

## Coming and Going

Encouraging Geographic Mobility at College Entry and Exit to Lift Wages

Abigail Wozniak



## MISSION STATEMENT

The Hamilton Project seeks to advance America's promise of opportunity, prosperity, and growth.

We believe that today's increasingly competitive global economy demands public policy ideas commensurate with the challenges of the 21st Century. The Project's economic strategy reflects a judgment that long-term prosperity is best achieved by fostering economic growth and broad participation in that growth, by enhancing individual economic security, and by embracing a role for effective government in making needed public investments.

Our strategy calls for combining public investment, a secure social safety net, and fiscal discipline. In that framework, the Project puts forward innovative proposals from leading economic thinkers — based on credible evidence and experience, not ideology or doctrine — to introduce new and effective policy options into the national debate.

The Project is named after Alexander Hamilton, the nation's first Treasury Secretary, who laid the foundation for the modern American economy. Hamilton stood for sound fiscal policy, believed that broad-based opportunity for advancement would drive American economic growth, and recognized that “prudent aids and encouragements on the part of government” are necessary to enhance and guide market forces. The guiding principles of the Project remain consistent with these views.





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This policy proposal is a proposal from the author(s). As emphasized in The Hamilton Project's original strategy paper, the Project was designed in part to provide a forum for leading thinkers across the nation to put forward innovative and potentially important economic policy ideas that share the Project's broad goals of promoting economic growth, broad-based participation in growth, and economic security. The author(s) are invited to express their own ideas in policy papers, whether or not the Project's staff or advisory council agrees with the specific proposals. This policy paper is offered in that spirit.

**BROOKINGS**

# Abstract

Geography is an important part of economic opportunity. This is increasingly true in the labor market for skilled workers. Due to monetary and nonmonetary costs of migration, college attendance is less likely for those who live farther from postsecondary institutions. The college educated have also become increasingly concentrated in larger labor markets, while at the same time mobility across markets is falling. I propose two modifications to the existing Federal Student Aid programs to level the playing field on these dimensions. At college entry, I propose creating large supplements to the Federal Pell Grant Program to help students who do not have access to a local college overcome the high implied costs of relocating for college. I then propose that college leavers receive extended automatic deferments to Federal Student Loan (FSL) repayment when relocating across markets to start their careers.

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# Introduction

Stagnant wage growth in recent decades for middle- and lower-skill workers has been, in part, a place-based problem. Levels of employment, earnings, and human capital have diverged across U.S. localities, resulting in growing disparities in the availability of local economic opportunity. This widening gap is apparent both between cities and across the rural–urban divide.

For example, Weingarden (2017) documents a widening gap in prime-aged labor force participation between counties with and without ties to metropolitan areas. These disparities reflect a longer-run divergence across cities in terms of the skill composition of their workforces and the growth opportunities a skilled workforce creates, even for less-skilled workers (Diamond 2016; Moretti 2012, chap. 3). The widening gap in economic environments is apparent even at the state level, by some measures. For example, Ganong and Shoag (2017) show that a historical pattern of per capita income convergence across states in the postwar period had slowed dramatically by 1990.

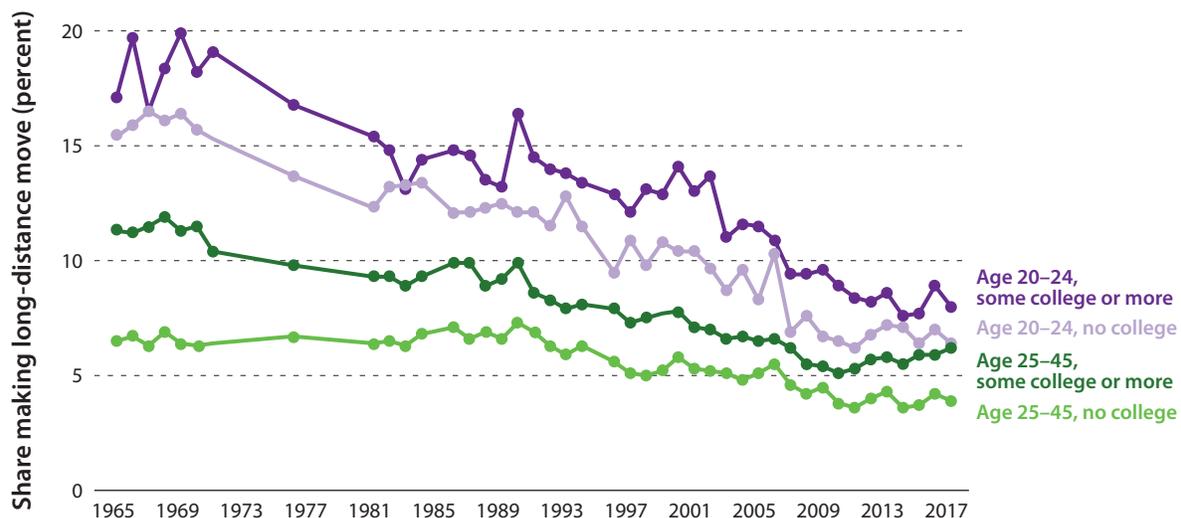
At the same time, geographic mobility has been declining for a broad set of Americans, potentially reflecting increasing challenges for workers in accessing places with more economic opportunity. Figure 1 shows how geographic mobility has declined for two age groups that approximate new labor market entrants (ages 20 to 24) and established workers (ages 25 to 45), each with more and less education.<sup>1</sup> There have been declines in migration among each group; but absolute declines have been largest for young individuals, since they had higher initial migration rates.

I propose two ways to modify the Federal Student Aid program to generate long-run wage growth by reducing geographic barriers at college entrance and exit.

- Part 1: Use significantly enhanced Pell Grants to encourage college-going among students without local college access. Improving college access will raise lifetime earnings for affected students substantially. I propose an annual Pell supplement of up to \$5,000 for students from counties

FIGURE 1.

## Share of People Moving across State or County Lines, 1965–2017



Source: Current Population Survey 1965–2017; author's calculations.

Note: Observations with imputed migration status are omitted. "Some college" includes all workers with any postsecondary education. Points on graph represent the share of people moving in the preceding year.

without a degree-granting college institution within their borders. For such students, attending college often means making a long-distance move. Current aid calculations often include an allowance for travel when students come from outside the immediate college area, but research suggests that the implied costs of long-distance moves far outstrip direct travel costs, even for young adults. The Pell supplement would increase the total aid package provided to qualifying students to address these uncovered costs.

- Part 2: Use deferred loan repayments to facilitate geographic relocation following college exit. Greater mobility at college exit can help workers improve their early-career job matches, leading to higher lifetime earnings. I propose that exiting college students be granted an automatic, full-year grace period on student loan repayments if they are working or seeking work in a labor market that differs from their college location. Deferring loan repayment for students who elect to start their postcollege careers after making a move would allow students to search for jobs in distant markets without the pressure to start earning quickly to meet their repayment obligations.

This approach is grounded in evidence about how geography affects college-going and how local conditions at career entry affect later earnings. College attendance is an effective instrument for increasing lifetime earnings, even for academically marginal students (Heckman, Humphries, and Veramendi 2017; Zimmerman 2014). By addressing geographic barriers to college attendance, this proposal enhances earnings opportunities for a group that has been left

out of the rise in returns to skill. Moreover, disparities in local economic opportunity and declining geographic mobility are likely to have a disproportionate effect on young workers, because early-career conditions are known to have persistent effects on worker earnings (Kahn 2010; Stuart 2017; Wozniak 2010). By addressing a potential barrier to mobility for college workers who are entering the labor market, this proposal improves the odds that such workers will land the job that provides them the highest returns.

Because migration has been falling for almost all Americans, it is natural to ask why this proposal focuses only on college entrance and exit. The answer is that evidence shows larger gains to mobility both for younger and for more-educated workers. Nakamura, Sigurdsson, and Steinsson (2016) find that young workers who were forced to relocate due to a natural disaster had generally higher earnings than similar workers in the same town who were not displaced, but older workers obtained no gains from relocation. Wozniak (2010) shows that earnings effects of local market conditions fade out for less-educated migrants but not for those with at least some college experience, suggesting that early-career location is particularly important for more-educated workers. Finally, the important role of geography as a factor in college attendance implies that many otherwise qualified students are not attending simply because they lack local access. This is a clear instance of geographic misallocation. In other words, because of the broader benefits to society from college attendance, the costs of qualified students not attending college affect society overall as well as the students themselves.

# The Challenge

## GEOGRAPHIC ACCESS TO COLLEGE

Location is an important determinant of college attendance. According to the Higher Education Research Institute’s Cooperative Institutional Research Program survey (see figure 2), the majority of current public four-year college students attend an institution within 50 miles of home, and around 70 percent attend within 100 miles of home. The data also suggest that geographic proximity to college has become more important over time: a greater share of students are attending college near home now than in 1990 or 2000.

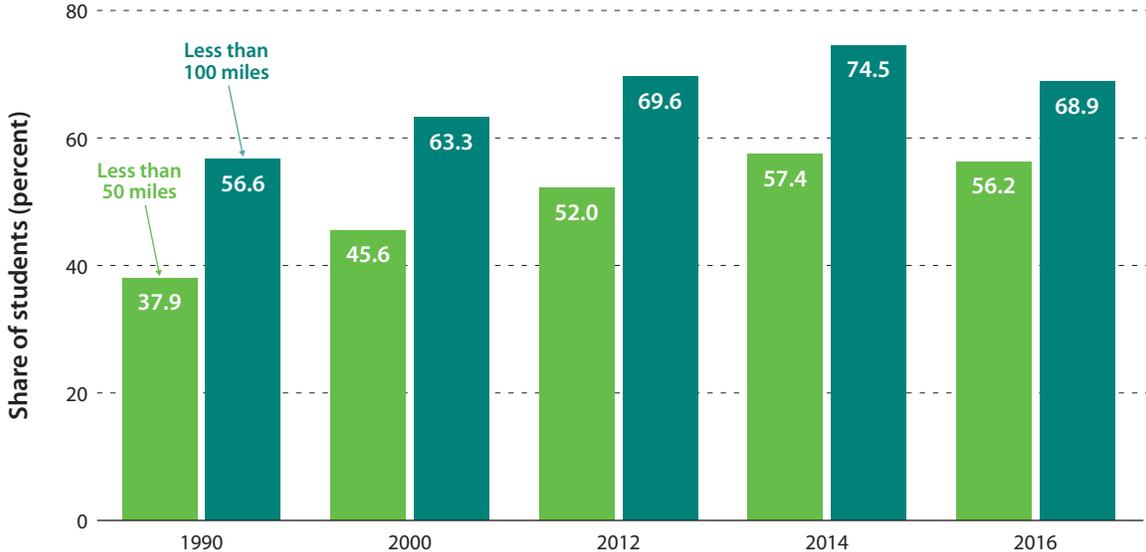
Moreover, this relationship between college proximity and college attendance holds after controlling for ways that individuals and families who live near college are different from those who live farther away. Card (1995) finds that the presence of a four-year college in an individual’s county of residence was strongly related to college attendance for young men of col-lege-going age in the 1960s and 1970s. Most importantly, increasing local access to college in-creases college attendance. Currie and Moretti

(2003) present a range of evidence showing that opening new two- and four-year colleges in a county generates an increase in college attainment among county residents. Most recently, Lapid (2017) finds that the opening of four new public universities in California between 1995 and 2005 significantly increased college attendance among students attending high schools near the new colleges, but not among other students.

These causal impacts of college proximity on attendance imply that geography poses a barrier to college attendance. Why might this be the case? One possibility is that the costs of attending near home could be lower than the costs of attending a distant college, and financial aid might not fully compensate students for the difference. If students face credit constraints that are insufficiently addressed by current financial aid, then attending a distant college could be difficult or impossible even if the benefits exceed the costs.

A complementary consideration is that relocation itself is costly beyond the direct costs of lodging and transportation. Many

FIGURE 2. Share of First-Year College Students Attending Public Four-Year College Near Home, Selected Years



Source: Higher Education Research Institute, selected years.

Note: Estimates show the percent of first-year college students at public four-year universities that are attending school near home.

studies of relocation patterns find that long-distance moves appear costly in a way that cannot be explained by direct moving costs (Kennan and Walker 2011). In general, many people are reluctant to move over long distances even when there are large financial benefits to doing so. The non-pecuniary costs of moving can include loss of social networks or location-specific information, or even general homesickness. In this respect, young adults are no different from older adults, although they are more mobile overall (Wozniak 2010).

How many U.S. high school students have limited geographic access to college? This is a difficult question to answer. The U.S. Department of Education requires that postsecondary institutions that are eligible to participate in Title IV programs report the location of their main campus and may optionally report the location of branch campuses or additional locations. In order to perform place-based policy analysis, data on the physical location of every qualifying campus would be preferable. However, I use the best available data, while acknowledging that it may underestimate access to postsecondary education at branch campuses in some locations.

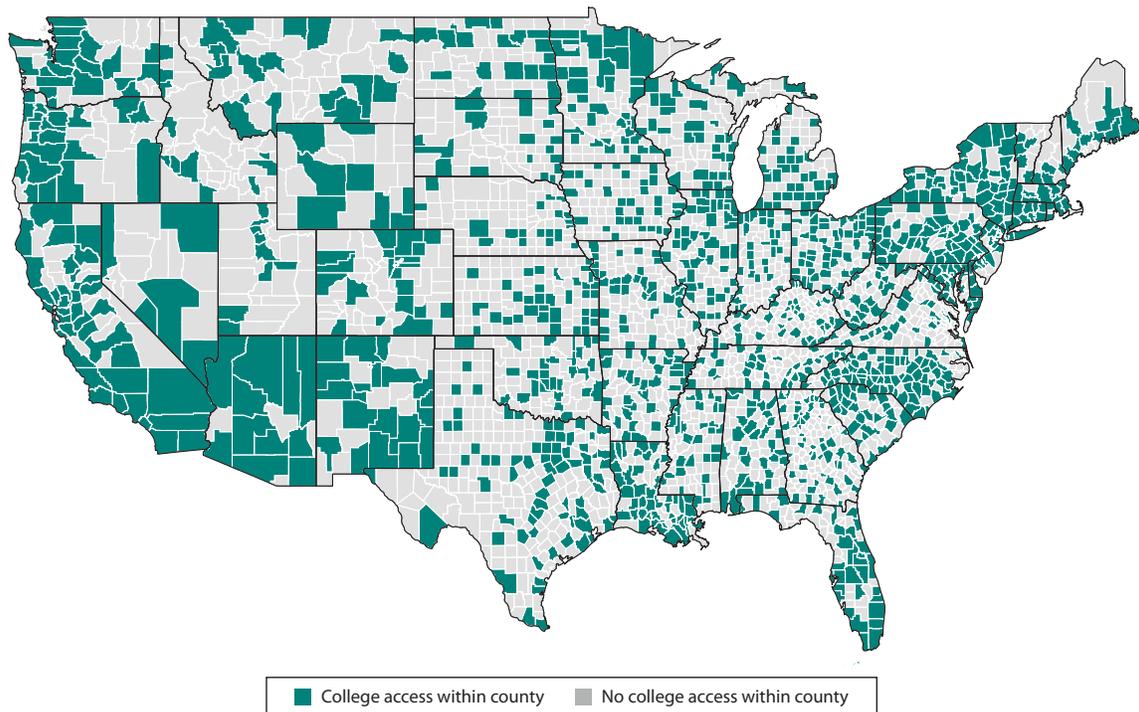
**TABLE 1.**  
**Select County-Level Characteristics by Access to College**

	Some local college access	No local college access
Share rural county (not in MSA)	0.28	0.50
Poverty rate	0.14	0.14
Share middle class	0.53	0.57
Mean household income	\$34,200	\$31,900
Share African-American	0.10	0.07

Source: Chetty and Hendren 2017; author's calculations.  
Note: MSA = metropolitan statistical area. Data are for the year 2000 from IPEDS.



**FIGURE 3.**  
**College Access within County, by U.S. County**



Source: Chetty and Hendren 2017.  
Note: Local college access defined as per capita number of degree-granting, Title IV institutions using county population and institutions data for 2000. Data is based on institutions separately reporting locations to the Department of Education via IPEDS. Please see text for more details.



Using these data, I calculate that 58 percent of counties—containing 14 percent of the U.S. population—have no college within their boundaries 2017; author’s calculations). I describe such counties as having no local college access. As shown in figure 3, counties with no local college access are widespread. These counties are more likely to be rural, but many are located within larger metropolitan areas: 50 percent of counties with no local college access are rural, while only 28 percent of those with some access are rural. However, counties with and without local access to college are quite similar in terms of poverty rates and household income (see table 1). These modest differences mean that Americans in all walks of life are affected by limited local access to college.

### MIGRATION AFTER COLLEGE

There is growing evidence that college-going, and educational attainment more generally, enhances geographic mobility (Malamud and Wozniak 2012; Parey and Waldinger 2011; Rauscher and Oh 2017). This causal relationship seems to operate through general skill increases rather than differentially for those attending distant colleges (Malamud and Wozniak 2012). This implies that the causal benefits to college include greater geographic mobility and accrue independently of distance traveled to college. In spite of their higher levels of geographic mobility, those with some college education or more have seen their migration rates fall in recent decades, as shown in figure 1.

Related to this, increasing concentration of college graduates in high-performing urban areas is a clear trend in recent decades (Diamond 2016). Less is known about how migration choices generate this concentration, but as with long-distance migration generally, it is likely that relocating after college is more difficult than staying put. Relocation is an investment in one’s future, and, as with any investment, it entails risk. This risk is likely higher for those considering a move without a job lined up in their destination. Current Population Survey data for the 2000s show that 14 percent of young, long-distance movers with some college education move to a new county or farther with a job in hand, but fewer than 2 percent move to look for work (BLS n.d.).

The combination of declining mobility and diverging outcomes across geography suggests that location choices for young workers matter more now. Differences across labor markets in growth prospects are now bigger, which means finding the right match can require a more time-intensive search across markets. And declining mobility means that adjusting for a false start could be more difficult than it was for earlier generations. Helping young workers find their best job out of college can require more search time, but by putting these workers into more-productive cities and firms, it could also raise aggregate productivity of the economy more broadly.

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# A New Approach

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I propose using existing federal policy levers related to college financing to enhance geographic mobility at college entry and exit. My proposal aims to raise wages through increased college access and better job market matching after college.

## USE THE PELL PROGRAM TO ENCOURAGE COLLEGE-GOING FOR APPLICANTS FROM COUNTIES WITHOUT LOCAL COLLEGE ACCESS

Divergent growth trends across cities mean that young adults in cities without a major college or university have access to fewer local economic opportunities than their peers who are raised elsewhere. College-going provides a means of equalizing these opportunities by raising expected lifetime earnings and enhancing geographic mobility, which in turn provides access to markets with greater economic opportunity.

To help address these disparities, I propose encouraging college attendance among youth from counties without local college access by offering enhanced Pell Grants to qualifying students. I recommend providing a flat \$2,500 supplement annually to assist students in overcoming the substantial implied costs of distant college-going. This would be increased by up to \$2,500 in additional support depending on college characteristics. Qualification for the supplemental Pell Grant would be based on two factors: (a) students must be Pell-eligible dependents, and (b) they must reside in a county with no local college at the time of application.

As mentioned previously, current datasets do not comprehensively include branch campuses. To facilitate accurate place-based analysis, the National Center for Education Statistics should mandate that main campuses and each branch campus be separate reporting entities. Policymakers could also consider targeting geographic units other than counties. One disadvantage of targeting counties is that they vary in size: for example, Warren County, Pennsylvania has an area of 899 square miles while San Bernardino County, California has an area of 20,105 square miles. Lack of college access in a large county may be more damaging than lack of access in a small county with college access just outside the county borders. Other geographic units, such as straight-line distance or driving distance to the

nearest postsecondary institution, could be investigated as metrics for determining eligibility for the Pell supplement.

The supplemental Pell Grant is designed to encourage attendance in more-intensive college programs. Distance per se is not encouraged as part of the program, because there is no evidence that attending college at longer distances has any greater mobility or earnings benefits than attending college at all (Malamud and Wozniak 2012). However, there is evidence for substantial earnings gains for four-year college completion over two-year completion (Jepsen, Troske, and Coomes 2014; Zimmerman 2014). Education at a more selective college has also been shown to raise earnings for students on the margin of attendance at such colleges (Hoekstra 2009).<sup>3</sup> The add-ons to the supplement are designed to encourage students to attend four-year degree programs at more-selective institutions. Specifically, I propose that \$1,500 in additional support be provided for students attending a four-year, as opposed to a two-year, college. Attendance at a selective institution (all of which are four year), would be awarded a further \$1,000 supplement. Thus, a student from a county without local college access would qualify for a maximum \$5,000 annual supplement if she attended any selective, four-year college.<sup>4</sup>

The proposed supplement is substantial compared to the maximum Pell Grant for 2017–18, which was \$5,920. A fairly large supplement is motivated by evidence that even among a younger population, the implied costs of a long-distance move are quite large (Kennan and Walker 2011; Lapid 2017). Although research does not provide a method for estimating implied moving costs for prospective college students, the maximum amount of \$5,000 is motivated by two considerations.

First, the maximum supplement roughly approximates annual housing expenses for a full-time college student.<sup>5</sup> Evidence from a very different context—post-disaster recovery—suggests that grants in the amount of replacement housing costs result in relocations for less than half the affected population.<sup>6</sup> Encouraging migration among some (but far from all) of a qualifying population is desirable, because those students with the most to gain from college-going will be served by the program. Second, the design of the supplement is straightforward and easy to understand. In

conjunction with appropriate advertising, this could help to encourage college take-up among the qualifying population, which is particularly important given that college-going has been shown to be largely unresponsive to standard Pell Grants (Turner 2017).

This proposed supplement bridges an important gap in traditional financial aid calculations: students without local college access are provided with aid that is unlikely to meet their full needs. Traditional aid calculations often include travel costs for students applying to colleges at some distance from their home as part of the cost of attendance (COA) estimate, but these allowances are typically modest and designed to defray direct travel costs only. As already noted, available evidence suggests that implied costs to a long-distance move far outstrip the direct travel costs. This means that current COA estimates are unlikely to reflect the true COA for students who must relocate over a long distance to attend college. For these reasons, it is critical that the Pell supplement result in a true increase in total grant aid. It must be designed so that colleges cannot easily offset it by reducing other types of aid.<sup>7</sup>

Administering this grant as a supplement through the existing Pell program has several advantages. Colleges are extremely familiar with the Pell program and could fold the additional supplement into their existing aid process. Pell already identifies students for whom college is a financial challenge. The only additional burden in terms of identifying qualified students is verifying a home address in a qualifying county. Requiring that students be Pell-eligible ensures that this program targets students without financial resources that would likely enable them to attend college regardless of aid. The additional focus on dependent students keeps the program targeted to young workers and minimizes the potential for gaming of the program through initial residential choices. Finally, Pell has academic criteria for continuing to qualify for aid from year to year, and as a supplement, this program could easily be governed by the same requirements.

### **DEFER FEDERAL STUDENT LOAN REPAYMENT FOR COLLEGE LEAVERS WHO MIGRATE**

The second part of this proposal is designed to increase geographic mobility among recent college graduates. The specific reasons for declining geographic mobility in the United States remain unknown, but evidence points to an important role for the labor market in general and the process of making new hires in particular (Molloy et al. 2016; Molloy, Smith, and Wozniak 2018). These trends imply that settling on one's first employer after college is an increasingly important decision. Enhancing geographic mobility will increase the chances that a new graduate finds the best location and employment match in which to start a career. Starting out in a better employment situation will have long-lasting impacts on earnings (Kahn 2010; Wozniak 2010).

To address the greater challenges to job search among workers who must relocate, I propose an extended grace period for Federal Student Loan (FSL) recipients who move to start careers. Specifically, I propose extending the time to first FSL payment to one full year from college exit for qualifying students. To qualify for this one-year deferral, students entering FSL repayment would need to demonstrate residence or employment in a local labor market other than that in which their college is located.<sup>8</sup>

The goal of this deferment is straightforward: to enable longer job searches by those who choose to relocate for work. Both “search” and “relocate” are defined broadly in order to allow graduates to take advantage of the many possible ways that moving after college could improve their employment outcomes. Relocation includes any move to a location distinct from one's college residence. Notably, this would help students from smaller metropolitan or rural areas to return to their home towns and make an extended search for skilled employment. Employment in a new location is not required, because residence would be taken as evidence of good faith effort to search.<sup>9</sup> But search could also include taking a distant job about which one is uncertain in order to see if it is a good fit. Under the proposed FSL deferments, graduates for whom such jobs do not work out could leave them and search again before repayment starts.

FSL policies allow students to defer or adjust their repayment schedules in certain circumstances, but currently no guaranteed avenue (mandatory forbearance) exists for students who want to explore employment in a distant labor market.<sup>10</sup> Faced with required monthly loan payments that begin shortly after college exit, new graduates are allowed to opt for the less risky options of pursuing employment locally or in a known, dense labor market. However, as with the proposed modifications to the Pell program, the proposed extension of FSL grace periods is easy for borrowers to understand and straightforward for lenders to implement. Both factors mean the program is likely to meet its maximum potential for impact with low administrative costs.

For all elements of the proposal, adequately informing the public is key to a successful implementation. Here again, building on existing programs is an advantage. For example, informing students that they can now defer FSL payments longer if relocating is easy to highlight as an addition to a list of guaranteed forbearances and deferments, which currently include military service, Peace Corps work, or graduate study.

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# Costs and Benefits

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Following the two-part structure of the proposal, I separately discuss the potential costs and benefits of each recommendation.

## THE PELL SUPPLEMENT

This part of the proposal would provide a generous annual supplement to qualifying students, but the total cost of the program is moderated by the fact that such students are a modest share of the college-aged population. I roughly estimate the total annual cost of providing the Pell supplement to qualifying students at \$340 million, or 1.2 percent, of recent Pell budgets.

This cost estimate is calculated as follows. About 14 percent of the U.S. population lives in counties without local college access, as defined using IPEDS data, and I assume the share among graduating high school seniors is the same. The National Center for Education Statistics (2017) estimates that 3.6 million students will graduate high school in 2018, which implies about 512,000 students graduating without local college access. Income and poverty levels in counties with no local college access are similar enough to those in other counties that it is reasonable to assume for this rough estimate that these students will qualify for Pell Grants at the average rate.<sup>11</sup>

It is difficult to know how many households are eligible for Pell since not all households file a FAFSA, but the College Board estimates that 33 percent of the entering college class of 2015–16 received some form of Pell Grant. If target students qualify at this rate, then about 170,000 high school seniors would qualify for the proposed Pell supplement in the next academic year. Not all students attend postsecondary institutions, and not all Pell-eligible individuals claim the grant. Adjusting for these factors would further reduce the likely cost of the program. If we assume that 70 percent of eligible graduating seniors matriculate in a postsecondary institution (to match the national rate of post-high school matriculation) and that three-quarters of these claim their grant, then about 88,000 qualifying high school seniors might take up the program. Total costs will ultimately depend on the level of supplement awarded, but if one-third of students receive funding at each of the three levels, the estimated annual cost is approximately

\$340 million. This translates to 1.2 percent of the \$28 billion total Pell budget for 2015. Costs will be higher if the program attracts qualifying individuals who are not currently claiming Pell at a higher rate than that used in the estimate. However, since such students would likely not have attended college in the absence of the program, this also leads to larger social benefits of the program.

The benefits of this program depend on how many target students it attracts to colleges. If none of the 88,000 seniors in the estimate above are currently going to college but all those seniors attend college in response to the program, then all supplement beneficiaries would reflect new college enrollment.<sup>12</sup> The earnings gains from induced college attendance or completion are substantial, and would outstrip the direct costs of total Pell Grant aid within a few years of a college leaver entering the labor market. However, it is unclear whether the Pell supplement will induce college attendance that would not otherwise have occurred. Some, and perhaps even much, of the Pell supplement could go to students who are already attending a postsecondary institution. However, the program might still generate social benefits if students use the grant to attend a stronger program (as is encouraged by the stepped-up benefits) or to complete more years of postsecondary schooling. Denning, Marx, and Turner (2017) find that an additional dollar of Pell aid to current recipients improves college and labor market outcomes even for those who would otherwise attend college, and pays for itself in higher tax receipts.

## GUARANTEED FEDERAL STUDENT LOAN DEFERMENT

Beneficiaries of the one-year deferment on FSL repayments do not receive further direct support, so costs for this portion of the proposal derive only from delayed loan payments and administrative burden. Administrative burden should be low, because it consists of verifying residence or employer addresses against a database, then automatically granting a deferral. However, take-up could be large.

A rough estimate of take-up is calculated as follows. In 2013, 3.8 million students entered repayment in the Federal Student Aid system from public or private two- or four-year

institutions (Federal Student Aid 2017).<sup>13</sup> A rough estimate shows it might be reasonable to assume that 30 percent of college leavers would qualify if the program substantially boosts early-career moves among this group.<sup>14</sup> This equates to 1.14 million borrowers qualifying for a one-year deferment. Choices about program eligibility would have large impacts on these numbers. The number would be about one-third lower if only students leaving four-year institutions qualified for deferment. This might be a reasonable restriction if many two-year programs are targeted to local employer needs; geographic mobility is less valuable for former students of those programs.

Although it is difficult to gauge costs of this piece of the proposal, it is important to note that it might also generate savings or improve repayment rates.<sup>15</sup> This might be the case if graduates who currently choose to search in distant markets are more likely to default because of the greater risk entailed in such searches. The proposed deferment might also displace

other, more administratively burdensome types of repayment adjustment, such as forbearances or income-driven repayment.

Benefits from this program, as noted above, are more difficult to quantify than costs, but they have the potential to be substantial.<sup>16</sup> The returns to starting a career in a better local market are large, and evidence suggests that the levels of current migration in response to variation in local opportunities are insufficient to equalize differences across places (Kahn 2010; Wozniak 2010).

The proposed deferments also act as a subsidy to a more extended job search. This could be beneficial given that workers are changing jobs less frequently, meaning that any particular job is more important to their overall earnings (Molloy et al. 2016). Moreover, any benefits from improving early matches will accumulate over the working life of a graduate.<sup>17</sup> Finally, an advantage of the proposal is that it is likely to be self-correcting; it allows new entrants to relocate more easily but does not constrain them to do so in any particular way.

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# Questions and Concerns

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## ***1. Would the Pell supplement accelerate brain drain from rural communities?***

While many rural counties would qualify as not having local college access, the relationship is far from one for one. The proposal would allow more residents of rural counties—in addition to others who lack local college access—to benefit from the high returns to postsecondary education.

Importantly, the proposed guaranteed one-year FSL deferment would allow natives of qualifying rural counties to return after college with a longer period over which to find settled employment. Workers who might otherwise stay near their postsecondary institution, or migrate to dense urban labor markets where jobs are easier to find, would now have the time to conduct a longer job search in other locations.

## ***2. Would the Pell supplement proposed in this paper incentivize families to move to areas without access to college?***

The Pell supplement, with its annual maximum of \$5,000, is indeed significant for a prospective college student, but it is likely not large enough to outweigh moving costs for an entire family. Moreover, the Pell Grant is available only to students for whom college is a financial challenge, so these moving costs would likely be even more of a burden for families eligible for the Pell supplement. It is therefore unlikely that this supplement alone would cause eligible families to move to areas far from colleges and universities.

## ***3. Why not restrict FSL deferment to those who have not yet secured employment?***

This could create undesirable incentives for college leavers to not accept employment. For example, a person might not want to accept a part-time job to pay for living expenses while they look for another, more-permanent position, if it meant that they had to immediately begin repaying their student loans. By extending the FSL deferment to movers regardless of employment status, the policy provides maximum flexibility in job search for young adults in their first year out of college.

## ***4. Why not extend Pell supplements to students from counties with limited, but not zero, college access?***

The proposed Pell supplement has clear potential for extensions, and this would be one. However, this extension would require making harder decisions about qualifying geographic areas and could substantially increase costs. More importantly, the reasons for nonattendance in an area where some—but limited—higher education options are available locally might differ from barriers for students without a local college. As such, other programs could be better suited to serving these students. For example, students could have limited local college access because only one postsecondary institution is located in their county. But depending on the type of institution, the reasons for nonattendance can be very different. A student with one selective liberal arts college in her county might have very different reasons for nonattendance (or barriers to attendance) than a student with one large, nonselective two-year college with a strong transfer program.

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# Conclusion

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This proposal contains simple but effective extensions to federal college aid programs, intended to boost earnings by encouraging college attendance and facilitating access to better labor markets at college exit. The design of the proposal relies on a wide-ranging body of evidence regarding determinants of geographic mobility, benefits to college-going, and returns to starting work in a high-wage market. Moreover, this proposal combines person-based and place-based policy levers in a way that uses the best of both approaches.

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# Author

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## Acknowledgments

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# Endnotes

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1. Current Population Survey data show larger declines in geographic mobility than other sources, but the down-trend is economically substantial across data sources (Molloy, Smith, and Wozniak 2011).
2. College is defined broadly here and includes any degree-granting institution qualifying for Title IV funds. This includes public, private, and two- and four-year institutions. For an alternative definition of local college access and more-detailed analysis of where this occurs in the United States, see Hillman and Weichman (2016).
3. Dale and Krueger (2002) find no role for college selectivity in their sample, but they do find that attending a better college as measured on other dimensions, like per student expenditures, improves later earnings.
4. “Selective colleges” would need to be defined. Higher education researchers often use a group of 200 to 250 colleges in the highest selectivity tiers from *Barron’s Guide to the Most Competitive Colleges*, but broader definitions could be considered. For further discussion of selectivity, see Leonhardt’s summary (2013).
5. The College Board (2017) estimated total annual room and board expenses for a student at a non-commuter institution as \$10,800 for 2017–18.
6. Nakamura, Sigurdsson, and Steinsson (2016) find that 42 percent of Icelandic homeowners who faced a destroyed home following a volcanic eruption relocated using a government grant up to the replacement value of their property. The Road Home Program following Hurricane Katrina made grants up to replacement value if the homeowner was returning to New Orleans or Louisiana, but reduced such grants by 40 percent if the homeowner was not returning to Louisiana; initial take-up of such grants was less than 10 percent (Gregory 2014). The Relocation Assistance Program introduced in Kentucky provided up to \$900 in 1998 dollars to cover direct relocation-related expenses to welfare recipients, equivalent to about one and a half months of full-time work at the minimum wage. Fewer than one-third of moves in this program were over a long distance, and overall take-up of the program was low (Briggs and Kuhn 2008).
7. While the proposed supplement is generous, there are prominent examples of place-based college aid (below the geographic level of the state) that is much more so. This includes the University of Kentucky Robinson Scholars program (formerly the Appalachia Program), the Promise Programs in cities like Kalamazoo, Syracuse and Pittsburgh, and the Buffett Scholarships in Nebraska (Angrist et al. 2016).
8. The Office of Management and Budget maintains a designation of metropolitan and micropolitan areas, and the counties that they consist of, that could easily be used to define eligible moves. Commuting zones or labor market areas, also defined by federal agencies, offer additional options for defining cross-market moves.
9. However, steps should be taken to ensure that students from smaller areas do not use the deferment to simply move home and delay repayment. Options for discouraging such behavior include requiring recipients to show residency using a lease or deed with their name on it, or using proof of employment if they cannot. Respondents not demonstrating either initially could also recertify at six months and enter repayment then if they cannot demonstrate independent residence or employment in a qualifying market.
10. The options for such adjustments are income-driven repayment and case-by-case applications for forbearance. Neither is a convenient fit for recent graduates seeking to undertake a longer job search: income-driven repayment policies are designed for graduates who accept lower-paying employment—and hence exclude those who are unemployed—and applications for forbearance require extenuating circumstances.
11. The preceding statement is based on author’s calculations from Equality of Opportunity Project data.
12. This would also generate indirect costs of the program by a factor equal to the average Pell Grant amount.
13. I exclude proprietary school students from this calculation, because they are particularly likely to be in programs designed to address needs of the local labor market, and therefore relocation is less likely to be an appropriate choice.
14. Calculations from the Current Population Survey show that about 14 percent of young (age 20 to 24) individuals with some college education move over a long distance to take a job. Another 1 to 2 percent move to look for work, and about 4 percent say they moved to attend or leave college. The 30 percent estimate assumes that the share of this group moving without a job would double from about 4 percent to 8 percent (assuming only half of the attend/leave college group are leavers), and that the share moving with a job and claiming the deferment represents no more than a 50 percent increase over the current level of 14 percent. This yields a total qualifying share of borrowers of  $14 + 7 + 8 = 29$ , rounded up to 30 percent.
15. According to projections by the U.S. Congressional Budget Office (CBO; 2017, tab. 3), the total administrative costs of the FSL program in 2017 are estimated at \$3.5 billion. The proposed extension could be expected only to increase total administrative costs by a fraction of this amount. For example, if 30 percent of borrowers take up the extension and the extension increases per borrower administrative costs by 10 percent (both conservative assumptions), total administrative costs will only rise to \$3.6 billion.
16. It is possible that increased migration of new college leavers might not translate into improved average earnings for this group, although it is important to stress that mobility is unlikely to reduce earnings. Rather, mobility could benefit some workers at the expense of others, leading to no net earnings gains. The program would need to be monitored to determine whether general earnings gains arise. A program evaluation design to adequately evaluate this would be challenging, but recent research provides some guides (Crepon et al. 2013).
17. Equilibrium benefits to the national market are the most difficult to assess, but economic theory suggests that downside risk on this dimension is unlikely.

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# References

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- Angrist, Joshua, David Autor, Sally Hudson, and Amanda Pallais. 2016. "Evaluating Post-Secondary Aid: Enrollment, Persistence, and Projected Completion Effects." Working Paper 23015, National Bureau of Economic Research, Cambridge, MA.
- Briggs, Brianna, and Peter Kuhn. 2008. "Paying for the Relocation of Welfare Recipients: Evidence from the Kentucky Relocation Assistance Program." Discussion Paper 2008-01, University of Kentucky Center for Poverty Research, Lexington, KY.
- Bureau of Labor Statistics (BLS). 1965–2017. "Current Population Survey." Bureau of Labor Statistics, U.S. Department of Labor, Washington, DC.
- Card, David. 1995. "Using Geographic Variation in College Proximity to Estimate the Return to Schooling." In *Aspects of Labour Market Behavior: Essays in Honour of John Vanderkamp*, ed. Louis N. Christophides, E. Kenneth Grant, and Robert Swidinsky. Toronto, Canada: University of Toronto Press, 201–22.
- Chetty, Raj, and Nathaniel Hendren. 2017. "The Effects of Neighborhoods on Intergenerational Mobility, Online Data Table 4." Data and Replication Code, The Equality of Opportunity Project.
- College Board. 2017. "Trends in Higher Education: Figure 1: Average Estimated Undergraduate Budgets, 2017–18." College Board, Washington, DC.
- Crepon, Bruno, Esther Duflo, Marc Gurgand, Roland Rathelot, and Phillipe Zamora. 2013. "Do Labor Market Policies Have Displacement Effects? Evidence from a Clustered Randomized Experiment." *Quarterly Journal of Economics* 128 (2): 531–80.
- Currie, Janet, and Enrico Moretti. 2003. "Mother's Education and Intergenerational Transmission of Human Capital: Evidence from College Openings." *Quarterly Journal of Economics* 118 (4): 1495–532.
- Dale, Stacy Berg, and Alan Krueger. 2002. "Estimating the Payoff of Attending a More Selective College: An Application of Selection on Observables and Unobservables." *Quarterly Journal of Economics* 107 (4): 1491–527.
- Denning, Jeffrey T., Benjamin M. Marx, and Lesley J. Turner. 2017. "ProPelled: The Effects of Grants on Graduation, Earnings, and Welfare." Working Paper 23860, National Bureau of Economic Research, Cambridge, MA.
- Diamond, Rebecca. 2016. "The Determinants and Welfare Implications of Workers' Diverging Location Choices by Skill: 1980–2000." *American Economic Review* 106 (3): 479–524.
- Federal Student Aid. 2017. "FY 2014 Official National Cohort Default Rates with Prior Year Comparison by School Type and Sector." Federal Student Aid, U.S. Department of Education, Washington, DC.
- Ganong, Peter, and Daniel Shoag. 2017. "Why Has Regional Income Convergence in the U.S. Declined?" *Journal of Urban Economics* 102 (C): 76–90.
- Gregory, Jesse. 2014. "The Impact of Post-Disaster Rebuilding Grants on the Resettlement Choices of New Orleans Homeowners." University of Wisconsin, Madison, WI.
- Heckman, James, John Eric Humphries, and Gregory Veramendi. 2017. "The Non-Market Benefits of Education and Ability." Working Paper 23896, National Bureau of Economic Research, Cambridge, MA.
- Higher Education Research Institute. Various years. *The American Freshman: National Norms*. Annual Report. Los Angeles, CA: Regents of the University of California.
- Hillman, Nicholas, and Taylor Weichman. 2016. "Education Deserts: The Continued Significance of Place in the Twenty-First Century." Voices from the Field, American Council on Education Viewpoints, Washington, DC.
- Hoekstra, Mark. 2009. "The Effect of Attending the Flagship State University on Earnings: A Discontinuity-Based Approach." *Review of Economics and Statistics* 91 (4): 717–24.
- Jepsen, Christopher, Kenneth Troske, and Paul Coomes. 2014. "The Labor Market Returns for Community College Degrees, Diplomas, and Certificates." *Journal of Labor Economics* 32 (1): 95–121.
- Kahn, Lisa. 2010. "The Long-term Consequences of Graduating from College in a Bad Economy." *Labour Economics* 17 (2): 303–16.
- Kennan, John, and James R. Walker. 2011. "The Effect of Expected Income on Individual Migration Decisions." *Econometrica* 79 (1) 211–51.
- Lapid, Patrick. 2017. "Expanding College Access: The Impact of New Universities on Local Enrollment." Job Market Paper, University of California, Berkeley.
- Leonhardt, David. 2013, April 4. "What Makes a College Selective—and Why It Matters." *Economix* (blog), *New York Times*.
- Malamud, Ofer, and Abigail Wozniak. 2012. "The Impact of College Education on Geographic Mobility." *Journal of Human Resources* 47 (4): 913–50.
- Molloy, Raven, Christopher L. Smith, Riccardo Trezzi, and Abigail Wozniak. 2016. "Understanding Declining Fluidity in the U.S. Labor Market." *Brookings Papers on Economic Activity* (Spring): 183–237

- Molloy, Raven, Christopher L. Smith, and Abigail Wozniak. 2011. "Internal Migration in the US: Updated Facts and Recent Trends." *Journal of Economic Perspectives* 25 (3): 173–96.
- . 2018. "Changing Stability of U.S. Employment Relationships: A Tale of Two Tails." University of Notre Dame, South Bend, IN.
- Moretti, Enrico. 2012. *The New Geography of Jobs*. New York, NY: Houghton Mifflin Harcourt.
- Nakamura, Emi, Jósef Sigurdsson, and Jón Steinsson. 2016. "The Gift of Moving: Intergenerational Consequences of a Mobility Shock." Working Paper 22392, National Bureau of Economic Research, Cambridge, MA.
- National Center for Education Statistics. 2017. "Fast Facts: Back to School Statistics." National Center for Education Statistics, U.S. Department of Education, Washington, DC.
- Parey, Matthias, and Fabian Waldinger. 2011. "Studying Abroad and the Effect on International Labour Mobility: Evidence from the Introduction of ERASMUS." *Economic Journal* 121 (551): 194–222.
- Rauscher, Emily, and Byeongdon Oh. 2017. "Going Places: Effects of Early U.S. Compulsory Schooling Laws on Internal Migration." Working Paper, Center for Migration Research, University of Kansas, Lawrence, KS.
- Stuart, Bryan. 2017. "The Long-Run Effects of Recessions on Education and Income." Institute for International Economic Policy, The George Washington University, Washington, DC.
- Turner, Leslie. 2017. "The Economic Incidence of Federal Student Grant Aid." University of Maryland, College Park, MD.
- Weingarden, Alison. 2017, September 25. "Labor Market Outcomes in Metropolitan and Non-Metropolitan Areas: Signs of Growing Disparities." *FEDS Notes*, Board of Governors of the Federal Reserve System, Washington, DC.
- Wozniak, Abigail. 2010. "Are College Graduates More Responsive to Distant Labor Market Opportunities?" *Journal of Human Resources* 45 (3): 944–70.
- U.S. Census Bureau. 2012. "Patterns of Metropolitan and Micropolitan Population Change: 2000-2010." 2010 Census Special Reports, C2010SR-01, U.S. Census Bureau, Suitland, MD.
- U.S. Congressional Budget Office. 2017. "Memo: CBO's January 2017 Baseline Projections for the Student Loan Program." U.S. Congressional Budget Office, Washington, DC.
- Zimmerman, Seth. 2014. "The Returns to College Admission for Academically Marginal Students." *Journal of Labor Economics* 32 (4): 711–54.



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## Highlights

In this paper, Abigail Wozniak of the University of Notre Dame presents evidence on the importance of geographic mobility in wage growth, and on the lack of mobility in rural areas. She then proposes reforms to the Federal Pell Grant and Federal Student Loan (FSL) programs that could help to encourage geographic mobility and thereby encourage wage growth in the United States.

## The Proposal

**Add a location-based supplement to the Federal Pell Grant Program.** This would help students who do not have access to a local college overcome the high costs of relocating for college.

**Defer federal student loan repayment for students relocating after college.** Wozniak proposes that college leavers receive extended automatic deferments to Federal Student Loan repayment when relocating across markets to start their careers.

## Benefits

This proposal would help young adults who lack local access to postsecondary institutions. It would also help college leavers who face high moving costs post-graduation.



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