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## Does Grant Aid Attract More Students than Loans?

The rising cost of higher education makes it more difficult for universities and colleges to attract students from low-income families as well as those from more prosperous households. The average cost of attending a four-year college has risen from \$9,539 in 1988 to \$12,282 in 1998, in constant 1999 dollars.

To deal with this problem, federal and state governments have increased their grant and scholarship programs. Washington's Pell Grants, for instance, were made more generous during the 1990s. Also, a number of colleges and universities have improved their financial aid programs in order to attract low-income students, some of whom will be minorities.

Previous research finds that student enrollment is sensitive to the amount of tuition and the level of Pell Grants. Students do examine their "net college costs" after taking account of grants, and not just the "sticker price" of tuition and other college costs, in deciding to attend a specific institution. The higher the net cost, the less likely a student will attend a particular college or university.

In **Financial Aid Packages and College Enrollment Decisions: An Econometric Case Study** (NBER Working Paper No. 9228), authors **David Linsenmeier**, **Harvey Rosen**, and **Cecilia Rouse** examine the effect of a change in the financial aid policy of an unidentified university in the Northeast region of the United States in 1998. Prior to that time, the university's financial aid packages for low-income students consisted of grants, loans, and campus jobs. Grant aid includes funds from any source, such as Pell Grants

and university endowment funds, that are provided without expectation of repayment or any work done by the student. Loans must be repaid with interest, although payments and accrual of interest may be deferred until some time after graduation. Interest may be less than market rate. Job aid consists of a paid position at the Northeastern university, usually requiring nine hours of work each week during the academic year.

After the change in the university's policy, the entire loan portion of the package for low-income students was replaced with grants. This is

income students admitted to the university in the sample analyzed by Linsenmeier, Rosen, and Rouse were awarded financial aid, compared to only 43 percent of non-low income students. The school figured its new program would cost about \$1.7 million per year by the time it was fully phased-in, in fiscal year 2002.

The three researchers find that the new program is only a border-line success. Substituting grants for loans increased the likelihood of a low-income student actually starting college at the school by only 3 percentage points, and this number is not statisti-

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more expensive for the institution. But the hope was it would prevent qualified low-income students from declining the University's offer of admission for financial reasons. These concerns were natural given that there had been a recent drop in the number of low-income students accepting the school's admissions offers.

At this Northeastern university, students are classified as low-income if their family income is less than the national median family income — \$41,955 for the class entering in 1998. In this study, the researchers classified students as minorities if they identified themselves as African-American, Hispanic, or Native American. Asian students are not classified as minority. Ninety-eight percent of the low-

cally significant. In the case of low-income minority students, the likelihood of entering this institution grew between 8 and 10 percentage points, with statistical significance at the 10 percent level.

The authors explore several explanations for why they did not find a statistically significant effect among all students. First, it is possible that students were not aware of the change in financial aid. However, under regular admissions students are notified about their financial aid packages before deciding which institution to attend. Thus even if the students had not been aware of a change in policy, they would see the (relatively generous) components of the financial aid package. In addition, if students were unaware of the change

then it is unclear why there was an effect for minority students.

Second, it is possible that competing institutions effectively mimicked the policy change at this Northeastern university, thereby mitigating any potential enrollment effects. However, the authors show that although there was an observed increase in grant aid at this Northeastern university after the policy change, a similar increase at competing institutions is not observed. Thus the authors speculate that the reason they cannot statistically detect

the incremental change resulting from the policy is that the program was too small to have had a large effect on enrollment decisions.

A second puzzle explored by the authors is why the program seems to have had a larger impact on minorities than other students. They note that since the incomes of the families of the minority students admitted under the new program are not much lower than those of the non-minorities admitted under the program, differences in family resources are unlikely to explain the dif-

ferent result. That said, the fact that the program appears to have had a larger effect on minorities than on non-minorities is consistent with the notion that minorities' expectations of their post-college earnings are not as certain as those of their non-minority former college colleagues. So, the authors conclude, colleges and universities should take into account the importance of expectations when analyzing and designing financial aid programs.

— David R. Francis

## Transparency Encourages Foreign Investment

Whenever economic performance falters in emerging markets, analysts are frequently heard lamenting what they call a “lack of transparency.” What they mean is that some countries — and the corporations that operate there — may contribute to their woes by failing to fully disclose information about financial and economic conditions while also being less than clear about the laws and regulations that govern their markets. For example, governments might be viewed as withholding information on (or being vague about) debt levels, fiscal policies, and regulatory requirements, while companies may be seen as stingy with financial disclosures.

In **Transparency and International Investment Behavior**, (NBER Working Paper No. 9260), coauthors **R. Gaston Gelos** and **Shang-Jin Wei** find that, at least when it comes to attracting much needed foreign capital, a lack of transparency indeed may affect economic performance by repelling international investors. “There is relatively clear evidence,” they state, “that low transparency... tends to depress the level of international investment.”

Gelos and Wei reach this conclusion after synthesizing data from various international surveys that assess government and corporate candor in addressing economic and financial conditions. For governments, the authors were interested in

data measuring the “transparency and predictability” of broad economic policies in addition to the “frequency and timeliness” of information releases. In seeking data on corporate transparency, Gelos and Wei hoped to “capture as accurately as possible the notion of information quality and availability.”

They then took their ratings of corporate and government transparency and compared them to the monthly investment decisions of up

They also find a “moderate amount of evidence” that lack of transparency makes investors more likely to engage in herding behavior; that is, when dealing with less transparent countries, investment decisions are more likely to be determined by what other fund managers are doing as opposed to a rational, independent assessment of market fundamentals. This lemming-like activity, in which investors suddenly take their money and run en masse, often is cited as

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“Without exception, a country’s lack of transparency is associated with lower exposure of emerging market funds.”

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to 90 global funds that invest in emerging economies between 1996 and 2000. What the data show, according to Gelos and Wei, is that “without exception” a country’s lack of transparency “is associated with lower exposure of emerging market funds.” For example, looking at a sample of emerging market funds, the authors find that Venezuela accounted for about 0.4 percent of the investment portfolio. But they state that it could “achieve an increase in weight in fund portfolios by 1.7 percentage points if it increased its transparency to Singapore’s level.” In other words, the international portfolio investment to Venezuela would have increased by 300 percent.

contributing to economic instability by exacerbating crises in emerging markets. Indeed, Gelos and Wei find that during economic crises, fund managers “flee non-transparent countries and invest in more transparent ones.”

Finally, Gelos and Wei observe that a lack of transparency seems to make investors somewhat suspicious of economic news. While investors elsewhere routinely react to economic news by immediately reconfiguring their portfolios, in less transparent economies, the authors find, “fund managers may want to wait for further confirmation before engaging in a costly reallocation of assets.”

— Matthew Davis

## Abortion Legalization Reduces Adolescent Substance Abuse

**A**bortion policy is one of the most contentious issues in the United States. Although several studies have shown a correlation between the legalization of abortion and an increase in the number of abortions, there have been contradictory results on which groups take advantage of the availability of abortions and how abortion legalization affects various groups.

Furthermore, few studies have examined the impact of abortion availability on later life outcomes among the general population of children. Yet there are two main reasons why abortion legalization might affect such later life outcomes as substance abuse and crime. First, if disadvantaged women use abortion as a way to control the number of offspring they have, this might improve the life circumstances of the average child born to them after abortion legalization, particularly in terms of susceptibility as teenagers to negative influences. Second, more abortions following legalization might lower the number

of youth at risk to engage in criminal behavior.

In **Abortion Legalization and Adolescent Substance Abuse** (NBER Working Paper No. 9193), authors **Kerwin Kofi Charles** and **Melvin Stephens, Jr.** find that for

Future Survey. They classify these adolescents by whether they were born in one of the states that legalized abortion prior to nationwide legalization in 1973. Teens born in states where abortion was legal at the time of their birth were significantly

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“Teenagers whose mothers had access to legalized abortion at the time of their pregnancies had significantly lower rates of substance abuse, especially of illegal narcotics.”

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teenagers whose mothers had access to legalized abortion at the time of their pregnancies had significantly lower rates of substance abuse, especially of illegal narcotics. That reduction was attributable solely to availability to legal abortion and not to any coincident decrease in births in states which had legalized abortion prior to 1973.

The authors use data available from several generations of 12<sup>th</sup> graders from the Monitoring the

less likely to use controlled substances — marijuana, all illicit substances, and illicit substances excluding marijuana — than teens born in other states. In addition, there were no differences in substance use among teens after nationwide legalization of abortion in 1973. The authors make clear that their results do not address the philosophical, moral, economic or other issues related to abortion legalization.

— Les Picker

## What Drives Cross-Border Equity Flows?

**E**conomic theory dictates that capital will flow to wherever its marginal product is highest, and that the free movement of capital across international borders will enhance welfare and efficiency in the global economy. However, the multiple emerging-market financial crises of the 1990s convinced many observers that global investors often behave irrationally and promote market “contagion” unrelated to economic fundamentals; some even have concluded that cross-border capital flows are inherently destabilizing for developing countries and for the world

economy as a whole. Which viewpoint is correct?

In **Daily Cross-Border Equity Flows: Pushed or Pulled?** (NBER Working Paper No. 9000), authors **John Griffin**, **Federico Nardari**, and **René Stulz** develop an international financial-markets model and test it with daily equity flows data from nine countries, mainly in Asia, in order to answer the question. The authors take into account that investors usually reflect a “home bias” in their investment decisions — that is, domestic investors tend to hold less foreign equities than if they held the world

market portfolio. The authors also consider that domestic investors tend to buy foreign stocks following unexpectedly high returns on these stocks. (Analysts often refer to this as “trend-chasing” or “momentum investing.”)

The model predicts that equity flows toward a country will increase with the returns in that country’s stock market. In other words, capital is “pulled” toward the country. However, the model also predicts that, when the recipient country is small, equity inflows will increase along with stock returns in the rest of the world, that is, capital is also

“pushed” toward the recipient country.

Griffin, Nardari, and Stulz test their model with data on daily equity flows for five East Asian countries (Indonesia, South Korea, the Philippines, Taiwan, and Thailand), two South Asian economies (India and Sri Lanka), one African country (South Africa), and one East European economy (Slovenia). The data spans from 1996 to 2001.

Three interesting initial features emerge from the data: First, equity flows show only a weak positive relationship with the movement of major market indices. For example, during the Russian financial crisis in 1998, only Korea showed a sell-off by foreign investors. Second, the overall period is one of net capital inflows for the set of countries in question, although Thailand, Sri Lanka, and the Philippines showed negative foreign investment. And third, the volatility of net foreign equity flows varies significantly from country to country: for example, Korea and Indonesia show substantial movements, while Slovenia shows minimal variation.

Looking at the impact of a country’s own past returns on future investment flows, the authors find that foreign inflows on one day are

highly influenced by the previous day’s return in that country’s market, particularly in the East Asian economies. However, even as foreigners chase short-term market returns on a daily basis, the effect wears off quickly as the trading week proceeds.

The authors also find that, when the foreign market is sufficiently large relative to the domestic market, equity flows are positively related to foreign returns. For example, equity flows into the Asian countries they

only significant in Indonesia and the Philippines. The authors also find that “herding” behavior is real but not terribly important; flows into other countries in the same region are a significant determinant of flows into Korea, but not so for Indonesia, Taiwan, or Thailand.

Griffin, Nardari, and Stulz interpret their results as evidence that the conventional view of market contagion and “herding” is incomplete. In particular, they highlight the key find-

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“Currency depreciation does lead to more foreign inflows into local equity markets.”

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study are positively related to returns in the North American market and, to a lesser degree, to returns in European markets.

Finally, the authors test the impact of exchange-rate movements on equity flows and assess whether foreign investors indeed engage in “herding behavior” across markets, unrelated to economic fundamentals. In eight of the nine countries studied, currency depreciation does lead to more foreign inflows into local equity markets; however, the relationship is

ing that foreign inflows into small markets increase more rapidly when the U.S. market performs well, regardless of the local market’s performance.” To understand capital flows into a country over a sample period that includes the Asian and Russian crises, it is not enough to focus on the fundamentals of the host country or even markets with similar fundamentals,” they conclude. “Flows can be pushed toward a country as well as pulled toward it.”

— Carlos Lozada

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