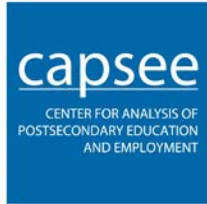
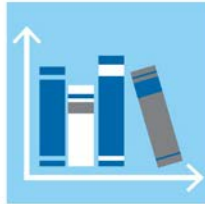


2017 CAPSEE CONFERENCE

MAKING THE RIGHT INVESTMENTS IN COLLEGE



The Rise and Fall of Ohio's College Opportunity Grants

Eric Bettinger

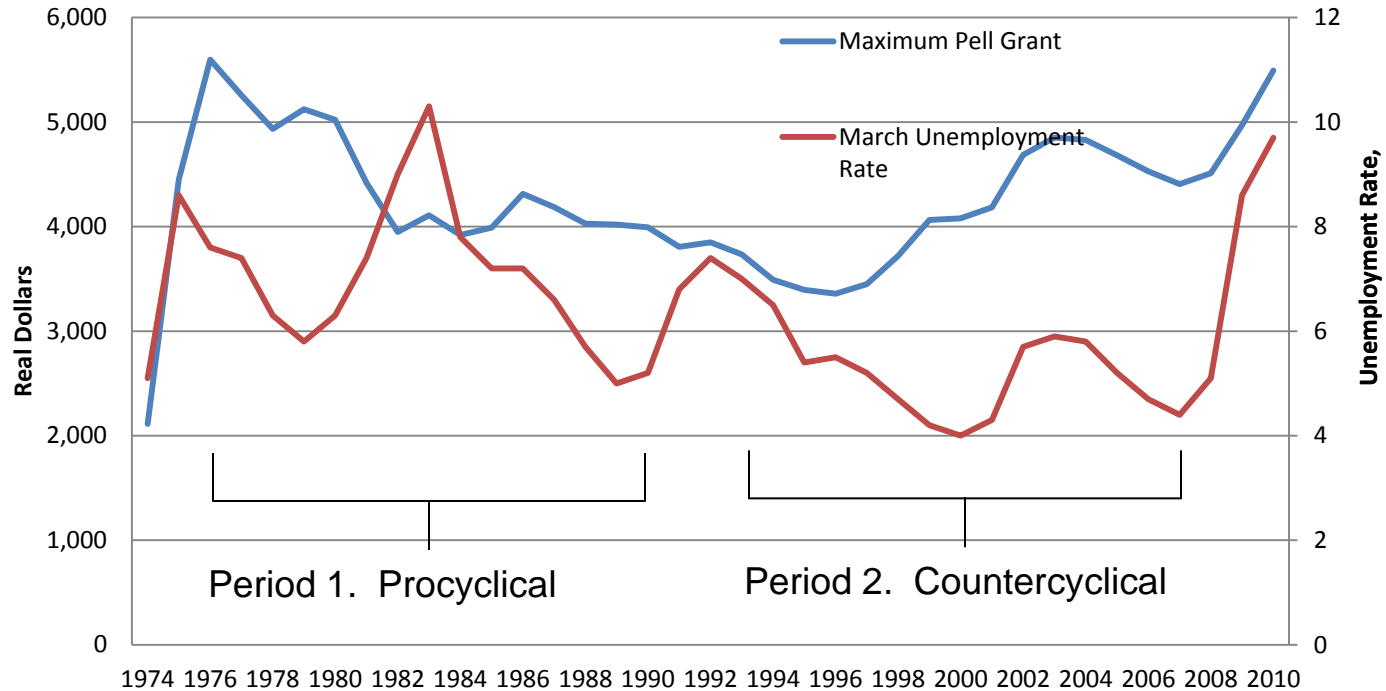
Stanford U

CAPSEE and NBER

April 6–7, 2017 | Washington, DC

Cyclicality of the Pell

Pell Grant Awards and the Economy, 1974 – 2010



Motivating Facts

- Dramatic change in Ohio's College Need-Based Aid Formula in 2006-2007
 - Change from OIG to OCOG
- Increased Generosity of Grant Program
 - Average total awards increased by 10%
 - Some experienced 60% increases
- Changed Eligibility Criteria
 - Change from just income and family size to EFC
 - Big difference was alternative income sources (TANF) and assets

Studying OCOG

- Student Level Data Available for 2005-2006 and 2006-2007 Cohorts.
 - FAFSA Data
 - College Outcome Data
- Other Need-Based Programs Constant Over This Period (OIG and Pell)
- Grandfathered in
 - Only entering cohort was eligible. Prior cohorts kept OIG.
- Shift created “winners” and “losers”

Empirical Strategy

- Identify Three Groups
 - Policy Losers
 - Policy Winners
 - Status Quo Students
- Compare Changes Over Time in Financial Aid Awards Between Groups
- Identifying Assumption is that differences between groups are comparable and unchanging over time except through policy change.

Descriptive Statistics

Variable	2005-2006 Cohort		2006-2007 Cohort	
	UM Students	Non- UM Students	UM Students	Non-UM Students
Female	.54	.54	.53	.52
Lives on Campus	.72	.03	.72	.04
Age	18.4 (0.6)	18.8 (1.1)	18.4 (0.6)	18.7 (1.3)
Non-White	.21	.21	.21	.20
Hours Completed by End of 1 st Semester	15.1 (2.0)	12.8 (3.3)	15.1 (1.9)	13.0 (3.1)
Left Institution After 1 year	.26	.51	.25	.51
Left Higher Education After 1 Year	.14	.38	.14	.37
Took ACT exam	.86	.64	.86	.61
ACT Composite Score (36=max)	22.3 (4.4)	19.2 (3.7)	22.4 (4.5)	19.2 (3.6)

Descriptive Statistics (cont.)

Variable	2005-2006 Cohort		2006-2007 Cohort	
	FAFSA Filers		FAFSA Filers	
	UM	Non-UM	UM	Non-UM
	Students	Students	Students	Students
Filed FAFSA in 1 st year	1	1	1	1
Received State Financial Aid	.21	.34	.25	.37
OIG Grant	270.8 (612.1)	453.4 (750.9)	--	--
OCOG Grant	--	--	451.4 (891.1)	720.7 (1,050.3)
OIG Grant (cond'l >0)	1,277.8 (693.6)	1,322.0 (704.2)	--	--
OCOG Grant (cond'l >0)	--	--	1,945.2 (718.5)	2,015.6 (689.1)
Pell Grant (Cond'l on >0)	2,790.0 (1,256.8)	2,908.4 (1,243.8)	2,933.4 (1,234.1)	3,053.2 (1,208.4)
N	25,476	18,238	25,208	17,056

Basic Identification Strategy

Variable	2005-2006 Cohort FAFSA Filers			2006-2007 Cohort FAFSA Filers		
	"Losers"	Status Quo	"Winners"	"Losers"	Status Quo	"Winners"
	OIG>OCO	OIG=OCO	OIG<OCO	OIG>OCO	OIG=OCO	OIG<OCO
Received State Financial Aid	1	0	.86	.29	0	1
Total Amount of State Aid	814.2	0	1,228.4	251.4	0	2,029.5
Received Pell Grant	.79	.12	1	.72	.11	1
Total Pell Aid	1,314.9	96.0	3,554.0	1,247.7	97.9	3,605.8
Parental Income (AGI)	23,163	83,543	18,942	23,942	87,531	18,301
Predicted Family Assets	1,744.7	7,246.8	208.5	1,808.4	7,103.6	-179.1
Expected Family Contribution	3,796.2	16,444.3	494.0	4,487.0	17,151.3	443.9

Basic Identification Strategy (cont.)

Variable	2005-2006 Cohort FAFSA Filers			2006-2007 Cohort FAFSA Filers		
	"Losers"	Status Quo	"Winners"	"Losers"	Status Quo	"Winners"
	OIG>OCOG	OIG=OCOG	OIG<OCOG			
Left Institution After 1 year	.42	.32	.49	.43	.31	.46
Left Higher Education After 1 Year	.31	.19	.38	.31	.18	.35
N	2,374	30,565	10,775	1,733	29,193	11,338

Difference-in-Differences Estimate

	Dependent Variable	
	Total Aid (in 000's)	
	(1)	(2)
<i>Difference-in Differences Effects</i>		
Loser * Post Period	-0.627	-0.625
	[0.044]***	[0.045]***
Winner * Post Period	0.855	0.860
	[0.019]***	[0.018]***
<small>Main Effects</small>		
Covariates Included	No	Yes
Campus FE	Yes	Yes
Observations	83774	83373
R-squared	0.89	0.89

Difference-in-Differences Estimate

	Dependent Variable			
	Dropout		Dropout or Transfer	
	(3)	(4)	(5)	(6)
	<i>Difference-in Differences Effects</i>			
Loser * Post	0.012	0.008	0.015	0.012
Period	[0.015]	[0.014]	[0.016]	[0.015]
Winner *	-0.015	-0.017	-0.014	-0.017
Post Period	[0.007]**	[0.007]**	[0.008]*	[0.007]**
Covariates	No	Yes	No	Yes
Included				
Campus FE	Yes	Yes	Yes	Yes
Observations	85978	85567	85978	85567
R-squared	0.03	0.13	0.02	0.11

Empirical Results So Far

- Aid increased for “winners” and decreased for “losers”
 - Changes were non-trivial
- Dropout rates for winners dropped
- Dropout rates for losers increased (but not significant)
- Impact on transfer rates were similar
- Effects are similar to those in prior studies (e.g. Bettinger 2004)

So How Does it Work?

- Engagement
 - Losers take significantly fewer hours (.28) in first semester after the reform, but winners take fewer hours as well (.08)
 - No change in GPA for either group
- Expectation on future financial aid
 - Losers are 4 percentage points less likely to refile FAFSA in 2nd year
 - Winners are 2 percentage points more likely to refile FAFSA in 2nd year

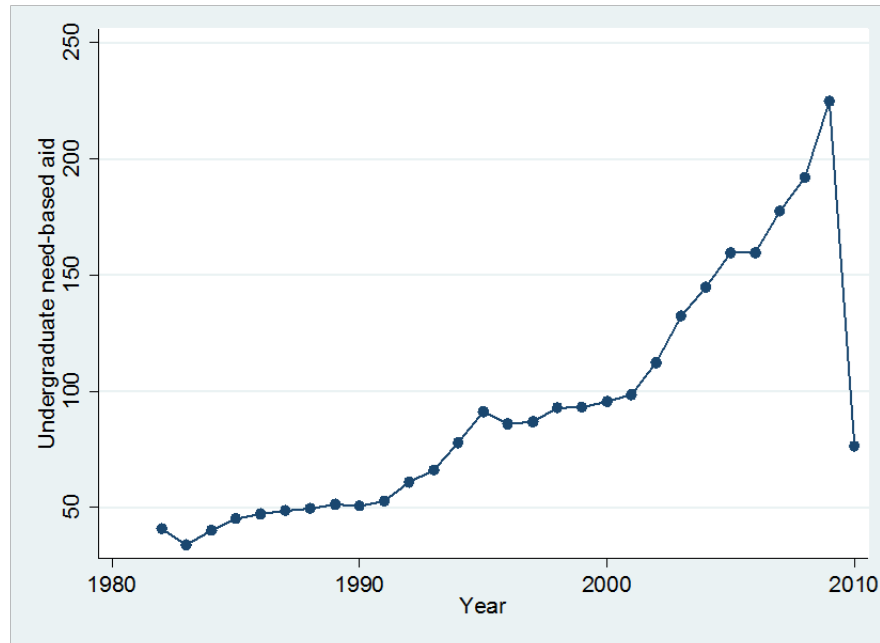
Cost Effectiveness

- Effect on winners suggests reduction in dropouts of about 200.
- Point estimate on losers suggests increase of about 40 dropouts
- Cost of program (ignoring access)
 - State Aid Increased by \$800 for 11,338 winners
 - State Aid Decreased by \$550 for 2,374 losers
 - Net cost = 7.8 million dollars
 - Cost per dropout reduced = \$48,500
- Implied IRR = 1 percent (upper bound)

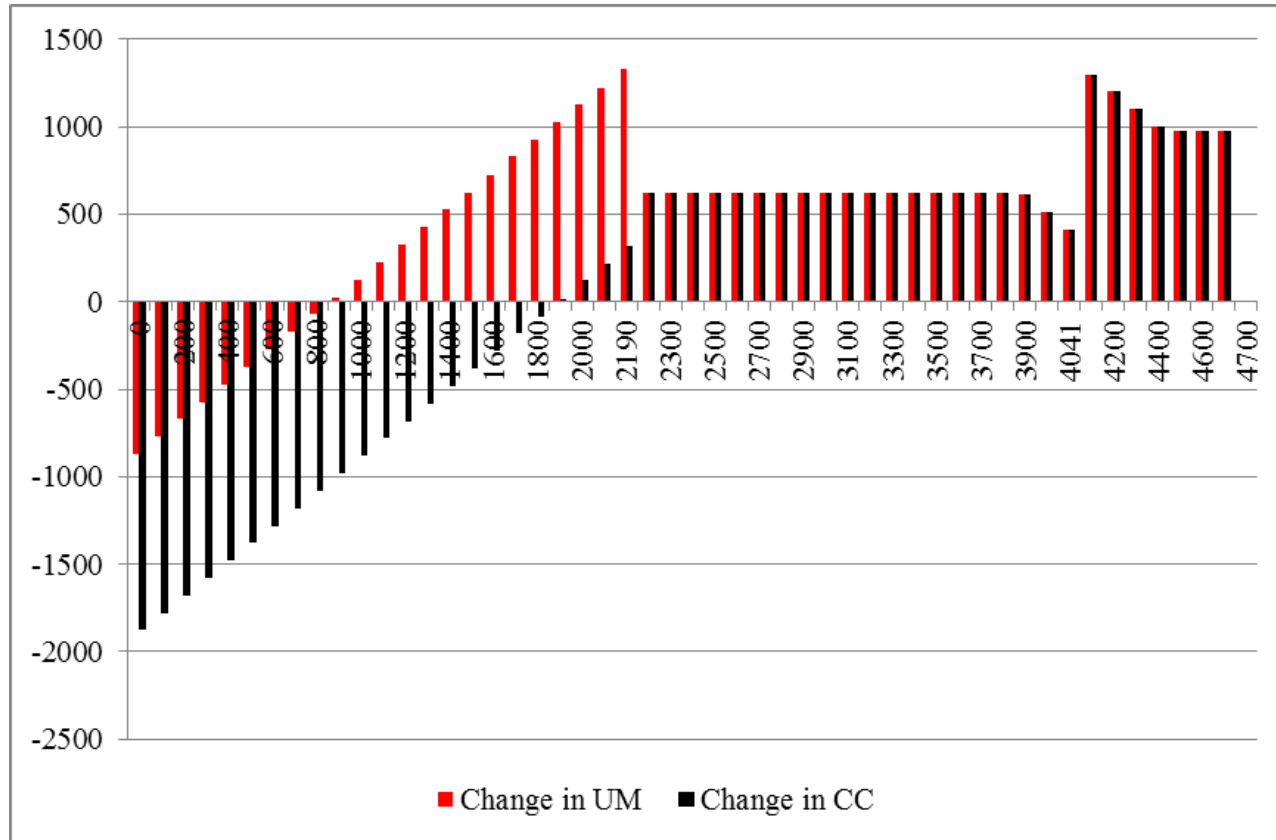
Then the Fall...

- Historic increases in the Pell as part of the stimulus
 - ARRA 2009: Record increase in the Pell
 - SAFRA 2010: Extended Pell eligibility to higher EFCs
 - Combination led to an increase in overall spending of 134% to \$35.6 billion from 2007 to 2011
 - Maximum Pell increased from 2008 to 2010 by nearly 1/3
- Recession's impact on state budgets devastating
- OCOG was greatly reduced

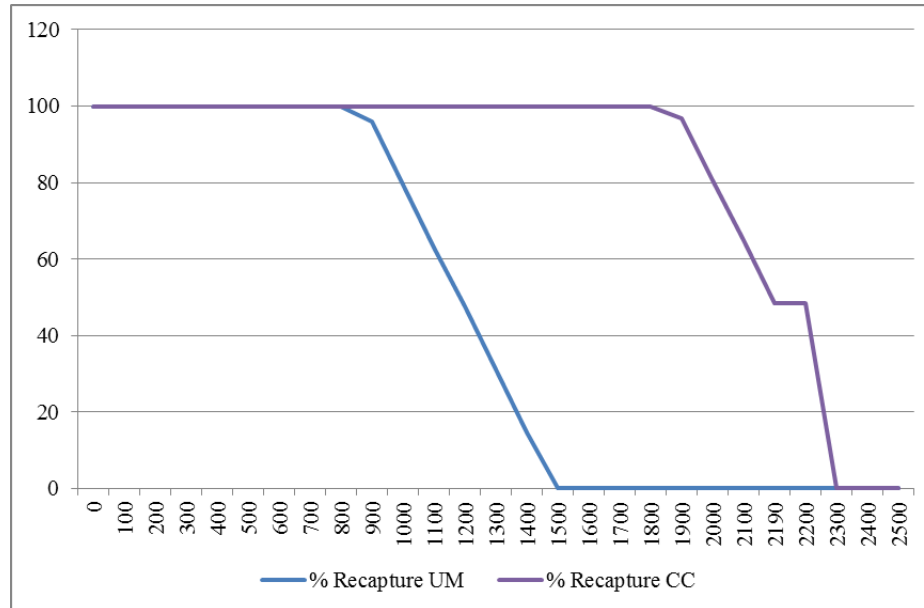
Spending in Ohio on Need-Based Aid



Changes in Overall Need-Based Grant by Sector



Recapture Rates by Sector



Distributional Consequences

- Incomes declined particularly at the bottom of the distribution.
 - On average EFCs declined \$250 yet there was an increase in FAFSA applications.
 - For students filing in 2009 and 2010, EFCs declined by \$700
 - This group had more eligibility but their awards declined by \$800 on average and \$500 at the median
- 74.5 percent received smaller awards despite increase in the Pell and decrease in EFC
- Policy “losers” had an average income of \$17,190
- Policy “winners” had incomes near \$46,004
 - The median income in Ohio was near \$47,000

Gaming Federal Policies?

- Ohio's policy was adopted about six months after the announcement.
- Ohio Board of Regents' minutes acknowledge a conscience effort to put Pell/EFC before the state award.
- In trying to understand if scaled back program was related to the change in the Pell, we interviewed administrator X who explained, "You're absolutely right about the Pell increases. Here in Ohio, we call that budgeting. ... As Pell goes up, state aid goes down."

Collecting the Pieces

- Pell aid dramatically and historically increased with the stimulus
- States dramatically reduced aid
 - States had to reduce aid given the fiscal climate
 - Some state responses could have been mechanically (and negatively) related to the Pell
- Pell and state awards have a different relationship since 2000, and they provide a hedge against each other.
- At least in the case of Ohio, changes in the aid programs led to redistribution towards the median income.
- Key limitations/caveats: Ignored tuition (increasing), other state appropriations (declining), institutional aid

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