

Observing the Impact of Changes in Net-of-Grant Prices On College-going Among Lower Income Youth

Evidence from two ‘Natural Experiments’¹

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Summary

During the last four decades, government and institutional support for student grants has grown significantly. In spite of these funding increases, inequalities in college-going and completion rates among youth from different income groups have remained large and persistent. As a result, many decision makers and researchers have questioned whether increases in grant programs can stimulate increases in college-going, success and completion among lower income youth and adults. In addition, some observers have questioned whether the growth in grant aid has stimulated or enabled rapid increases in college prices, reducing or negating the impact of this aid on targeted populations and making college-going more expensive for others. Even those who believe that grants encourage increases in college-going have asked whether grant programs should be changed to improve their effectiveness.

Looking toward the future -- most policy makers, analysts, and researchers agree that a better understanding of the impact of grant programs is likely to play an important role in shaping the future size and character of the Nation’s student grant programs.

Evidence from two recent, ‘natural experiments’ provides important information about the extent of grant program effectiveness. The first of these experiments took place during the 1996/97 - 2002/03 academic years. During this period, the net-of-grant prices facing lower income students in the colleges in which they were most likely to enroll (low price, public two-year colleges) declined as tuitions and fees remained constant and average grant awards received by these students increased. Pell awards accounted for a major and growing share of the grants received by lower income enrollees during this experiment.

Evidence from this first experiment indicates that the steady reductions in net-of-grant prices contributed to increases in college-going among low income youth. In addition, because the prices of colleges in which lower income youth accounted for a major share of overall enrollment remained constant during this period, this first experiment indicates that increasing grant awards to lower income youth had little, if any, impact on list prices.

A second, somewhat shorter experiment took place during the 2003/04 - 2006/07 academic years, when prices of two-year public colleges again remained stable but the average grants received by lower income students declined. The results of this experiment suggest that the increases in net-of-grant prices that occurred contributed to a slowdown of the upward trend of college-going among low-income youth that had occurred during the first experiment.

¹ Lois D. Rice of the Brookings Institution collaborated in the research underlying this paper. This research was supported by Lumina Foundation and contributions provided by the author and Lois Rice. The author can be contacted at david.mundel@comcast.net.

Introduction –

During the last four decades, researchers (including the author) have conducted many studies aimed at understanding the enrollment and distributional impacts of federal, state, and institutional grants for college students and their families. These studies, based on data from a wide range of cross-sectional and longitudinal surveys and administrative data bases, have consistently suggested that well targeted grant programs that aid lower income youth have tended to increase college affordability and the rate of college-going among targeted populations. Nevertheless, the impact of grant-induced changes in net prices on college-going among lower income youth has remained uncertain and more importantly, generally unobserved².

In part, the lack of readily observable impacts of net-of-grant prices has resulted from the fact that changes in other factors that also influence college-going – e.g., changing economic conditions (unemployment levels) and changes in college list prices (tuition and fees) – have occurred at the same time as grant program support has been changing. In addition, serious problems have existed in the publicly available data which might otherwise present an accurate picture of changing college-going rates³.

Two recent ‘natural experiments’, during which net-of-grant prices facing lower income youth changed, have provided an opportunity to improve the understanding and visibility of the impact of grants on college-going among these youth^{4,5}. During the first of these experiments (between academic years 1996/97 and 2002/03), net-of-grant prices facing lower income youth declined when the list prices of low price, public two-year colleges remained relatively constant and grants to lower income students increased slowly, but steadily. During the second experiment (between academic years 2003/04 and 2006/07), net-of-grant prices facing these youth increased when prices of two-year public colleges remained stable and grants received by lower income students declined.

This paper provides a review of the changes in net-of-grant prices and price-induced, changes in college-going rates of high school graduates that occurred during these experiments.

Examining changes in net-of-grant prices occurring during the two experiments –

During the first of the two ‘natural experiments’, Pell and other grant awards increased and list prices of public two-year colleges (the colleges most likely to be chosen by lower income youth) remained relatively stable (both in inflation-adjusted, real dollars). As a result, the net-of-grant prices facing lower income youth declined⁶. During the 1996/97 through 2002/03 years, the net-of-

² A review of our current understanding of the impact of student grant programs appears in Mundel, D.S. *What do we know about the impact of grants to college students?* (in Baum, S., McPherson, M., and Steele, P., *The effectiveness of student aid policies: what the research tells us*), The College Board 2008. For a list of related, recent Brookings reports, please see the end note on page 15 of this paper.

³ These flaws in the data from the Census Bureau’s Current Population Surveys and the Education Department’s Condition of Education reports are discussed more fully in the earlier Brookings reports (see end note, page 16) and the author’s presentation to the Student Financial Aid Research Network conference (June 2011) available from the author.

⁴ This first experiment and its results are discussed more fully in two earlier Brookings papers (papers #1 and #2 listed in endnote on page 16). In these earlier papers and the current paper, the analysis is focused on two groups of lower income students – “low-income” (family income \leq \$30,000 in \$2005) and “moderate-income” (family income of \$30,000-\$50,000 in \$2005).

⁵ In this paper and the earlier papers about the first experiment, the reported “college-going rate” is the share of high school graduates attending college in October of the year in which they graduated from high school.

⁶ In this paper and the earlier papers, the reported ‘estimated, net-of-grant prices’ are for full-time, full-year enrollees attending college in fall of the academic year immediately following their graduation from high school.

grant prices of these colleges declined by roughly \$800 for low-income, full-time students (students with family incomes below \$30,000 in constant 2005\$). During this first experiment, moderate-income students (students with family incomes between \$30,000 and \$50,000 in constant 2005\$) experienced smaller decreases in the prices of attending these colleges (see Figures I, II, and III, below)

The second experiment occurred between 2003/04 and 2006/07. During these years, the list prices of public, two-year colleges again remained essentially constant but the average, total grants received by lower income youth declined. The decline in average total grants occurred, in part, because the average Pell awards received by lower income students enrolled in these schools declined during these years. The combination of essentially constant list prices and declining average grants resulted in increases in net-of-grant prices for both low- and moderate-income youth during this second experiment. During this second experiment, low- and moderate-income students experienced essentially equal increases in the net-of-grant prices.

During both experiments, the patterns of changing, net-of-grant prices experienced by lower income, part-time enrollees tended to be similar to those experienced by their colleagues who were full-time enrollees.

Figure I
List Prices of Public Two-Year Colleges and
Estimated Average Total Grants for Lower Income, Full-Time,
Immediate Post HS College Enrollees these colleges (2009\$)
 (WB5 Chart 46)

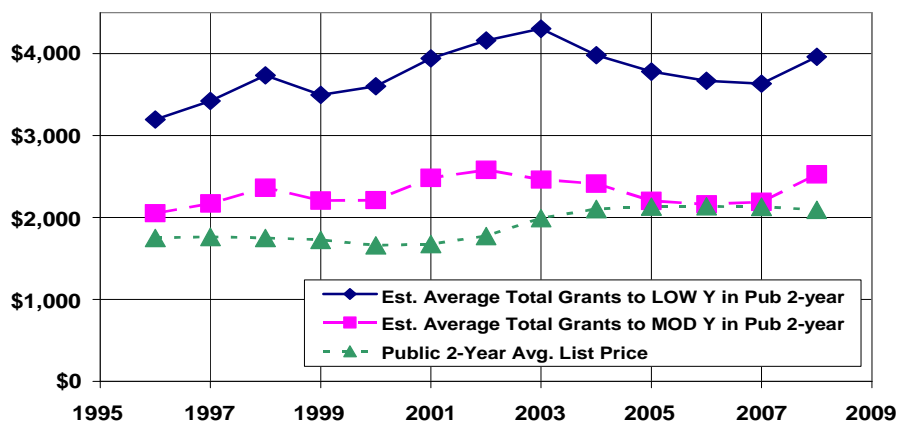


Figure II
Trends in Pell Program Grants received by Pell Grant Recipients (2009\$)
 (based on unpublished Pell Program operations data,
 2003/4 data omitted because of apparent problems)
 (WB5 Chart 44)

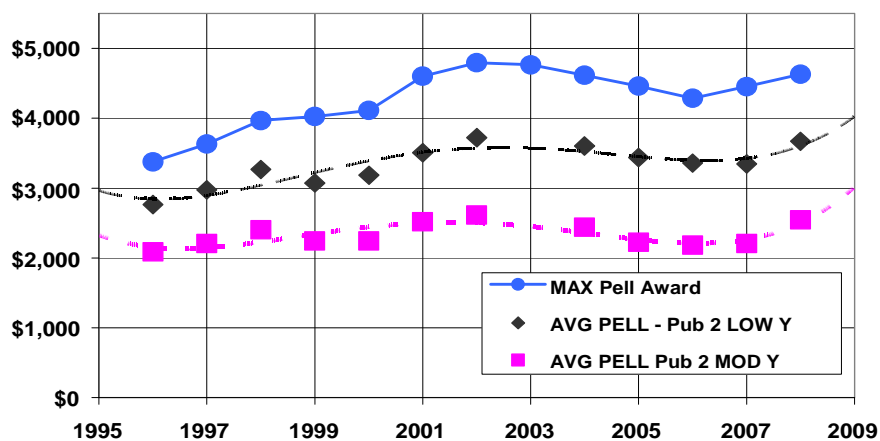
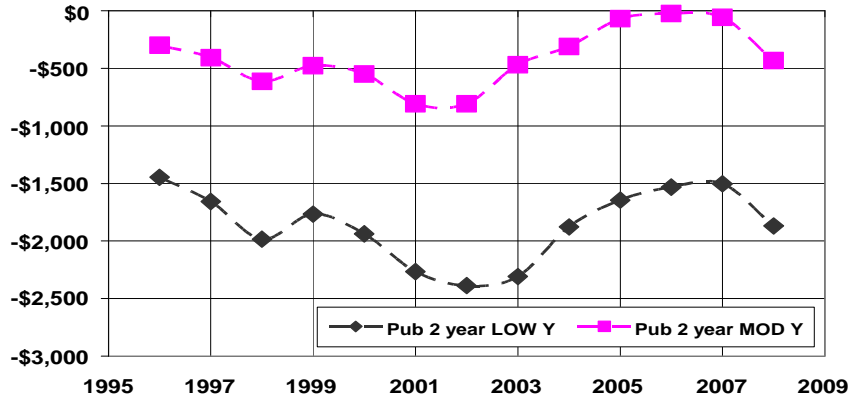


Figure III

Estimated, Average, Net-of-Total-Grant Prices for Full Time, Lower Income, Immediate Post HS Enrollees attending Public 2-Year Colleges (in 2009\$)
 (assuming NPSAS-based total grants for 2003/2004)
 (WB5 Chart 41)

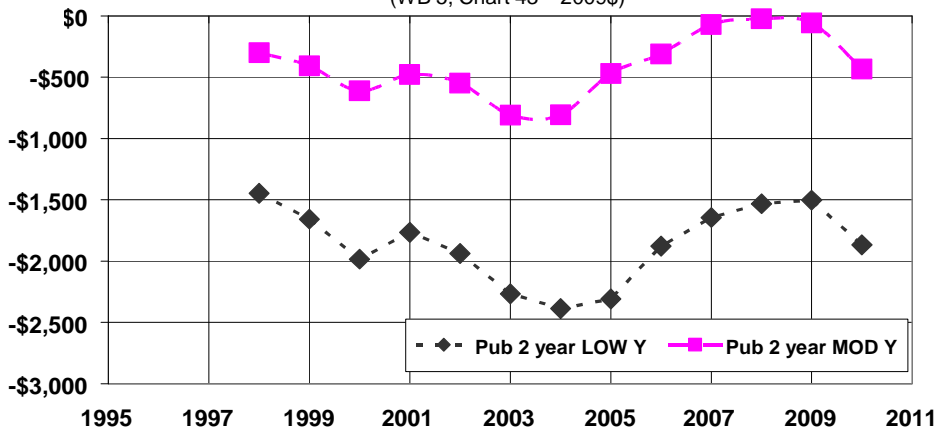


Although current and future prices and grants are the ones that influence the actual net-of-grant prices paid by students and their families, previous changes in prices and grants probably play a more important role in determining college-going rates and patterns. In part, this is because college-going decisions are the result of a multi-year process during which student aspirations and expectations are created and beliefs about college prices, financial aid, and the affordability of college-going are formed. In addition, the importance of prior prices and aid is heightened by the general lack of reliable information about current and future price levels and aid amounts among potential college-goers and their parents.

Thus, in exploring the impact of price changes on college-going, it is reasonable to assume that there is a lag between changes in net prices and the enrollment impact of these changes. But, there has been little, if any, research on either the character or extent of these information problems and lags. For ease-of-analysis, a two-year lag between actual prices changes and behavioral effects is assumed in this analysis (i.e., the ‘behaviorally effective’ price levels and price trends are the actual prices and price trends that occurred two years previously) (see Figure IV, below).

Figure IV

Estimated “Effective Net-of-Grant Price” facing Potential Lower Income, Immediate Post-HS College Goers
 (Assuming Two-Year Lag between Actual and Effective Net Prices)
 (WB 5, Chart 43 – 2009\$)



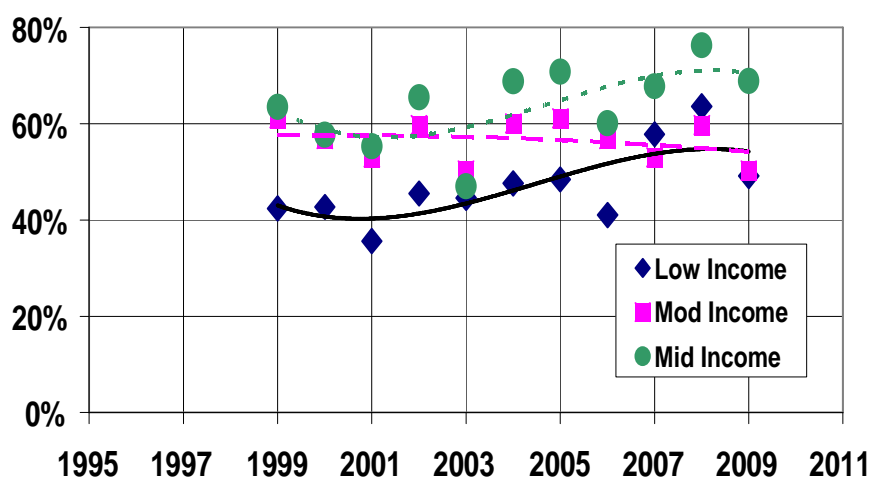
Examining changes in college-going rates of lower income, high school graduates during the two experiments –

The slow but steady, grant-induced reductions in ‘effective’ net prices occurring during the first experiment appear to have stimulated small but meaningful increases in college-going among low-income high school graduates⁷ (see Figure V, below). The declines in net-of-grant prices facing moderate-income youth during this first experiment were much smaller than those facing low-income youth and these small changes appear to have had little, if any, effect on college-going among these youth⁸.

These changes in college-going rates resulted in a narrowing of the differences (or gaps) between the rates of middle-income and low-income and moderate-income and low-income youth during the period of the first experimentally induced declines in effective net-of-grant prices – academic years 1998/99 thru 2004/2005 (see Figures VI and VII, below).

Because Pell grants accounted for most of the increases in grant support received by low-income enrollees in public two-year colleges during this first experiment, the observed increases in college-going indicate that Pell awards were an important contributor to the positive effect of grant-induced declines in net prices on college-going among these youth.

Figure V
'Adjusted', Immediate Post HS College-Going Rates for
Low, Moderate, and Middle Income HS Graduates
 ('adjusted' for impact of changes in underlying HS completion rate and unemployment rate)
 (WB4 Chart 26)



⁷ In all cases, the college-going rates discussed and reported in the accompanying figures have been ‘adjusted’ to account for the changes in high school graduation rates and unemployment rates that may also have affected college-going. Other, non-price factors may also have influenced college-going but these have not been ‘adjusted for’ as reliable evidence on the magnitude or direction of the impact of these factors is unavailable. The methodology used in developing these ‘adjusted’ college-going rates is summarized in Appendix A and earlier papers by the author, see page 15.

⁸ This lack of change in the college-going rate among moderate-income youth was also probably the result of the lower price sensitivity of these youth. This lower price sensitivity has been reported in many studies of the determinants of college-going.

Figure VI

Estimated Gap between Immediate Post HS College-Going Rates of Middle and Low Income HS Graduates

(WB4 Chart 28)

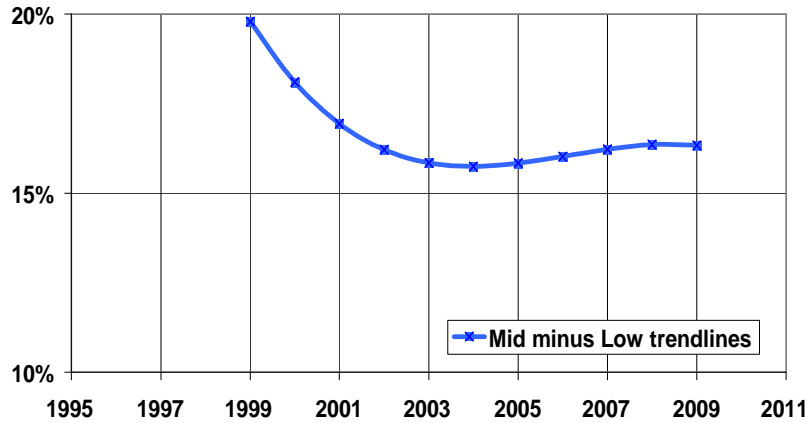
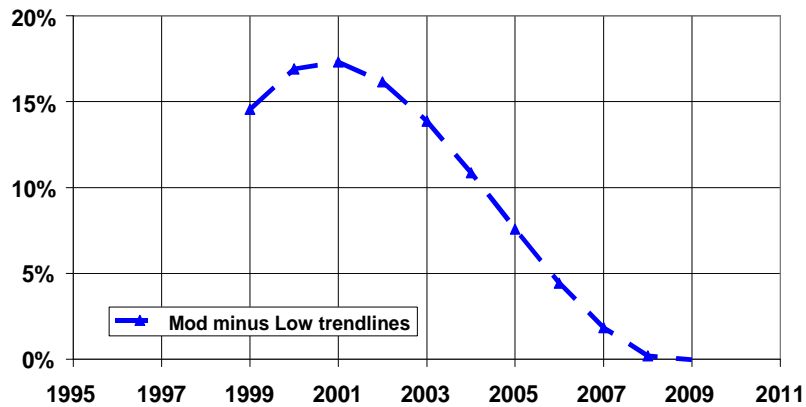


Figure VII

Estimated Gap between Immediate Post HS College-Going Rates of Moderate and Low Income HS Graduates

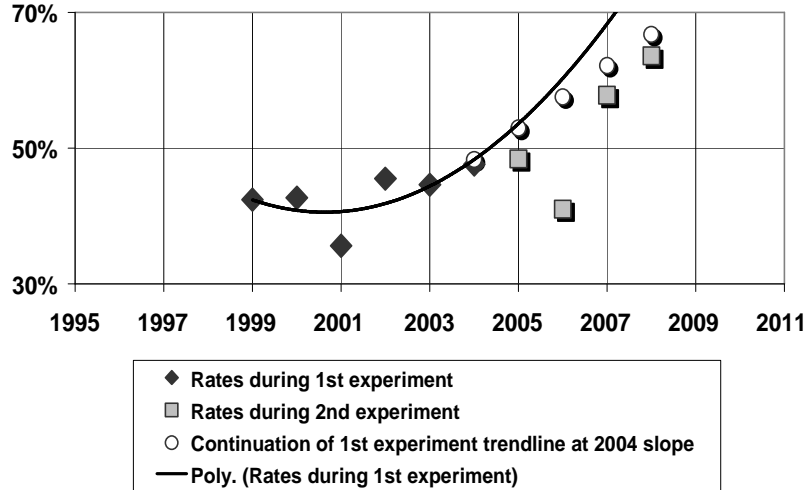
(WB4 Chart 47)



The impacts of the net-of-grant price increases occurring during the second experiment were both similar to and different from those observed during the first experiment. For moderate-income youth, there again appears to have been little, if any, impact of the second experiment price increases, mirroring the observations of the first experiment. For low-income youth, the rate of increases in college-going slowed after the beginning of the period of increasing prices, but college-going rates did not trend downward (see Figure VIII, below). The slowing of the trend toward increased college-going among low-income youth is apparent in both the overall college going rate among low-income youth and the gap between the rates of middle- and low-income youth

Figure VIII

'Fully Adjusted', Immediate Post HS College-Going Rates of Low Income HS Graduates during periods of likely impact of declining net prices (1999-2005) and increasing net prices (2005-2008)
(WB4 Chart 45)



Examining changes in college-going patterns of lower income, high school graduates during the two experiments –

Economic theory suggests that if changes in net-of-grant prices induce changes in college-going rates among low-income youth, the impact of these changes should be paralleled by changes in the share of low-income enrollees attending lower price colleges (i.e., public, two-year colleges) and an increasing share of these enrollees attending on a part-time rather than full-time basis (i.e., attending in a less expensive manner).

In fact, these anticipated changes in enrollment and attendance patterns did occur during the two experiments, providing further support for the view that declines in net-of-grant prices had an observable impact on the college-going behaviors of low-income youth. For example, the share of all low-income, immediate post high school, college enrollees who attended public two-year colleges increased during the period of declining effective, net-of-grant prices, between academic years 1999/2000 and 2003/04 (see Figure IX, below). Subsequently, during the period of increasing net-of-grant prices, the share of low-income enrollees attending public two-year colleges declined. In addition, the estimated share of low-income enrollees who attended college full-time exhibited a pattern that is somewhat consistent with theoretical expectations. As anticipated, during the first experiment, the share of low-income enrollees attending full-time trended downward as more price-sensitive youth joined the college-going population. But, when net-of-grant prices increased during the second experimental, the share of enrollees attending full-time continued to trend downward rather than turning upward, as was theoretically anticipated (see Figure X, below).

Figure IX
Estimated Share of Low Income, Immediate Post HS,
Fall College Enrollees attending Public 2-Year Colleges
 based on NPSAS DASOL estimates
 WB7 Chart 11

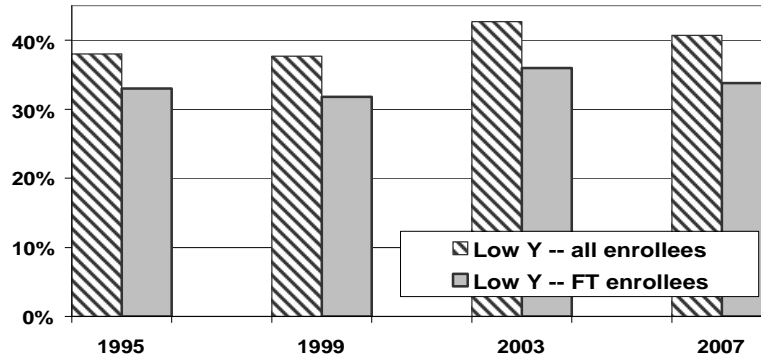
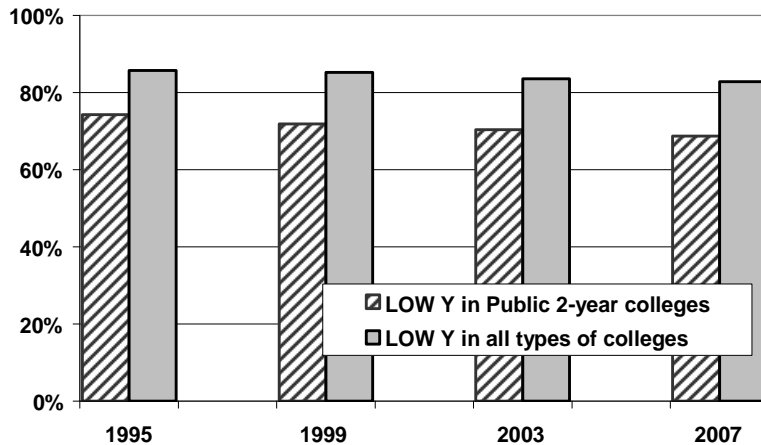


Figure X
Estimated Share of Low Income, Immediate Post HS
Fall College Enrollees attending Full-Time
 based on NPSAS DASOL estimates
 WB7 Chart 10



Reviewing the results of the two experiments

Although the results of the natural experiments are relatively small and subtle, in combination they provide relatively strong confirmations of the theoretically and empirically-based expectations suggested by previous research. Basically, the experiments indicate that grant-induced changes in net prices influence college going among low-income, high school graduates.

The results of the first experiment – declining net-of-grant prices during a period of steady list prices for low-price, public 2-year colleges – agree with both theoretically- and empirical-based expectations⁹. As anticipated, declines in net-of-grant prices appear to have stimulated (with some lag) increases in college-going among low-income, high school graduates. Also, as anticipated, the impacts of declines in average net-of-grant prices facing moderate income youth appear to be much smaller.

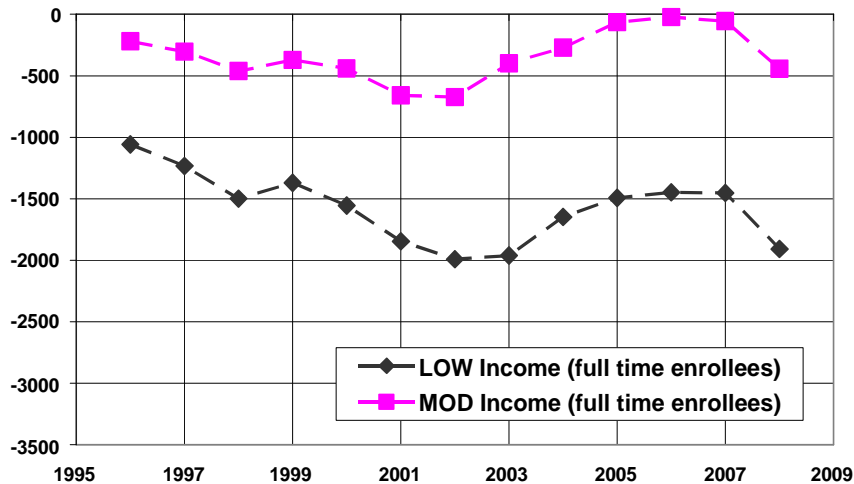
⁹ For a fuller discussion of the results of the first experiment see references 1 and 2 in Footnote 1, above.

The results of the second experiment – increasing net-of-grant prices during a period of relatively stable list prices and declining average grant awards -- are somewhat less clear and less consistent with expectations. Basically, one would expect college-going rates of low income high school graduates to have declined during this second experiment, but they did not do so. There are several possible explanations for this lack of clarity and consistency in the results of the second experiment, for example¹⁰:

1. The length of the second experiment may have been too short to observe the impact of increasing net-of-grant prices because the lag between price increases and enrollment rate changes may have been longer than two years, in part because these increases occurred after a relatively long period of declining net prices. Perhaps, this longer lag was caused by increases in college aspirations, expectations and plans among younger middle-school and early high school students during the period of declining net-of-grant prices that preceded the price increases occurring during the second experiment.
2. A second source of the apparent inconsistency may be the impact of nominal as opposed to inflation-adjusted, net-of-grant price trends. Although the increases in the real (inflation-adjusted), net-of-grant prices facing low-income youth during the second experiment were essentially equal to the decreases that occurred during the first experiment, the nominal (or current) dollar increases in net prices during the second experiment were roughly half of the decreases occurring during the first experiment. In addition, the period of increasing net prices was considerably shorter (see Figure XI, below). Perhaps, during this short period of relatively low inflation and other positive economic conditions, changes in nominal prices had more of an effect on planning and resulting decisions than did inflation-adjusted, changes in prices.

Figure XI

Estimated, Average Net-of-Total Grant Prices(in Current\$) for Full Time, Lower Income, Immediate Post HS Enrollees in Public 2-Year Colleges
(assuming NPSAS-based, total grants for 2004/2004)
(WB5 Chart 41)



¹⁰ Whether or not these sources of observed inconsistency with theoretical and empirical expectations are valid is, of course, unknown.

Lessons learned from these two experiments –

The results of the two experiments indicate that grant-induced changes in the net college prices facing low income recent high school graduates influence college-going rates and patterns among these youth. The first experiment indicates that during periods of relatively stable list prices (tuition and fee charges) for low-price public colleges, relatively long periods of increasing grant awards that induce steadily declining net prices will stimulate increased college going among low income youth.

The results of the first experiment also indicate that small declines in net prices, even when they occur over several years, have little impact on college-going among moderate income youth.

The results of the second experiment suggest that increases in net prices resulting from declining grant awards have a negative effect on college-going among low-income youth. Even if these increases in net prices occur for a relatively brief time period, it appears that they contribute to a reduction in college-going among these students – a reduction from the college-going rate that would have otherwise occurred had the previous declines in net prices continued.

These results also appear to have some suggestive implications for the next few years of federal and state higher policy. If state governments, in response to increasingly constrained budgets, reduce support for public colleges, it is likely that public college tuition and fees charges will increase¹¹. If these increases are sizeable (particularly among public two-year colleges) and grant awards are not equal to or greater than the price increases, college-going among low-income youth is likely to decline. These reductions in college-going are unlikely to be observable immediately and if the period of increasing net-of-grant prices is short, the reductions in college going may not even occur. But over time, reductions in college-going are likely to be larger and more observable.

In addition, even if increases in grant awards are large enough to leave net-of-grant prices unchanged among low-income enrollees, the greater visibility of tuition and fee changes (particularly if they are accompanied by well publicized, public debates) may contribute to a decline in college-going among grant-eligible, low income youth.

¹¹ Evidence from previous research suggests that these responses by state governments are likely. (see for example, Kane, Thomas J. and Peter R. Orszag, “Higher Education Spending: The Role of Medicaid and the Business Cycle”, Brookings Policy Brief No. 124, September 2003)

Appendix A

A Brief Review and Update of the Approach Used in Estimating Immediate Post High School, College-Going Rates for Students from Different Family Income Groups¹²

To assess the impact of changes in net-of-grant, college prices on college-going among high school graduates from different income groups, it is necessary to develop accurate estimates of the college-going rates of these youth for each year of the experiments. The accuracy of these estimates is important because the impacts of the relatively small changes in net-of-grant prices occurring during the two experiments are anticipated to be small, subtle, and potentially complex.

Estimating these college-going rates for potential students from different family income groups is complicated by the method that the Bureau of the Census uses to assign individuals to families. In making these assignments, the Bureau does not consider recent high school graduates who live outside of their parents' homes and outside of college-provided housing to be members of their parents' family households. As a result, a significant share of recent high school graduates and college-enrollees are not counted as being in their parents' families in the Bureau's Current Population Survey (CPS) (see Table A-1, below). For these students (so-called 'family leavers'), the CPS reported family or household income is not the income of their parental families, the income needed for assessing the impact of changing net-of-grant, college prices.

Table A-1

Share of Recent High School Graduates and Immediate Post High School College-Goers who are 'Family Leavers' (based on CPS October Table 7 Series)

Year	Share of Recent HS Graduates who are 'Family Leavers'	Share of Immediate Post HS College Goers who are 'Family Leavers'
2006	22.9%	21.3%
2007	20.3%	19.2%
2008	22.2%	20.2%
2009	20.1%	20.0%

Because the published CPS data do not provide parental income for these 'family leavers', it is not possible to use the reported October CPS data for dependent family members to develop accurate estimates of college-going rates for youth from different family income groups. Luckily, the CPS sampling process includes one-half of the households surveyed in the October CPS of one year in the survey for the following October. It is possible -- using these short, two-year longitudinal samples created by this sampling process and a small number of reasonable assumptions -- to estimate college-going rates for 'family leavers' from different income groups. Because the CPS sampling process includes, the survey records for the second year indicate which of the high school seniors present in the first year are missing from a family unit in the second year, it is possible to identify the family income of HS seniors present in the first year who subsequently became 'family leavers' in the second year. However, because the second year data do not include any information regarding the characteristics of these individual 'family leavers', the CPS data do not include

¹² This appendix provides a brief update and review of this topic which was addressed more fully in Mundel, David., "Do Increases in Pell and other Grant Awards Increase College-Going among Lower Income High School Graduates?" Brookings Institution working paper, December 2008.

information about whether individual ‘leavers’ graduated from high school or were attending college in the following October. Therefore, it is necessary to make a limited set of assumptions about high school completion and college-going rates for these ‘leavers’ to estimate the overall college-going rates for the combined populations of dependent family members and ‘family leavers’ from different income groups. The assumptions made and the method used to develop these overall college-going rate estimates are described in Appendix A of the 2008 background paper (see footnote 11, below).

Combining these estimates for ‘family leavers’ with CPS-based estimates for dependent, family members, it is possible to develop an estimate for the share of immediate post high school, college-goers who were ‘family leavers’ in each income group. Comparing the CPS-based, estimated share of immediate college-goers who are family leavers with an estimate derived from the National Postsecondary Student Assistance Study (NPSAS) for one-year (2007), suggests that the estimation methodology used in developing the CPS-based estimates is relatively reliable (see Table A-2, below).

Table A-2
Comparing the CPS-based and NPSAS-based Estimates for
Share of Immediate Post HS College-Goers who are ‘Family Leavers’
 (based on CPS merged file data and NPSAS 2007/08 estimates)

OCT	Share of Immediate Post HS Enrollees who are ‘Family Leavers’		
	LOW Income	MOD Income	MID Income
CPS – 2006	22.17%	19.55%	19.03%
CPS – 2007	20.96%	18.02%	18.80%
CPS – 2008	18.78%	21.62%	22.14%
CPS – 2009	16.46%	20.50%	20.25%
NPSAS – 2007	21.00%	19.80%	18.00%

In addition to estimating the effect of the ‘family-leaver’ high school graduates and immediate college-goers on the overall college-going rates for each income group, it is necessary to further adjust these rates to insure that they replicate the rates resulting from the counts of high school graduates and immediate post-HS college goers reported in administrative data sets. The first of these adjustments ‘corrects’ the estimates for the differences between the longitudinal CPS data set totals and the full CPS totals. The second adjustment ‘corrects’ the resulting CPS-based totals for the differences between these totals and Digest of Education Statistics totals for high school completers and immediate post high school completion, college goers.

In combination, the results of these data adjustments result in a series of ‘adjusted, estimated baseline’ college-going rates for high school graduates from each family income group. A review of these ‘adjusted, estimated baseline’ rates suggests that although the rates differ from the reported, CPS-based rates for dependent high school graduates, the patterns of the changes in each of these rates over time during the experimental periods are quite similar (e.g., see Figures A-1 and A-2, below)

Figure A-1

Alternative Estimated College-Going Rates for LOW Income HS Graduates
WB4 - Chart 39

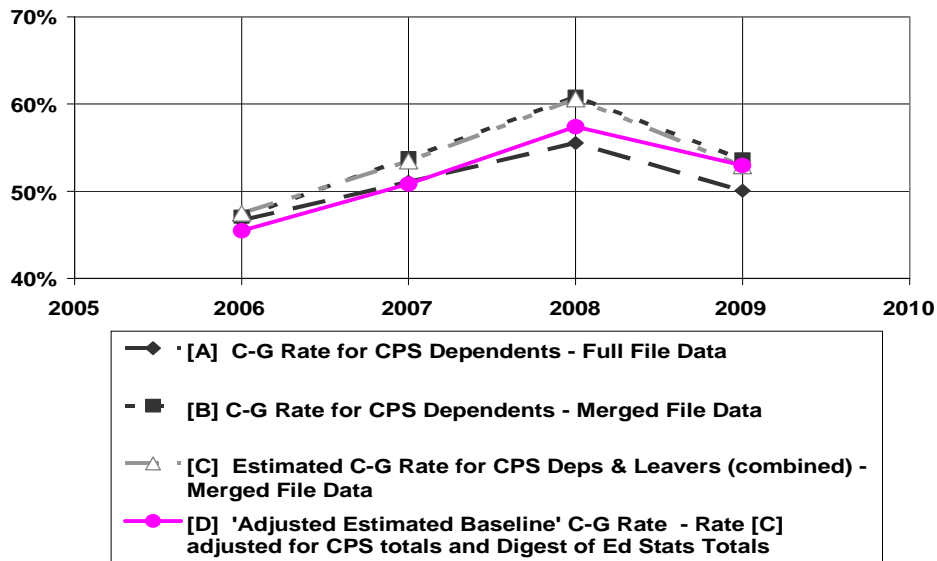
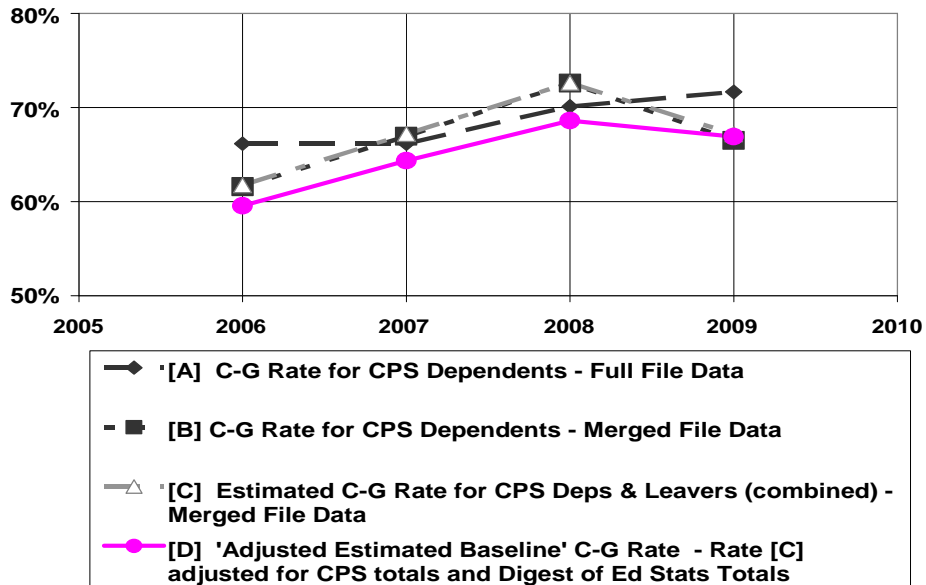


Figure A-2

Alternative Estimated College-Going Rates for MIDDLE Income HS Graduates
WB4 -- Chart 43



Adjusting the ‘adjusted, estimated baseline’ college-going rates to account for the potential impact of changes in non-price factors that may influence college-going

Because changes in non-price factors may have influenced college-going during the period of the two experiments, it is necessary to further adjust the ‘estimated baseline college-going rates’ prior to assessing the impact of changes in net-of-grant prices. The analysis of the first experiment

indicated that two factors – changes in the high school graduation rates and unemployment rates – probably influenced college-going during the period of the experiment¹³.

Adjusting the ‘adjusted, estimated baseline’ college going rates (shown in Figures A-1 and A-2, above) to account for the impact of changes in unemployment and high school completion rates – results in an estimate of what the college-going rates would have been, had these non-price factors remained constant during the experiment. Comparing the resulting ‘fully adjusted’ rates to the previously ‘adjusted baseline rates (the rates that would have been observed if these other factors had not changed) suggests that changes in these non-price, factors probably masked (or lowered, the visibility of) the impact of price changes during the second experiment (see Figures A-3 and A-4, below).

Figure A-3

'Fully Adjusted' College-Going Rate for LOW Income HS Graduates
(adjusting for changes in unemployment and HS completion rates)
WB4 - Chart 40

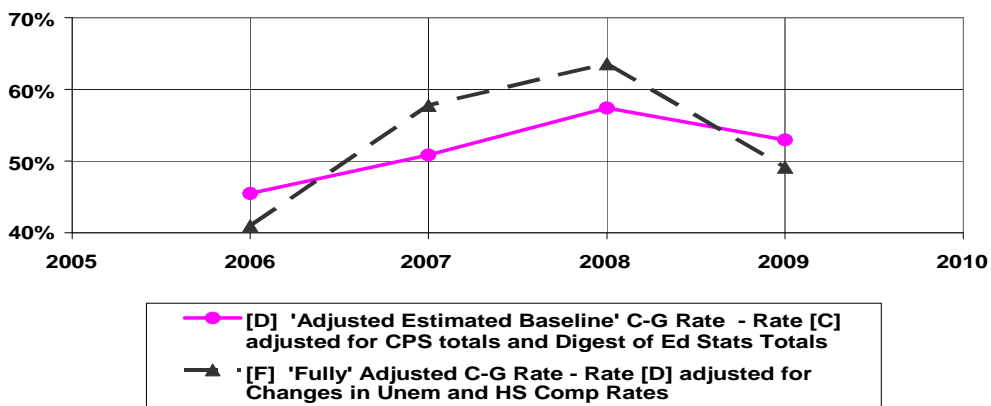
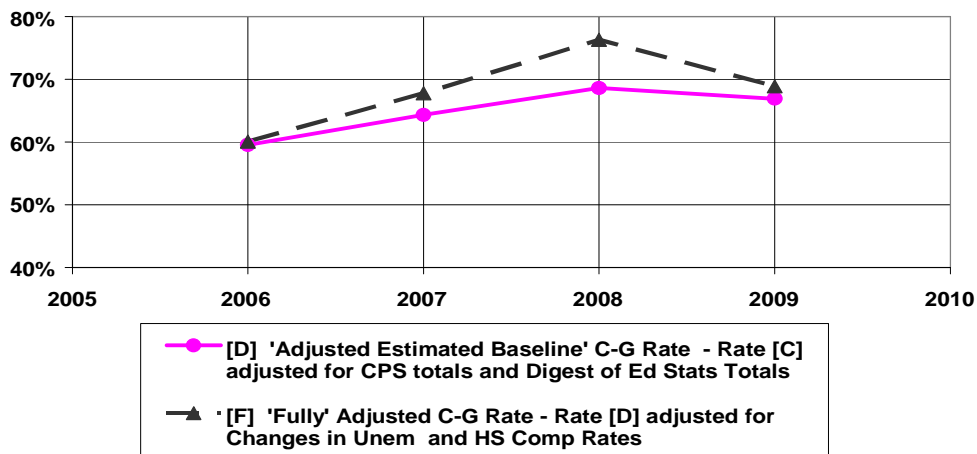


Figure A-4

'Fully Adjusted' College-Going Rate for MIDDLE Income HS Graduates
(adjusting for changes in unemployment and HS completion rates)
WB5 - Chart 41



¹³ The method for adjusting the estimated college-going rate to account for the impact of changes in these two factors is reviewed in the earlier, 2008 background paper. Changes in other, non-price factors may have also influenced college-going during the experiment, but it was not possible to assess either extent or direction of these possible impacts.

Combining the estimates from the earlier analysis (for 1999-2004) with a slightly adjusted estimate for 2005¹⁴ and new estimates for 2006-2009, results in a set of ‘fully adjusted, estimated’ immediate post high school, college-going rates for the 1999-2009 years (see Table A-3, below). These ‘fully adjusted’ estimates are the college-going rates used in assessing the possible impact of price changes during the two experiments.

Table A-3

“Fully Adjusted”, Estimated Immediate Post High School College-Going Rates among youth from different family income groups

	LOW Income	MOD Income	MID Income
1999	42.40%	61.10%	63.50%
2000	42.70%	56.80%	57.70%
2001	35.60%	53.00%	55.30%
2002	45.50%	59.70%	65.50%
2003	44.60%	50.30%	47.00%
2004	47.60%	60.10%	68.80%
2005	48.40%	61.10%	70.80%
2006	41.00%	56.80%	60.09%
2007	57.77%	53.00%	67.79%
2008	63.58%	59.70%	76.28%
2009	49.14%	50.30%	68.88%

An important note -- A quick review of these ‘fully adjusted’ estimates indicates that they vary significantly on a year-to-year basis, probably more than the actual college-going rates vary. Thus, in assessing the impact of changes in net-of-grant prices during these experiments, it is important to examine multi-year trends in college-going, rather than year-to-year changes.

¹⁴ Adjusted to account for newly available, administratively-based estimates of the counts of high school graduates and immediate college-goers in 2005

End Note

Recent Brookings Papers on Aid to College Students

- 1) Mundel, David., “Do Increases in Pell and other Grant Awards Increase College-Going among Lower Income High School Graduates?” 2008
- 2) Mundel David with Lois Rice, “The Impact of Increases in Pell Grant Awards on College-going among Lower Income Youth”, Brookings Center on Children and Families Brief #40, 2008
- 3) Maag, Elaine, David Mundel, Lois Rice and Kim Reuben, “Subsidizing Higher Education through Tax and Spending Programs”, Policy Brief No. 18, Urban-Brookings Tax Policy Center, May 2007
- 4) Dynarski, Susan M. and Judith E. Scott-Clayton, “College Grants on a Postcard: A Proposal for Simple and Predictable Federal Student Aid”, Hamilton Project discussion paper, Brookings Institution, 2007
- 5) Rice, Lois and Arthur Hauptman, “Coordinating Financial Aid with Tuition Tax Benefits”, Policy Brief No. 3, Brookings Institution, 2000