



Student engagement & academic success

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WVU Campus Recreation



- > 5 thou FTF students start at WVU
- > 20% do not return



cost of not returning next year

\$16 MILLION

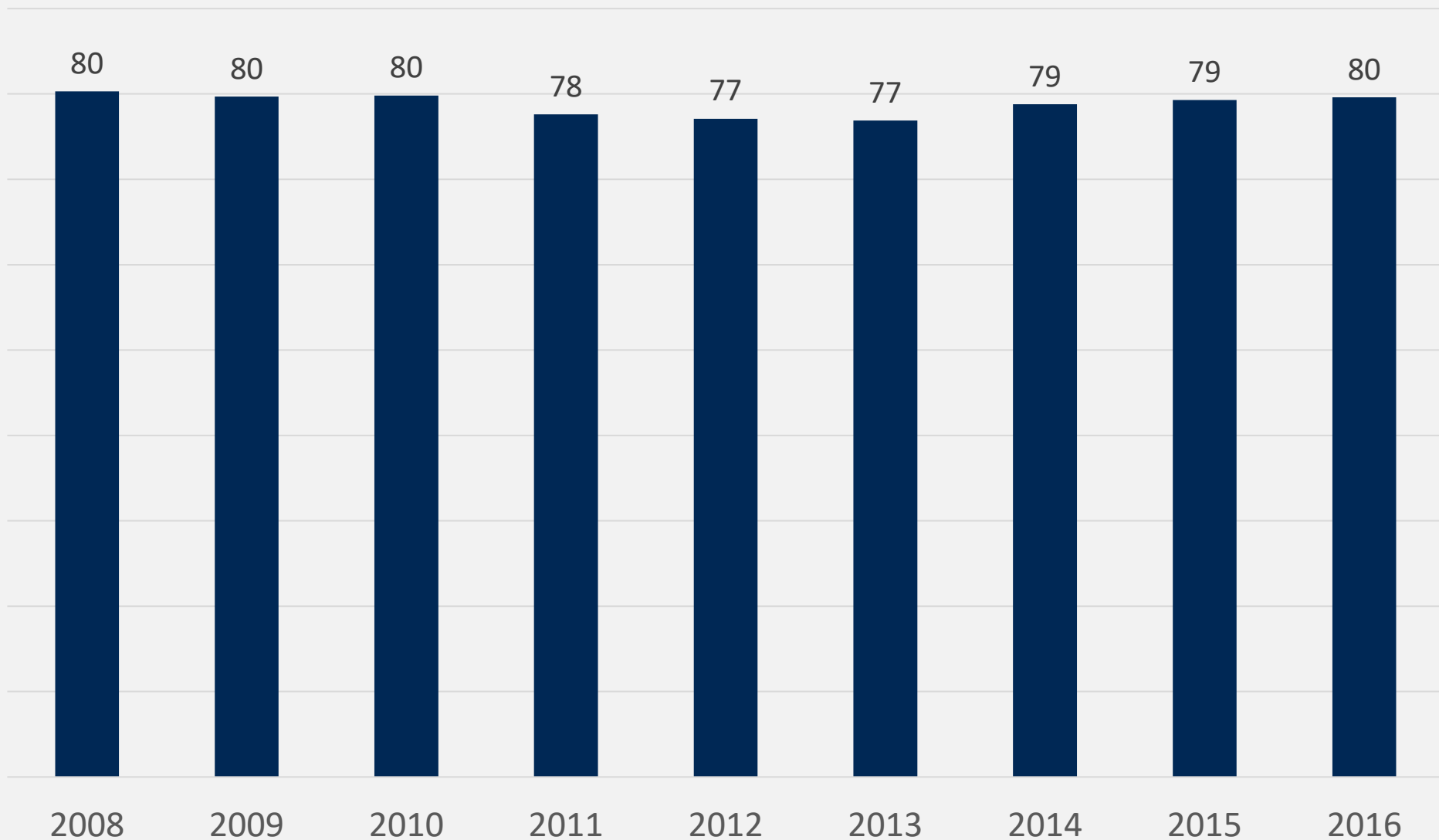
Outline

1. What is the situation?
2. What is the impact of student engagement?
3. How can Campus Recreation help?



The situation

Retention rates (%) at WVU*



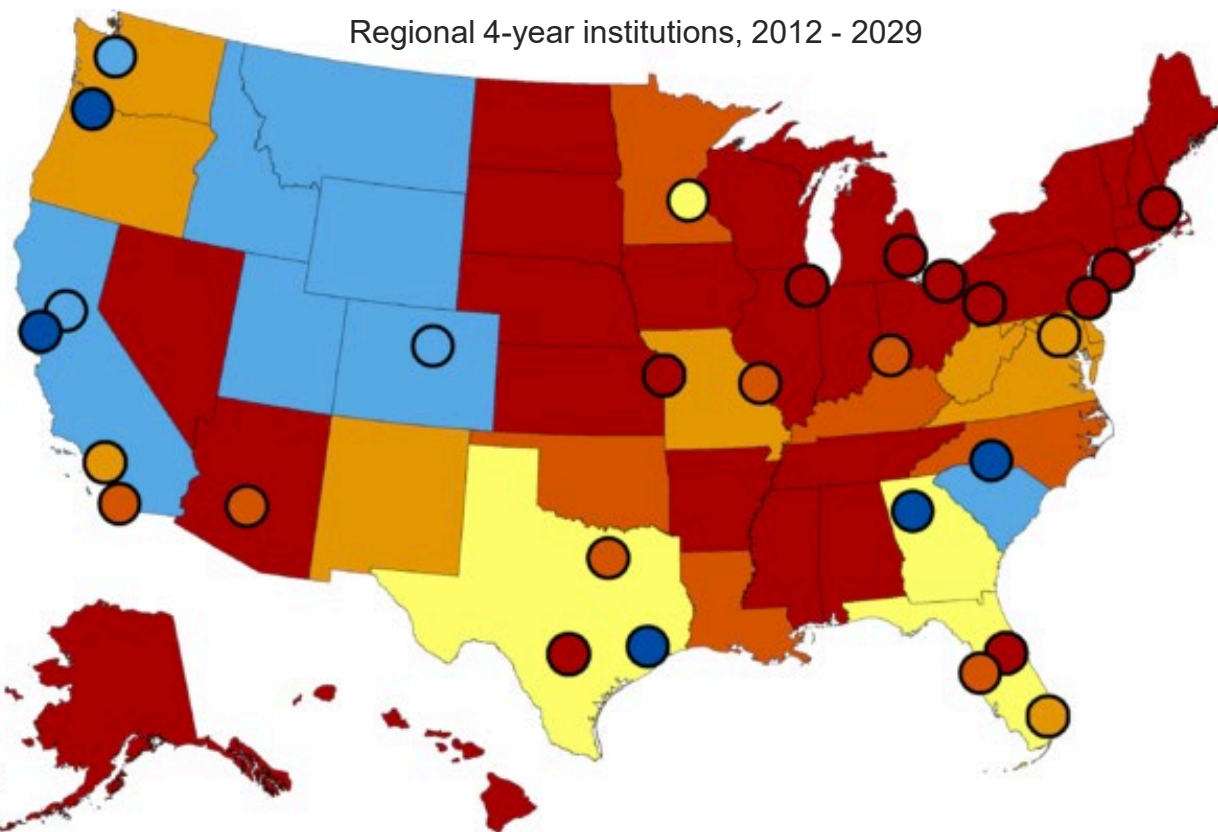
* First-time, full-time degree seeking undergraduates

Data source: WVU Institutional Research

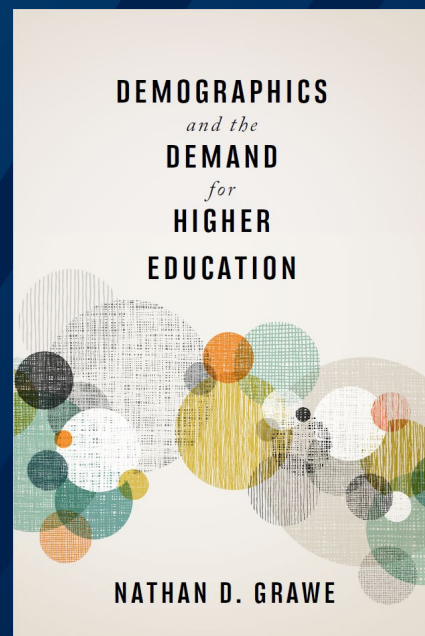
The situation

- Student recruitment
- Projections for WV 3-8% drop of incoming students

Regional 4-year institutions, 2012 - 2029



<-15% **-15% to -7.5%** **-7.5% to -2.5%** **-2.5% to 2.5%** **2.5% to 7.5%** **>7.5%**



Engagement impact

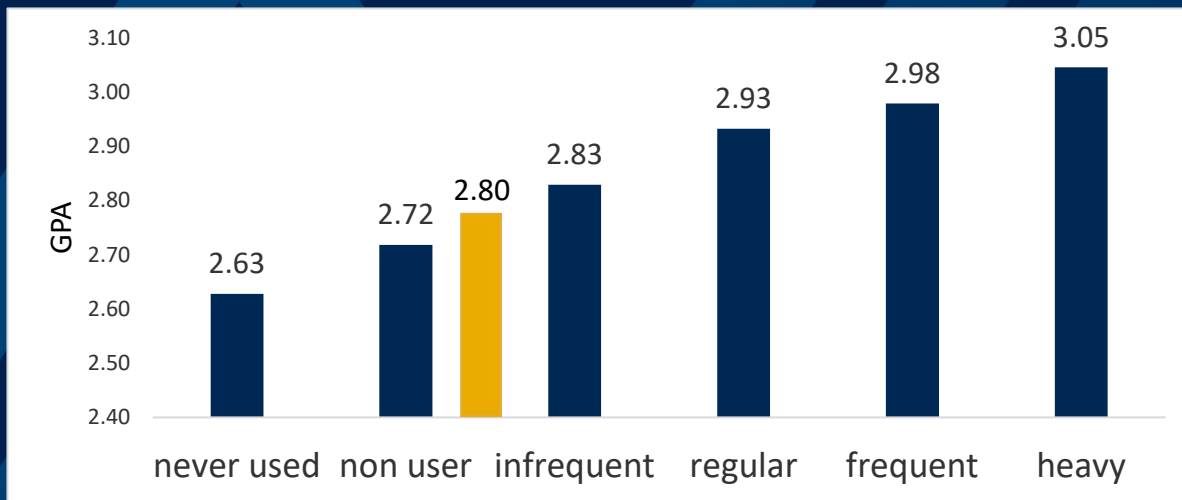
- Retention valued outcome (esp. as student pop. declines)
- Non-academic aspects like campus recreation seen as ancillary in academic success
- Engagement key: academic & social
- Studies show importance of peer group development, co-curricular, extracurricular, outdoor orientation, campus rec



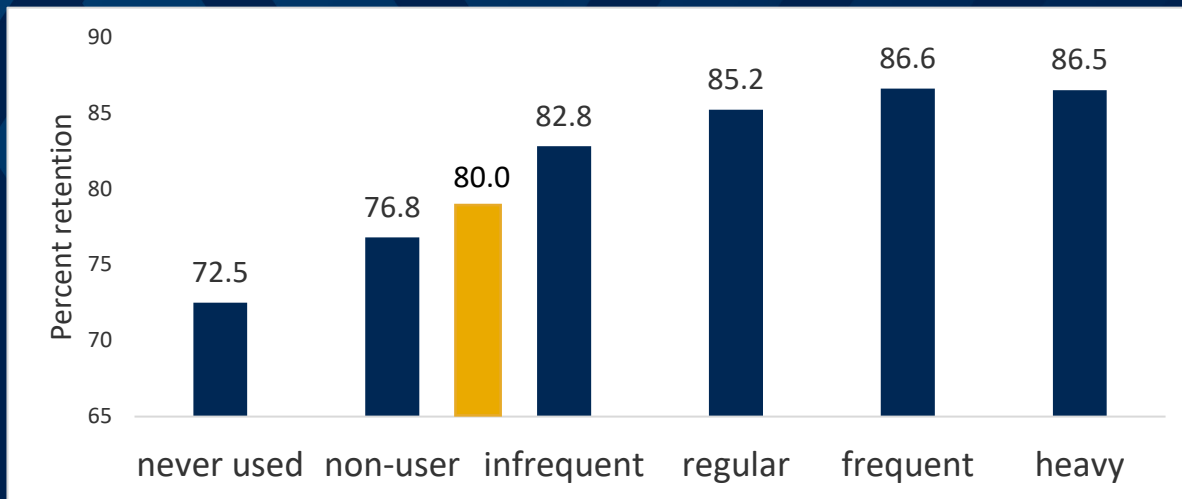
Engagement impact

FT, FTF 2014-17
n = 15,079

GPA by SRC use group



First-year retention by SRC use group



	Use group	# of visits
non-user	Never used	0
	Non-user	1 to < 1 / mo.
	Infrequent	1 / mo. to < 1 / wk.
user	Regular	1 / wk. to < 2 / wk.
	Frequent	2 / wk. to < 3 / wk.
	Heavy	3+ / wk.

Background *Campus recreation*

- Campus recreation = student rec center (SRC)
- Includes: club & IM sports, group fitness, personal training, aquatics, special events, outdoor recreation
- Research in campus rec growing
- Studies lack consistency, robust controls
- Participants have higher:
 - GPA
 - retention
 - graduation rates



Background

Campus recreation studies

Continuum of study types that examine relationship between use & outcome



- Correlation vs. causation
- Most studies are descriptive
- Multivariate regression reduces effect of confounding variables
- Few multivariate regression studies, inconsistent
- Matching reduces bias in nonrandom data, moves to causation

Campus rec study

- To what extent is there relationship between facility use & retention, GPA

Contributions:

1. multivariate model
2. subsample analysis
3. matching approach
4. new definition of user



Campus rec study

Sample $n=13,096$

- FT FTF at WVU (2014-17)
- Users & non-users of SRC
- excludes infrequent users (1/mo to <1/wk)

Analysis

- Ordinary least squares & logistic regression in Stata
- *Outcome variables*: retention, GPA
- *Key regression variable*: SRC use
- Controls for demographic, academic preparedness, family characteristics



Campus rec study

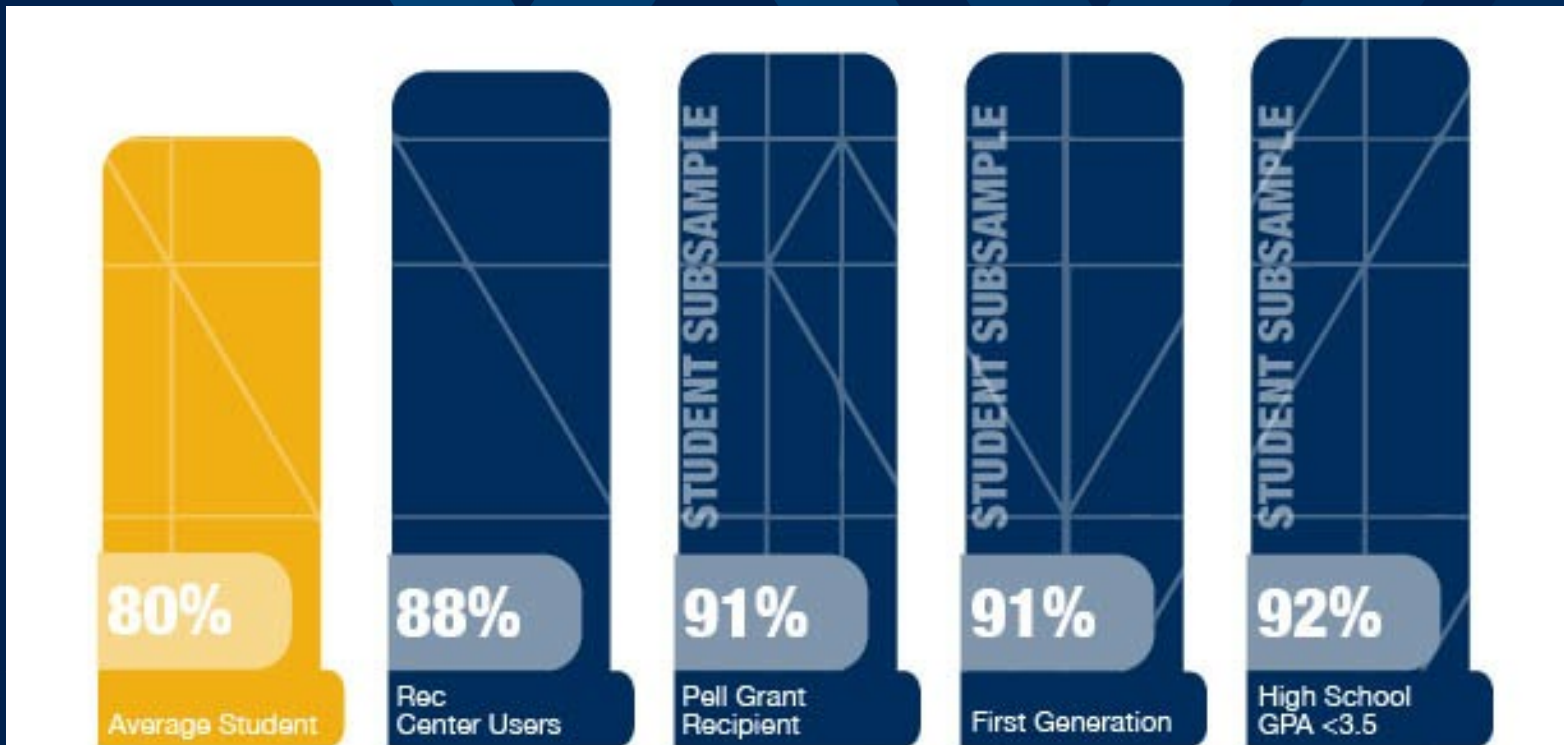
Analysis model



Findings

Predicted retention rate from multivariate regression for rec center users compared to average student, 2014-17

- Rec Center Users defined by at least one visit weekly
- Subsample analyses using matched sample suggest larger impact of facility use for students at risk for drop out



Findings

Additional revenue due to 1-year retention increase of FTF

Calculated by:

- Marginal retention for residents/non residents, users/nonusers, controlling for all variables
- Tuition x students retained due to SRC use = additional \$

Additional revenue estimate (annual):

- \$1.2 million (excluding infrequent users)



How can we help?

- Social engagement key to retention
- Campus rec linked to student & institutional benefits
- Program is an investment vs. expense
- Results are from “business as usual,” no retention focus
- Value social engagement, include indicators in early warning systems
- Increase impact through intentional programs & facilities



How can we help: *future research*

- Club & intramural sports, CR student employees
- Other student engagement
 - Outdoor orientation & wellness
 - Clubs & living-learning communities
 - Tutoring & academic counseling
- Graduation outcomes
- Longitudinal research
- Multi-institutional analysis
 - If interested in collaborating, contact:
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