

Online Appendix for “The Impact of Academic Probation: Do Intensive Interventions Help?” Aaron Albert and Nathan Wozny

Table A.1

Academic Probation Long-Term Impacts

	(1)	(2)	(3)
Dependent:	Next Sem GPA	Next Sem Attrition	Probation Count
Probation Timing:	After Sem 2-7	After Sem 2-7	After Sem 1
Impact Estimate	0.0701* (0.0358)	0.0043 (0.0161)	0.0035 (0.1087)
Observations	91,173	94,267	19,712
Obs L	2351	3593	1199
Obs R	4538	8978	2555
Bandwidth	0.181	0.304	0.357

Notes: Each column shows RD estimates for the impact of academic probation based on grades in the semester(s) indicated on the indicated dependent variable, using a local linear regression analogous to Equation 2. Columns (1) and (2) use observations from each semester after the first semester that each student attended the USAFA, while column (3) uses one observation for each student who completed the first semester. Standard errors in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Table A.2

Academic Probation Impacts by Previous Military Exposure

	(1)	(2)	(3)	(4)
	Sem 2 GPA	Sem 2 Attrition	Graduation	STEM Degree
Previous Exposure	0.0714 (0.1008)	-0.0338 (0.0289)	-0.1232 (0.1009)	0.0929 (0.0728)
Observations	4,033	4,150	3,160	3,160
No Previous Exposure	0.1248*** (0.0366)	-0.0218 (0.0174)	0.0261 (0.0442)	0.0563 (0.0346)
Observations	14,820	15,562	13,119	13,119

Notes: Each cell shows a separate RD estimate for the indicated dependent variable, using a local linear regression analogous to Equation 2. The first row of results is estimated on a sample of students with previous exposure to the military, while the second row of results is estimated on a sample of students with no previous exposure. Standard errors in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Table A.3

Main Results RD Robustness

	(1)	(2)	(3)	(4)	(5)
Dependent:	Probation	Sem 2 GPA	Overall GPA	Sem 2 Attrition	Graduation
Independent:	GPA<2.0	Probation	Probation	Probation	Probation
Baseline	-0.8459*** (0.0169)	0.1192*** (0.0359)	-0.0074 (0.0264)	-0.0243 (0.0159)	0.0026 (0.0425)
Bandwidth 0.05	-0.8804*** (0.0371)	0.1214 (0.1100)	-0.0907 (0.0734)	-0.0712* (0.0390)	0.0706 (0.1385)
Bandwidth 0.1	-0.8361*** (0.0287)	0.1802** (0.0716)	-0.0711 (0.0496)	-0.0567* (0.0318)	0.0455 (0.0899)
Bandwidth 0.2	-0.8284*** (0.0227)	0.1360*** (0.0479)	-0.0283 (0.0342)	-0.0454** (0.0227)	0.0024 (0.0608)
Bandwidth 0.5	-0.8601*** (0.0138)	0.1071*** (0.0312)	-0.0021 (0.0228)	-0.0224 (0.0151)	-0.0057 (0.0386)
Quadratic	-0.8371*** (0.0190)	0.1262*** (0.0381)	-0.0156 (0.0283)	-0.0263 (0.0191)	0.0120 (0.0494)
Cubic	-0.8215*** (0.0236)	0.1430*** (0.0486)	-0.0340 (0.0386)	-0.0386* (0.0223)	0.0194 (0.0534)
Quartic	-0.8178*** (0.0253)	0.1550*** (0.0579)	-0.0525 (0.0468)	-0.0330 (0.0278)	0.0210 (0.0595)
Uniform Kernel	-0.8521*** (0.0159)	0.1108*** (0.0366)	-0.0077 (0.0284)	-0.0185 (0.0184)	-0.0041 (0.0434)

Notes: Each cell represents a unique RD estimate of the impact of academic probation following first semester grades on the indicated outcome (column). The baseline estimates in the first row are identical to those in Table 4, where the RD estimates use a local linear regression with data-driven bandwidths and triangular kernel weighting. The next four rows replace the data-driven bandwidths with fixed bandwidths of 0.05, 0.1, 0.2, and 0.5, respectively. The next three rows

replace the local linear estimate with local polynomial estimates of order 2, 3, and 4, respectively, but return to data-driven bandwidths. The last row returns to a local linear specification but uses a uniform kernel. Standard errors in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Table A.4

Major Completion RD Robustness

	(1)	(2)	(3)
Major:	STEM	Soc-Sci	Humanities
Baseline	0.0688** (0.0332)	-0.0511 (0.0460)	-0.00773 (0.0211)
Bandwidth 0.05	0.332** (0.133)	-0.177 (0.143)	-0.0576 (0.0683)
Bandwidth 0.1	0.226*** (0.0779)	-0.152 (0.0933)	-0.0405 (0.0452)
Bandwidth 0.2	0.121** (0.0477)	-0.0847 (0.0634)	-0.0320 (0.0319)
Bandwidth 0.5	0.0618** (0.0286)	-0.0636 (0.0402)	-0.00661 (0.0208)
Quadratic	0.0854** (0.0411)	-0.0574 (0.0473)	-0.0236 (0.0289)
Cubic	0.105** (0.0509)	-0.0510 (0.0570)	-0.0250 (0.0295)
Quartic	0.132** (0.0600)	-0.0599 (0.0703)	-0.0375 (0.0335)
Uniform Kernel	0.0616* (0.0316)	-0.0520 (0.0443)	-0.00711 (0.0211)

Notes: Each cell represents a unique RD estimate of the impact of academic probation following first semester grades on graduation with the indicated major (column). The baseline estimates in the first row are identical to those in Table 5, where the RD estimates use a local linear regression with data-driven bandwidths and triangular kernel weighting. The next four rows replace the data-driven bandwidths with fixed bandwidths of 0.05, 0.1, 0.2, and 0.5, respectively. The next three rows replace the local linear estimate with local polynomial estimates of order 2,

3, and 4, respectively, but return to data-driven bandwidths. The last row returns to a local linear specification but uses a uniform kernel. Standard errors in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Table A.5

Cross-Effects RD Robustness

	(1)	(2)	(3)	(4)
Dependent:	GPA	PEA	GPA	PEA
Probation Type:	Academic	Academic	Athletic	Athletic
Baseline	0.1507*** (0.0444)	0.0244 (0.0527)	-0.0704 (0.1006)	0.1875** (0.0802)
Bandwidth 0.05	0.2468* (0.1407)	0.0344 (0.1612)	-1.6485 (2.8256)	0.8821 (1.1341)
Bandwidth 0.1	0.2577*** (0.0874)	0.1486 (0.1120)	-0.4462 (0.3364)	0.1577 (0.1819)
Bandwidth 0.2	0.1732*** (0.0565)	0.0541 (0.0785)	-0.0817 (0.1147)	0.1783** (0.0765)
Bandwidth 0.5	0.1260*** (0.0365)	0.0180 (0.0503)	-0.0582 (0.0626)	0.1733*** (0.0438)
Quadratic	0.1403*** (0.0426)	0.0348 (0.0628)	-0.0882 (0.0988)	0.1812** (0.0828)
Cubic	0.1804*** (0.0586)	0.0611 (0.0758)	-0.1187 (0.1111)	0.2012* (0.1152)
Quartic	0.2203*** (0.0774)	0.1009 (0.0934)	-0.0985 (0.1719)	0.2139* (0.1268)
Uniform Kernel	0.1368*** (0.0464)	0.0314 (0.0543)	-0.0554 (0.0587)	0.1918*** (0.0428)

Notes: Each cell represents a unique RD estimate of the impact of academic or athletic probation following the first semester on the indicated outcome (column). The baseline estimates in the first row are identical to those in Table 7, where the RD estimates use a local linear regression with data-driven bandwidths and triangular kernel weighting. The next four rows replace the data-driven bandwidths with fixed bandwidths of 0.05, 0.1, 0.2, and 0.5, respectively. The next

three rows replace the local linear estimate with local polynomial estimates of order 2, 3, and 4, respectively, but return to data-driven bandwidths. The last row returns to a local linear specification but uses a uniform kernel. Standard errors in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.