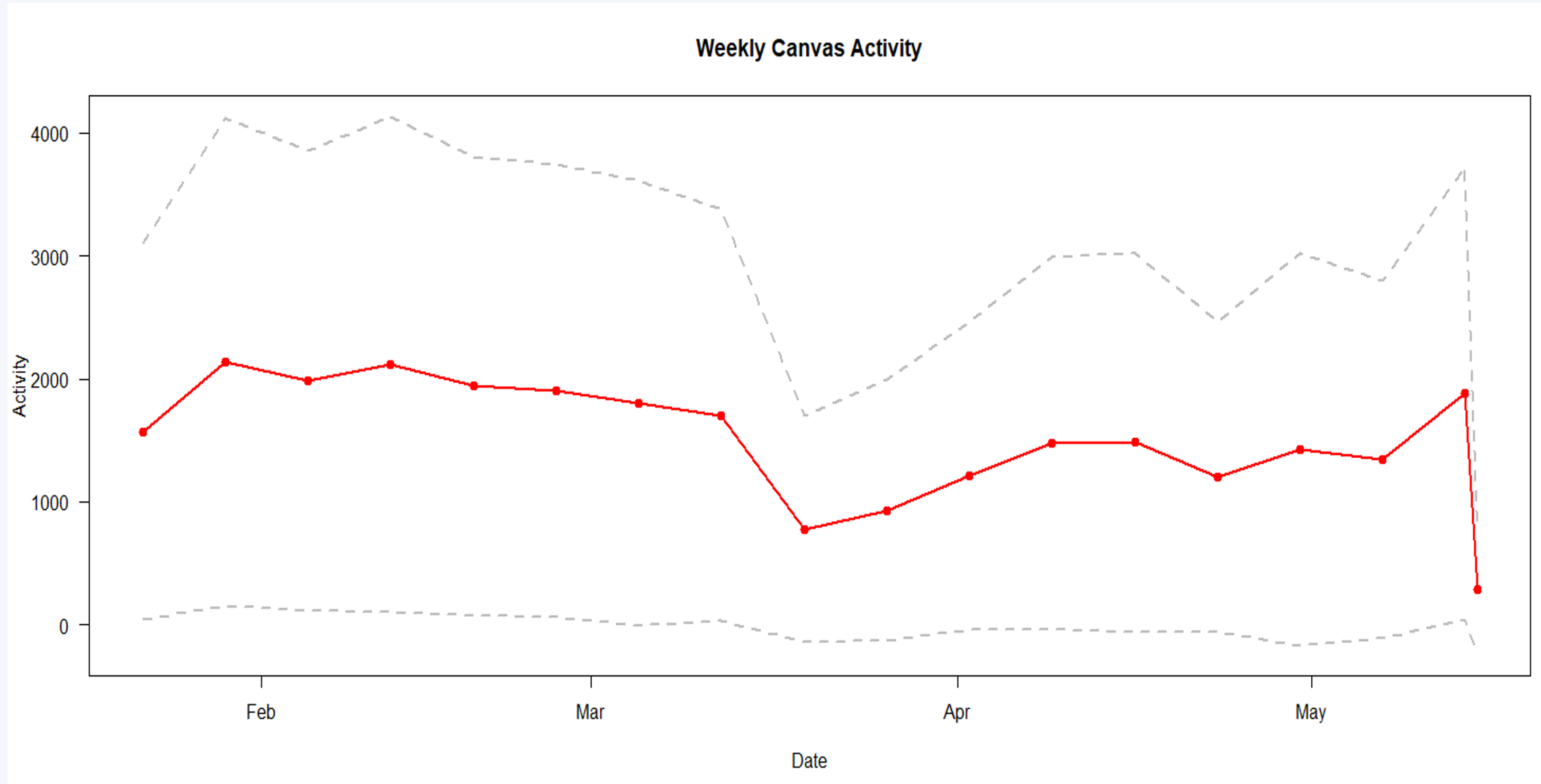
F-statistics: 75.72 on 18 and 4308 df, $p < 2.2e-16$

Service Utilization by Treatment Group

	FYI-ASC	Control
Average Appointments/Student	2.24	2.30
% Advised	99%	84%
% Met with Academic Coach	16%	0.3%
% Used Learning Support	4.3%	0.5%

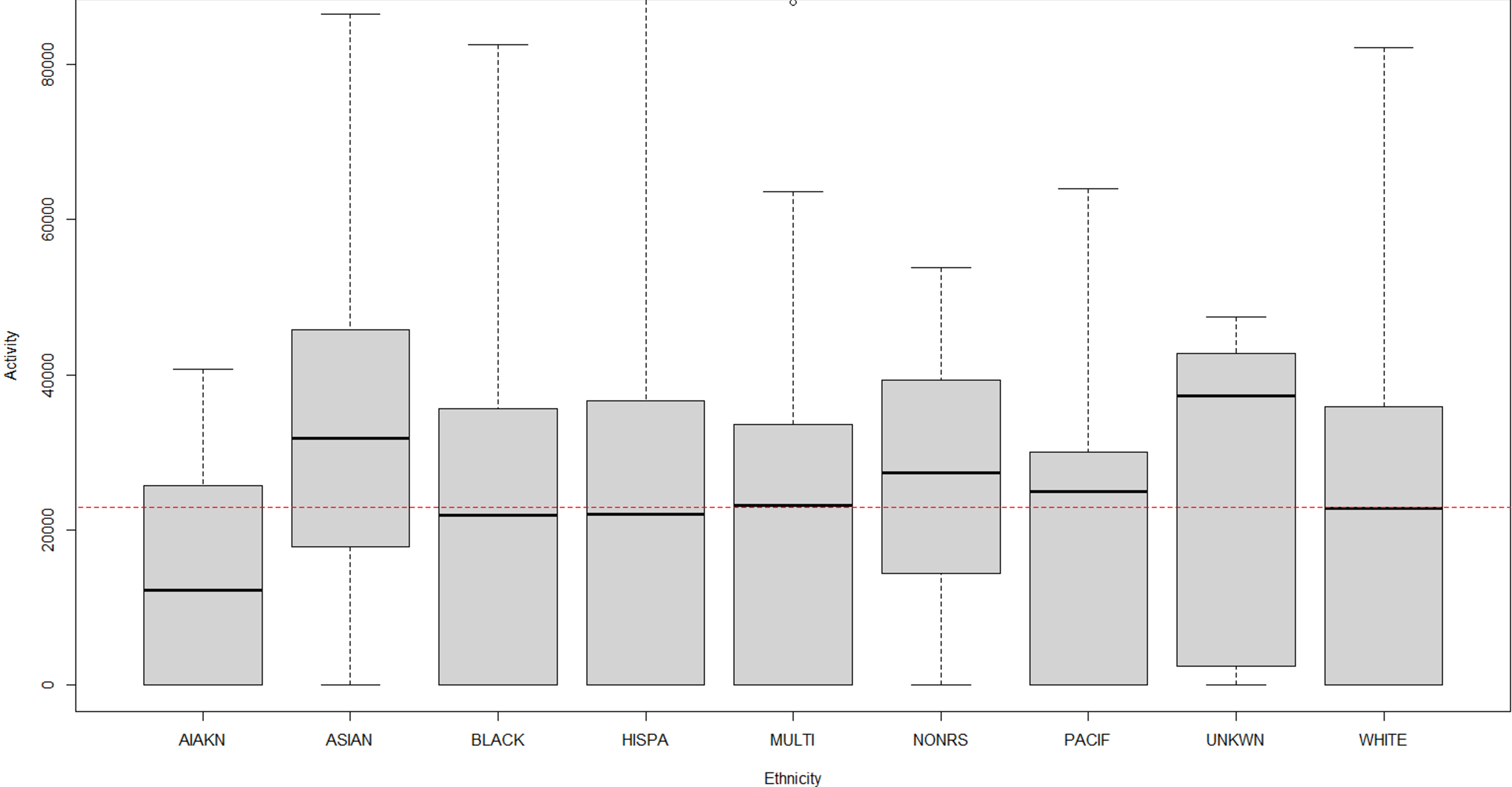


Weekly Canvas Activity



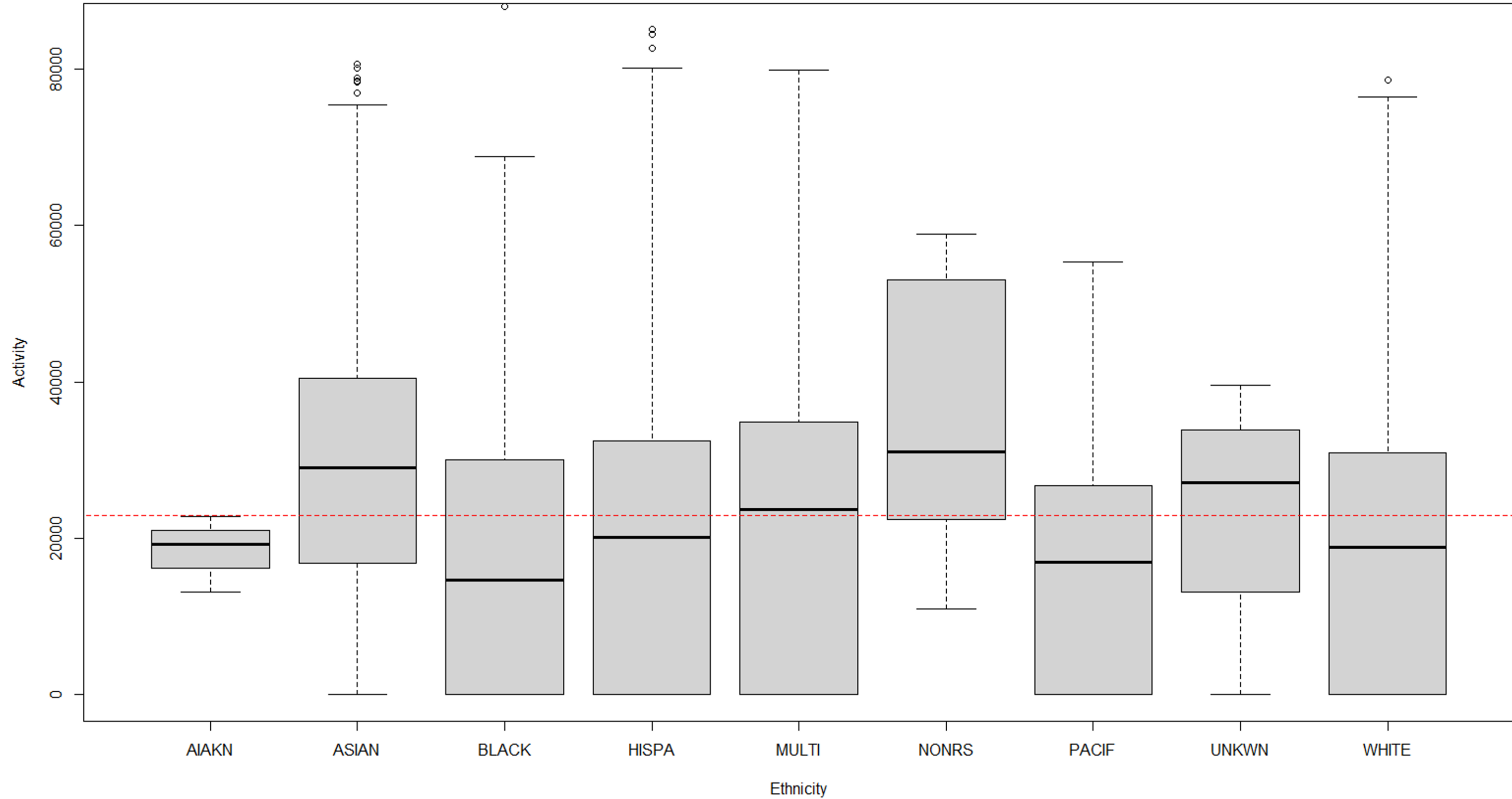
Weekly Canvas Activity (Female)

Canvas Activity (Female)

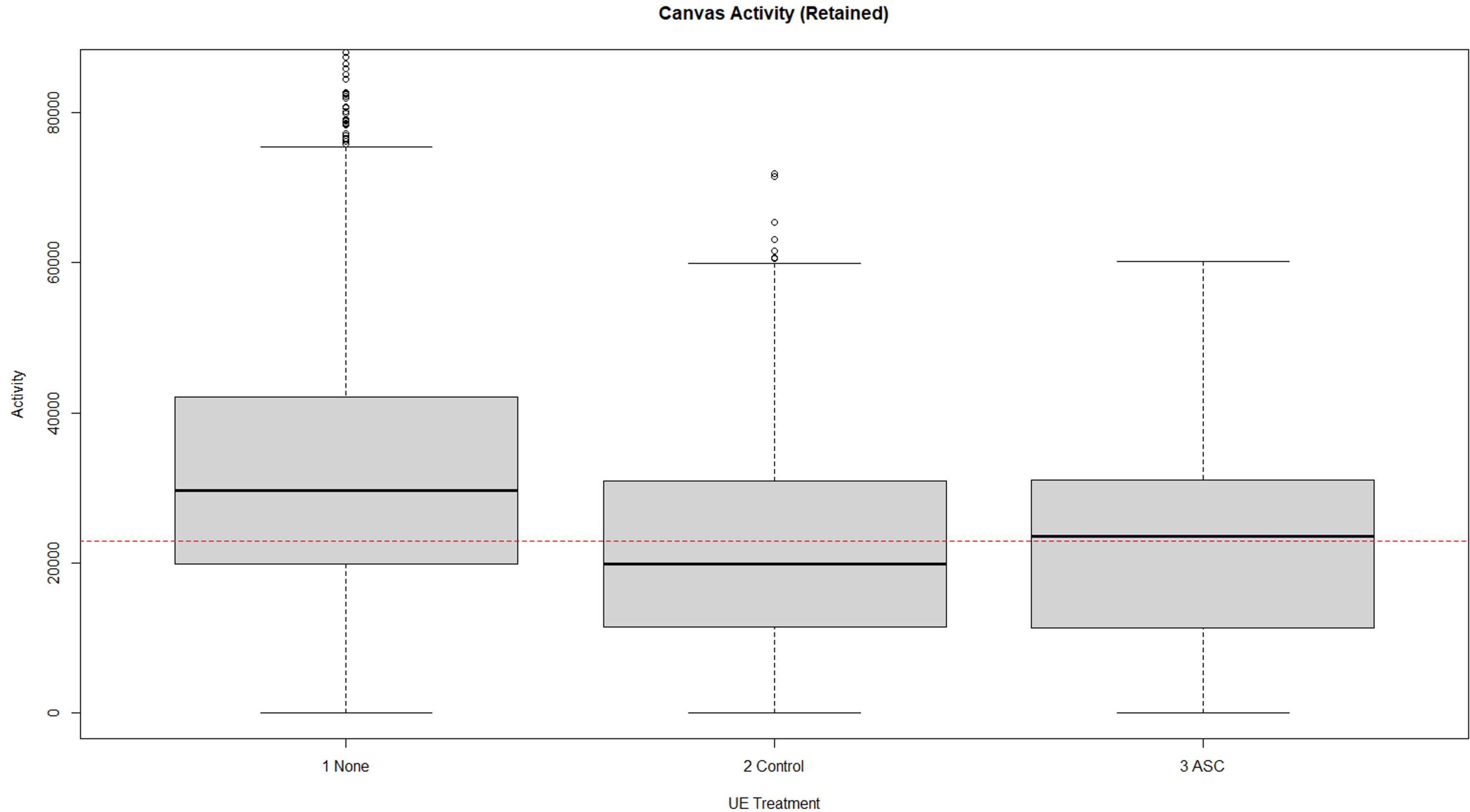


Weekly Canvas Activity (Male)

Canvas Activity (Male)

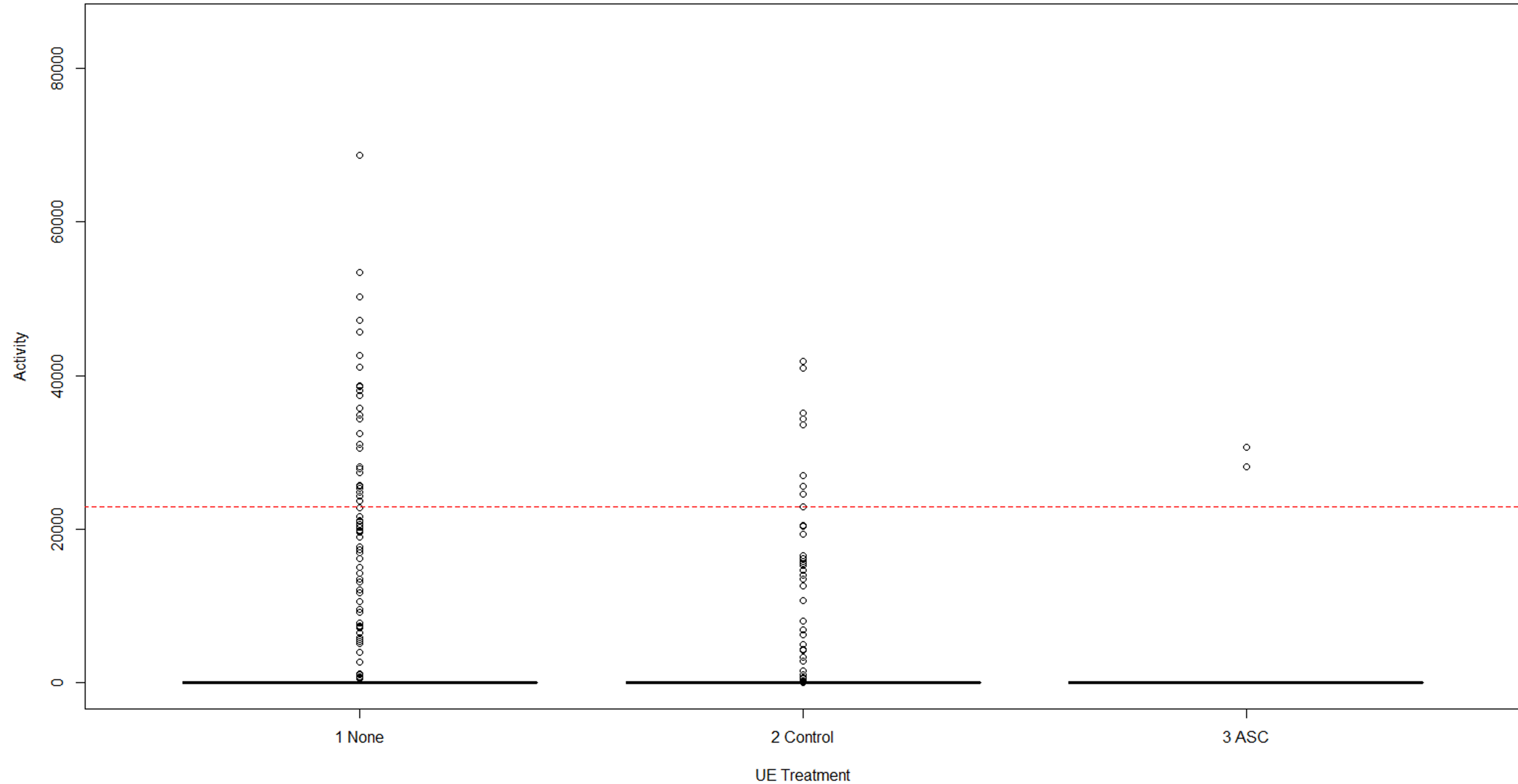


LMS Spring Term Activity by Treatment (Retained)

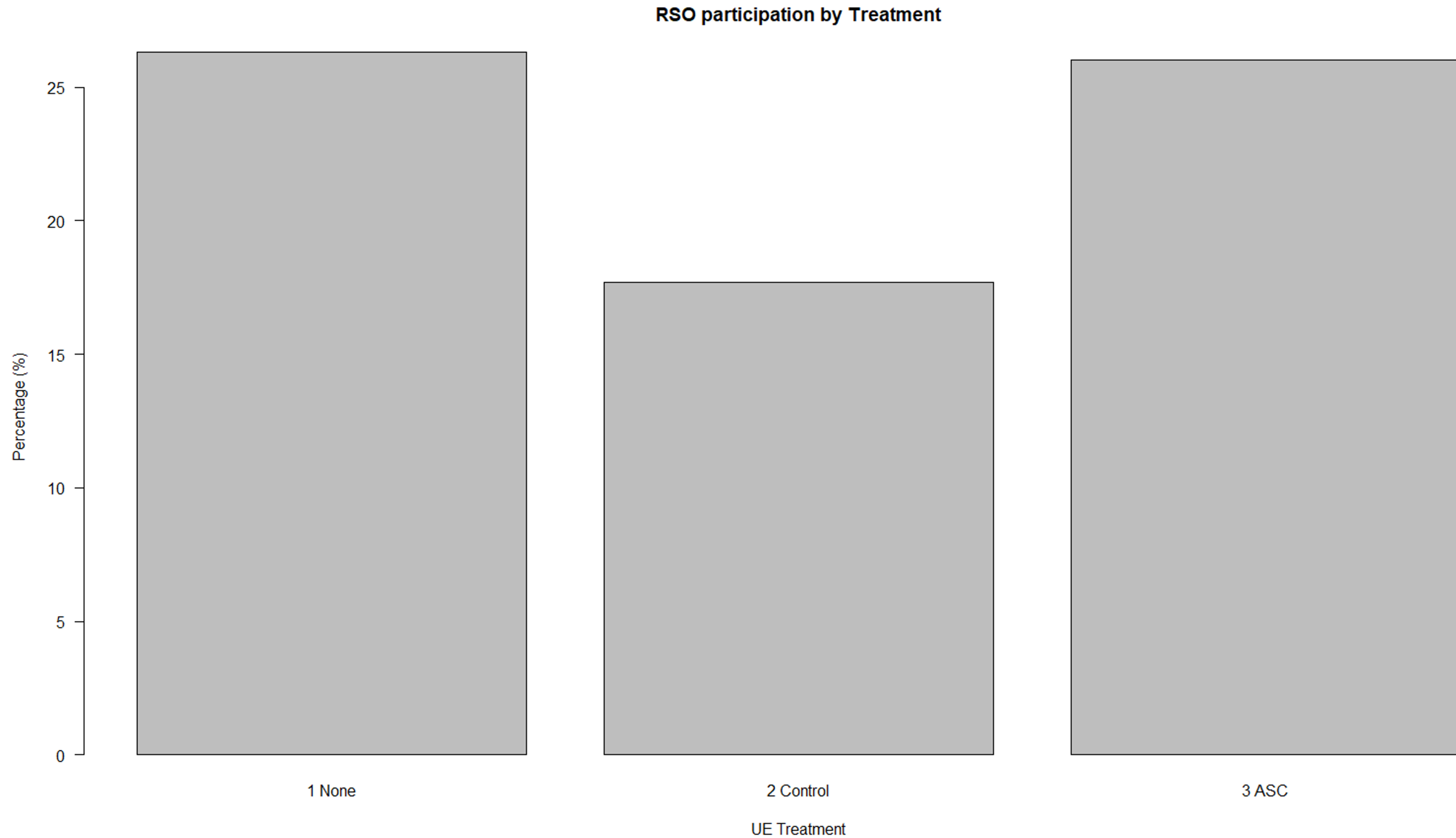


LMS Spring Term Activity by Treatment (non-retained)

Canvas Activity (Not Retained)



RSO participation by Treatment



Spring GPA Model (Spring, 2021)

Treatment	Average Measured Effect
ASC	0.245

Treatment	Actual Spring GPA
ASC	2.431
Control	2.216

	Estimate	Std. Error	t value	Pr(> t)
(Intercept)	-0.4976	0.1732	-2.8730	0.0041 **
FALL_GPA	0.5524	0.0207	26.673	< 2e-16***
HSGPA	0.5144	0.0502	10.256	< 2e-16***
IS_ATHLETE	0.1893	0.0801	2.3630	0.01819 *
Sport Clubs	0.2567	0.1526	1.6820	0.0927
NV_RESIDENT	-0.1581	0.0397	-3.982	6.97e-05 ***
FG_PARNOCOL	-0.0732	0.0294	-2.4870	0.0129*
APPL_FEE_Days	0.0003	0.0002	1.4850	0.13762
Engineering	-0.0897	0.0440	-2.0370	0.0417*
Sciences	-0.1390	0.0489	-2.841	0.0045**
Integrated Health Sciences	-0.1168	0.0574	-2.0350	0.0419*
Fine Arts	0.0740	0.0465	1.5930	0.1113
PACIF	-0.2597	0.1351	-1.9220	0.0547
UE_SSI	1.8179	1.0353	1.7560	0.0792
UE_ASC	-0.3682	0.2790	-1.3190	0.1871
UE_Control	1.4527	0.4662	3.1160	0.0019 **
zSpring_Hits	0.4282	0.0860	4.9770	6.74e-07 ***
WK2021.01.22	0.0565	0.0236	2.3910	0.0168*
WK2021.01.29	-0.1312	0.0306	-4.2890	1.84e-05 ***
WK2021.02.05	-0.0461	0.0323	-1.4260	0.1540
WK2021.02.19	-0.1021	0.0309	-3.2960	0.0001***
WK2021.04.09	-0.0745	0.0280	-2.6610	0.0078**
WK2021.04.16	0.0677	0.0289	2.3460	0.0190*
WK2021.04.30	-0.0519	0.0260	-1.9940	0.0462*
WK2021.05.14	0.0696	0.0231	3.0100	0.00263 **
HSGPA:UE_SSI	-0.5601	0.3359	-1.6670	0.0955
UE_SSI:zSpring_Hits	0.2199	0.0932	2.3590	0.01839*
FALL_GPA:UE_ASC	0.1386	0.0921	1.5060	0.1321
FALL_GPA:UE_Control	-0.1114	0.0380	-2.9280	0.0034**
HSGPA:UE_Control	-0.3605	0.1554	-2.3200	0.02037*
UE_Control:zSpring_Hits	0.4433	0.0496	8.9360	< 2e-16 ***

Note: * $p < .05$, ** $p < .01$, *** $p < .001$

Residual standard error: 0.7998 on 3795 degrees of freedom

Multiple R-squared: 0.5042, Adjusted R-squared: 0.5002

F-statistic: 124.5 on 31 and 3795 DF, p -value: < 2.2e-16

Retention to Second Fall Model

ASC Group	Retention Rate
Average Prediction w/ Treatment	64.40%
Average Actual	64.38%
Average Prediction w/ Grade Effects	72.27%

Treatment	Actual Retention Rates
ASC	64.38%
Control	61.60%
None	81.91%

Small Group Discussion

What potential benefits and risks do you see to using students' LMS activity data to guide support interventions?



Small Group Discussion

All of our interventions involve referrals to campus resources and services, but uptake rates for coaching and learning support services were quite low. Do you know the uptake rates for referrals on your own campus? What have you found improves uptake rates?



06.



conclusion

Conclusion: Targeted Interventions

- **The ASC Coaching group had higher fall and spring term GPAs and higher fall-to-fall retention rate.**
- **The ASC Coaching group also had higher engagement in terms of service utilization, LMS activity, and RSO participation.**

Conclusion: RSOs

- Academic and Special Interest RSOs are statistically significant and have a positive marginal impact on Fall GPA for First-Year students.
- Sport Clubs 'survives' the AIC algorithm to be included in the model. The coefficient for Sport Clubs is positive but it is not statistically significant in the final model.
- Diversity and Greek RSOs do not seem to have predictive power for Fall GPA or Spring GPA.

Conclusion: RSOs

- For Spring GPA for FYR students, Special Interest RSOs are positive and significant. Sport Clubs again survives the AIC algorithm to be included in the model, but the positive estimated coefficient is not statistically significant.
- Academic, Greek, and Diversity RSOs are not statistically significant or included in the final model for Spring GPA.

thank you!

Questions? Comments?



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contact us



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