# A Letter and Encouragement: Does Information Increase Post-Secondary Enrollment of UI Recipients? Andrew Barr and Sarah Turner Online Appendix

# Appendix A:

## Pell Letter Survey and Response

We contacted the workforce agencies in all 50 states and the District of Columbia with a request for information about each agency's participation in the Pell letter initiative (we have attached a copy of the survey below). Initially, we e-mailed this survey to the commissioner (or equivalent) of each state's workforce agency as well as the analogous leader of related state agencies (e.g., the Department of Labor). For states that did not respond to our initial request, we sent several additional e-mail requests. We followed this with a paper mailing containing hard copies of the survey and pre-paid addressed return envelopes. We followed this with phone calls to the relevant states contacts where possible to encourage survey response. For the states remaining at this point, we submitted public record and Freedom of Information Act requests where possible. In total, 46 states and the District of Columbia responded to the survey. We archived the responses and Pell letters online. In a separate survey, an additional 3 states indicated that they had not sent a Pell letter and had no intention of doing so (NASWA 2010). We have been unable to obtain a conclusive response from Tennessee.

<sup>&</sup>lt;sup>1</sup>The archive can be accessed at http://people.tamu.edu/~abarr/Research.html. While 40 states and the District of Columbia indicated that they had sent a letter, only 29 sent copies of their Pell letter with their response.

### **State Survey**

Our research team is evaluating how notification about the availability of educational opportunities affects the post-secondary educational attainment of UI benefit recipients. As you may know, the Department of Labor issued guidance on May 8, 2009:

"To strongly encourage states to: (1) broaden their definition of approved training for Unemployment Insurance (UI) beneficiaries during economic downturns, (2) notify UI beneficiaries of their potential eligibility for Pell Grants and other student aid, and (3) help individuals apply for Pell Grants through One-Stop Career Centers." [http://wdr.doleta.gov/directives/attach/TEGL/TEGL21-08acc.pdf]

Our interest is in understanding how [state] responded to this guidance. In particular, we are interested in whether [state] sent a letter, the associated timing of the mailing, and the population of UI recipients targeted to receive such communication. Our questions follow below:

Did [state] send a letter or other communication to individuals receiving unemployment insurance in response to the federal Pell grant initiative on May 8 2009? Would you please send us a copy as a pdf attachment to email or by regular mail?

<u>If YES</u> :
a. On what date did [state] first send this letter?
b. Was the letter sent to all UI recipients or just new recipients at the time of distribution?
All UI recipients
New UI recipients
<ul><li>c. Were there any other criteria determining which UI recipients received the letter?</li><li>d. Was this a one-time mailing or has the mailing been repeated for new UI recipients after</li></ul>
May 2009?
One time
Repeated at
weekly
monthly interval
If repeated, is this policy ongoing?
Yes No
If no, when were the last letters sent out?

Residualized Estimated Annual Earnings

-200

-200

Months Since First UI Receipt

Non-Recipients

Pell Letter Recipients

Figure A1: Earnings by Months Since Initial UI Receipt

Note: Earnings is constructed in annual terms using any earnings observations available (including zeros) during the three months following the time period in question. More specifically, we multiply the average reported earnings in the following three months (e.g., months 6, 7, and 8) by 12. To construct the figure we regressed earnings for the full 2008 SIPP sample (age 20-40) on state and year-month fixed effects. This removed constant variation in earnings across states as well as variation in earnings generated by overtime changes in the severity of the recession. We then restricted the sample using the restrictions outlined in the text and averaged the residuals by month since initial UI receipt. We plot these averages for treated and untreated individuals.

Table A1: Enrollment in Six Months Following First Receipt of UI

	(1)	(2)	(3)	(4)
Variables			(-)	
N 9000 t- M 9010	0.032*	0.032*	0.033*	0.034*
Nov. 2008 to May 2010	0.00=	0.00=	0.000	0.00-
	(0.019)	(0.019)	(0.019)	(0.019)
Nov. 2008 to Nov. 2010	0.044***	0.042**	0.042**	0.060***
	(0.016)	(0.016)	(0.016)	(0.018)
Nov. 2008 to May 2011	0.039**	0.038**	0.038**	0.041**
	(0.017)	(0.017)	(0.018)	(0.018)
Year-Month FE	Y	Y	Y	Y
Unemployment Rate		Y	Y	Y
Education Controls			Ÿ	Ÿ
Education Restrictions			-	Ý

Note: Each cell represents a separate OLS regression. Each observation corresponds to an individual's first spell of unemployment insurance receipt. Each row shows estimates using different sample end points. The dependent variable is whether an individual is enrolled within six months of the first month of UI receipt. The explanatory variable of interest indicates whether a Pell letter was sent in an individual's state during any of the first six months since the first month of UI receipt. All specifications include age, race, and gender indicator variables as well as state fixed effects. "Education Controls" are indicator variables for all attainment levels. "Education Restrictions" limits the sample to individuals with at least a high-school degree, but less than a bachelor's degree at initial UI receipt. All regressions restricted to individuals aged 20-40 who were not enrolled during the month prior to first UI receipt and first received UI between November 2008 and November 2010. Data are from the 2008 SIPP. Robust standard errors clustered at the state level are in parentheses: \* (p<0.10) \*\*(p<0.05), \*\*\*(p<0.01).

Table A2: Enrollment in Six Months Following First Receipt of UI (alternative labor market condition controls)

Variables	(1)	(2)	(3)	(4)
Pell Letter	0.041** (0.018)	0.042** (0.018)	0.041** (0.019)	0.054*** (0.018)
Observations	1,472	1,472	1,472	1,042
Year-Month FE New Jobless Claims Education Controls Education Restrictions	Y	Y Y	Y Y Y	Y Y Y Y

Note: Each cell represents a separate regression. Each observation corresponds to an individual's first spell of unemployment insurance receipt. The dependent variable is whether an individual is enrolled within six months of the first month of UI receipt. The explanatory variable of interest indicates whether a Pell letter was sent in an individual's state during any of the first four, five, or six months since the first month of UI receipt. All specifications include age, race, and gender indicator variables as well as state fixed effects. "Education Controls" are indicator variables for all attainment levels. "Education Restrictions" limits the sample to individuals with at least a high-school degree, but less than a bachelor's degree at initial UI receipt. All regressions restricted to individuals aged 20-40 who were not enrolled during the month prior to first UI receipt and first received UI between November 2008 and November 2010. Data are from the 2008 SIPP. Robust standard errors clustered at the state level are in parentheses: (p<0.10) \*\*(p<0.05), \*\*\*(p<0.01).

Table A3: Enrollment in Six Months Following First Receipt of UI

	(1)	(2)	(3)	(4)
Variables				
Pell Letter (within 4 months)	0.049**	0.046**	0.045**	0.062***
Ten Better (Within Timenone)	(0.021)	(0.021)	(0.021)	(0.020)
Pell Letter (within 5 months)	0.044***	0.042**	0.042**	0.060***
(	(0.016)	(0.016)	(0.016)	(0.018)
Pell Letter (within 6 months)	0.041**	0.039**	0.039**	0.051***
,	(0.018)	(0.018)	(0.019)	(0.019)
Observations	1,472	1,472	1,472	1,042
Year-Month FE	Y	Y	Y	Y
Unemployment Rate		Y	Y	Y
Education Controls			Y	Y
Education Restrictions				Y

Note: Each cell represents a separate regression. Each observation corresponds to an individual's first spell of unemployment insurance receipt. The dependent variable is whether an individual is enrolled within six months of the first month of UI receipt. The explanatory variable of interest indicates whether a Pell letter was sent in an individual's state during any of the first four, five, or six months since the first month of UI receipt. All specifications include age, race, and gender indicator variables as well as state fixed effects. "Education Controls" are indicator variables for all attainment levels. "Education Restrictions" limits the sample to individuals with at least a high-school degree, but less than a bachelor's degree at initial UI receipt. All regressions restricted to individuals aged 20-40 who were not enrolled during the month prior to first UI receipt and first received UI between November 2008 and November 2010. Data are from the 2008 SIPP. Robust standard errors clustered at the state level are in parentheses: \* (p<0.10) \*\*\*(p<0.05), \*\*\*(p<0.01).

Table A4: Enrollment in Six Months Following First Receipt of UI (control for state trends)

	(1)	(2)	(3)	(4)
Variables				
Pell Letter	0.053** (0.024)	0.042* (0.025)	0.042* (0.025)	0.040 (0.026)
	(0.024)	(0.023)	(0.023)	(0.020)
Observations	1,472	1,472	1,472	1,042
State * Year-Month Trends	Y	Y	Y	Y
Unemployment Rate		Y	Y	Y
Education Controls			Y	Y
Education Restrictions				Y

Note: Each cell represents a separate regression. Each observation corresponds to an individual's first spell of unemployment insurance receipt. The dependent variable is whether an individual is enrolled within six months of the first month of UI receipt. The explanatory variable of interest indicates whether a Pell letter was sent in an individual's state during any of the first four, five, or six months since the first month of UI receipt. All specifications include age, race, and gender indicator variables as well as state fixed effects. "Education Controls" are indicator variables for all attainment levels. "Education Restrictions" limits the sample to individuals with at least a highschool degree, but less than a bachelor's degree at initial UI receipt. All regressions restricted to individuals aged 20-40 who were not enrolled during the month prior to first UI receipt and first received UI between November 2008 and November 2010. Data are from the 2008 SIPP. Robust standard errors clustered at the state level are in parentheses: \* (p<0.10) \*\*(p<0.05), \*\*\*(p<0.01).

Table A5: Enrollment in Six Months Following First Receipt of UI (exclude states that never sent a letter)

	(1)	(2)	(3)	(4)
Variables				
Pell Letter	0.044** (0.018)	0.043** (0.018)	0.042** (0.019)	0.053*** (0.019)
Observations	1,363	1,363	1,363	956
Year-Month FE	Y	Y	Y	Y
Unemployment Rate		Y	Y	Y
Education Controls			Y	Y
Education Restrictions				Y

Note: Sample restricted to individuals who began drawing unemployment benefits in a state that sent a letter at some point during the sample period. Each cell represents a separate regression. Each observation corresponds to an individual's first spell of unemployment insurance receipt. The dependent variable is whether an individual is enrolled within six months of the first month of UI receipt. The explanatory variable of interest indicates whether a Pell letter was sent in an individual's state during any of the first four, five, or six months since the first month of UI receipt. All specifications include age, race, and gender indicator variables as well as state fixed effects. "Education Controls" are indicator variables for all attainment levels. "Education Restrictions" limits the sample to individuals with at least a high-school degree, but less than a bachelor's degree at initial UI receipt. All regressions restricted to individuals aged 20-40 who were not enrolled during the month prior to first UI receipt and first received UI between November 2008 and November 2010. Data are from the 2008 SIPP. Robust standard errors clustered at the state level are in parentheses: (p<0.10) \*\*(p<0.05), \*\*\*(p<0.01).

Table A6: Enrollment in Six Months Following First Receipt of UI (controls for baseline earnings)

	(1)	(2)	(3)	(4)
Variables				
Pell Letter	0.047** (0.021)	0.044* (0.022)	0.040* (0.022)	0.050** (0.024)
Observations	1,082	1,082	1,082	757
Year-Month FE Unemployment Rate Education Controls Education Restrictions	Y	Y Y	Y Y Y	Y Y Y
Baseline Earnings Controls	Y	Y	Y	Y

 ${f Note:}$  Each cell represents a separate regression. Each observation corresponds to an individual's first spell of unemployment insurance receipt. The dependent variable is whether an individual is enrolled within six months of the first month of UI receipt. The explanatory variable of interest indicates whether a Pell letter was sent in an individual's state during any of the first six months since the first month of UI receipt. All specifications include age, race, and gender indicator variables as well as state fixed effects and baseline earnings (average earnings over a 3-month period 6 months prior to initial UI receipt). "Education Controls" are indicator variables for all attainment levels. "Education Restrictions" limits the sample to individuals with at least a high-school degree, but less than a bachelor's degree at initial UI receipt. All regressions restricted to individuals aged 20-40 who were not enrolled during the month prior to first UI receipt and first received UI between November 2008 and November 2010. Data are from the 2008 SIPP. Robust standard errors clustered at the state level are in parentheses: (p<0.10) \*\*(p<0.05), \*\*\*(p<0.01).

Table A7: Effect of Pell Letter on Enrollment (additional robustness)

VARIABLES	(1)	(2)	(3)	(4)	(5)	(9)	(2)	(8)	(6)
Panel A: SIPP Pell Letter Next 6 Months	0.039**	0.030 (0.019)	0.057***	0.057** $(0.021)$	0.044**	0.026 $(0.017)$	0.044* $(0.023)$	0.039**	0.057***
Panel B: BAM Pell Letter	0.025***	0.024**	0.019**	0.019**	0.024***	0.027***	0.024**	0.025***	0.025***
Covariates	Y	Z	Y	Y	Y	Y	Y	Y	Y
Year-Month FE	Y	Y	Z	Z	Z	Y	Z	Y	Y
Year and Month FE	Z	Z	Z	Z	Y	Z	Y	Z	Z
State FE	Y	Y	Y	Y	Y	Z	Y	Y	Y
Alternative SE Cluster Year-Month	Z	Z	Z	Y	Z	Z	Y	Z	Z
	Z	Z	Z	Z	Z	Z	Z	Y	Z
Weights	Z	Z	Z	Z	Z	Z	Z	Z	X

to individuals aged 20-40 who first received UI between November 2008 and November 2010. In Panel A, the sample is also restricted to individuals who were not enrolled during the month prior to first UI receipt. In Panel B, the sample is also restricted to individuals who were observed within 75 days of initial UI receipt. Unless otherwise noted, robust standard errors clustered at the state level are in parentheses: \*(p<0.05), \*\*\*(p<0.01). sion. For Panel A, each observation corresponds to an individual's first spell of unemployment insurance receipt and the dependent variable is whether an individual is enrolled within six months of the first month of UI receipt. For Panel B the dependent variable is whether an individual is enrolled in any type of training program in the observed week. The explanatory variable of interest indicates whether a Pell letter was sent in an individual's state during any of the first six months since the first month of UI receipt. Covariates include age, race, and gender indicator variables. All specifications include controls for unemployment rate and state fixed effects. All regressions restricted Note: Panel A presents estimates from the SIPP and Panel B presents estimates from the BAM. Each cell represents a separate OLS regres-

Table A8: Enrollment in Six Months Following First Receipt of UI (counterfactual assignments)

Variables	(1) Assignment $(t-12)$	(2) Assignment $(t+12)$
Pell Letter	-0.028 (0.039)	0.006 $(0.053)$

Note: Columns (1) and (2) show estimates that assign the letters based on the counterfactual of moving an individual's month of UI receipt by 12 months in either direction (which affects the assignment of treatment, but not the underlying data). Each observation corresponds to an individual's first spell of unemployment insurance receipt. The dependent variable is whether an individual is enrolled within six months of the first month of UI receipt. The explanatory variable of interest indicates whether a Pell letter was sent in an individual's state during any of the first six months since the first month of UI receipt (under the counterfactual assumption of initial UI receipt being shifted 12 months in either direction). All specifications include age, race, and gender indicator variables as well as state fixed effects. All regressions restricted to individuals aged 20-40 who were not enrolled during the month prior to first UI receipt and first received UI between November 2008 and November 2010. Data are from the 2008SIPP. Robust standard errors clustered at the state level are in parentheses: \*(p<0.10) \*\*(p<0.05), \*\*\*(p<0.01).

Table A9: Pell Grant Receipt in Six Months Following First UI Receipt

Variables	(1)	(2)	(3)	(4)
Pell Grant (Next 6 Months)	0.015 (0.014)	0.013 (0.014)	0.014 (0.014)	0.023 (0.019)
Observations	1,472	1,472	1,472	1,042
Year-Month FE Unemployment Rate Education Controls Education Restrictions	Y	Y Y	Y Y Y	Y Y Y Y

Note: Each cell presents a separate regression. Each observation corresponds to an individual's first spell of unemployment insurance receipt. The dependent variable is whether an individual received a Pell grant within six months of the first month of UI receipt. The explanatory variable of interest indicates whether a Pell letter was sent in an individual's state during any of the first six months since the first month of UI receipt. All specifications include age, race, and gender indicator variables as well as state fixed effects. All regressions restricted to individuals aged 20-40 who were not enrolled during the month prior to first UI receipt and first received UI between November 2008 and November 2010. Data are from the 2008 SIPP. Robust standard errors clustered at the state level are in parentheses: \* (p<0.10) \*\*(p<0.05), \*\*\*(p<0.01).

Table A10: Subgroup Effect of Pell Letter on Training Enrollment (BAM Data)

	(1)	(2)	(3)	(4)	(5)	(6)
Variables						
Pell Letter	0.014 (0.008)	0.012 (0.010)	0.022* (0.012)	0.016* (0.009)	0.049*** (0.014)	-0.019 (0.028)
Pell Letter * Black	0.048*** (0.017)	()	( )	(====)	()	()
Pell Letter * Female	,	0.032* (0.018)				
Pell Letter * Age>30		,	0.006 $(0.016)$			
Pell Letter * Hourly Wage $\leq$ \$10			, ,	0.042** (0.018)		
Pell Letter * Hourly Wage				, ,	-0.002** (0.001)	
Pell Letter * State UR					` ,	0.005* $(0.003)$
Observations	5,154	5,154	5,154	5,154	5,153	5,154
Interaction Group Mean	0.0840	0.0981	0.0583	0.0782	NA	NA

Note: Each column represents a separate regression. Each observation corresponds to an individual's first spell of unemployment insurance receipt. The dependent variable is whether an individual is enrolled in any training program in the observed week. The explanatory variable of interest indicates whether a Pell letter was sent in an individual's state during any of the first six months since the first month of UI receipt. All specifications include age, race, and gender indicator variables as well as state fixed effects. All regressions restricted to individuals aged 20-40 who first received UI between November 2008 and November 2010 and were observed within 75 days of initial UI receipt. Data are from the BAM. Robust standard errors clustered at the state level are in parentheses: \* (p<0.10) \*\*(p<0.05), \*\*\*(p<0.01).

Table A11: Enrollment in Six Months Following First Receipt of UI (age heterogeneity)

	(1)	(2)	(3)	(4)
Variables				
Age < 30	0.044	0.040	0.052	0.052
1180 ( 00	(0.033)	(0.034)	(0.035)	(0.041)
Age > 30	0.041*	0.041*	0.040	0.055*
0 =	(0.024)	(0.025)	(0.027)	(0.032)
Observations	522/950	522/950	522/950	386/656
Year-Month FE	Y	Y	Y	Y
Unemployment Rate		Y	Y	Y
Education Controls			Y	Y
Education Restrictions				Y

 $\bf Note: \ Each \ cell \ represents a separate regression. Each row repre$ sents a different sample restriction. Each observation corresponds to an individual's first spell of unemployment insurance receipt. The dependent variable is whether an individual is enrolled within six months of the first month of UI receipt. The mean for individuals less than 30 is 0.13 and the mean for individuals 30 and over is 0.07. The explanatory variable of interest indicates whether a Pell letter was sent in an individual's state during any of the first four, five, or six months since the first month of UI receipt. All specifications include age, race, and gender indicator variables as well as state fixed effects. "Education Controls" are indicator variables for all attainment levels. "Education Restrictions" limits the sample to individuals with at least a high-school degree, but less than a bachelor's degree at initial UI receipt. All regressions restricted to individuals aged 20-40 who were not enrolled during the month prior to first UI receipt and first received UI between November 2008 and November 2010. Data are from the 2008 SIPP. Robust standard errors clustered at the state level are in parentheses: \* (p<0.10) \*\*(p<0.05), \*\*\*(p<0.01).

Table A12: Training Type and Letter Exposure (BAM Data)

	(1)	(2)	(3)	(4)
Variables	(1)	(2)	(3)	(4)
Academic Training	0.013* (0.007)	0.013* (0.007)	0.015** (0.006)	0.010 (0.008)
Vocational Training	$0.008 \\ (0.005)$	$0.008 \\ (0.005)$	$0.008 \\ (0.005)$	0.012* (0.007)
WIA Training	-0.000 (0.001)	-0.000 (0.001)	-0.000 (0.001)	$0.001 \\ (0.002)$
Observations	5,154	5,154	5,154	3,764
Year-Month FE Unemployment Rate Education Controls Education Restrictions	Y	Y Y	Y Y Y	Y Y Y Y

Note: Each cell represents a separate regression. Each observation corresponds to an individual's first spell of unemployment insurance receipt. The dependent variable is whether an individual is enrolled in an academic, vocational, or WIA training program in the observed week. The means for the academic, vocational, and WIA training variables are 0.045, 0.022, and 0.002(slightly higher for column (4)). The explanatory variable of interest indicates whether a Pell letter was sent in an individual's state during any of the first six months since the first month of UI receipt. All specifications include age, race, and gender indicator variables as well as state fixed effects. "Education Controls" are indicator variables for all attainment levels. "Education Restrictions" limits the sample to individuals with at least a high-school degree, but less than a bachelor's degree at initial UI receipt. All regressions restricted to individuals aged 20-40 who first received UI between November 2008 and November 2010. Data are from the BAM. Robust standard errors clustered at the state level are in parentheses: (p<0.10) \*\*(p<0.05), \*\*\*(p<0.01).

Table A13: Effect of Pell Letter on Years of College Completed

Variables	(1)	(2)	(3)	(4)
Years of College Completed (18 Months Out)	0.042 $(0.037)$	0.075 $(0.050)$	0.039 $(0.033)$	$0.060 \\ (0.045)$
Years of College Completed (24 Months Out)	0.068 $(0.057)$	0.104 $(0.072)$	0.070 $(0.050)$	0.082 $(0.067)$
Observations	1,168	827	1,168	827
Year-Month FE Education Controls	Y Y	Y Y	Y	Y
Education Restrictions		Y		Y
Years of College Controls			Y	Y

Note: Each cell presents a separate regression. Each observation corresponds to an individual's first spell of unemployment insurance receipt. The dependent variables related to years of college completion are constructed using various college enrollment and attainment variables. For example, if an individual's years of college completion is set to one if an individual is observed enrolled in a second year of college or observed with an educational attainment level of associates or greater. The explanatory variable of interest indicates whether a Pell letter was sent in an individual's state during any of the first six months since the first month of UI receipt. All specifications include age, race, and gender indicator variables as well as state and year-month fixed effects. All regressions restricted to individuals aged 20-40 who were not enrolled during the month prior to first UI receipt and first received UI between November 2008 and November 2010. Data are from the 2008 SIPP. Robust standard errors clustered at the state level are in parentheses: \* (p<0.10) \*\*\*(p<0.05), \*\*\*\*\*(p<0.01).

Table A14: Enrollment in Six Months Following First Receipt of UI (remove states with approved training changes)

Variables	(1)	(2)	(3)	(4)
No Changes to Yes/No Questions	0.046** (0.019)	0.044** (0.019)	0.044** (0.019)	0.058*** (0.019)
No Implemented Changes in Free Response	$0.040 \\ (0.024)$	0.041 $(0.025)$	$0.040 \\ (0.025)$	0.069*** (0.020)
Observations	1399/949	1399/949	1399/949	955/671
Year-Month FE	Y	Y	Y	Y
Unemployment Rate		Y	Y	Y
Education Controls			Y	Y
Education Restrictions				Y

Note: Each cell represents a separate regression. Each row represents a different sample restriction. The first row restricts the sample to individuals initially drawing UI in a state that had no changes in its binary responses to questions about whether it allowed "some 4yr post-secondary programs" or "academic courses not leading to a specific occupation" as approved training from before to after the ARRA. The second row restricts the sample to individuals initally drawing UI in a state that indicated that it had not implemented any changes with regards to approved training in a free response section (NASWA 2010). Each observation corresponds to an individual's first spell of unemployment insurance receipt. The dependent variable is whether an individual is enrolled within six months of the first month of UI receipt. The explanatory variable of interest indicates whether a Pell letter was sent in an individual's state during any of the first four, five, or six months since the first month of UI receipt. All specifications include age, race, and gender indicator variables as well as state fixed effects. "Education Controls" are indicator variables for all attainment levels. "Education Restrictions" limits the sample to individuals with at least a high-school degree, but less than a bachelor's degree at initial UI receipt. All regressions restricted to individuals aged 20-40 who were not enrolled during the month prior to first UI receipt and first received UI between November 2008 and November 2010. Data are from the 2008 SIPP. Robust standard errors clustered at the state level are in parentheses: \* (p<0.10) \*\*(p<0.05), \*\*\*(p<0.01).

Table A15: Assessment of Endogeneity of Letter Timing

Variables	
State Unemployment Rate	-0.057 (0.066)
State UI Benefit Duration	-0.014 (0.028)
State Unemployment $Rate_{t-3}$	-0.057 (0.050)
State UI Benefit $Duration_{t-3}$	0.011 $(0.025)$

 $\bf Note: \ Each \ cell \ represents \ a \ separate \ re$ gression. Each observation corresponds to a state and year-month. The sample is restricted to year-months between the first sending of a letter (June 2009) and the last month observed in Figure 1 (November 2011). The dependent variable is a binary variable indicating whether a Pell letter was sent in a state during a particular month. All regressions include year-month and state fixed effects. The state unemployment rate is measured at the year-month level on a 1 to 100 scale and the state maximum UI benefit duration is measured in weeks. Robust standard errors clustered at the state level are in parentheses: \*(p<0.10)\*\*(p<0.05), \*\*\*(p<0.01).

Table A16: Effect of Pell Letter on Enrollment of Unemployed Individuals Not Receiving UI

	(1)	(2)	(3)	(4)
VARIABLES				
Pell Letter	0.007 $(0.020)$	0.007 $(0.020)$	0.010 (0.019)	-0.001 (0.027)
Observations	1,793	1,793	1,793	1,184
Year-Month FE	Y	Y	Y	Y
Unemployment Rate		Y	Y	Y
Education Controls			Y	Y
Education Restrictions				Y

Note: Each observation corresponds to an individual's first spell of unemployment. The dependent variable is whether an individual is enrolled within six months of the first month of unemployment. The explanatory variable of interest indicates whether a Pell letter was sent in an individual's state during any of the first six months since the first month of unemployment. All specifications include age, race, and gender indicator variables as well as state fixed effects. All regressions restricted to individuals aged 20-40 who were not enrolled during the month prior to first month of unemployment and first experienced a spell of employment between November 2008 and November 2010. Sample further restricted to individuals who did not receive UI during the six months beginning with the first month unemployed. Data are from the 2008 SIPP. Robust standard errors clustered at the state level are in parentheses: \* (p<0.10) \*\*(p<0.05), \*\*\*(p<0.01).

Table A17: Enrollment in Six Months Following First Layoff Experience

	(1)	(2)	(3)	(4)
Variables	. ,			` '
Enrolled (Next 6 Months)	0.035** (0.017)	0.035** (0.017)	0.035** (0.016)	0.026 $(0.022)$
Enrolled (Next 12 Months)	0.044** (0.020)	0.045** (0.020)	0.046** (0.020)	0.028 $(0.024)$
Observations	2,685	2,685	2,685	1,828
Year-Month FE Unemployment Rate Education Controls Education Restrictions	Y	Y Y	Y Y Y	Y Y Y Y

Note: Each cell represents a separate regression. Each observation corresponds to an individual's first layoff spell after two months of full-time employment. The dependent variable is whether an individual is enrolled within six months of the first month experiencing layoff. The explanatory variable of interest indicates whether a Pell letter was sent in an individual's state during any of the first six months since the first month experiencing layoff. All specifications include age, race, and gender indicator variables as well as state fixed effects. "Education Controls" are indicator variables for all attainment levels. "Educ. Restrictions" limits the sample to individuals with at least a highschool degree, but less than a bachelor's degree at initial UI receipt. All regressions restricted to individuals aged 20-40 who were not enrolled during the month prior to the first month experiencing layoff and first experienced a layoff between November 2008 and November 2010. Data are from the 2008 SIPP. Robust standard errors clustered at the state level are in parentheses: (p<0.10) \*\*(p<0.05), \*\*\*(p<0.01).

Table A18: Labor Market Outcomes for Initial UI Recipients (SIPP)

Variables	Mean
UI Receipt 6 Months Out	0.516
UI Receipt 12 Months Out	0.367
UI Receipt 18 Months Out	0.218
Employed 6 Months Out	0.451
Employed 12 Months Out	0.516
Employed 18 Months Out	0.609
Employed 24 Months Out	0.648
Employed 30 Months Out	0.720
Employed 36 Months Out	0.719
Baseline Earnings (annualized)	24,250
Earnings 6 Months Out	16,537
Earnings 12 Months Out	18,072
Earnings 18 Months Out	21,761
Earnings 24 Months Out	22,283
Earnings 30 Months Out	25,384
Earnings 36 Months Out	24,061

Note: Sample includes individuals age 20-40 from the 2008 SIPP panel. Sample restricted to individuals who first received unemployment compensation between November 2008 and November 2010 and were not enrolled in the month prior to initial UI receipt. Variables of type "-- X Months Out" (e.g., Employment 6 Months Out) indicate whether the condition was true during any of the three months X months from date of first UI receipt (e.g., Employed 6 Months Out is 1 if an individual is employed in month 6, 7, or 8). Earnings is constructed in annual terms using any earnings observations available during the three months following the time period in question. More specifically, we multiply the average reported earnings in the following three months (e.g., months 6, 7, and 8) by 12. Similarly, baseline earnings is an annual measure generated by using the three months prior to initial UI receipt. are binary variables indicated whether the condition was true during any of the six months following first UI receipt.

# Appendix B: Reconciling SIPP and FAFSA Estimates

The goal of this section is to provide some intuition for how the SIPP and FAFSA estimate magnitudes might differ as observed. To recap, the estimated effect of receiving a letter within six months of initial UI receipt in the SIPP is 40 percent (a 4 percentage point increase) whereas the estimated effect of a letter being sent in a particular state and month on the number of FAFSAs filed by dislocated workers during that month is roughly 10 percent. Although these estimates are not directly comparable, we provide a simple example to help clarify how these results can differ as observed (Table B1). As mentioned in the main body of the paper, there are at least two reasons why the estimates are likely to differ. First, the definition of dislocated worker used by the FAFSA includes multiple categories of individuals who are not UI recipients. Second, our inability to associate FAFSAs with an actual month of initial dislocation (or UI receipt) prevents us from properly assigning treatment. We focus on this second issue in the example. The purpose of the example is to show that under reasonable assumptions about the lag between the month of initial UI receipt and the month of FAFSA filing, we obtain the effects observed in the data.

In the example, we assume that UI recipients are equally likely to file their FAFSAs during each of the four months following the month of initial UI receipt. Under this assumption, letters sent during June, July, and August 2009, will result in increased FAFSA filing between July and December 2009. Our FAFSA specification essentially compares the average number of FAFSAs filed in June, July, and August (11) to the number filed in months in which the letter was not sent out (10).<sup>2</sup> This timing issue results in a downward biased estimate of the effect of the letter on the number of FAFSAs filed, resulting in an estimate of the treatment effect of 10 percent.<sup>3</sup>

Table B1: Reconciling SIPP and FAFSA Estimate Magnitudes (simple example)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Month	Letter	# New UI	# Enr. Next	Share Enr Next	% Increase	FAFSAs	% Increase
		Recipients	6 Mos. (SIPP)	6 Mos. (SIPP)	(SIPP)	Filed	(FAFSA)
Nov-08	0	100	10	$0.\dot{1}$	, ,	10	,
Dec-08	0	100	10	0.1		10	
Jan-09	0	100	10	0.1		10	
Feb-09	0	100	10	0.1		10	
Mar-09	0	100	10	0.1		10	
Apr-09	0	100	10	0.1		10	
May-09	0	100	10	0.1		10	
Jun-09	1	100	14	0.14		10	
Jul-09	1	100	14	0.14		11	
Aug-09	1	100	14	0.14	40	12	10
Sep-09	0	100	10	0.1		13	
Oct-09	0	100	10	0.1		13	
Nov-09	0	100	10	0.1		12	
Dec-09	0	100	10	0.1		11	

Note: Table assumes constant number of new UI recipients (100) each month. Under normal circumstances, 10 out of 100 (10 percent) will enroll within 6 months. When letters are sent, 14 out of 100 (14 percent choose to enroll). This reflects a 40 percent increase in the likelihood of enrollment, equivalent to our estimates in the SIPP. We assume that all UI recipients who enroll within 6 months will also file a FAFSA. For the purposes of the example, we assume that these individuals will spread their FAFSA filing evenly over the next four months (i.e., 2.5 a month). This results in a lag before the increase in enrollment translates into an increase in FAFSAs.

<sup>&</sup>lt;sup>2</sup>This is a slight simplification for the purposes of clarity.

<sup>&</sup>lt;sup>3</sup>If there was a known and fixed pattern of FAFSA filing (relative to month of dislocation) we might back out a more comparable estimate, but this is not feasible with the current data.