



Adventure West Virginia  
Retention and Graduation Assessment  
for 2013 to 2022 Fall Cohorts

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**Confidential Draft**



### **Introduction:**

The Adventure West Virginia Program (AWV) strives to foster personal growth, leadership development, social responsibility, and student success through adventure-based and experiential education programming at WVU. Like past analyses for the AWV program, students who participated in the AWV program in their first fall term as either a first-time transfer student or a first-time freshman are compared to their counterpart students who did not participate in the AWV program. Although costs of the program are not directly considered, the potential fiscal impacts of AWV regarding retention are demonstrated in Tables 4-6.

Data discussed in this report refer to AWV students and non-AWV students in the aggregate from 2013 to 2022 – unless otherwise defined – and comprise both first-time freshman and new transfers. As the data used in the current study is panel/longitudinal in nature, six-year graduation rates for the 2013 through 2017 AWV/Non-AWV cohorts were also examined. Recent findings demonstrate the positive effects of the AWV treatment on student performance via increased retention and graduation rates throughout the traditional six-year graduation timeline when compared to their non-AWV counterparts.

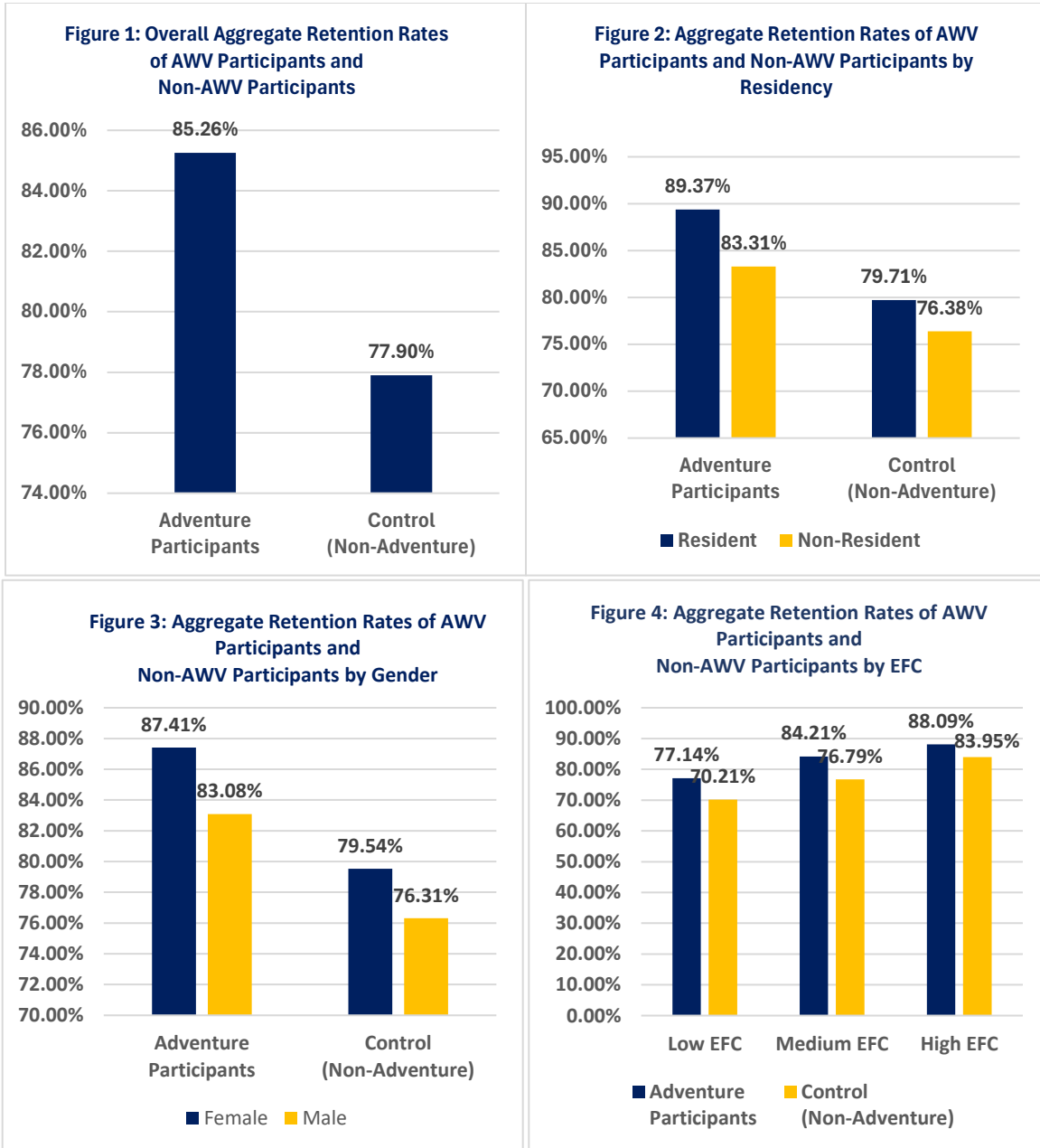
### **Aggregate Retention Rate Comparison**

<b>Table 1: Aggregate Retention Rates of AWV Participants and Non-AWV Participants by Student Type Fall 2013 to Fall 2022</b>			
<b>Student Type</b>	<b>Adventure Participants</b>	<b>Control (Non-Adventure)</b>	<b>Adventure Effect</b>
<b>Resident</b>	89.37%	79.71%	+9.66%
<b>Non-Resident</b>	83.31%	76.38%	+6.93%
<b>Female</b>	87.41%	79.54%	+7.87%
<b>Male</b>	83.08%	76.31%	+6.77%
<b>Low EFC</b>	77.14%	70.21%	+6.93%
<b>Medium EFC</b>	84.21%	76.79%	+7.42%
<b>High EFC</b>	88.09%	83.95%	+4.14%
<b>OVERALL</b>	<b>85.26%</b>	<b>77.90%</b>	<b>+7.36%</b>



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### Figures 1-4: Aggregate Retention Comparison by Adventure West Virginia Participation





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### Adventure West Virginia Retention Impact

- For students who do not participate in Adventure West Virginia, 77.9% retain to their second year (see Table 1 and Figure 1).
- For students who do participate in Adventure West Virginia, 85.3% retain to their second year (see Table 1 and Figure 1).
- Logistic regression reveals that Adventure West Virginia students are 1.313 times as likely as non-adventure students to retain to the following fall term (second year) while controlling for the student's academic index, at-risk status, residency, gender, EFC, and under-represented minority status.
  - The odds ratio for adventure participants is 1.313 (95% CI 1.21, 1.42).
  - An odds ratio greater than 1.0 suggests that participation in the Adventure West Virginia program is associated with increased odds of retaining to the second year.
  - More specifically, the odds of being retained is 31.3% higher for adventure students when compared to non-adventure students.
- The relative risk (defined as the retention rate of participants divided by the baseline retention rate of non-participants) is equal to 1.095 or 9.5% and suggests that an adventure student is 9.5% more likely to retain to their second year when compared to a non-adventure student.
  - Example: If 78 out of 100 non-participants are expected to retain then we might expect 85 out of 100 adventure participants to retain, on average.
    - *Calculation: 85 students result from taking the baseline expected value of 78 and multiplying by 1.095 or  $(78 + (78 * 1.095)) = 85$ .*
- In summary, the 1.313 odds ratio demonstrates a strong positive relationship between the Adventure West Virginia treatment and the odds of retention.
- In summary, the relative risk of 1.095 provides evidence that the Adventure West Virginia treatment increases the probability of a AWW student retaining by 9.5% when compared to a non-AWW student.
- *Key Improvement:* AWW resident students retain at a rate of 9.7% points higher than non-AWW resident students (see Table 1 and Figure 2).
- *Key Improvement:* AWW Female students retain at a rate of 7.9% points higher than non-AWW female students (see Table 1 and Figure 3).
- *Key Improvement:* AWW Medium EFC students retain at a rate of 7.4% points higher than non-AWW medium EFC students (see Table 1 and Figure 4).





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### Adventure West Virginia Graduation Impact:

- For students who do not participate in AWW, 59.9% graduated within six years (see Table 2).
- For students who participate in AWW, 68.96% graduated within six years (see Table 3).
- In the aggregate for first-time freshman and transfers analyzed, students who participated in AWW displayed increased graduation rates across all three categories examined: residency, gender, and expected total family contribution (EFC) (see Table 3).

Table 2: Summary Graduation Rates of Non-AWW Students					
Student Type	Non-AWW Participants	3-Year Grad Rate	4-Year Grad Rate	5-Year Grad Rate	6-Year Grad Rate
Resident	12015	8.9%	46.3%	59.5%	62.3%
Non-Resident	14453	8.1%	41.3%	55.0%	57.8%
Female	12385	8.1%	41.3%	55.0%	57.8%
Male	14083	9.2%	49.9%	61.9%	63.8%
Low EFC	8431	7.8%	38.0%	52.8%	56.4%
Medium EFC	8046	9.5%	36.6%	49.1%	52.0%
High EFC	9991	9.0%	43.8%	56.1%	58.8%
OVERALL	26468	8.5%	43.6%	57.1%	59.9%

Table 3: Summary Graduation Rates of AWW Students						
Student Type	AWW Participants	3-Year Grad Rate	4-Year Grad Rate	5-Year Grad Rate	6-Year Grad Rate	AWW Effect
Resident	1081	2.9%	53.4%	71.0%	73.7%	+ 11.4%
Non-Resident	2051	3.9%	46.1%	63.6%	66.5%	+ 8.6%
Female	1614	4.9%	55.9%	71.1%	73.0%	+ 15.2%
Male	1518	2.0%	40.9%	60.9%	64.7%	+ 0.9%
Low EFC	564	2.8%	41.5%	57.3%	59.9%	+ 3.5%
Medium EFC	871	2.8%	41.5%	57.3%	59.9%	+ 7.9%
High EFC	1697	3.6%	46.3%	64.5%	67.5%	+ 8.7%
OVERALL	3132	3.5%	48.6%	66.2%	69.0%	+ 9.1%





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- Logistic regression reveals that AWP students are 1.201 times as likely as non-AWP students to graduate within six years.
  - The odds ratio for adventure participants is 1.201 (95% CI 1.103, 1.308).
  - An odds ratio greater than 1.0 suggests that participation in the Adventure West Virginia program is associated with increased odds of graduating within six years.
  - More specifically, the odds of being retained is 20.1% higher for adventure students when compared to non-adventure students.
- The relative risk (defined as the six-year graduation rate of participants divided by the baseline six-year graduation rate of non-participants) is equal to 1.152 or 15.2% and suggests that an adventure student is 15.2% more likely to graduate in six-years when compared to a non-adventure student.
  - Example: If 60 out of 100 non-participants are expected to graduate within six years then we might expect 69 out of 100 adventure participants to graduate within six years, on average.
    - *Calculation: 69 students result from taking the baseline expected value of 60 and multiplying by 1.152 or  $(60 + (60 * 1.152)) = 69$ .*
- In summary, the 1.201 odds ratio demonstrates a strong positive relationship between the AWP treatment and the odds of six-year graduation.
- In summary, the relative risk of 1.152 provides evidence that the AWP treatment increases the probability of a AWP student graduating in six years by 15.2% when compared to a non-AWP student.
- **Key Improvement:** In the aggregate, resident AWP students saw a 11.4% percentage point increase in their six-year graduation rates when compared to resident non-AWP students (see Table 3).
- **Key Improvement:** In the aggregate, female AWP students saw a 15.2% percentage point increase in their six-year graduation rates when compared to female non-AWP students (see Table 3).
- **Key Improvement:** In the aggregate, high EFC students saw a 8.7% percentage point increase in their six-year graduation rates when compared to high EFC non-AWP students (see Table 3).
- **Key Improvement Overall:** AWP students graduated at a rate of 9.1% points higher than non-AWP students (see Table 3).







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### Tables 4-6 Potential Fiscal Impacts

Table 4: First Time Freshmen and Transfer Student Retention by Residency: Residents									
Academic Year	Adventure West-Virginia Participants			Non-Adventure West-Virginia Participants			Program Impact		
	Students	Retained	% Retained	Students	Retained	% Retained	Change in Retention	Students Retained Due to AWW*	Additional Revenue Due to a 1 Year Retention Increase**
	169	158	93.5%	2,499	1,946	77.9%	15.6%	26	\$ 170,423.93
2014	139	126	90.6%	2,418	1,954	80.8%	9.8%	14	\$ 95,166.05
2015	206	185	89.8%	2,346	1,843	78.6%	11.2%	23	\$ 176,817.76
2016	248	223	89.9%	2,389	1,944	81.4%	8.5%	21	\$ 169,390.93
2017	319	274	85.9%	2,364	1,814	76.7%	9.2%	29	\$ 244,725.18
2018	293	252	86.0%	2,199	1,768	80.4%	5.6%	16	\$ 145,481.65
2019	269	241	89.6%	2,243	1,805	80.5%	9.1%	25	\$ 220,170.12
2020	84	75	89.3%	2,167	1,738	80.2%	9.1%	8	\$ 68,481.87
2021	113	107	94.7%	2,027	1,622	80.0%	14.7%	17	\$ 151,586.50
2022	164	150	91.5%	2,022	1,638	81.0%	10.5%	17	\$ 160,892.44
TOTAL	2004	1791	89.37%	22,674	18,072	79.70%	9.67%	196	\$ 1,603,136.42

Table 5: First Time Freshmen and Transfer Student Retention by Residency: Non-Residents									
Academic Year	Adventure West-Virginia Participants			Non-Adventure West-Virginia Participants			Program Impact		
	Students	Retained	% Retained	Students	Retained	% Retained	Change in Retention	Students Retained Due to AWW*	Additional Revenue Due to a 1 Year Retention Increase**
2013	345	280	81.2%	3,001	2,201	73.3%	7.8%	27	\$ 529,462.15
2014	260	223	85.8%	2,994	2,268	75.8%	10.0%	26	\$ 531,965.39
2015	384	326	84.9%	2,782	2,141	77.0%	7.9%	30	\$ 653,190.66
2016	466	389	83.5%	2,888	2,203	76.3%	7.2%	34	\$ 754,017.66
2017	598	471	78.8%	2,788	2,019	72.4%	6.3%	38	\$ 896,069.65
2018	555	452	81.4%	2,366	1,769	74.8%	6.7%	37	\$ 924,522.20
2019	563	475	84.4%	2,609	2,076	79.6%	4.8%	27	\$ 684,067.01
2020	229	204	89.1%	2,616	2,089	79.9%	9.2%	21	\$ 535,078.58
2021	330	272	82.4%	2,450	1,864	76.1%	6.3%	21	\$ 540,512.13
2022	495	428	86.5%	2,553	2,027	79.4%	7.1%	35	\$ 929,505.36
TOTAL	4225	3520	83.31%	27,047	20,657	76.37%	6.94%	296	\$ 6,978,390.79

Table 6: First Time Freshmen and Transfer Student Retention: Total									
Academic Year	Adventure West-Virginia Participants			Non-Adventure West-Virginia Participants			Program Impact		
	Students	Retained	% Retained	Students	Retained	% Retained	Change in Retention	Students Retained Due to AWW*	Additional Revenue Due to a 1 Year Retention Increase***
2013	514	438	85.2%	5,500	4,147	75.4%	9.8%	53	\$ 699,886.09
2014	399	349	87.5%	5,412	4,222	78.0%	9.5%	40	\$ 627,131.44
2015	590	511	86.6%	5,128	3,984	77.7%	8.9%	54	\$ 830,008.42
2016	714	612	85.7%	5,277	4,147	78.6%	7.1%	55	\$ 923,408.58
2017	917	745	81.2%	5,152	3,833	74.4%	6.8%	67	\$ 1,140,794.82
2018	848	704	83.0%	4,565	3,537	77.5%	5.5%	53	\$ 1,070,003.85
2019	832	716	86.1%	4,852	3,881	80.0%	6.1%	52	\$ 904,237.13
2020	313	279	89.1%	4,783	3,827	80.0%	9.1%	29	\$ 603,560.45
2021	443	379	85.6%	4,477	3,486	77.9%	7.7%	38	\$ 692,098.63
2022	659	578	87.7%	4,575	3,665	80.1%	7.6%	52	\$ 1,090,397.80
TOTAL	6229	5311	85.26%	49,721	38,729	77.89%	7.37%	492	\$ 8,581,527.20

\*Students retained due to AWW is calculated by multiplying Change in Retention by the number of AWW participants in a given year.

\*\*Additional revenue due to 1 Year Retention Increase is calculated by multiplying Students Retained due to AWW by the academic Year's tuition for resident/non-residents.

\*\*\*Sum of Tables 1 and 2

\*Source: Student HEPC and Financial Aid Files as well as Internal AWW Files

NOTE: Reporting methodology for 2024 version contains students who start at and retain to WVU main campus only.

