

# **Exhibit 1**

September 9, 2010

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The Honorable Arne Duncan  
Secretary, U.S. Department of Education  
400 Maryland Ave., SW  
Washington, DC 20202

Re: Docket ID ED-2010-OPE-0012, Gainful Employment

Dear Secretary Duncan:

We thank you for the opportunity to publicly comment on the proposed rule regarding gainful employment that was described in the NPRM dated July 26, 2010. We were retained by the Career College Association to conduct an independent analysis of the rule. Over the past several months, we have collected data relevant to the rule's impact and formulated an assessment of the rule. We describe our findings and recommendations below.

We hope our comments are helpful to the Department as it works to develop rules and policies that are in the best interest of students.

Sincerely,



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**Docket ID ED-2010-OPE-0012**

**Comment on the proposed rule regarding Gainful Employment described in the NPRM released by the Department of Education on July 26, 2010**

**Introduction**

We wish to comment on the proposed rule regarding the definition of gainful employment that was described in the NPRM released by the U.S. Department of Education on July 26, 2010. Our comment is organized into four parts. In the first part, we describe the standard way that academic economists analyze and understand the investment that students make when they choose to further their education beyond secondary school. We point out inconsistencies between this standard way of thinking about education and the gainful employment proposal. In particular, the standard economic analysis of education implies that the focus should be on ensuring that all students who are likely to gain more from education than the costs they have to pay will attend. We believe that the currently proposed rule does not focus adequately on measuring the benefits to students from education. We describe our concern that by not measuring the benefits to students, the rule has the potential to reduce access to programs that would have conferred significant benefits to students in the form of higher lifetime earnings.

In this first part, we also discuss what academic economic studies show about the increasing and significant importance of postsecondary schooling for labor market success, and the need for growth in capacity in the higher education sector. We explain that if the earnings benefits from postsecondary schooling are in line with what academic studies suggest, the currently proposed rule will be detrimental to many students. We also contrast the recent slow rate of growth in the number of students that institutions of higher education accommodate with the larger needs and demands of potential students. We relate this contrast with the President's call for the nation to substantially increase the number of students with a postsecondary degree over the next decade.

In the second part, we describe the data analysis we have conducted to assess the possible effect of the proposed rule on both schools and students. To do that analysis, we collected a large amount of individual student-level data from for-profit schools. Those results suggest the proposed gainful employment rule could cause a significant reduction in the number of students entering postsecondary schooling over the next decade, which stands in contrast with the President's call for a large increase in the number of college graduates over that same period. We report a range of estimates, which account for various contingencies. Since we do not have access to actual earnings for graduates, we estimate earnings using Current Population Survey (CPS) data. These estimates may differ from the actual earnings particularly when these averages are based on relatively small groups of students. The student-weighted average of our annual earnings measure is about \$1,000 higher than the student-weighted average in the Missouri data. However, the unweighted average across programs of our annual earnings measure is about \$6,000 higher than the unweighted average across programs in the Missouri data.

There is also considerable variation in the difference between the two measures, in part due to the smaller sample sizes in the Missouri data. To the extent that our earnings estimates are higher than what would be used in practice, our estimates understate the likely impact on for-profit programs and students, possibly significantly.

Our most conservative estimates suggest that nearly 1.2 million fewer students would enter postsecondary schooling over the next decade as a result of the proposed rule. This would include more than 700,000 female students, more than 200,000 non-Hispanic black students, and nearly 200,000 Hispanic students. If less conservative but reasonable assumptions are used, the impact on students could be significantly higher. For example, one reasonable set of assumptions yields estimates suggesting that more than 2 million fewer students would enter postsecondary schooling over the next decade as a result of the proposed rule. This would include more than 1.3 million female students, more than 360,000 non-Hispanic black students, and more than 330,000 Hispanic students. Furthermore, if the Department's own estimate of the fraction of programs and students in ineligible and restricted programs is correct, each of our estimates of the number of students impacted should be increased by 25 percent.

In this second part, we also discuss our concern that the rule may generate a discriminatory incentive for schools to avoid serving low-income students. We hope that all of these effects on students will be viewed in light of the President's commendable call to produce 8 million more college graduates over the next decade, the increased importance of postsecondary education for economic well-being, and the vast current undersupply of education capacity at the postsecondary level.

In the third part, we discuss concerns we have regarding specific details of the way in which the rule would likely be implemented. These include problems related to the treatment of small programs – which are more common than one might think – and related to the use of social security or IRS earnings records.

We conclude with some specific suggestions for how the rule – if one resembling the proposed rule were implemented – might be changed to address some of the concerns we raise. Though we offer these specific suggestions, they should not be interpreted as fully addressing the conceptual problems we raise throughout our comment.

Based on our review and analyses, we are most concerned that the current proposal has the potential to greatly restrict access to individuals who have traditionally had limited access to postsecondary education when the consensus among top researchers in this area is that the returns to education might be quite high. More research should be done before taking action that has the potential to restrict access to many of the types of students that tend to benefit the most from additional schooling.

## **Part I: The rule contrasted with the standard economic analysis of schooling**

In this section, we first review the standard analysis that is used by academic economists to examine postsecondary education decisions, and include a discussion of how the Department's proposed rule deviates from this approach. Next, we examine the basis of the Department's use of an 8 percent debt-to-earnings threshold, and describe how it may be at odds with optimal education decisions for students, given the benefits of postsecondary education. We then argue that the Department should focus on the quality of programs, in addition to the costs. We discuss how measures of debt relative to early career earnings, or of repayment rates as they are calculated in the proposed rule, are not measures of program quality. We next provide an overview of what the academic research has shown with respect to student returns on educational investment, and explain why a rule that does not account for the benefits of schooling could be detrimental to students. We conclude this section by discussing the protection of taxpayers, and the need for increased postsecondary capacity.

### **A. The standard economic analysis of schooling**

Based on the standard economic analysis of the costs and benefits of schooling, we believe the focus of the Department of Education should be on ensuring access to education for all students for whom the benefits are likely to outweigh the costs. The standard economic analysis of the schooling decision does not depend on the level of earnings. Instead, it focuses on the *increase* in earnings resulting from the schooling. We believe the proposed rule does not appropriately focus on benefits, and in some important ways mismeasures the costs. As a result we believe the proposed rule may have the unintended consequence of disproportionately limiting postsecondary education access for students who have traditionally faced barriers to higher education.

The standard economic analysis of schooling considers the choice of whether an individual should obtain an additional year of education.<sup>1</sup> In this standard way of thinking, individuals weigh the costs and benefits of schooling. The costs are the earnings foregone if one attends school full time, and tuition/fees. The benefits include increased earnings in future years. Individuals choose to get more education so long as the benefits are larger than the costs.

Education is an investment, meaning that the costs are paid up front and the benefits come in the future. To properly weigh the costs and benefits, one must discount benefits that will not be realized for many years. To simplify things, use

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<sup>1</sup> The standard reference is *Human Capital* by Gary Becker (University of Chicago), who won the Nobel Prize in Economics for this and other work.

the interest paid on savings accounts or the expected return on personal investments as the discount rate.

Now consider the education choice of two students: one who has enough personal or family wealth to pay tuition costs out of savings, the other who must borrow to finance the tuition costs.

For someone who would pay tuition costs out of savings, the decision comes down to comparing the present value of increased lifetime earnings (the benefits) to the foregone earnings while in school and the tuition (the costs).<sup>2</sup> If the benefits are greater than the costs, then the student should continue in her schooling. If the costs are larger than the benefits, she should end her schooling and begin working.<sup>3</sup>

Compare this decision with someone who must borrow to pay the tuition costs. This student must consider as costs the additional interest payments associated with the loan. Those payments must be paid in the future. If the interest rate on the loan were equal to the interest rate used for discounting (in this case the interest paid on savings), then the decision would be the same for both students. Since the unsubsidized interest rate charged on student loans is typically higher than the interest rate paid on savings accounts, the cost of furthering education is higher for this student.

In short, because borrowing interest rates are higher than savings interest rates, the cost of schooling is higher for those who must borrow to pay for higher education. Because these students almost by definition come from poorer families, this problem creates access differences that relate to wealth, socioeconomic status, and race. Subsidies for student loans are meant to narrow the difference between borrowing and saving interest rates so that the costs of education are less related to family wealth.

Therefore, any restriction of access to debt financing for higher education will have the effect of decreasing access more for poor and minority students. This is completely at odds with the intent and spirit of the Higher Education Act.

The proposal's focus on the ability of students to pay back their loans quickly leads it to focus on the level of earnings. This will have the effect of differentially punishing students with poor labor market prospects and who would gain the most from higher education. Students with poor labor market prospects would have low earnings, and likely high unemployment rates, without any higher education. Among these students, the ones who would benefit greatly from additional focused

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<sup>2</sup> Note the cost of education does not necessarily include living expenses while attending school. Many of these expenses, particularly for financially independent students, would be incurred regardless of the education decision. However, students will often take loans to cover part, or all, of their living expenses.

<sup>3</sup> While it is necessary to consider as a cost the interest she does not earn on the money she takes out of saving to pay tuition, these interest payments are discounted because they would have happened in the future. If we use the savings account interest rate as the discount rate, the discounting eliminates this from consideration.

schooling may end up in occupations with low earnings. But, these earnings may be much higher than the student's personal alternative. The proposal would limit how much this student could borrow based on the low level of earnings, and not based on the large gains that would be realized from the doors opened by education.

The standard economic analysis of education implies that the decision of whether to continue schooling beyond high school should be based on a comparison of the lifetime benefits and the lifetime costs of that schooling. These costs and benefits should both be properly discounted to account for the fact that many of the benefits and some of the costs occur far in the future. Even when the benefits only slightly exceed the costs, when properly measured, it benefits the student to continue to pursue additional education.

The proposed gainful employment formula is different from this ideal in a number of ways. Most significantly, the proposed formula focuses on the level of earnings in the first few years after completion of the schooling. While the Department of Education's intent is likely to ensure that students are able to afford the necessary loan payments in those early years after schooling, it must be noted that any deviation from a comparison of lifetime benefits to lifetime costs has the potential to harm the students. For this reason, special care should be taken when analyzing a rule that effectively restricts borrowing for schooling costs.

As stated above, the proposed gainful employment rule focuses on a comparison of earnings in the early years after school completion with estimated annual student loan payment amounts. The reason for basing program eligibility on this comparison presumably is to protect students from finishing school with loans that they cannot afford to repay in those early years after completion.

Two points should be addressed with respect to the way the rule achieves this goal. First, the allowable debt/earnings ratio should not be based on guidelines that are developed to be appropriate for the average consumer. Student borrowing is different from consumer borrowing both because students tend to be at a point in their working careers when earnings are about to grow substantially, and because schooling is something that tends to cause increases in earnings. On average earnings grow sharply in the early years following the completion of schooling. For most students, it is probably smart to devote a higher share of their annual expenditures to loan repayments early in their career than they would be willing to sustain indefinitely. If education confers benefits to students – such as increased earnings throughout their post-schooling career – restricting borrowing can cause students to be worse off on net. Thus, guidelines about appropriate debt-to-earnings ratios should allow for higher levels in these early years. The guidelines that informed the Department of Education's choice of debt/earnings ratio cut-offs were based on lending rules that are meant to apply to borrowers at all stages of their working life and for physical assets that do not lead to increases in earnings. Rules that apply to early career earnings should be different. They should recognize the fact that the thing the borrowing pays for – schooling – tends to increase earnings,



and they should recognize the fact that because earnings tend to grow in the early working years it makes sense to borrow more in these years than in later years.

Second, the calculation of annual debt payments should be based on the repayment amounts that students have the option to choose. The proposed rule calculates annual loan payments assuming a 10-year repayment period. However, all students with Title IV loans have the options either of extending the repayment period to between 12 and 30 years through the choice of an “extended repayment”, or of reducing the payments they must make in the early years after school completion through the choice of a “graduated repayment”. Calculations reported to us by Mark Kantrowitz, the publisher of FinAid.org, indicate that the average repayment length chosen by students for Title IV loans is at least 15 years, and possibly close to 19 years.

In addition, students with low earnings, the ones that the proposed gainful employment rule is meant to protect, have the option of reducing their Title IV payments to a lower percentage of their earnings through the choice of “income-based repayment”. For many students, and particularly for those with lower than average earnings in the years for which earnings are measured for the gainful employment rule, it is advisable to choose one of these options.

If the goal of the proposed gainful employment rule is truly to ensure that students can afford their loan payments upon completing schooling, the rule should compare their earnings to the amounts they are required to pay. If students choose to pay back their loans over a shorter period than they have to, it cannot be argued that those students are unable to afford the payments. The correct test, absent measuring the gains resulting from, or quality of the program, is whether students finish school with required debt payments – the lowest ones available to them given their options – that are too high relative to their earnings.

If it were logistically difficult for the Department of Education to determine which of these repayment options offers the lowest annual payment for each borrower, a simple adjustment to the rule would be to extend the repayment length used in the formula to 15 or 20 years. The allowable repayment period varies between 12 and 30 years and depends on the total amount of the Title IV loan. At a minimum, this modification would reflect a more realistic loan payment amount that an individual would be required to make on a student loan.

Another fundamental flaw in the proposed rule that should be addressed is that it does not focus on program quality. Standard economic analysis clearly indicates that good schooling decisions should be based on a comparison of the costs of education to their benefits. Students should think very differently about taking on a given amount of debt if it is to pay for a program that is likely to add to their earnings than if it is to pay for a program that is not. In other words, if the goal of the proposed regulation is to help students, the focus should be on program quality – the benefits that the program gives to students in terms of increased earnings and improved employment likelihood – and not so directly on debt



amounts. For a high-quality program, it can be a good idea to finance tuition costs through debt. For example, medical students commonly take on very large debt amounts yet end up better off for it once the effect on lifetime earnings is taken into account. The reason this is a good investment for them is that medical school typically leads to large increases in lifetime earnings (though those increases often are not attained until many years after school is completed).

### **B. The basis for an 8 percent debt to earnings threshold**

The Department's choice of an 8 percent threshold for the debt to earnings ratio is not a number that is implied by any standard economic model, or supported by research as the Department suggests. The standard economic analysis of the educational investment decision does not imply a limit on annual debt payments related to annual earnings. Rather, experts who study the economics of education use a model based on a comparison of costs with benefits, including the gains to earnings resulting from the schooling.

While the Department has stated that the 8 percent threshold is based on research, as economists we wish to make it clear that this number is not based on economic theory. In fact, as we have described, economic theory implies a quite different set of guidelines for making good decisions regarding schooling.

Based on statements in the NPRM, the 8 percent threshold appears to come from two sources: home lending guidelines and a report by Sandy Baum and Saul Schwartz.<sup>4</sup> We will address the use of the Baum and Schwartz study first, then return to the home lending guidelines. In the report to which the Department of Education refers, Baum and Schwartz do not support the use of an 8 percent threshold for student debt payments. Rather, Baum and Schwartz explicitly criticize a blanket use of such a rule. Quoting from page 3 of their report:

“In sum, we believe that using the difference between the front-end and back-end ratios historically used for mortgage qualification as a benchmark for manageable student loan borrowing [*which Baum and Schwartz have just explained is the origin of the 8 percent rule*] has no particular merit or justification. This is not to say that 8 percent is an unreasonable number. Some of the problems listed below suggest that higher limits might be appropriate, while others suggest the opposite. It is simply to say that any benchmark needs stronger justification than has thus far been forthcoming.” (Baum and Schwartz, 2006, p. 3)

Just prior to this statement, Baum and Schwartz explain some of the reasons why the 8 percent rule is not appropriate for student lending guidelines. One of those reasons derives directly from an economic model related to the one we have described in our comment. That model points out that because earnings tend to

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<sup>4</sup> Baum, Sandy and Saul Schwartz. 2006. “How Much Debt is Too Much? Defining Benchmarks for Manageable Student Debt.” New York: The College Board.

increase most sharply in the early years after school completion, it is optimal to do more borrowing in those years than in later years. They explain:

“To the extent that they are grounded in empirical analysis, the ratios [*which were used to determine the 8 percent rule*] reflect the default experience of all homeowners, not the experience of young people who have recently left school. The life-cycle model suggests that the ability and willingness of young people to maintain any given debt-service ratio is greater than that of older cohorts. The front-end and back-end ratios, based on current income, do not take into account the higher future income of some borrowers and especially of student loan borrowers.” (Baum and Schwartz, 2006, p.3)

We suggest that the Department not use the Baum and Schwartz study to support the choice of an 8 percent threshold, when in fact that study concludes that the general use of such a rule is a bad idea.

Baum and Schwartz argue that the 8 percent rule that was commonly used at one time by home mortgage underwriters (but, which they point out is not commonly used now) is not appropriate for all student borrowers. This leads us back to the fact that the 8 percent number was originally taken from home mortgage standards. Baum and Schwartz explain that this number appears to come from guidelines for the fraction of annual earnings that should be devoted to non-housing debt for the average homebuyer.

However, borrowing for schooling costs is different. Borrowing for schooling costs is different because schooling tends to cause earnings to increase. A rule limiting the ratio of student debt payments to annual earnings that does not take into account the fact that additional schooling can increase those very earnings has the potential to hurt, not protect, borrowers.

### **C. The benefits of education and its relevance for the proposed gainful employment rule**

It is informative to describe what the vast set of studies by academic researchers has found regarding the benefits of postsecondary schooling. There are dozens, if not hundreds, of studies of this sort that have published in peer-reviewed academic journals. Education is widely recognized as a source of social mobility. Though the United States is regarded as a “land of opportunity,” correlations in earnings between fathers and sons are actually quite high. To understand how much social mobility there is in the U.S., consider a family of four right at the poverty threshold. Based on the best current estimates, it would on average take the descendants 5 or 6 generations before their income is within 5 percent of the national average.<sup>5</sup>

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<sup>5</sup> Mazumder, Bhashkar, “Fortunate Sons: New Estimates of Intergenerational Mobility in the United States Using Social Security Earnings Data,” *Review of Economics and Statistics* 2005.

What's more, studies find less social mobility among families with low net worth, suggesting that the inability to borrow restricts social mobility. In other words, restrictions on borrowing (coming from poorly functioning credit markets and high interest rates) makes being born into an impoverished household a significant barrier to social mobility. All of this argues strongly that it is as important as it has ever been to assure that all students who will benefit have access to higher education. The social costs of restricted access are larger than they have been in almost a century.

The general consensus from studies that examined data from various periods over the past 50 years is that each year of schooling causes the average student to enjoy a gain in annual earnings of between 7 and 15 percent. This means that the average student earns between 7 and 15 percent more each year for the rest of his career, for every additional year of schooling he completes. Because the gains accrue per year of schooling, students that complete 4-year college programs on average see gains in earnings that are 4 times this large.

Another consistent finding is that these returns to education have been rising in the U.S. fairly consistently since the early 1980's. The 7 percent estimates tend to come from data representing earnings from earlier periods, while estimates between 10 and 15 percent are more likely to come from more recent data. Postsecondary schooling is more important than it has maybe ever been – certainly since the 1920's – for labor market success. Put differently, the gap in earnings and economic wellbeing between the rich and poor is at historically high levels, and postsecondary schooling is one important determinant of which side of that gap one sits.

Consider if the earnings return were only 5 percent per year. A student who attended a 2-year program would earn 10 percent more each year for the rest of his career. That student could spend 10 percent of his annual earnings on student loan payments and not be any worse off during those 10 years than if he had not attended school. Then for all of the remaining years of his working life, he would earn 10 percent more with no costs. And yet, a program that educated students like this would be restricted from enrollment growth.

If for-profit schooling leads to 8 or 10 percent earnings increases, still significantly less than the average return to schooling, restricting student borrowing to fall in line with the guidelines implied by the proposed rule reduce lifetime earnings for those students. Whether the proposed gainful employment rule hurts or helps students depends directly on the earnings benefits from postsecondary schooling.

**D. The focus should be on quality of education and value-added by schools, not on measures that punish schools for serving non-traditional students**

Though more study needs to be done, there is reason to suspect that at least on some easily observable dimensions the quality of for-profit postsecondary

programs is similar to, and on some dimensions better than open enrollment public and not-for-profit programs. Consider, for example, a comparison of graduation rates from the Integrated Postsecondary Education Data System (IPEDS), the official graduation rates reported by the Department of Education.

**Table 1**  
**Graduation Rates by Cohort and Type of Institution**

| Year  | Public Institutions |      |        | Not-For-Profit Institutions |      |        | For-Profit Institutions |      |        |
|---|---------------------|------|--------|-----------------------------|------|--------|-------------------------|------|--------|
|   | Total               | Male | Female | Total                       | Male | Female | Total                   | Male | Female |
| <b>Percent Completing Bachelor's Degrees Within 4 Years After Start</b>                         |                     |      |        |                             |      |        |                         |      |        |
| 1996 Cohort   | 26.0                | 20.8 | 30.3   | 48.6                        | 43.6 | 52.6   | 21.8                    | 22.3 | 21.1   |
| 1997 Cohort   | 26.4                | 21.1 | 30.7   | 48.9                        | 44.4 | 52.5   | 19.1                    | 20.9 | 16.6   |
| 1998 Cohort   | 26.8                | 21.4 | 31.2   | 49.8                        | 44.9 | 53.8   | 19.9                    | 22.2 | 17.5   |
| 1999 Cohort   | 27.9                | 22.5 | 32.4   | 50.2                        | 45.4 | 54.0   | 22.1                    | 23.3 | 20.4   |
| 2000 Cohort   | 29.0                | 23.6 | 33.5   | 50.3                        | 46.0 | 53.7   | 25.7                    | 30.1 | 20.7   |
| 2001 Cohort   | 29.4                | 24.0 | 33.9   | 50.9                        | 45.8 | 55.0   | 18.6                    | 21.8 | 15.2   |
| <b>Percent Completing Bachelor's Degrees Within 6 Years After Start</b>                         |                     |      |        |                             |      |        |                         |      |        |
| 1996 Cohort   | 51.7                | 48.1 | 54.7   | 63.1                        | 60.4 | 65.4   | 28.0                    | 28.0 | 27.9   |
| 1997 Cohort   | 52.8                | 49.3 | 55.7   | 63.0                        | 60.4 | 65.1   | 24.0                    | 25.4 | 22.2   |
| 1998 Cohort   | 53.2                | 49.8 | 56.1   | 63.7                        | 60.8 | 66.0   | 24.5                    | 26.4 | 22.5   |
| 1999 Cohort   | 54.1                | 50.5 | 57.0   | 64.0                        | 61.3 | 66.3   | 29.1                    | 29.5 | 28.6   |
| 2000 Cohort   | 54.8                | 51.3 | 57.7   | 64.5                        | 61.7 | 66.7   | 32.6                    | 35.5 | 29.1   |
| 2001 Cohort   | 55.0                | 51.7 | 57.8   | 64.4                        | 61.4 | 66.7   | 24.5                    | 27.6 | 21.1   |
| 2001 Open Admissions  | 31.2                | 27.4 | 34.4   | 34.9                        | 32.8 | 36.8   | 24.5                    | 27.6 | 21.1   |
| <b>Percent Completing Certificates or Associate's Degrees Within 150 Percent of Normal Time</b> |                     |      |        |                             |      |        |                         |      |        |
| 1999 Cohort   | 22.9                | 21.6 | 24.2   | 44.7                        | 43.6 | 45.7   | 61.0                    | 63.2 | 59.1   |
| 2000 Cohort   | 23.6                | 22.2 | 24.8   | 50.1                        | 49.5 | 50.7   | 59.1                    | 59.3 | 58.9   |
| 2001 Cohort   | 22.9                | 21.7 | 24.0   | 54.8                        | 57.0 | 51.9   | 58.7                    | 58.9 | 58.5   |
| 2002 Cohort   | 21.9                | 20.9 | 22.8   | 49.1                        | 51.1 | 47.3   | 57.1                    | 56.6 | 57.4   |
| 2003 Cohort   | 21.5                | 20.8 | 22.2   | 49.0                        | 49.6 | 48.5   | 57.2                    | 58.0 | 56.8   |
| 2004 Cohort   | 20.3                | 19.6 | 21.0   | 44.4                        | 43.2 | 45.4   | 58.2                    | 58.1 | 58.3   |

Source: National Center for Education Statistics

It has also been reported publicly that repayment rates are lower among for-profit students than among public or private not-for-profit students. The data released by the Department of Education show repayment rates of 36, 56 and 54, respectively for these groups of students. However, virtually all of the difference between for-profit and public colleges is explained by the fact that for-profit college students are more likely to receive Pell grants. Receipt of Pell grants is income-dependent, and so Pell receipt is a strong predictor of having low family income and low family wealth.

If one splits all schools into two groups – those where more than 50 percent of the students receive Pell grants, and those where less than 50 percent of the students receive Pell grants – and then compare for-profit and public colleges, there are not large differences in repayment rates. Among 2-year schools, in the high-Pell group, the repayment rate at for-profits is 33.0 percent, compared with 36.2 percent at public. Among 2-year schools, in the low-Pell group, the repayment at for-profits is 46.5 percent, compared with 43.3 percent at public. Turning to 4-year or above

schools, in the high-Pell group the repayment rate at for-profits is 29.1 percent, compared with 35.6 percent at publics. And among 4-year or above schools, in the low-Pell group the repayment rate at for-profits is 38.5 percent, compared with 57.5 percent. It is not surprising that the largest difference is among 4-year low-Pell schools. These public schools are the most likely among the comparisons just listed to have selective admissions policies.<sup>6</sup>

**Table 2**  
**Average Repayment Rate by Sector and Pell Designation**

| Sector                                   | High Pell                           |                             | Low Pell                            |                             |
|--|-------------------------------------|-----------------------------|-------------------------------------|-----------------------------|
|  | Average of Estimated Repayment Rate | Percent of OPEIDs in Sector | Average of Estimated Repayment Rate | Percent of OPEIDs in Sector |
| Private for-profit- 2-year               | 33.0%                               | 73%                         | 46.5%                               | 27%                         |
| Private for-profit- 4-year or above      | 29.1%                               | 56%                         | 38.5%                               | 44%                         |
| Private for-profit- less-than 2-year     | 35.5%                               | 73%                         | 48.6%                               | 27%                         |
| Private not-for-profit- 2-year           | 46.0%                               | 41%                         | 65.4%                               | 59%                         |
| Private not-for-profit- 4-year or above  | 36.9%                               | 17%                         | 62.1%                               | 83%                         |
| Private not-for-profit- less-than 2-year | 39.9%                               | 51%                         | 58.7%                               | 49%                         |
| Public- 2-year                           | 36.2%                               | 26%                         | 43.3%                               | 74%                         |
| Public- 4-year or above                  | 35.6%                               | 16%                         | 57.5%                               | 84%                         |
| Public- less-than 2-year                 | 50.9%                               | 70%                         | 46.9%                               | 30%                         |

Note: High Pell is defined as having a Pell Percentage of 50% or more.

Source: Data released by the Department of Education on August 13, 2010.

Why is Pell receipt so strongly related to repayment rates? There are likely at least two reasons. First, the repayment rate as defined by the Department of Education counts a student as not repaying if he goes into forbearance or deferment, two options legally available to students, and Pell students are more likely to qualify for those options. Second, because they qualify based on low family income and family wealth Pell students have fewer outside resources to draw on when they face economic hardship. Particularly during recessions such as the severe one we find ourselves in right now, but not exclusively so, those with few outside resources are more likely to defer payments or default on loans.

These two comparisons illustrate that comparisons between for-profit colleges and the rest of the higher education sector need to be thoughtful to be informative. For-profit colleges are almost all open enrollment, meaning they do not restrict admission based on the student's income or academic record. For-profit colleges also are far more likely to enroll "non-traditional students." Students at for-

<sup>6</sup> Pell eligibility is based on economic factors of the individual student and her family. Pell eligibility does not reflect other individual characteristics such as aptitude, skill, ability or desire. Pell eligible students at institutions with high admission standards likely differ from Pell eligible students at institutions with less restrictive, or open, enrollment policies. Thus, other individual characteristics are important factors to consider when examining differences in measures such as repayment rates, graduation rates, default rates and placement rates.

profit colleges are more likely to be the first in their family to attend college, more likely to be working adults, more likely to be female and more likely to be racial and ethnic minorities. As many of these are groups that have historically been denied access to higher education, it would be a mistake to punish these schools solely for serving these students.<sup>7</sup> Once again, it is clear that the focus of policymakers should be on ensuring these students attend programs that are high quality and that benefit students. Unfortunately, neither the measure of debt nor the repayment rate as defined is a measure of program quality.

#### **E. Research on the economic returns to education**

[In a separate comment submitted in response to the same NPRM, Dr. Anthony Carnevale criticized our earlier writings on this topic. Simply put, we believe Dr. Carnevale is incorrect with respect to the economics of the problem, and that he mischaracterizes the academic research on the topic. A response to his criticism can be found in Appendix A at the end of this comment.]

By focusing primarily on the cost side of the education investment decision, the proposed rule does not account properly for the benefits of education. There is a large and well-established literature in economics documenting the large benefits of education (see e.g. David Card, 1999 and Claudia Goldin and Lawrence Katz, 2008 for discussions). Economic studies typically find that each additional year of schooling on average raises a student's annual earnings by between 8 and 15 percent. These studies vary in the level of education they examine, but the general finding is that the returns are fairly similar for different levels of education. For example, one prominent study focuses on the benefits of staying in high school for an extra year among students who drop out of high school at the earliest date allowable by compulsory schooling laws (Joshua Angrist and Alan Krueger, 1991). This study finds earnings increases for these high school dropouts of about 10 percent per year of schooling in 1980, a point in time when the returns to schooling were significantly lower than they are today.

The highest-quality study that examines the returns to community college education is by Tom Kane and Cecilia Rouse (1995). Using data that follow students who completed high school in 1972, they find that the returns per credit at 2-year colleges is no different than the return per credit at 4-year colleges; this is true both for students who completed Associate's degree programs and for those who only completed a semester or two's worth of classes. On a per year basis, they find

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<sup>7</sup> There are several equally important questions that we believe the Department should be raising in light of these enrollment trends. For example, are there ways for-profit colleges have designed their programs that students find attractive, more convenient and more accessible? Why have traditional public universities and community colleges failed to grow to meet the increased demand for postsecondary education? What can be done to encourage public and not-for-profit colleges to attract the students for-profits are serving? What can be done to encourage public and not-for-profit colleges to increase availability of on-line courses, flexible class schedules, and flexible academic calendars?



returns of 4-6 percent. These estimates come from a period when the return to education was on the low end of the 8-15 percent range. As is well documented, the return to education has risen consistently over time since then (see e.g. Card, 1999; Goldin and Katz, 2008). If the return to community college has risen in the same proportion with the returns to all other levels of schooling that have been studied, ranging from high school to college, these estimates imply the return per year of a 2-year community college program would be between 8 and 10 percent today.

Since the time both of those studies measured earnings, the returns to education has consistently increased. Claudia Goldin and Lawrence Katz (2008), estimate that in 2005 the return to education was between 13 and 14 percent per year. Thus, a student completing four years of college on average earned more than 55 percent more each year than a high school graduate. They conclude that:

The true economic rate of return would remain high even after adjusting for the direct resource costs of providing a college education. Thus, investments in schooling would appear to make enormous economic sense. What is preventing America from crossing the finishing line?

One possibility is that some young people might *not* actually benefit from going to college. The rate of return we have estimated may not be applicable to some young people who do not currently attend or complete college. The average wage gap between college and high school workers may, therefore, overstate the returns to those on the margin of going to college. But that possibility appears not to be the case.

Recent estimates of the rate of return to a year of schooling have used “natural experiments” from policies that have increased access to college, changed college tuition subsidies or merit aid, and altered compulsory schooling laws. These carefully executed studies using plausibly exogenous variation in educational attainment find high rates of return to further schooling. Because these returns would accrue to the marginal youth affected by such policy interventions, often an individual of modest means, they reinforce our conclusion that returns could be extremely high for many individuals currently not finishing college or even not finishing high school. (Goldin and Katz, 2008, p. 336.)

A similar point is made by David Card (1999). He explains that the natural experiments referred to by Goldin and Katz fall into two general categories, those that vary the benefits to schooling and those that vary the costs. He shows that studies that vary the cost of schooling tend to find larger returns. He then explains that these studies are informative of the returns for students who do not attend because of difficulty paying for college, whether because they face higher borrowing costs or because they have fewer



financial resources. These are precisely the students that Title IV funding is meant to encourage to continue their schooling. What evidence exists suggest that the benefits of further education for these students is, if anything, higher than for the students who can more easily afford college tuition.

We suggest that the Department of Education encourage direct experimental or quasi-experimental studies of the returns from for-profit colleges, though we suspect the results from all of the studies described above, as well as those referenced by Goldin and Katz and Card, are informative. Whether the use of Title IV aid to attend for-profit colleges is beneficial to students depends crucially on what these earnings returns are. As the results from Kane and Rouse (1995) and the summary of the literature from Goldin and Katz (2008) show, the quality studies that do exist do not suggest that the returns to education are similar at different levels of schooling (i.e. high school versus college) and that the returns are if anything higher for students who might be discouraged from attending college because of high costs. We therefore think the large base of academic research suggests that the return to for-profit colleges for students receiving Title IV aid are likely to be in line with the returns estimated for other types of schooling. However, there is likely to be a good deal of variation in returns across programs, just as there is variation in quality of public and not-for-profit colleges.

We are aware of a small group of top academic economists who are currently conducting studies of the return to education at for-profit colleges. One of these researchers, Stephanie Cellini Assistant Professor of Public Policy and Economics at George Washington University's Trachtenberg School of Public Policy & Public Administration, has published a number of articles on for-profit colleges. Along with Latika Chaudhary, of Scripps College, she is currently working on a study of the return to education at private and public 2-year or less colleges. She is able to make before-after comparisons of earnings, hours worked, employment, and hourly wages for the same individuals before and after they complete 1- and 2-year certificate and Associate's programs. Her preliminary results show no evidence of smaller returns at private (the majority of which are for-profit) colleges. Her preliminary results also suggest increases in weekly earnings resulting from education at private (again, the majority of which are for-profit) 2-year or less colleges that are around the low end of the returns typically found for most other schooling, and that are as high or higher than the returns we assume in our example calculation described in section I.C., above. In addition to these weekly earnings benefits, her preliminary results suggest large increases in the likelihood of employment associated with completing a certificate or 2-year degree program. Any increase in employment would of course be a benefit that is above and beyond the increase in earnings among those with jobs.

If the returns that accrue to students who attend for-profit colleges are in line with the returns found for most other schooling, then any policy that restricts growth in capacity in the for-profit college sector will hurt potential students. If the returns to for-profit college education are significantly lower, then restricting access to poor quality programs will protect uninformed students. Without knowing what the returns are, however, a rule that shuts down programs and restricts their growth has the potential to hurt the students it intends to protect. Because the consensus among top researchers in the area is suggestive that the returns might be quite high, more research should be done before taking action that has the potential to restrict access to many of the types of students that tend to benefit the most from additional schooling.

Just to give a sense of how important the returns are relative to the debt guidelines implied by the proposed gainful employment rule, consider a return to schooling of 8 percent per year. With this return, a student attending two years of college will earn 16 percent more each year than he would have if he had stopped schooling after completing high school. That student could pay 8 percent of his annual earnings on student loans, as suggested by the proposed rule, and still have 8 percent more each year, until the loan is repaid, than he would have had if he did not take out the loan and did not complete the schooling. This calculation ignores any foregone earnings while he was in school, which should be considered as a significant cost, and it also ignores the years beyond the loan repayment when the benefits continue but loan payments do not. It points out, however, that for a student who gets these average gains the loan is affordable on an annual basis. For students that get much smaller returns, such loan payments may not be affordable. For this reason, learning more about the returns to these types of programs is necessary to make informed and thoughtful policy.

## **F. Protecting students and taxpayers**

The NPRM refers to a goal of protecting both students and taxpayers. We focus mostly here on the perspective of the students because we believe these concerns are most important. Because the discussion both in the NPRM and in the public sphere has been confused with regard to some economic concepts surrounding gainful employment and the costs of for-profit postsecondary schooling, we wish to comment on those, too.

First, it is claimed that the proposed gainful employment rule is intended to protect the taxpayer's investment. This claim is based on high default rates reported on Title IV loans in the for-profit sector. Such logic would imply that funding for community colleges and other public postsecondary institutions should be cut to protect the taxpayer since direct funding to public institutions is equivalent to loans that are never expected to be repaid. To be clear, we think cutting funding for community colleges and other public postsecondary institutions would be a terrible idea. Funding for all forms of postsecondary schooling needs to be

increased. In light of the very high returns we describe above, it is a terrible mistake that funding for community colleges in particular is not increasing to allow for the increases in capacity necessary to educate all students who would benefit.

Unfortunately, the argument that protecting taxpayer dollars means monitoring what fraction of them are repaid implies precisely the wrong policy with respect to community colleges. For this reason, we believe default rates should be viewed primarily from the standpoint of the student, not the taxpayer. To the extent that default rates are informative of the benefits students are receiving from a program relative to its costs, they should be examined. Without reference to other measures of benefits to students default rates are not a good measure of the returns to taxpayer spending. Many government expenditures on education are never repaid, but are important and good uses of taxpayer dollars.

From the standpoint of the taxpayer the expenditures devoted to schooling includes both those devoted to student loans and those that come in the form of direct spending. While for-profit colleges receive more Title IV dollars per student, public colleges and universities receive significantly more direct government funding, particularly from state and local governments. These direct subsidies are one important reason that community colleges are able to charge tuition that is significantly lower than their costs.

The true costs to taxpayers are different across these two types of expenditures. Direct subsidies are not returned, and so they must all be financed through tax revenues or deficits.<sup>8</sup> Some portion of student loan disbursements must also be financed through tax revenues or deficits. However, despite defaults, a large portion of those loans is eventually repaid. The government must finance the portion that is not repaid and the interest on the loan amount during the time it is awaiting repayment.

Based on the public discussion surrounding the Department's proposal, there exists the belief that the cost of educating students at for-profit schools is greater than at other institutions. However, when direct subsidies paid by the federal, state and local governments are considered, the per-student costs of education are similar at for-profit and public institutions, both of which are considerably less than at private not-for-profit institutions. The difference between the for-profit and public institutions is who bears the burden of this cost, taxpayers or students.

A second economic concept that has been confused in the public discussion surrounding the proposed gainful employment rule is the cost of education to the student. It is often pointed out that for-profit Associate's degree programs have significantly higher tuition than community college Associate's degree programs.

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<sup>8</sup> As the available tax revenue has decreased there has been upward pressure on tuition charges at public universities and community colleges. This trend, in addition to capacity constraints, might be expected to continue as funding sources become less available.

It is commonly implied that students would be better off attending community college programs with lower tuitions. A key point that is made in all standard economic analyses of educational investment is that the costs of education include both the direct costs (tuition, books, etc.) and what economists call the opportunity costs. The main opportunity cost in the case of education is foregone earnings.

If one attends school full-time, the earnings she would have received from the job(s) she stops doing are real costs. In many cases, the foregone earnings account for significantly more than half of the total costs (i.e. they are more than the tuition). This means that for a student that attends school full time, the difference in cost is a smaller fraction of total costs than a comparison of tuition would indicate.

More importantly, programs that allow students to continue to work full-time while they receive an education can be less expensive than lower-tuition programs that require students to stop working. To the extent that for-profit programs allow students to continue working, whether because they offer more online options or because they are scheduled at night and on weekends to accommodate working adults, the tuition comparison may be misleading.

#### **G. More capacity is needed to educate all students who would benefit relative to the costs of education**

The President has called for the U.S. to lead the world in college degrees by 2020. We believe this is a laudable goal, and that many students will benefit if the nation meets it. In order to reach this goal, it is estimated that upwards of 8 million more students must complete postsecondary programs over the next decade than would do so if there were no growth.

There are many reasons to support the President's push for more students to receive some college education. Primary among these is the high return to education that we described above. Postsecondary schooling is perhaps as important for economic success as it has ever been, and almost certainly since the early part of the last century. Changes in the economy and in the types of goods and services that are produced in the U.S. have made skills more and more valuable over the past 30 years (see e.g. Katz and Murphy, 1992; Goldin and Katz, 2008). At a time when earnings inequality is distressingly high, increased educational attainment has the potential to help reduce these earnings gaps and to improve the economic well being of many non-traditional students.

Yet at the very time when the skills are most in demand and postsecondary schooling is such a key to economic well being, much of the higher education sector has not increased its capacity. In fact, most state governments are in such difficult fiscal shape that unless some dramatic changes in funding for public colleges occurs these schools are likely to be dramatically restricted. At the very time when more students need to be educated, community colleges are not growing and in many cases are already at capacity. The tragedy is that the students most likely to be

affected by insufficient growth in the higher education sector are from groups that have historically had low access, and who may have very high returns (see the discussion of Goldin and Katz, 2008 and Card, 1999 above).

**Table 3**  
**Enrollment growth by type of institution through 2007:**  
**5, 10, 20 and 30 years**

|                                     | Total  | Public | Private<br>Not-for-profit | Private<br>For-profit |
|-------------------------------------|--------|--------|---------------------------|-----------------------|
| Total percent growth in enrollment: |        |        |                           |                       |
| 30 years                            | 62.06% | 53.55% | 48.28%                    | 1700.87%              |
| 20 years                            | 39.78% | 32.80% | 33.60%                    | 438.23%               |
| 10 years                            | 25.79% | 21.10% | 18.80%                    | 225.60%               |
| 5 years                             | 9.85%  | 5.80%  | 9.40%                     | 99.60%                |
| Average annual growth rate:         |        |        |                           |                       |
| 30 years                            | 1.62%  | 1.44%  | 1.32%                     | 10.12%                |
| 20 years                            | 1.70%  | 1.40%  | 1.50%                     | 8.80%                 |
| 10 years                            | 2.30%  | 1.90%  | 1.80%                     | 13.70%                |
| 5 years                             | 1.90%  | 1.10%  | 1.80%                     | 14.80%                |

Source: Digest of Education Statistics.

And, during this time of remarkable increases in the returns to higher education, and of changes in the U.S. economy that have made high-level skills more and more valuable, there has not been commensurate growth in the nation's capacity to educate students beyond high school. Consider the annual growth rates in enrollment in different sectors of postsecondary education, shown in the table above. Over the past 30 years, according to data collected by the Department of Education, the annual average enrollment growth rate in public and private not-for-profit postsecondary schools has been 1.4 and 1.3 percent, respectively. Recall that this is during a period when the economic returns to a college education have possibly doubled (see e.g. Goldin and Katz, 2008). The lack of expansion in postsecondary education is part of the reason for the U.S. falling behind in the fraction of population that are college graduates, what the President points to as motivation for his call to increase the number of college completers.

Contrast these numbers with the annual enrollment growth rate at for-profit postsecondary institutions. The comparable average annual growth rate at these schools has been 10.1 percent over the past 30 years. Only this small portion of postsecondary schooling has grown as the demand for college education has increased. We emphasize that the question of quality is the key. If for-profit colleges are providing students with education and skills that lead to positive economic benefits after accounting for costs, then this growth in education capacity is an important positive development that should be encouraged for the good of students and of the economy. If not, then this growth is something to be concerned about. In that case, we need to learn more about why the high-quality programs are not expanding to meet the needs of the many students who would benefit from them.

Again, the focus should be on quality. Measures of debt relative to early career earnings, or of repayment rates as they are calculated in the proposed rule, are not measures of program quality. It is easy to think of very high-quality programs that lead to very high levels of debt. Consider, for just a few examples, Harvard, MIT and medical and law school graduate programs. Students coming out of those programs – who are not from families that can afford to pay their tuitions for them – leave with very high debt loads. However, one would not argue that Harvard’s high tuition (the reason for the high debt loads) is a sign of Harvard being a low-quality institution.

Calculations we have done indicate that if the debt-to-earnings ratio test were applied to medical schools at a student level, the poorest one-third of students in the U.S. would not be allowed to become doctors. And many more would be forced to choose between owning a home and paying for their child’s medical school. These calculations also indicate if one followed the 8 percent rule, in order to attend medical school it would be necessary to pay \$90,000 without borrowing. The Survey of Consumer Finances, sponsored by the Federal Reserve Board, indicates that the median net-worth of non-whites and Hispanics was \$28,200. In other words, if the 8 percent debt-to-earnings rule were applied at a student level, the vast majority of non-white and Hispanic students would not have a chance of becoming doctors.

Returning to recent growth rates in postsecondary capacity, the historical numbers shown above are likely to actually overstate the growth in capacity at community colleges in the near future. Many states are in bad fiscal shape, and as a result funding of community colleges may be cut. If this is to happen, it is possible that the capacity of the nation’s community colleges to educate students could be restricted. It is troubling that this could happen to schools that serve a disproportionate share of low-income, low-wealth and racial and ethnic minority college students.

Because the economic returns are so high, and earnings inequality is so dramatic, public policy should be encouraging growth in postsecondary options for students. Policy should try to ensure that students make informed decisions regarding education investments. And, to the extent necessary regulation should focus on program quality, which should be measured by the economic benefits that accrue both to students and to the economy more generally, compared with the costs paid both by students and by taxpayers.

## **Part II: Evaluation of the rule’s possible impact**

In this section we present our analysis of the effect the rule may have both on schools and students. We begin by describing the data we collected to conduct the analysis. We then describe our estimates of the fraction of for-profit programs that will be deemed



ineligible and restricted. After describing the baseline results, we discuss school and student responses to the rule that might affect the number of students affected. We then describe some criticisms of the Department's analysis of school and student responses to the rule, which we believe are too optimistic. After this discussion, we present our estimates of how many fewer students would enter postsecondary schooling over the next decade as a result of the proposed rule. We conclude the section with a discussion of the possible unintended discriminatory incentives that we worry could be created by the proposed rule.

#### **A. Description of the data collected to conduct the analysis**

To assess the possible impact of the proposed gainful employment rule, we collected data from for-profit colleges. In February 2010, we sent out a request to all members of the Career College Association to share their 2006-2008 Cohort Default Rate (CDR) loan-level files, as well as several other data elements that we expected schools might have on their individual student records.

We received responses from 308 schools (identified by OPEID's), representing approximately 450 campuses, including information on approximately 10,000 programs and more than 600,000 students. While there is no way to tell for sure that the sample is perfectly representative, the coverage is remarkably large, accounting for more than one-fifth of all students in for-profit colleges. The size of the sample relative to the population we wish to measure suggests the results are likely to be quite informative of students in the for-profit postsecondary sector. These data include loan amounts and repayment status – including whether loans are repaid in full, in deferment or forbearance – as well as whether the student completed her program, and for most students a total loan amount inclusive of federal, other governmental and institutional loans. For students for which we only observe federal loans, we inflate the loan amount by 1.47, the ratio of total loans to federal loans among students at for-profit colleges who took out federal loans, as reported in the 2008 NPSAS.<sup>9</sup>

These data allow us to calculate most elements of the proposed gainful employment rule fairly precisely. In some cases, we can calculate inputs into the formula more correctly than was done in the Department's own analysis. For example, we are able to calculate repayment rates at the program level, rather than the institution level as the Department was forced to do. As we discuss below, this detail may cause the Department's analysis to underestimate the fraction of programs with low repayment rates in each year.

In two ways our data are less than ideal. First, though we have very detailed data on individual Title IV loans, there is some detail we are missing that would be used to calculate repayment rates exactly as specified in the NPRM. We observe

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<sup>9</sup> Source: NPSAS, 2008.



whether loans are in deferment, in forbearance, in default, or in what is called “repayment” in the CDR data. We believe that this latter category includes loans for which payments are late but which are not yet in default. We present two analyses, one that assumes all of these loans are being repaid on time (and thus systematically overestimates the repayment rate and therefore underestimates the failure and restricted rate of programs), and another that adjusts our estimated repayment rates by a factor of 0.86 so that our average repayment rate is the same as the average repayment rate in the Department of Education’s data for for-profit schools.

Second, we do not have access to the individual students’ social security or IRS earnings records because those are protected for privacy reasons. In their place, we calculate estimated annual earnings from the Current Population Survey (CPS), a nationally representative survey conducted by the Bureau of Labor Statistics to measure the official monthly unemployment rate. From these data, we estimate the average annual earnings for 18 to 30 year-olds in the occupations that correspond to the area of study for each program (using the CIP code to SOC code correspondence from the Bureau of Labor Statistics). While there may be considerable variation in the CPS earnings relative to those of graduates in any particular program, the student weighted CPS average across programs is similar to the student-weighted average reported by the Department of Education for the Missouri analysis. The average of annual earnings (weighted by student enrollment) in the Missouri data is \$28,684; the average of annual earnings in our data (also weighted by student enrollment) calculated from the CPS is \$29,649. A comparison of the unweighted average across programs that have a 4-digit CIP code in both the Missouri data and the CPS data shows a larger divergence between the two populations with the Missouri average approximately \$6,000 less than the CPS average. There is also considerable variation in the difference between the two measures, in part due to the smaller sample sizes in the Missouri data. To the extent that our earnings estimates are higher than what would be used in practice, our estimates will understate the impact on for-profit programs and students.

To calculate the fraction of programs and students in our data that would fall into each designation of the rule, we define a program to be a specific 6-digit CIP code at a particular campus of a school (defined by OPEID) and of a particular length (less than 2-year, 2-year, 4-year, greater than 4-year). We then calculate the median total debt from the students in each program. Because our data is drawn from the CDR microdata we do not observe students with no Title IV loans. To calculate the median among all graduates, it is necessary to impute some fraction of students with loan amounts less than the median. From the 2008 NPSAS, we estimate that among for-profit students, 4.1 percent of those in 4-year programs, 2.9 percent of those in 2-year programs and 23.9 percent of those in less than 2-year programs take no federal loans. We therefore calculate an adjusted median assuming these

respective fractions of students in each program have zero loans.<sup>10</sup> We calculate the annual loan payment for a loan of that amount with a 6.8 percent annual interest rate and a 10-year repayment length. We then compute the ratio of this amount to the annual early career earnings we estimate for the program from the CPS data.

To calculate repayment rates we use the individual loan data from the CDR files. For each loan we observe the loan amount and its status. Loans amounts reported as paid in full and in repayment are counted in the numerator. These loan amounts plus those reported as in deferment, forbearance and consolidated but not paid in full are counted in the denominator. As we describe above, loans reported as being in “repayment” in the CDR include loans that are delinquent and/or for which principal is not being paid down yet. For this reason we overestimate repayment rates. To address this problem with our data, we compare our average repayment rate with the average repayment rate reported by the Department of Education for for-profit schools. Because the Department’s average is 86 percent as large as our average, we conduct separate analyses after multiplying each program’s repayment rate by 0.86.

## **B. Baseline results**

Our first set of baseline results is shown in Table 4. We estimate that 7.1 percent of programs in our data would be in the ineligible category if the proposed rule were applied. An additional 11.3 percent of programs would be restricted. The programs in our data are of varying sizes such that the fraction of programs in each category is not equal to the fraction of students in failing or restricted programs. If we count the number of students in programs in each category, we find that 7.5 percent of students in the for-profit programs in our data are in programs that would fail the proposed test. An additional 19.6 percent of students would be in restricted programs.

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<sup>10</sup> In the NPRM, the Department discusses the importance of measuring median debt including all graduates, not just those who have debt. However, in the Department’s analysis of the rule’s impact, only those with debt appear to be counted. It is important that if a rule based on median debt were adopted all graduates are in fact included in the calculation of the median.

Table 4

| Impact of Gainful Employment Proposed Regulations - Adjusted Repayment Rates |   |  |              |   |               |       |
|--|---|--|--------------|---|---------------|-------|
| Programs   |   |  |              |   |               |       |
| Total Number of Programs Subject to the Proposed Regulation: 11,304          | Debt-To-Income  |  |              | Using 3YR OR P3YR: 8% or less of Annual Earnings OR 20% or less of Discretionary Income | Missing       | Total |
|  | Using 3YR: Above 12% of Annual Earnings AND Above 30% of Discretionary Income - Using P3YR: Above 8% of Annual Earnings AND Above 20% of Discretionary Income | Using 3YR: Between 8% and not more than 12% of Annual Earnings OR Between 20% and not more than 30% of Discretionary Income - Using P3YR: Not Applicable |              |   |               |       |
| At least 45%   | 6.2%  | 5.7%   | 25.0%        | 0.2%  | 37.1%         |       |
| At least 35% and Less Than 45%   | 3.3%  | 2.5%   | 7.5%         | 0.1%  | 13.3%         |       |
| Below 35%  | 7.1%  | 5.6%   | 33.1%        | 0.4%  | 46.2%         |       |
| Missing  | 0.4%  | 0.3%   | 1.6%         | 1.1%  | 3.4%          |       |
| <b>Total</b>   | <b>16.9%</b>  | <b>14.1%</b>   | <b>67.3%</b> | <b>1.7%</b>   | <b>100.0%</b> |       |

Percent Ineligible 7.1%  
 Percent Restricted 11.3%  
 Percent Eligible 77.6%  
 Percent Not Able to Determine 4.0%

| Impact of Gainful Employment Proposed Regulations - Adjusted Repayment Rates              |   |  |              |   |               |       |
|---|---|--|--------------|---|---------------|-------|
| Students  |   |  |              |   |               |       |
| Total Number of Students Enrolled in Programs Subject to the Proposed Regulation: 664,971 | Debt-To-Income  |  |              | Using 3YR OR P3YR: 8% or less of Annual Earnings OR 20% or less of Discretionary Income | Missing       | Total |
|   | Using 3YR: Above 12% of Annual Earnings AND Above 30% of Discretionary Income - Using P3YR: Above 8% of Annual Earnings AND Above 20% of Discretionary Income | Using 3YR: Between 8% and not more than 12% of Annual Earnings OR Between 20% and not more than 30% of Discretionary Income - Using P3YR: Not Applicable |              |   |               |       |
| At least 45%  | 8.6%  | 10.3%  | 21.6%        | 0.1%  | 40.5%         |       |
| At least 35% and Less Than 45%  | 9.9%  | 5.4%   | 17.4%        | 0.1%  | 32.8%         |       |
| Below 35%   | 7.5%  | 4.3%   | 14.2%        | 0.1%  | 26.2%         |       |
| Missing   | 0.0%  | 0.0%   | 0.5%         | 0.0%  | 0.5%          |       |
| <b>Total</b>  | <b>26.1%</b>  | <b>20.0%</b>   | <b>53.7%</b> | <b>0.3%</b>   | <b>100.0%</b> |       |

Percent Ineligible 7.5%  
 Percent Restricted 19.6%  
 Percent Eligible 72.1%  
 Percent Not Able to Determine 0.8%

Our estimates of impacted programs are higher when we adjust for the fact that our repayment rates are overstated. When we adjust our repayment rates to have the same average as in the Department of Education’s data, we estimate that 8.8 percent of programs would fail, and an additional 13.8 percent of programs would be restricted. Adjusting for our overstatement of the repayment rates, we estimate that 13.0 percent of students are in programs that would fail, and an additional 23.6 percent of students are in programs that would be restricted.

Table 5

| Impact of Gainful Employment Proposed Regulations - Adjusted Repayment Rates |   |  |   |             |               |       |
|--|---|--|---|-------------|---------------|-------|
| Programs   |   |  |   |             |               |       |
| Total Number of Programs Subject to the Proposed Regulation: 11,304          | Debt-To-Income  |  |   |             | Missing       | Total |
|  | Using 3YP: Above 12% of Annual Earnings AND Above 30% of Discretionary Income - Using P3YP: Above 8% of Annual Earnings AND Above 20% of Discretionary Income | Using 3YP: Between 8% and not more than 12% of Annual Earnings OR Between 20% and not more than 30% of Discretionary Income - Using P3YP: Not Applicable | Using 3YP OR P3YP: 8% or less of Annual Earnings OR 20% or less of Discretionary Income |             |               |       |
| At least 45%   | 3.9%  | 3.8%   | 19.4%   | 0.2%        | 27.2%         |       |
| At least 35% and Less Than 45%   | 3.9%  | 3.1%   | 8.7%  | 0.1%        | 15.7%         |       |
| Below 35%  | 8.8%  | 6.9%   | 37.6%   | 0.4%        | 53.7%         |       |
| Missing  | 0.4%  | 0.3%   | 1.6%  | 1.1%        | 3.4%          |       |
| <b>Total</b>   | <b>16.9%</b>  | <b>14.1%</b>   | <b>67.3%</b>  | <b>1.7%</b> | <b>100.0%</b> |       |

Percent Ineligible 8.8%  
 Percent Restricted 13.8%  
 Percent Eligible 73.4%  
 Percent Not Able to Determine 4.0%

| Impact of Gainful Employment Proposed Regulations - Adjusted Repayment Rates              |   |  |   |             |               |       |
|---|---|--|---|-------------|---------------|-------|
| Students  |   |  |   |             |               |       |
| Total Number of Students Enrolled in Programs Subject to the Proposed Regulation: 664,971 | Debt-To-Income  |  |   |             | Missing       | Total |
|   | Using 3YP: Above 12% of Annual Earnings AND Above 30% of Discretionary Income - Using P3YP: Above 8% of Annual Earnings AND Above 20% of Discretionary Income | Using 3YP: Between 8% and not more than 12% of Annual Earnings OR Between 20% and not more than 30% of Discretionary Income - Using P3YP: Not Applicable | Using 3YP OR P3YP: 8% or less of Annual Earnings OR 20% or less of Discretionary Income |             |               |       |
| At least 45%  | 3.7%  | 5.8%   | 13.3%   | 0.0%        | 22.8%         |       |
| At least 35% and Less Than 45%  | 9.4%  | 7.2%   | 15.4%   | 0.0%        | 32.0%         |       |
| Below 35%   | 13.0%   | 7.0%   | 24.5%   | 0.2%        | 44.7%         |       |
| Missing   | 0.0%  | 0.0%   | 0.5%  | 0.0%        | 0.5%          |       |
| <b>Total</b>  | <b>26.1%</b>  | <b>20.0%</b>   | <b>53.7%</b>  | <b>0.3%</b> | <b>100.0%</b> |       |

Percent Ineligible 13.0%  
 Percent Restricted 23.6%  
 Percent Eligible 62.7%  
 Percent Not Able to Determine 0.8%

While the Department’s analysis reported in the NPRM shows a 5 percent failure rate of programs, this analysis is not based on a sample of for-profit programs. In fact, more than half of the programs analyzed by the Department of Education are not for-profit programs. As the Department of Education recognizes that most of the impact of the rule will fall on for-profit colleges, the inclusion of so many not-for-profit schools in the analysis is puzzling. The resulting estimate of a 5 percent failure rate is misleading.

The Department has subsequently reported that the failure rate among for-profit programs in their data is 16 percent, though we think this number refers to the fraction of students, not programs.<sup>11</sup> Because our analysis focuses on for-profit schools and scales the effect by the population of students in for-profit programs, this 16 percent failure rate is the relevant one. Alarming, if one calculates the failure rate using the data on Missouri programs that the Department made public, 26 percent of for-profit programs fail the test, and an additional 30 percent of

<sup>11</sup> See: <http://www2.ed.gov/policy/highered/reg/hearulemaking/2009/ge-faq.pdf>. The Department later clarified that this is 16 percent of students.

programs would be restricted.<sup>12</sup> If it is indeed true that 16 percent of for-profit students are in programs that would fail the proposed rule, and an additional 34 percent of students are in programs that would be restricted absent changes by the schools or students, our estimates of the number of students affected by the rule should be 25 percent higher than the estimates we report based on our own analysis below.

### **C. The role of school and student responses to the rule**

The estimates we have described so far do not yet account for responses to the rule by schools or students, and as a result may overstate, or possibly understate, the effect of the rule if implemented. Schools may attempt to take actions to bring failing or restricted programs into compliance with the rule. Students shut out from failing or restricted programs might choose to attend other programs.

For example, it has been suggested that programs with high debt-to-earnings ratios could reduce tuition as a way to reduce student debt amounts. While this is possible, we are skeptical that its effect would be as direct as has been suggested. Students are allowed to, and commonly do, borrow amounts in addition to tuition, e.g. to cover living expenses. For these students, it is not clear that reductions in tuition would lead to commensurate reductions in student loans. In addition, for institutions for which the 90/10 rule is binding it may not be possible to reduce tuition without increasing tuition for some other program.

One would expect that some of the students shut out from a program because of its ineligible or restricted status would find another program to attend. However, students' ability to and likelihood of doing so depends on available capacity at public programs (which these students would not have chosen to attend if not for the restriction on the for-profit program), and the availability of other programs in similar fields and that are similarly convenient for the student to attend.

If students shut out from ineligible and restricted programs do attend other for-profit programs, it is possible they would cause those programs to be ineligible or restricted. Recall that the students who would attend ineligible programs are high-debt students. While debt amounts are partly related to the characteristics of the programs, they are also largely a function of student economic characteristics. The programs that absorb these students would likely experience an increase in their median debt and a decrease in their repayment rate.

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<sup>12</sup> If one counts the number of for-profit programs that the Department of Education's spreadsheet indicates as failing both the debt-to-income and repayment test, and divides by the number of for-profit programs in the spreadsheet, the result is 0.26, or 26 percent. If one counts up the number of students in ineligible programs, that calculation yields 16 percent. The spreadsheet to which we refer is called ge-data-model.xls, and was downloaded at <http://ifaps.gov> on August 13, 2010.

There is also a question of what effect restricted status would have on the ability of a program to attract students. It seems at least possible that having such a label on a program could discourage enrollment. If this was to happen and restricted programs were to shrink or even close as a result, our estimates could be too low.

We are interested in the effect of the rule not just on current programs and students, but also on access for students going forward. To predict the number of students affected over the next decade, we calculate the number of students entering for-profit programs nationally each year. We then apply the average annual enrollment growth rate over the past 20 years for the for-profit sector to this number. It is then necessary to apply the estimated fraction of for-profit students affected by the gainful employment rule. The preceding discussion points out that an estimate is needed for the effect of school and student responses.

#### **D. Some specific criticisms of the department's analyses regarding student responses to the rule**

The Department presents several scenarios of the projected impact of the NPRM on students. These scenarios are based on assumptions about the choices and ability of students in affected programs to complete, switch programs, transfer, or leave education. Since no regulation of this type has ever been implemented it is difficult to predict what type of response students will have, but there are several assumptions that the Department makes that do not seem plausible.

The Department assumes in most scenarios that only around 10% of students in impacted programs will leave education. All other students are assumed to either complete programs, transfer, or switch programs. Given the fact that the student has chosen a particular program in a particular location in which to enroll, the Department's transfer rates implicitly assume several factors about the student and available programs. First, this assumes that students are able to find a comparable program in the same field at either the same institution or a different institution. Second, since it is unlikely that the same institution has a comparable program in the same field of study, this implicitly assumes that there are other institutions where the student could enroll that are equally as convenient for the student to attend. Third, this assumes that the student will be accepted into the transfer program if that program does not have open enrollment. Fourth, if comparable programs in the same field are unavailable this assumes that students are willing to change their field of study when their program fails and can therefore transfer to any other program that remains eligible.

Given that students have considered their options for education and employment before choosing a program, it seems reasonable to believe that most students would like to continue in their chosen field, especially in the for-profit sector where many students are currently working in their chosen field while attending school. However, the Department assumes up to 50% of students will choose to switch programs. It also seems unlikely that most students will have

numerous other options in the same field at different institutions that will be available in the students' local community, and which offer classes at the same time, etc. Even in cases where other options are available, it seems overly optimistic to assume that the other programs have enough capacity to enroll all students from ineligible programs.

Further, the Department makes several assumptions about the students who transfer that seem unreasonable. In all scenarios the Department assumes around 50% of students in ineligible 4-year programs will transfer to eligible 2-year programs, and vice-versa. Again, given that the students have chosen a certain educational path, it does not seem realistic to assume that nearly half of them would alter the length of that plan after their program is deemed ineligible. This is especially true for students who have chosen a 2-year program or a less than 2-year program that would be assumed to transfer to a longer length program, which of course would cost the student more.

In short, we believe the Department's assumptions concerning the fraction of affected programs that would come into compliance and of the fraction of affected students who would make their way to other programs are far too optimistic.

#### **E. Estimates of the effect of the proposed rule on the number of students entering postsecondary education over the next decade**

Because there are reasons to believe our baseline estimates may overstate or even understate the impact (particularly if the restricted label causes programs to shut down), and because we believe the Department of Education's analysis understates the impact significantly, we present three sets of numbers. One is from our baseline analysis, one assumes half of all students who would be affected by failing or restricted programs are able to attend anyway, and a third assumes one-quarter of all students who would be affected by failing or restricted programs are able to attend anyway. The latter two analyses include the effects both of schools adjusting in ways that improve programs' status, and of students choosing to go to programs that are different from the ones they otherwise would have attended. All three analyses are based on the estimates that adjust the repayment rate so that it is the same on average as the repayment rate in the data shared by the Department of Education.



**Table 6**  
**Estimated Number of Students Impacted by 2020**  
**Median Loan Based on Graduates**  
**CPS Average Earnings by CIP and Program Length**

| Year  | Total Number of Students Impacted | Number of Female Students Impacted | Number of Non-Hispanic Black Students Impacted | Number of Hispanic Students Impacted | Number of Asian Students Impacted |
|---|-----------------------------------|------------------------------------|--|--------------------------------------|-----------------------------------|
| <i>Assumes - No Program Replacement for Ineligible Programs and No Growth for Restricted Programs</i> |                                   |                                    |  |                                      |                                   |
| 2011  | 126,721                           | 85,335                             | 21,963   | 20,691                               | 5,997                             |
| 2012  | 173,609                           | 115,774                            | 30,888   | 28,580                               | 7,759                             |
| 2013  | 188,887                           | 125,962                            | 33,606   | 31,095                               | 8,442                             |
| 2014  | 205,509                           | 137,047                            | 36,564   | 33,831                               | 9,185                             |
| 2015  | 223,593                           | 149,107                            | 39,781   | 36,808                               | 9,993                             |
| 2016  | 243,270                           | 162,229                            | 43,282   | 40,047                               | 10,873                            |
| 2017  | 264,677                           | 176,505                            | 47,091   | 43,571                               | 11,829                            |
| 2018  | 287,969                           | 192,037                            | 51,235   | 47,406                               | 12,870                            |
| 2019  | 313,310                           | 208,937                            | 55,744   | 51,577                               | 14,003                            |
| 2020  | 340,882                           | 227,323                            | 60,649   | 56,116                               | 15,235                            |
| Total Students Impacted   | 2,368,426                         | 1,580,257                          | 420,803  | 389,723                              | 106,188                           |
| Total Students Impacted - Assume 25% Continue in Education  | 1,776,319                         | 1,185,193                          | 315,602  | 292,292                              | 79,641                            |
| Total Students Impacted - Assume 50% Continue in Education  | 1,184,213                         | 790,129                            | 210,402  | 194,861                              | 53,094                            |

Note: The number of impacted students assumes that the CCA data is representative of all for-profit schools, that for-profit schools will continue to grow at 8.8% per year (the growth rate over the last 20 years), and the relative student composition does not change during this period.

The estimated numbers of students who would not receive postsecondary education over the next decade are shown in Table 6. Our most conservative estimate, which assumes half of the potentially affected students attend college, is that more than 1.1 million students will be restricted access because of the proposed rule. Because female, Non-Hispanic Black, and Hispanic students are disproportionately represented at for-profit colleges, the numbers are particularly large among these groups. The estimates from this scenario imply approximately 790,000 fewer female students, more than 210,000 fewer Non-Hispanic Black students, and more than 190,000 fewer Hispanic students may attend college as a result of the rule.

If 25 percent of potentially affected students attend college despite the effects of the rule, the numbers are larger, of course. In that case, we estimate that more than 1.7 million students' college enrollment would be impacted, including more than 1.1 million female students, approximately 315,000 Non-Hispanic Black students, and more than 290,000 Hispanic students.

If there were no net effect of school or student responses, the number of students affected would of course be even larger. These estimates imply upwards of

2.3 million fewer students would attend college over the next decade, including more than 1.5 million female students, more than 420,000 Non-Hispanic Black students and almost 390,000 Hispanic students.

While one might criticize the latter estimates as not accounting for the response of schools and students, consider how the estimates would be affected if placing the “restricted” label on programs were to cause them to shut down. In this case, even assuming that 50 percent of potentially affected students would attend college, more than 2.6 million fewer students would attend college over the next decade as a result of the rule.

Furthermore, all of these estimates assume an annual enrollment growth rate at for-profit colleges of 8.8 percent. That is the average annual growth rate in the sector over the past 20 years. Over the past 5 and 10 years, the annual growth rate of for-profit rate has been 10.1 percent. Though there is no way to tell for sure, it is not unreasonable to expect that further cuts in funding of community colleges that may occur in the coming years could lead the enrollment growth rate at for-profit colleges to increase rather than decrease. All of our estimates would be larger if we assumed an annual enrollment growth rate higher than 8.8 percent per year.

The estimates also do not account for the increases in Stafford loan limits that were implemented after most of the students in our data took out their loans. Increases in loan limits may lead to an increase in median debt amounts for some programs, which would cause an increase in the fraction of programs that are deemed restricted and ineligible.

#### **F. Uncertain fate of “restricted” programs**

The estimates reported thus far assume that there is no growth in enrollment in restricted programs, but that there is no effect of being restricted on the survival of the program itself. There are a number of reasons to suspect that restricted status may lead to the closing of some programs. First, being labeled restricted may deter students from enrolling. If restricted programs offered students lower return on their investment, then the label would be useful information. However, if programs are labeled restricted because the repayment rate is based on a small sample, because social security earnings significantly understate the earnings that graduates could receive, or because the rule does not focus enough on the benefits the program offers, then the label may provide students with misleading information and is not helpful to them.

Second, the placement of the restricted label on a program may have negative spillover effects on other programs within the same school. Students considering a different program at the school may infer negative things about the institution as a whole because programs within that institution are restricted. For this reason, schools may close restricted programs to avoid negative effects on enrollment at eligible programs.

**Table 7**  
**Estimated Number of Students Impacted by 2020**  
**Median Loan Based on Graduates**  
**CPS Average Earnings by CIP and Program Length**

| Year  | Total Number of<br>Students<br>Impacted | Number of<br>Female<br>Students<br>Impacted | Number of Non-<br>Hispanic Black<br>Students<br>Impacted | Number of<br>Hispanic<br>Students<br>Impacted | Number of<br>Asian Students<br>Impacted |
|---|---|---|--|---|---|
| <i>Assumes - No Program Replacement for Ineligible Programs and No Growth for Restricted Programs</i> |   |   |  |   |   |
| Total Students Impacted - Assume 0% of Students in Impacted Programs Continue in Education            |   |   |  |   |   |
| Assume 0% Restricted Programs Shut Down   | 2,368,426                               | 1,580,257                                   | 420,803  | 389,723                                       | 106,188                                 |
| Assume 10% Restricted Programs Shut Down  | 2,694,434                               | 1,773,670                                   | 488,299  | 448,564                                       | 117,424                                 |
| Assume 25% Restricted Programs Shut Down  | 3,183,445                               | 2,063,788                                   | 589,542  | 536,827                                       | 134,278                                 |
| Assume 50% Restricted Programs Shut Down  | 3,998,465                               | 2,547,318                                   | 758,282  | 683,930                                       | 162,369                                 |
| Assume 75% Restricted Programs Shut Down  | 4,813,484                               | 3,030,849                                   | 927,021  | 831,034                                       | 190,460                                 |
| Assume 100% Restricted Programs Shut Down   | 5,628,504                               | 3,514,379                                   | 1,095,761  | 978,138                                       | 218,550                                 |
| Total Students Impacted - Assume 25% of Students in Impacted Programs Continue in Education           |   |   |  |   |   |
| Assume 0% Restricted Programs Shut Down   | 1,776,319                               | 1,185,193                                   | 315,602  | 292,292                                       | 79,641                                  |
| Assume 10% Restricted Programs Shut Down  | 2,020,825                               | 1,330,252                                   | 366,224  | 336,423                                       | 88,068                                  |
| Assume 25% Restricted Programs Shut Down  | 2,387,584                               | 1,547,841                                   | 442,157  | 402,620                                       | 100,709                                 |
| Assume 50% Restricted Programs Shut Down  | 2,998,849                               | 1,910,489                                   | 568,711  | 512,948                                       | 121,777                                 |
| Assume 75% Restricted Programs Shut Down  | 3,610,113                               | 2,273,136                                   | 695,266  | 623,276                                       | 142,845                                 |
| Assume 100% Restricted Programs Shut Down   | 4,221,378                               | 2,635,784                                   | 821,820  | 733,603                                       | 163,913                                 |
| Total Students Impacted - Assume 50% of Students in Impacted Programs Continue in Education           |   |   |  |   |   |
| Assume 0% Restricted Programs Shut Down   | 1,184,213                               | 790,129                                     | 210,402  | 194,861                                       | 53,094                                  |
| Assume 10% Restricted Programs Shut Down  | 1,347,217                               | 886,835                                     | 244,149  | 224,282                                       | 58,712                                  |
| Assume 25% Restricted Programs Shut Down  | 1,591,723                               | 1,031,894                                   | 294,771  | 268,413                                       | 67,139                                  |
| Assume 50% Restricted Programs Shut Down  | 1,999,232                               | 1,273,659                                   | 379,141  | 341,965                                       | 81,184                                  |
| Assume 75% Restricted Programs Shut Down  | 2,406,742                               | 1,515,424                                   | 463,511  | 415,517                                       | 95,230                                  |
| Assume 100% Restricted Programs Shut Down   | 2,814,252                               | 1,757,190                                   | 547,880  | 489,069                                       | 109,275                                 |

Note: The number of impacted students assumes that the CCA data is representative of all for-profit schools, that for-profit schools will continue to grow at 8.8% per year (the growth rate over the last 20 years), and the relative student composition does not change during this period.

To show how important this question is, above we present estimates of the reduction in students going on to college over the next decade under different assumptions of the fraction of restricted programs that shut down. The table reports estimates based on the three different assumptions about the percent of potentially affected students that attend college (zero, 25, and 50 percent).

Beginning with the assumption that 50 percent of potentially affected students attend college, if 10 percent of restricted programs shut down each year, our estimate of the number of students affected over the next decade increases from 1,184,213 to 1,347,217. If 25 percent of restricted programs shut down each year, we estimate that almost 1.6 million fewer students will attend college over the next decade as a result of the proposed rule. If we assume that 50 percent of restricted programs shut down each year, we estimate that nearly 2 million fewer students will attend college over the next decade as a result of the proposed rule. Finally, if 75 percent of restricted programs shut down each year, we estimate that

approximately 2.4 million fewer students will attend college over the next decade as a result of the proposed rule.

Each of these estimates is 50 percent larger if 25 percent of potentially affected students attend college, and twice as large if there is no net ameliorative response on the part of schools and students. These estimates are shown in the table above and range from 1.7 million students to nearly 4.8 million students.

### **G. Ongoing impacts of the proposed rule**

Our analysis does not address the important way in which the proposed rule might affect the creation of new programs. (We also discuss the proposed rules regarding the establishment of new programs in Part III below.) As we discussed in the first section of this comment, changes in the economy have made a college education more and more important over the past 30 years. There is a need for the nation to educate more students beyond high school, and to do that it will be necessary to increase capacity throughout postsecondary education. The proposed rules regarding approval of new programs have the potential to discourage innovation and growth among for-profit colleges. This is an even more worrying possibility in light of the slow growth we expect from the public and private not-for-profit schools.

In addition, our estimates of the impact of the proposed rule over the next decade may be understated because we essentially assume that, in the absence of responses by schools of the type described in section C, the number of programs moving from ineligible to restricted/eligible each year would equal the number of programs moving from restricted/eligible to ineligible. We suspect in practice the restrictions placed on ineligible programs will make it quite difficult to regain eligibility. Whereas, the small-sample fluctuations in the measures are likely to cause some programs to move from restricted/eligible to ineligible each year. If this were the case, the impact on total enrollments would likely be larger than we report above.

### **H. The rule may create an incentive to discriminate**

An additional concern we have that we have not yet addressed directly is the possible discriminatory incentives that the rule might create. If schools want to take action to improve their standing with respect to the proposed rule, the most effective way to do so will be to select students they predict will take on small loan amounts and will not default. It is likely to be easier to select students who would have done these things regardless of the school they attend than to affect the borrowing and repayment behavior of students.

We are concerned that the rule may induce some schools to move away from open enrollment, thereby reducing educational opportunities for many students. We are further concerned that the rule will push schools to select locations and to select admissions criteria to reduce the number of low-income students they admit or

attract. If this were to occur, it is possible that there could be a disproportionately large decline in enrollment among racial and ethnic minority students.

Returning to a theme we have emphasized throughout our comment, whether a reduction in enrollment is good or bad depends not on whether those students would have had to borrow large amounts to attend school. (If this were the case, it would always be good policy to discourage low-income students from attending college.) Rather, it depends directly on whether the students in question would have gained more from the education than the costs. We hope that if a rule resembling the one proposed is implemented, special attention is paid to the net effects on access and enrollment by low-income students.

### **Part III. Concerns about the implementation of the rule**

In this section, we describe a number of concerns we have regarding the implementation of the proposed rule. The concerns we describe are not exhaustive. A major concern relates to the way small sample sizes are likely to have important effects on the metrics in the formula. As we describe, many programs are quite small, leading us to worry that debt to earnings ratios and repayment rates will be calculated from small samples. Another set of concerns relates to the use of social security or IRS earnings data from the graduates of programs. In addition to the small sample problem just mentioned, the use of these data to measure earnings introduces a number of measurement concerns. Other concerns include the way in which the Department assumes the rule will affect tuition levels, the way repayment rates are measured, and the effect of macroeconomic conditions on the debt to earnings ratio and repayment rates.

#### **A. Concerns regarding small programs and small sample sizes**

One particular concern we have regards the treatment of small programs. Because the rule is based on statistics measured from the students enrolled in or completing a program, the repayment rates and debt to earnings ratios are likely to vary significantly from year-to-year in programs with low numbers of students or graduates. Such fluctuations are unlikely to be related to the quality or actions of the program; the choices or luck of a few students could cause these ratios to change significantly.

To illustrate this point, the table below shows the fraction of programs with very high and very low repayment rates, separately for programs with 10 or fewer students and for programs with more than 10 students. Among larger programs, 0.1 percent have repayment rates of 90 percent or above, while 1.2 percent have repayment rates of 10 percent or below. The fraction of programs with very high or very low repayment rates is much larger among small programs. Among programs with 10 or fewer students, 21.9 percent have repayment rates of 90 percent or

above, and 47.1 percent have repayment rates of 10 percent or below. It is unlikely that there is so much more variation in program quality among small programs than among larger programs. This pattern is what would be expected when calculating averages from smaller samples; it suggests that a good deal of the variation in repayment rates is due to measurement error rather than true differences across programs.

**Table 8**  
**Percent of Programs with High or Low Repayment Rates**

|                                     | Less than 10%<br>Repayment Rate | Greater than 90%<br>Repayment Rate |
|-------------------------------------|---------------------------------|------------------------------------|
| Programs with 10 students or less   | 47.1%                           | 21.9%                              |
| Programs with more than 10 students | 1.2%                            | 0.1%                               |

The Department was not consistent in its definition of a program in its analysis described in the NPRM, and has offered imprecise explanations of how very small programs would be treated. The Department has made reference to calculating certain elements at the 4-digit CIP code level, or 2-digit CIP code level as necessary. We suggest that the Department be more specific about how such determinations would be made. For example, how few students would have to be in a program to trigger the redefinition? There have been some references by the Department to using only the repayment rate for programs too small to get reliable earnings data. This shows that the Department recognizes the problems with measurement of small programs. However, the repayment rate is likely to suffer from the same mismeasurement due to small sample sizes as average earnings.

To show how significant a problem this could lead to, consider the table below, which shows the number of programs of different sizes in our data. Recall that counts of students in our data refer to the number of students who exit (whether by completing or not) a program during the 2006 through 2008 fiscal years and who took Title IV loans. Because students leaving a program are the ones on whom the measures in the rule would be based, this count is a relevant measure of program size for the purpose of the proposed rule.

**Table 9**  
**Distribution of Programs by Number of Students**  
**All Programs**

| Number of Students<br>in Program | Number of<br>Programs | Cumulative<br>Percent |
|----------------------------------|-----------------------|-----------------------|
| 1 - 5                            | 6,249                 | 55.3%                 |
| 5 - 10                           | 908                   | 63.3%                 |
| 11 - 25                          | 1,015                 | 72.3%                 |
| 26 - 50                          | 777                   | 79.2%                 |
| 51 - 100                         | 790                   | 86.2%                 |
| 101 - 250                        | 983                   | 94.9%                 |
| 251 - 500                        | 391                   | 98.3%                 |
| > 500                            | 191                   | 100.0%                |
| <b>Total</b>                     | <b>11,304</b>         |                       |



For this analysis, and unless otherwise noted throughout the comment, we define a program to be a specific 6-digit CIP code at a particular campus of a school (defined by OPEID) and of a particular length (less than 2-year, 2-year, 4-year, greater than 4-year). As the table shows, more than half of programs have 5 or fewer students exiting over this three-year period. Nearly two-thirds have 10 or fewer students that would appear in the calculations. While the Department may mean to define a program more broadly, we suggest that the definition be made clearer. The possible impact of the rule, and how many programs are arbitrarily deemed ineligible or restricted, will depend on how programs are defined.

While we think actual programs are likely not this small, these are the sample sizes that would be relevant for the rule if a program is defined at the 6-digit CIP level as the Department has indicated. We suspect that one reason there are so many small programs defined this way is that the 6-digit CIP code is detailed enough that students taking most classes together but with different concentrations are listed as being in different detailed areas of study.<sup>13</sup>

We suggest that the Department address the problem of small sample sizes, and specify precisely the way in which programs are defined. As programs are currently defined, small sample sizes have the potential to cause programs to fail or be restricted arbitrarily.

### **B. Concerns regarding the use of social security or IRS earnings data**

We believe that the use of social security earnings, on its own, will be problematic. First, all of the problems described above related to the small sample sizes and small programs will affect the earnings measure calculated from actual earnings data. Averages or medians calculated from small samples are likely to vary widely from year to year. This year-to-year variation is unlikely to be related to the quality of the program from which the students graduated, but can cause programs to move from eligible to restricted or ineligible according to the rule.

A second fundamental problem is that, to our knowledge, neither social security nor other IRS earnings data include information about the number of hours or weeks worked by the individual. In contrast, the Current Population Survey, the source data for the Bureau of Labor Statistics (BLS) earnings statistics, collects information about the number of weeks each person worked during the year, and about the usual number of hours each person works per week. Without information on weeks or hours worked, it is not possible to tell the difference between someone who got a job halfway through the year that pays \$1,000 per week and someone who worked for the whole year at a job that pays \$500 per week. The total annual earnings for both workers would be reported in the social security earnings data as the same amounts. However, the former worker is likely significantly more skilled,

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<sup>13</sup> If programs were not divided by campus, the cumulative distribution of program sizes is as follows: 1-5: 48.5%; 6-10: 55.6%; 11-25: 65.2%; 26-50: 73%; 51-100: 80.7%; 101-250: 90.9%; 251-500: 96.1%; >500: 100%.



and if she works for more than half of each year going forward, she will have more earnings over her lifetime.

A third problem is that individuals' employment decisions affect their reported earnings. For example, some may choose to work part-time or not to enter the workforce due to family obligations. Others may engage in extended job searches due to location or scheduling preferences. Decisions such as these will affect reported annual earnings, but are not directly related to the quality of education a particular person receives. Since both schools and the Department of Education will receive information only on the average earnings for a group of graduates, there is no way to determine how these individual employment decisions affected the calculated average.

Additionally, it is possible that self-employed workers, particularly those who work in businesses with many cash transactions, underreport earnings to the IRS. If this is a significant problem, the social security earnings will understate the economic wellbeing of graduates. Any such understatement of earnings will cause programs to be restricted or become ineligible unnecessarily.

In addition, earnings are likely to be correlated with the performance of the overall economy. During economic recessions average earnings are likely to be lower as individuals may have longer periods of unemployment or underemployment. In economic booms the average earnings are likely to be higher as a result of competitive pressures and available positions. The Department's approach is therefore likely to result in a larger number of programs being ineligible or restricted during recessions, when the need for retraining is likely at its highest.

Though we believe there are also problems with the BLS earnings measures that were used in the rule suggested in January, offering programs a choice between earnings based on publicly available data and the individual earnings records of graduates will help with many of these problems. The main problem with the BLS earnings measures is that they do not vary by degree length (though research suggests that earnings does). This could be addressed.

It would be beneficial to have the option of using an earnings measure that is based on sound statistical practice, and which is predictable. The more predictable the measures used in the rule are, the more likely that schools will be incentivized to adjust in response, and the less likely that good programs will be negatively affected by it.

### **C. The effect of the debt to earnings ratio test on tuition**

The discussion in the NPRM, as well as public statements by supporters of the proposed rule, suggests a belief that schools will reduce tuition to meet the debt to earnings ratio test. We wish to point to two reasons why this is not as likely as many expect. First, students are allowed to, and commonly do, borrow amounts in excess of what is required to cover tuition, e.g. to cover living expenses. For these students, it is not clear that reductions in tuition would lead to commensurate

reductions in student loans. In addition, for institutions for which the 90/10 rule is binding it may not be possible to reduce tuition without increasing tuition for some other program.

We are concerned that instead the rule could lead schools to end open enrollment policies. In place of open enrollment, the rule could lead schools to restrict enrollment to those students who can fund the education through their personal resources, or who have individual characteristics that have been shown to be highly correlated with labor market success and loan repayment. In this way the proposal carries the strong possibility of limiting access to those students whom the Title IV program was intended to assist.

#### **D. Concerns with the loan measurement and implementation**

Throughout the NPRM the Department underscores its concern that students are taking on too much debt. However, nothing in the proposal addresses students' access to Title IV loans. The rule focuses primarily on the part of the problem that schools cannot control (i.e. how much students borrow, and the choices they make about how to structure their loans), and not enough on the parts over which they can have some control (i.e. the increases in earnings their students experience after completing their programs, graduation rates, and employment rates after graduation).

In addition to this general criticism of the rule, we point out here some specific ways in which details of the rule may have unintended consequences. First, the introduction of numerous ineligible and restricted programs may result in students taking on more debt rather than less. While the department has made some provisions for those students who are currently enrolled in a program deemed "ineligible", it seems likely that many of those students will choose not to remain in those programs. In fact, the Department's own estimate of the impact of the proposed gainful employment rules anticipates students will transfer to other programs. It is reasonable to expect that when students change programs, particularly if they enroll in a new institution, the length of time they spend in school will increase, thereby increasing the debt a student incurs.

Furthermore, how the Department treats the debt of those students who transfer programs is not the same for all students. It appears that based on the current rules students who transfer to a different program within the same institution would carry, from the institution's perspective, the existing debt with them. In contrast, students who transfer to a different program at a different institution would, from the new institution's perspective, come with a "clean slate" with respect to the measurement of her debt at the institution. It is possible that this inconsistent treatment of prior loans could result in institutions restricting access of those wishing to move from a restricted or ineligible program, to an eligible program within the same institution. This possible denial of access would not benefit the student or lead to lower loan burdens.

In general, it is our opinion that the repayment rate, as currently defined, does not measure what the Department intends. Some common choices that students make (consolidation, deferment) cause many dollars to be counted as not in repayment. However, these choices are not always the result of economic hardship. It makes sense for many students to consolidate or defer even though they could afford to make standard payments currently.

How the Department chooses to account for deferred and consolidated loans will impact whether a program satisfies the repayment test. According to the NPRM the department will include the deferred loans in the calculation among the total loans, and because they are in deferment they are loans for which payments are not being made. As many have noted, this approach would result in nearly every medical program failing the Department's repayment criteria. Few, if any, would argue that these low repayment rates among medical schools are indicative of a poor quality program or a high likelihood of default. The Department's repayment calculation penalizes programs whose students make legal, rational, and responsible choices with regard to the repayment of student loans.

The Department's repayment calculation includes both deferred loans and loans where the student is making interest-only payments in the total loan amount, but not in the amount of loans in repayment. Both of these options were created to provide borrowers additional loan repayment flexibility so that students are less likely to enter into default.

Given the popularity of loan consolidation<sup>14</sup>, deferment and interest-only payments, how the Department has chosen to treat these loans will greatly impact the institutions calculated repayment rate. In each case the effect is to lower the repayment rate. In addition, the students who exercise these options are likely to be those who are most financially at-risk regardless of institution type (for-profit, not-for-profit, or public). As noted above, the Department reported repayment rates of 36 percent for for-profit programs, 56 percent for public programs and 54 percent for private not-for-profit programs. However, as discussed above these percentages do not account for the number of at-risk students being served. As shown in the table below there is a strong correlation between the Department's repayment rates and the percent of Pell recipients in the institution. Thus, it is not surprising to find that institutions serving high-risk students are more likely to have low repayment rates.

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<sup>14</sup> According to the for-profit student level data that we reviewed approximately 25% of the loans were consolidated.

**Table 10**  
**Average Repayment Rate**  
**by Pell Category**

| Percent<br>Pell<br>Category | Average of<br>Estimated<br>Repayment<br>Rate | Number of<br>OPEID<br>Observations |
|-----------------------------|--|------------------------------------|
| 0-20%                       | 61.5%  | 649                                |
| 20-40%                      | 53.0%  | 1,617                              |
| 40-60%                      | 43.5%  | 1,332                              |
| 60-80%                      | 34.3%  | 975                                |
| 80-100%                     | 31.6%  | 676                                |

As previously discussed, for-profit institutions tend to serve students who have traditionally been denied access to postsecondary education, including Pell-eligible students. Given the high percentage of low-income and low-wealth students at for-profit schools, it is not surprising to find lower repayment rates within these institutions. For an institution, one method of increasing repayment rates is to limit the number of at-risk students they enroll. We are concerned that an unintended consequence of the rule could be for schools to cease open enrollment policies, and to avoid admitting students likely to borrow large amounts. As we have emphasized throughout our comment, if these students would have attended a program that would have offered them large returns, restricting them from attending is not in the students' interest.

**E. The proposed rule does not account for macroeconomic conditions, which are likely to influence the indicators in the formula**

When evaluating a particular program it should be the quality of the program that should be measured, not the cost or short-term post-completion earnings. As we initially stated, the cost of a program for an individual is only "too" high when the costs exceed the lifetime benefits for the individual. The department's attempt to measure quality based on repayment rates and debt-to-income ratios is too highly correlated with the broader economy for which no institution can predict or control. Simply based on changes in macroeconomic conditions a program can move from eligible to ineligible, with no change in the quality of service being provided. When the economy is "booming" there may be poor-quality programs that meet the thresholds recommended by the department, and when the economy is in a recession high-quality programs will fail to meet the thresholds recommended by the department.

**F. New programs may face significant barriers, limiting the potential for growth of the education sector**

According to the NPRM, institutions would have to apply for approval of new programs if the program wishes to be eligible to receive Title IV aid. Approval

would require the institution to provide “(1) the projected enrollment for the program for the next five years for each location of the institution that will offer the additional program, (2) documentation from employers not affiliated with the institution that the program’s curriculum aligns with recognized occupations at those employers’ businesses, and that there are projected job vacancies or expected demand for those occupations at those businesses, and (3) if the additional program constitutes a substantive change, documentation of the approval of the substantive change from its accrediting agency.” The programs would then be subject to the gainful employment restrictions as soon as data was available, and before then based on data from existing programs at that institution from the same job family.

Given the approval process suggested in the NPRM, the barriers faced by institutions in introducing new programs may be quite substantial. If these barriers in any way restrict programs from starting, the growth rate of graduates from for-profit postsecondary institutions would slow as a result.

#### **Part IV: Recommendations**

As we have tried to emphasize throughout our comment, we believe the focus of the Department of Education should be on ensuring access to education for all students for whom the benefits are likely to outweigh the costs. We believe the current proposed rule does not achieve these goals. In particular, we believe the focus on debt to earnings ratios rather than on the earnings gains that result from education will cause some good programs to be shut down. Additionally, for the reasons outlined in the previous sections we think there is potential for programs to be closed or restricted for reasons unrelated to quality, and for postsecondary access to be restricted generally and particularly for groups of students that have historically had low access. For this reason, we think the formula should be completely rethought.

However, if the Department of Education is going to proceed with a rule that resembles the one described in the NPRM, we recommend the following adjustments.

##### **1. The annual debt payments used in the calculation of debt to earnings ratios should be the lowest debt payment that each student has the option of choosing.**

If the goal of the rule is to protect students from having required debt payments that are too high, the rule should recognize that students are legally able to reduce those payments by either extending the length of the loan or by entering into income-based repayment. Any student who is having trouble making Title IV loan payments in the early years after completing school can reduce his annual loan payments using one of these options. It is therefore incorrect to characterize the student’s annual debt burden by the payment that would be required by a 10-year repayment period.

If such a calculation were logistically difficult, an alternative would be to calculate debt payments assuming a 15- or 20-year repayment period. All students have the option of choosing to extend the loan period of Title IV loans, to different lengths that depend on the size of the loan. The allowed length that corresponds to each student's loan size could be used, or the average allowed length could be used.

**2. The option of using publicly available data to compute earnings, in addition to a measure of actual earnings, should be brought back to the proposal.**

The rule that was proposed in January of 2010 included a measure of earnings that was based on Bureau of Labor Statistics estimated earnings, as well as the option for schools to submit their own data on actual earnings of their graduates. We applaud the Department of Education in their attempt to improve the measure of earnings through the use of administratively collected individual earnings for the students that attended each program. Unfortunately, as we describe above, these data also have shortcomings (e.g. the inability to distinguish between full-year and part-year workers, small samples from which to estimate averages or medians, possible underreporting of earnings by self-employed workers).

While we were critical of particular details regarding the BLS earnings estimates that were proposed in January 2010, the use of a publicly available data source has some advantages relative to what is currently proposed. Because the two methods have different strengths and weaknesses, we suggest the Department of Education considers basing their estimate of earnings on both sources of data. One possibility would be to allow schools to choose which of the two methods to use each year. This would protect, for example, against the year-to-year fluctuations in the actual earnings measure that are likely to occur for small programs in particular.

**3. The allowable debt to earnings ratio should relate to the length of the program.**

In theory, actual earnings should be higher for students who complete longer programs. Given the small size of many programs, we are concerned that the small samples from which averages or medians are calculated will not appropriately capture the true relationship between program length and earnings. For this reason, we suggest that the Department of Education consider adopting different debt to earnings ratio standards for different length programs.

In addition, if the Department of Education elects to use a measure of earnings based on the BLS data, as it proposed in January of 2010, we suggest that adjustments be made to those numbers to account for the fact that on average students who complete more years of college earn more.



**4. Measures that are used in the proposed formula for each program should be based on samples that are large enough to be statistically meaningful.**

As we discuss above, the data we analyzed suggest that many programs are small enough that sample sizes should be a concern. If annual samples of graduates or enrollees are used, we are concerned that debt to earnings ratios and repayment rates may move around year-to-year for reasons unrelated to program quality. The Department of Education's analysis did not address problems resulting from small program size because that analysis was in some cases based on measures for entities that are larger than programs. We suggest that the Department of Education clarify how a program will be defined, and conduct analyses of potential impact using data defined at the program level in the way that would be done if the rule were implemented.

As we have described above, some of the measures used in the proposed rule are likely to change year to year for reasons unrelated to the quality or actions of the program. Much of this year-to-year variation will result from small sample sizes, though some of it will result from external factors such as the macroeconomy and choices by students. The reliance on measures that are prone to move around like this will reduce the incentive the rule creates for schools to change their behavior.

**5. The rule should account for the fact that macroeconomic events, such as recessions, can cause negative employment and loan repayment outcomes, and that these events are often not predictable at the time students enroll in programs.**

It is likely the case that both repayment rates and annual earnings of graduates are currently lower as a result in part of a recession. It can be difficult to predict at the time a student enters a program what the macroeconomic conditions will be when he completes and is looking for a job. It would be a mistake to attribute the effects of a severe recession to individual schools or programs. We expect that with no adjustments the proposed rule would designate more programs ineligible and restricted during recessions, and fewer during booms. However, all else equal, the total economic cost of education is lower during recessions because the cost includes foregone earnings from the labor market. As a result, the rule will lead to more restrictions on enrollment growth at times when demand is likely to be highest, and total economic cost is likely to be lowest.

**6. The warnings that programs are required to disclose should be precise and should provide students with good information**

We support the idea of providing more information to students to help them make good decisions regarding their education. To the extent that warnings provide students with better information about the likely debt payments they will have to make and the prospects for employment they are likely to face, we think they will help students. However, information can also lead students to make decisions that are bad for them if it is misleading. For example, consider a small program whose

repayment rate moves dramatically from high to low because it is based on the experiences of a small number of students. It would be misleading to prospective students to tell them that this program has a low repayment rate, without informing them what this assessment is based on (i.e. that it is based on a small sample and that two years ago the repayment rate was high).

## References

Angrist, Joshua D. and Alan B. Krueger. 1991. "Does Compulsory School Attendance Affect Schooling and Earnings?" *Quarterly Journal of Economics* 106 (4): 979-1014.

Card, David. 1999. "The Causal Effect of Education on Earnings," in *Handbook of Labor Economics, Volume 3A* edited by Orley C. Ashenfelter and David Card. New York: Elsevier.

Goldin, Claudia and Lawrence F. Katz. 2008. *The Race Between Education and Technology*. Cambridge, Massachusetts: The Belknap Press.

Kane, Thomas J. and Cecilia E. Rouse. 1995. "Labor-Market Returns to Two- and Four-Year College," *American Economic Review* 85 (3): 600-614.

Katz, Lawrence F. and Kevin M. Murphy. 1992. "Changes in Relative Wages, 1963-1987: Supply and Demand Factors," *Quarterly Journal of Economics* 107 (1): 35-78.

## **Appendix A: A response to Dr. Carnevale**

In a separate comment submitted in response to the same NPRM, Dr. Anthony Carnevale makes direct reference to a report we wrote regarding the gainful employment proposal. We address his criticisms directly here because we believe they are incorrect, and because some of the points he disputes are central to the argument we describe in our comment.

Dr. Carnevale points out correctly that the returns to education are usually estimated to be between 8 and 15 percent per year of schooling. He then points out that these estimates are not based on studies of students at for-profit colleges. He also claims that these estimates are “based on studies of students with Associate’s and Bachelor’s degrees”.

This is not correct. It is true that some studies compare students with those degrees to high school graduates. However, what is arguably the best study of the returns to education compares the earnings of students who drop out at different points in high school, depending on when they reach the age at which compulsory schooling laws allow them to (Angrist and Krueger, 1991). This study estimates the return to a year of high school, among high school dropouts, and finds a return of 10 percent per year of schooling. The highest-quality study that examines the returns to community college education is by Tom Kane and Cecilia Rouse (1995). Using data that follows students who completed high school in 1972, they find that the returns per credit at 2-year colleges is no different than the return per credit at 4-year colleges; this is true both for students who completed Associate’s degree programs and for those who only completed a semester or two’s worth of classes. On a per year basis, they find returns of 4-6 percent. These estimates come from a period when the return to education was on the low end of the 8-15 percent range. As is well documented, the return to education has risen consistently over time since then. If the return to community college has risen in the same proportion with the returns to all other levels of schooling that have been studied, ranging from high school to college, these estimates imply the return is likely between 8 and 10 percent today.

Since the time both of those studies measured earnings, the returns to education has consistently increased. Claudia Goldin and Lawrence Katz (2008), two of the most well respected researchers on the subject and professors of economics at Harvard University, estimate that in 2005 the return to education was between 13 and 14 percent per year. Thus, a student completing four years of college on average earned more than 55 percent more each year than a high school graduate. They conclude that:

The true economic rate of return would remain high even after adjusting for the direct resource costs of providing a college education. Thus, investments in schooling would appear to make enormous economic sense. What is preventing America from crossing the finishing line?

One possibility is that some young people might *not* actually benefit from going to college. The rate of return we have estimated may not be applicable to some young people who do not currently attend or complete college. The average wage gap between college and high school workers may, therefore, overstate the returns to those on the margin of going to college. But that possibility appears not to be the case.

Recent estimates of the rate of return to a year of schooling have used “natural experiments” from policies that have increased access to college, changed college tuition subsidies or merit aid, and altered compulsory schooling laws. These carefully executed studies using plausibly exogenous variation in educational attainment find high rates of return to further schooling. Because these returns would accrue to the marginal youth affected by such policy interventions, often an individual of modest means, they reinforce our conclusion that returns could be extremely high for many individuals currently not finishing college or even not finishing high school. (Goldin and Katz, 2008, p. 336.)

Dr. Carnevale also suggests that it does not make sense to base educational investment decisions on lifetime earnings for older students. Again, this is incorrect. It is true that the lifetime benefit from education that will accrue to an older student is smaller because there are fewer years before retirement in which they will get benefits. However, these students should still compare the future lifetime earnings gains, properly discounted, to the discounted costs of education. For these students, as for any others, basing educational investment decisions on expected earnings in the few years following completion of the schooling would lead to suboptimal decisions.

Furthermore, this point does not affect the simplest argument we make relating the return to education to advisable debt limits. If it is the case that a two year college education causes annual earnings to rise by 10 percent *per year*, a student spending 8 percent of his annual earnings on student loan payments is 2 percent better off for the 10 years he repays the loan, plus the full 10 percent better off for all remaining years after the loan is repaid. This is true regardless of the age of the student, so long as the return per year is the same. There is no research of which we are aware showing that the returns to education, on an annual basis, are lower for older students.

Dr. Carnevale also puzzlingly argues that “lifetime earnings should not be taken into account because it is unreasonable to ask individuals to be burdened by student debt over their lives; there should be a point where the student reaps the gains.” If a student takes on student loan payments that are less than the total annual return to the education those loans support (e.g. 8 percent per year of schooling, and two years of college implies a 16 percent per year increase in earnings), that student reaps the gains in every year. This is true to a lesser extent

in the years he is repaying the loans, and the calculation should include as costs any earnings he has to forgo while he is in school, but he still earns more even after paying his loans than he would have if he had no loans and none of the schooling the loans supported.