Impact of Verification on Iowa FAFSA Filers: APPENDIX

DATA

Due to Iowa College Aid's administration of state-funded scholarship and grant programs, our agency receives Institutional Student Information Records (ISIR) from the U.S. Department of Education's (ED) Central Processing System (CPS) for all Iowans who file the FAFSA. For this analysis, I used ISIR records for first-time FAFSA filers from the 2012-13 to the 2016-17 academic year. This dataset includes not only detailed measures that are used to calculate students' Expected Family Contribution (EFC) (for example, household earnings and dependency status), but also a variable identifying which students CPS selected for verification, which is a time-constant variable. From internal conversations with agency staff, I learned that this verification flag remains on students' ISIR records even if they submit the FAFSA multiple times. For example, if a student is selected for verification and in the process has to resubmit a FAFSA, the verification flag will still be reported in the ISIR. ISIR records also contain demographic information, such as age, gender, first-generation college student status and year in college.

I matched these ISIR records to the student-level database maintained by the National Student Clearinghouse (NSC). NSC compiles enrollment data for each term that a student attends a participating postsecondary institution, covering 97 percent of all enrollments at Title IV, degree-granting institutions.[1] The NSC data contains information on students' enrollment duration at a particular institution, degrees received and programs of study. The primary variable of interest is an indicator on whether a student was enrolled in college in the same academic year he or she filed a FAFSA.

When filing the FAFSA, students can use Federal School Codes to identify up to 10 institutions that they wish to receive their financial information. I created a crosswalk between the Federal School Codes and the unit identifiers from the Integrated Postsecondary Education Data System (IPEDS). This allowed me to identify which institutions were receiving the ISIR records and their institutional sector, which were classified as public two-year, public four-year, private not-for-profit, proprietary and foreign college.

SAMPLE SELECTION

From 2012-13 to 2016-17, a total of 204,848 Iowans were observed as filing a FAFSA for the first-time. I did have to make several restrictions to the sample. First, I dropped approximately 1,000 students who were younger than 17 at the time of their FAFSA submission. Second, I dropped roughly 2,500 students because I was not able to ascertain their dependency status. Third, because I was interested in examining undergraduates, I dropped 12,286 students who self-reported or whom CPS identified as being graduate students. Lastly, I dropped 16,195 students whose institutional sector was proprietary, foreign college or could not be classified because the schools within these sectors do not consistently report enrollment data to the NSC. The overall sample was 172,903 students, of which 91,146 were Pell-eligible. Table A1 displays the descriptive statistics for the overall and Pell-eligible samples.

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1 Dunbar, A., and Shapiro, D. (2016). The National Student Clearinghouse as an integral part of the National Postsecondary Data Infrastructure. Herndon, VA: National Student Clearinghouse Research Center.

Table A1: Descriptive Statistics of Analysis Sample

	Overall Sample		Pell-Eligible	
	Mean	SD	Mean	SD
Enrolled	0.81	[0.39]	0.74	[0.44]
Selected for verification	0.34	[0.47]	0.57	[0.49]
Age when FAFSA was submitted	21.25	[7.88]	22.85	[8.82]
Female	0.53	[0.50]	0.54	[0.50]
1st-generation	0.28	[0.45]	0.36	[0.48]
Dependent	0.74	[0.44]	0.58	[0.49]
Independent w/o dependents	0.13	[0.33]	0.18	[0.39]
Independent w/ dependents	0.14	[0.34]	0.24	[0.43]
Household heads' income*	70,545.21	[96,139.65]	26,343.93	[33,673.57]
Expected Family Contribution*	13,478.69	[32,641.10]	1,000.60	[1,521.90]
Automatic Zero EFC	0.16	[0.37]	0.31	[0.46]
Simplified Needs Test	0.37	[0.48]	0.67	[0.47]
Pell-eligible	0.53	[0.50]	1.00	[0.00]
Sent ISIR to public 2-year	0.54	[0.50]	0.69	[0.46]
Sent ISIR to private 4-year	0.27	[0.45]	0.17	[0.37]
Sent ISIR to private non-profit	0.18	[0.39]	0.14	[0.35]
First-year student	0.91	[0.28]	0.91	[0.29]
Second-year student	0.04	[0.20]	0.04	[0.21]
Third-year student	0.03	[0.17]	0.03	[0.17]
Fourth year or higher student	0.02	[0.13]	0.02	[0.14]
FAFSA filed for 2012-13	0.22	[0.41]	0.23	[0.42]
FAFSA filed for 2013-14	0.21	[0.40]	0.21	[0.41]
FAFSA filed for 2014-15	0.20	[0.40]	0.20	[0.40]
FAFSA filed for 2015-16	0.19	[0.39]	0.18	[0.39]
FAFSA filed for 2016-17	0.18	[0.39]	0.17	[0.38]
N	172,903		91,146	

Note: Variables on institutional sector where ISIR was sent is based on the first institution students reported on the FAFSA.

*Denotes adjustment for inflation and topcoded at 999999 for EFC and 9999999 for household heads' income.

METHODOLOGY

Results were modeled using the following logistic regression equation:

$$PR\ (ENROLL=1)_i = F(\beta_0 + \beta_1 VERIFFLAG_i + \beta_3 X_i + \beta_4 SECTOR_I + \gamma_i\ )$$

where *ENROLL* is the dependent variable equal to 1 if the student (i) enrolled in college; X is a vector of student demographics and FAFSA reported elements, such as gender, EFC, and indicators on dependency status, first-generation status, automatic zero EFC, SNT, Pell eligibility and year in college. *SECTOR* is a set of indicator variables that identify the sector of the first institution students reported on the FAFSA to receive financial information. γ_i is a set of indicators for the academic year the FAFSA was filed. The main variable of interest, *VERIFFLAG*, equals 1 if a student was flagged for verification and provides the predicted probability difference in the outcome between students who were flagged for verification and students who were not.

RESULTS

The results displayed in Figure 2 are based on estimates reported in Panel A of Table A2, and the results displayed in Figure 3 are based on estimates in Panel B. Panel A in Table A2 consists of both the log odds and the average marginal effect, whereas Panel B displays average marginal effects only.

LIMITATIONS

There are several limitations to this analysis. First, I do not have access to students' receipt of financial aid nor financial aid packages. Having such financial aid information would be helpful in understanding whether selection for verification impacts students' aid eligibility. More importantly, the information would be helpful in understanding in how the loss of financial aid affects college enrollment.

Second, I do not have the ability to know what colleges are doing for verification nor their time length to complete the process. In this case, the analysis cannot account for instances where students did not receive their financial aid in a timely manner and had to delay their enrollment. For example, if a student flagged for verification was intending to attend a specific community college, this community college would be responsible for verifying the student's FAFSA. I would not be able to observe in the ISIR data what documents were submitted to the community college and their time length from document submission to financial aid disbursement.

Table A2: Regression Results

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Full Sample		Public 2-year		Public 4-year		Private Not-for-Profit	
Panel A: Main Results								
Verification (Odds Ratios)	1.081***	0.876***	0.985	0.845***	1.242***	0.971	1.271***	0.920*
	(0.016)	(0.015)	(0.017)	(0.017)	(0.060)	(0.055)	(0.052)	(0.045)
Verification (Average Marginal Effect)	0.015***	-0.023***	-0.003	-0.033***	0.026***	-0.003	0.044***	-0.014*
	(0.003)	(0.003)	(0.004)	(0.004)	(0.006)	(0.006)	(0.008)	(0.008)
Controls		X		X		X		X
N	91,146	91,146	63,178	63,178	15,042	15,042	12,926	12,926
Panel B: Interaction Results (Average Marginal Effects)								
Verification	-0.021***	-0.032***	-0.031***	-0.048***	0.002	-0.013	-0.011	-0.010
	(0.004)	(0.006)	(0.005)	(0.008)	(0.007)	(0.011)	(0.009)	(0.013)
Automatic Zero EFC	-0.027***		-0.030***		-0.016		-0.037***	
	(0.005)		(0.006)		(0.010)		(0.013)	
Automatic Zero EFC X Verification	-0.007		-0.004		-0.022		-0.011	
	(0.006)		(0.008)		(0.014)		(0.018)	
Simplified Needs Test		-0.030***		-0.034***		-0.025**		-0.020
		(0.006)		(0.008)		(0.012)		(0.014)
Simplified Needs Test X Verification		0.011		0.019**		0.014		-0.005
		(0.007)		(0.009)		(0.013)		(0.016)
Controls	X	X	X	X	X	X	X	X
N	91,146	91,146	63,178	63,178	15,042	15,042	12,926	12,926

Note: Controls include gender, automatic zero EFC status, SNT status, first generation status, EFC, dependency status, institutional sector, year in college, and academic year. Panel A displays estimates in odds ratios and the average marginal effect of the odds ratios. Panel B displays the average marginal effects only.

* $p < .10$
** $p < .05$
*** $p < .01$