

## EXHIBIT A

# Proposed Changes Needed to Improve IPEDS Community College Data: A Proof of Concept Study\*

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### PURPOSE OF PROJECT

Through a proof of concept study based on a set of community colleges, this project will create more comprehensive measures of student retention, progression and completion among community colleges participating in the Federal Student Aid Program (Title IV) than are currently available.

Proposed definitions and formulas include not only first-time, full-time students, but also part-time and incoming transfer students, the “new traditional students,” who are a large and growing share of the American population and who are largely omitted by federal statistics as currently collected in the United States Department of Education’s Integrated Postsecondary Education Data System (IPEDS).<sup>1</sup> This community college study is being conducted in parallel with a Nexus Research and Policy Center study focused on bachelor degree granting institutions.

The resulting report will be a platform for identifying changes in IPEDS that will allow the computation and reporting of more comprehensive measures of student retention, progression, and completion. We recognize that current laws or regulations will have to be changed to improve existing graduation rate measures and we believe this report will act as a spur for needed reform.

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\* Based on a presentation to the CNSTAT/BOTA Panel on Improving the Measurement of Productivity in Higher Education; American Academy of Sciences, Washington, D.C., January 29, 2010. Jay Klagge prepared an earlier version, “Adequate Data for the Comparison of Student Success Rates by Demographic Characteristics and Across Institutional Approaches,” as an APPEEL Fellow – 2009/2010, Policy Project.

## **POLICY ISSUE**

The need to create accurate comparative performance and productivity measures for institutions of higher education is widely recognized today by policymakers and researchers. Consumers also need better data in order to make better choices.

However, the most commonly used measures of comparative performance, undergraduate graduation rates, are plagued by serious limits. Current federal graduation rates cover less than half of all students in higher education and thus cannot accurately gauge institutional performance on this critical outcome measure.

Moreover, these measures, available through IPEDS, are not useful for comparing the contributions made by a growing number of community colleges that enroll a wide variety of students, especially transfer and part-time students, even as community colleges become increasingly central to the nation's goal of increasing the number of adults with postsecondary education.

## **CURRENT STUDENT-RIGHT-TO-KNOW DEFINITION USED BY IPEDS**

The *IPEDS Graduation Rates Survey* (GRS) collects information about student graduation (and, where applicable, outgoing transfer) rates in accordance with the requirements of the Student-Right-To-Know (SRK) and Campus Security Act of 1990 (codified in 20 U.S.C. § 1092; U.S. Public Law 101-542). Today the GRS gathers information from colleges and universities receiving Title IV funding on graduation rates by gender and race or ethnicity by tracking a cohort of undergraduates entering such institution and completing at 100%, 125%, 150% and just recently 200% of “normal” time (for community colleges there is no 125% rate). The cohort is made up of full-time, first-time, degree- or certificate-seeking undergraduates who enter the institution either during the fall term or during the 12-month period between September 1 of one year and August 31 of the next year and are enrolled in courses creditable toward a degree, diploma, certificate, or other award.<sup>2</sup>

As long as IPEDS remains the premier source of data on graduation rates, better comparative measures are needed to promote better policies, improve consumer choice and provide stronger data for evidence based decisions about higher education policies and practices.

## **THE CURRENT STUDENT-RIGHT-TO-KNOW DEFINITION IS FLAWED**

Today the SRK definition used by IPEDS

- accounts for the graduation rate of less than one third of students enrolled in 2-year public institutions and less than one-half of all undergraduate students in the country;<sup>3</sup>
- does not include the graduation rate of incoming transfer students who represent more than a third of all undergraduates enrolled in postsecondary institutions;
- does not include the graduation rate of part-time students who represent over one third of undergraduate enrollment;<sup>4</sup>

- ignores progression rates for full-time and part-time undergraduate students;
- does not permit meaningful comparisons between undergraduate students attending traditional institutions and those attending non-traditional institutions, whether full-time or part-time, for the most critical measures to institutions and policymakers: retention, progression, and graduation.

In short, IPEDS does not meet the needs of the nation as we strive toward a more efficient and more effective system of higher education that serves the needs of an ever more diverse population.

## OMITTING GROWING SEGMENTS

***Over two-thirds of all community college students do not meet the definition that IPEDS must apply and therefore are not included in the nation's measurement of graduation rates.***

The proportion of full-time students is decreasing as the proportion of part-time students is increasing—and IPEDS ignores this most fundamental change in student demographics. In 1970, only 28% of postsecondary students were classified as part-time. By 2007 their percentage had grown to 37%. Put another way, during the 37 years between 1970 and 2007, full-time enrollment in postsecondary institutions grew by 86% while part-time enrollment grew twice as fast, by 176%.<sup>5</sup> Growth in part-time enrollment is expected to increase as the percentage of students who have full-time jobs increases.<sup>6</sup> This trend also helps to explain the growth in adult postsecondary education which grew 26% during the ten years between 1995 and 2005.<sup>7</sup> Moreover, the proportion of students enrolled in traditional institutions—*those providing 3-4 entry points per year, day time courses and classroom instruction*—is decreasing as the proportion of students enrolled in non-traditional institutions—*those with continuous enrollment or multiple entry points per year, evening courses and online instruction*—is increasing.<sup>8</sup>

Given that non-traditional institutions tend to have higher enrollments of incoming transfer students as well as higher enrollments of underserved populations, including minorities, part-timers and working adults, the omission of a large percentage of these students by the current definition used by IPEDS represents a problem for measuring and comparing postsecondary institutions today—a problem that will only intensify over time. And this problem is becoming even more severe at precisely the time when more and better information is needed by policymakers to improve the regulations needed to help make effective higher education possible for a growing range of students and by consumers to improve their chances of certificate- or degree-completion success.

## IGNORING IMPORTANT MEASURES

Beyond the fact that IPEDS measures graduation rates for a decreasing proportion of postsecondary students, IPEDS, under its present mandate, also fails to measure retention rates that include all students and fails to measure progression at all. These two measures, taken together, provide interim measures that allow for predicting graduation rates for postsecondary institutions and would allow

consumers to better understand the likelihood that the support services they may need to succeed are working in the institutions they are considering.

Given the ambitious degree attainment goal set for the nation by President Obama, and the limitations of the current graduation rate measure used by IPEDS, it is imperative that an improved approach to measuring student success be created and implemented. If a new system for measuring the performance of institutions of higher education regarding student success rates is to be developed, then it should be targeted at addressing the issues mentioned in the preceding sections.

## **PROPOSAL FOR CHANGES NEEDED TO OPTIMIZE THE VALUE OF IPEDS**

Arguably, the best way to solve the problems and limitations of the IPEDS graduation rate survey is to replace it altogether with a system based on the universal use of student unit records. But given that the IPEDS survey is what the nation has today and will likely have for the foreseeable future, the focus here is on increasing its value to policymakers, consumers, and researchers by proposing a mechanism to make the data more comprehensive and more accurate.

Any new set of formulas for measuring the performance of institutions of higher education regarding student success rates should address the failings of the current SRK approach that IPEDS must use, including resolving the lack of intermediary measures of student success such as retention and progression rates for all.

This proof of concept study—based on the application of the new formulas detailed below for calculating retention, progression and graduation rates—will show that we *can* measure the success of all students (full-time and part-time, first-time and transfer) and that we *can* eliminate much of the confusion caused today by comparisons among the various approaches to educational delivery schedules (e.g., semesters, quarters, continuous enrollment).

We recognize that many community college students take one or more courses solely for professional reasons or to improve the quality of their life, and we recognize that filling this need is a legitimate and important role of community colleges, but because these students are not pursuing a degree or certificate, by definition they cannot have a progression or completion rate; consequently, ***the measures presented below should be calculated only for certificate- or degree-seeking students.***

We begin with a series of modifications to IPEDS definitions, making them more encompassing and reflective of general trends in student enrollment patterns focusing on the **overall** student body. These modifications will greatly improve current IPEDS statistics. Given the mission of community colleges, we then present a series of formulas aimed at capturing the retention, progression and completion of **part-time students**. In addition, we propose reporting these measures for students who transfer *into* the college (without student unit records, following students who transfer *out* of an institution of higher education is impossible).

## RETENTION RATES: DEFINITIONS AND FORMULAS

Retention rates provide interim measurement of student persistence from year-to-year during their academic studies.

### Overall Retention Rate

Because this definition is focused solely on retention (not progression), to be able to capture all certificate- and degree-seeking students, retention is defined as the percentage of these students who earned at least 3 credit hours in the previous year who went on to complete at least 3 credit hours the following year.<sup>9</sup>

Note that to capture the performance of the institution as a whole, this measure, like all our *overall rates*, includes in the denominator full-time and part-time students as well as students who transfer into the institution.

The general formula for calculating the overall retention rate is:

$$\text{Retention Rate} = \frac{\text{Students in the denominator who also earned at least 3 credits the following year}}{\text{Students who earned at least 3 credits the previous year}}$$

**Table 1** shows how the overall student retention rates could be calculated. While this is a broader and more accurate reflection of student success in a community college, later we propose a series of parallel indicators for part-time students, recognizing the distinct patterns of their educational needs and pathways.

To avoid artificially depressing the graduating class retention rate, *the numerator for this retention rate should also include all students who successfully graduate regardless of the number of credits accumulated in the current year.*

*Table 1 – Calculation of Community College Retention Rates*

<b>Student Classifications</b>	<b>Institution's Denominator*</b>	<b>Institution's Numerator*</b>	<b>Institution's Retention Rates (numerator/denominator)</b>
All degree- or certificate-seeking students	Students who earned at least 3 credits the previous year	Students in the denominator who also earned at least 3 credits the following year	Overall Student Retention Rate

\* All existing IPEDS exclusions would apply.

## PROGRESSION RATES: DEFINITIONS AND FORMULAS

Progression rates measure student advancement from year-to-year toward the completion of their academic program.

### Overall Progression Rate

Progression in this study is defined as the percentage of students who earned at least 20 credit hours during the 12-month measurement period. The choice of 20 credit hours per 12-month period is based on a combination of the SRK (IPEDS) use of 1.5 times the normal degree completion time and the normal credit hours required for degree completion (60 credits/3 years= 20). The number of credit hours required for degree completion varies among institutions and programs; however, 60 credits—the standard minimum—is used for this study.

All students who completed at least 3 credit hours in the previous year comprise the denominator and all students in the denominator who went on to complete at least 20 credit hours during the next 12-month period comprise the numerator.

The general formula for calculating the overall progression rate is:

$$\text{Progression Rate} = \frac{\text{Students in the denominator who also earned at least 20 credits during the current 12-month period}}{\text{Students who earned at least 3 credits the previous 12-month period}}$$

For purposes of maximum comparability, in this formula we have used the SRK (IPEDS) completion window of 3 years for Associates degrees. If institutions were to measure slower progression rates by replacing the 20 credits in the numerator by the number of credits they considered appropriate to measure their respective progression rates, comparisons among institutions would once again become impossible and less meaningful; therefore, we have not provided for this option. However, part-time student progression rates compensate in part for the absence of this option and are described in a separate section below.

*Table 2 – Calculation of Overall Progression Rates*

<b>Student Classifications</b>	<b>Institution's Denominator*</b>	<b>Institution's Numerator*</b>	<b>Institution's Progression Rate (numerator/denominator)</b>
All degree- or certificate-seeking students	Students who earned at least 3 credits the previous year	Students in the denominator who also earned at least 20 credits the following year	Overall Student Progression Rate

\* All existing IPEDS exclusions would apply.

## DEGREE COMPLETION RATES: DEFINITIONS AND FORMULAS

Degree Completion rates provide the most common measurement of student success in their academic program.

The rationale for the change from “graduation” rate to “degree completion” rate is as follows: “Graduation” has been used by IPEDS to identify first-time/first-year students only and therefore its continued use, especially in this study, might cause confusion. “Degree Completion” refers to earning all the appropriate credits required to complete a specific degree program and is therefore a more accurate descriptor, particularly at the program and college levels.

The *IPEDS Graduation Rates Survey* collects information about community college student graduation rates by tracking a cohort of undergraduates and their completion status at 100%, 150% and, recently, 200% of normal time. For this study, we are asking participants to calculate only the “traditional” IPEDS 150% rate and the more recently enacted 200% rate, but modified as noted below to reflect the broader student body.

### The 150% Degree Completion Rate

In order to account for both first-time and incoming transfer students, the 150% Degree Completion Rate in this study is defined as the percentage of students in the cohort who earned at least 3 credit hours at the institution and went on to complete their degree program within 150% of their “personal” expected completion time. The formula for calculating a student’s “personal” expected completion time is shown below.

$$\text{150\% Completion Time} = \frac{\text{Total Program Credits Required} \\ \text{Minus Personal Expected Applicable} \\ \text{Credits Transferred In}}{20 \text{ Credits per year}} = \text{Years + months}$$

For example: If a student transfers in 30 credits and needs 30 credits more to complete the degree, divide the 30 credits needed by 20 credits per year to get a “personal expected time” of 1.5 years or 18 months. (The 150% IPEDS time allowance formulation is already built into the formula, i.e., 60 credits needed/3 years=20 credits per year.) *It should be noted that all of the relevant numbers needed by this and all the proposed formulas are easily gathered by institutions.*

Once again, to maximize comparability the widely used standard of 60 credit minimum for the Associates degree is used in this study. Institutions that require more credit hours for degree completion would have completion rates that benefit slightly from the use of 20 credit hours per 12-month period.

All students in a cohort who completed at least 3 credit hours after being admitted to the institution (including incoming transfer students) comprise the denominator. All of those students who went on to complete their degree program within their “personal” expected completion time comprise the numerator.

The general formula for calculating the 150% Degree Completion Rate is:

$$\text{150\% Degree Completion Rate} = \frac{\text{Students in the denominator who completed their degree program within their "personal" 150\% expected completion time}}{\text{Students who earned at least 3 credits after being admitted to the institution}}$$

Table 3 shows how the 150% Degree Completion Rate is calculated.

Once again, we note that completion rates for part-time students are described in a separate section below.

*Table 3 – Calculation of 150% Degree Completion Rates*

<b>Student Classifications</b>	<b>Institution's Denominator*</b>	<b>Institution's Numerator*</b>	<b>Institution's 150% Graduation Rate (numerator/denominator)</b>
All degree- or certificate-seeking students	Students who earned at least 3 credits after being admitted to the institution	Students in the denominator who completed within 150% of their personal expected time	150% Graduation Rate

\* All existing IPEDS exclusions would apply.

\*\* "Personal" expected degree completion time = credit hours remaining to degree completion upon entry at the institution divided by 20 credit hours = expected time to completion

### The 200% Degree Completion Time

The 200% Degree Completion Rate in this study is defined as the percentage of students who earned at least 3 credit hours at the institution and went on to complete their degree program within 200% of their "personal" expected completion time. Here we divide the 60 credit hours by 4 years to yield 15 credits per year used in the calculation of the 200% completion time.

The formula for calculating a student's "personal" expected completion time is shown below.

$$\text{200\% Completion Time} = \frac{\text{Total Program Credits Required Minus Personal Expected Applicable Credits Transferred In}}{15 \text{ Credits per year}} = \text{Years + months}$$

All students in a cohort who completed at least 3 credit hours after being admitted to the institution comprise the denominator. All of those students who went on to complete their degree program within 200% their “personal” expected completion time comprise the numerator.

The general formula for calculating the 200% Degree Completion Rate is:

$$\text{200\% Degree Completion Rate} = \frac{\text{Students in the denominator who completed their degree program within their “personal” 200\% of expected completion time}}{\text{Students who earned at least 3 credits after being admitted to the institution}}$$

## Part-Time Students

The above formulas present an overall picture of student success in any institution—and while mirroring the current IPEDS approach, creates a more encompassing and accurate measure of student success. However, given their mission, community colleges enroll many students who are not full-time and who will never seek that status. From recent research we know the size of this population is quite large: approximately 49% of undergraduates enroll exclusively full-time and 35% exclusively part-time, and 16% change their enrollment status during the academic year. But most of those attending exclusively part-time, 64%, attend community college, while only 25% of those exclusively full-time students do so. Furthermore, these part-time students are more likely than their full-time peers to enroll for only a limited number of courses or in sub-baccalaureate or non-degree/certificate programs and to lack a major field of study.<sup>10</sup> Not surprisingly, tracking the retention, progression and completion of part-time students is a serious concern of community colleges.

For purposes of this study, and in light of relevant Title IV regulations concerning less than full-time status, we are using the IPEDS definition of part-time students—i.e., those students who enroll in the equivalent of fewer than 12 credits per semester.

### Part-Time Student Retention

The part-time student retention rate is the same as noted above but calculated only for part-time students:

$$\text{PT Retention Rate} = \frac{\text{PT students in the denominator who also earned at least 3 credits the following year}}{\text{PT students who earned at least 3 credits the previous year}}$$

## Part-Time Student Progression and Completion Rates

We modify the progression and completion measures described above to specifically track the success of part-time community college students. The first issue that must be resolved in order to track progression and develop a more appropriate measure of completion rates for part-time students is to set a logical, evidence-based time to degree.

According to the Beginning Postsecondary Student Survey (BPS) of 1996, after six years 15% of students who began in community colleges had earned their associate degrees.<sup>11</sup> The National Education Longitudinal Survey of 1988 found almost the identical percentage of students earning their AA degree after eight years. Based on these data, we redefine our metrics to reflect an *eight year basis* for expected time to degree for part-time students. We also define a 150% graduation rate, based on 12 years, but do not use a 200% graduation rate because that would give students 16 years to graduate and the number who graduate in 16 years is statistically insignificant.

Consequently, in the formulas that follow, which are modifications of those noted above, we use an annual accumulation of 8 credits in measuring the progression rate (8 credits x 8 years=64 credits, which approximates closely the 60 credits needed to earn the Associates degree).

We do not need to repeat all the logic and what was detailed above in the development of the more general measures; however, we do repeat each equation with the needed modifications.

### Part-Time Student Progression Rates:

The general formula for calculating the overall progression rate of part-time students is:

$$\text{PT Progression Rate} = \frac{\text{PT students in the denominator who also earned at least 8 credits during the following 12-month period}}{\text{PT students who earned at least 3 credits the previous 12-month period}}$$

### Degree Completion Rates

For the reasons noted above, we propose two degree completion rates for part-time students, both based on an eight year window for completion, one at 100% the other at 150%. As above, the key in defining these graduation rates is calculating the expected personal completion time, which, by accounting for any credits a student transferred into the college, permits one to account for incoming transfer students independent of their progression rate at any previously attended institutions.

The formula for calculating a student's "personal" expected completion time is shown below.

$$\text{100\% PT Personal Completion Time} = \frac{\text{Total Program Credits Required} - \text{Minus Personal Expected Applicable Credits Transferred In}}{8 \text{ Credits per year}} = \text{Years} + \text{Months}$$

For example: a student who *begins* as a part-time student has an expected completion time of 8 years. However, if a student transfers 40 credits, the expected completion time is now 20 credits/8 (60 credits required for the degree minus 40 transfer credits divided by the targeted 8 credits per year)=2.5 years or 30 months. This “personal expected time” to degree becomes the basis for calculating the part-time 100% completion rate:

The general formula for calculating the part-time student 100% Degree Completion Rate follows:

$$\text{PT 100\% Degree Completion Rate} = \frac{\text{PT students in the denominator who completed their degree program within their “personal” 100\% expected completion time}}{\text{PT students who earned at least 3 credits after being admitted to the institution}}$$

The 150% completion calculations follow directly:

First calculate a student’s appropriate “personal” expected completion time using 5 credits per year (which is the 60 credits needed divided by the 12 year 150% window).

$$\text{PT 150\% Personal Completion Time} = \frac{\text{Total Program Credits Required} - \text{Minus Personal Expected Applicable Credits Transferred In}}{5 \text{ Credits per year}} = \text{Years} + \text{Months}$$

The general formula for calculating the part-time student 150% Degree Completion Rate is:

$$\text{PT 150\% Degree Completion Rate} = \frac{\text{PT students in the denominator who completed their degree program within their “personal” 150\% expected completion time}}{\text{PT students who earned at least 3 credits after being admitted to the institution}}$$

## REPORTING COMPLETION RATES FOR SUBGROUPS

As is well known, there are significant differences in the retention, progression and degree completion rates between genders and across various racial, ethnic and socio-economic groups. Therefore, the measures we propose need to be calculated for at least the following demographic groups: Blacks, Hispanics, non-Hispanic Whites, Asian/Pacific Islanders, Native American/Alaskan, Others/Unknown, females, males and low-income students.

We use Pell grant recipients as a proximate and policy relevant measure of low income. Given the large government investment in Pell grants, calculating the retention, progression and completion of these students is of fundamental public concern.

We recognize that these are not all independent and mutually exclusive categories and that these categories could be “crossed” to create finer levels of detail (e.g., Hispanic women, Hispanic men), because this is a proof of concept report, we do not ask institutions to further disaggregate their data into finer categories, although such disaggregation is both possible and valuable.

Finally, we are also asking for these measures to be reported separately for incoming transfer students, and for both full-time and part-time students.

See **Appendix** for the tables broken out by major racial, ethnic and Pell grant status for four subgroups of students.

Given the goal set by President Obama for the U.S. to have the world’s highest percentage of college graduates by 2020, this study, which aims to more accurately measure graduation rates, should attract considerable attention. Community colleges have become central to achieving those important policy goals—and the time is ripe for the development of measures that more accurately reflect the mission of these institutions.

While at first it may seem that this proposal increases the complexity of the current (and flawed) graduation rate formula IPEDS must use, it in fact breaks through many of the limitations of that formula by increasing comparability and comprehensiveness, while generating important interim measures on retention and progression *using only data easily available to all institutions of higher education and using only formulas that any student record keeping system can easily populate with the available data.*

## DATA COLLECTION

For this study we have developed a series of measures and tables that participants will need to populate applying the definitions, formulas and protocols (cohort years, etc.) indicated to the tables in the Appendix.

By way of an initial proof of concept we populated the cells of all tables with data from the University of Phoenix (UOPX), one of the participating institutions. These tables were fully populated, using UOPX’s data systems, *at a cost of less than \$4,000 of data analyst and research director time (a total of 76 person-hours).* This is relevant because participants will also be asked to prepare a statement of the costs they incurred in creating these measures, since any request to

Congress and USDOE to make changes to IPEDS will need to be accompanied by a burden statement.

In order to keep within a reasonable timetable, participating institutions will be asked to populate these tables from their own student record system—using the definitions, formulas and protocols in this document—within a specified number of weeks of signing the MOU we have prepared.

## **THE REPORT**

The final report will contain a section presenting and analyzing data collected from two-year colleges and another section from the parallel data collection from four-year baccalaureate institutions. The report will be a product of the Nexus Research and Policy Center and the American Institutes for Research (AIR), with Jorge Klor de Alva and Mark Schneider as authors, joined by Deborah Santiago (Excelencia in Education) for the section on two-year colleges.

Participating institutions will be identified by name, since the purpose of the report is to push for greater transparency as well as accuracy. We believe that an anonymous study would have significantly less weight in our discussions with policymakers, consumer groups and USDOE officials.

In order to assure the timely publication and distribution of the report, participating institutions signing the MOU will not have the option to withdraw from the study. However, once the report is written, it will be circulated among the participants for comments. The authors, of course, will have ultimate responsibility for the content of the report. Once the final version is complete, participating institutions will also be asked for suggestions concerning release strategies, but decisions ultimately will rest with the Nexus Research and Policy Center.

## ENDNOTES

<sup>1</sup> U.S. Department of Education, National Center for Education Statistics, “Integrated Postsecondary Education Data System,” available at <http://nces.ed.gov/ipeds/>. Institutional graduation rate data is gathered by NCES through a data collection process system (IPEDS) made up of a number of surveys by which institutions receiving Title IV funds provide information about themselves. The survey this proposal is addressing is known as the Graduation Rate Survey (GRS) <http://nces.ed.gov/ipeds/glossary/index.asp?id=812>

<sup>2</sup> See <http://codes.lp.findlaw.com/uscode/20/28/IV/F/1092> and <http://www.airweb.org/?page=2087> retrieved December 22, 2009.

<sup>3</sup> NCES website link accessed on December 23, 2009, has the figure at 66%, see <http://nces.ed.gov/pubs2001/2001197.pdf>; however, for institutions that report on an academic calendar system, that percentage in the IPEDS GRS Cohort and Total entering class, Fall 2008 results, is estimated at 48.6% for 4-year public institutions and an even lower 32.3% for 2-year public institutions.

<sup>4</sup> NCES website link accessed December 23, 2009: <http://nces.ed.gov/programs/coe/2009/section1/table-hep-2.asp> (See Table A-10-2).

<sup>5</sup> Retrieved from the website link on January 11, 2010, <http://nces.ed.gov/programs/coe/2009/section1/table-hep-1.asp> (See Table A-10-1).

<sup>6</sup> Retrieved from the website link on January 11, 2010, <http://nces.ed.gov/programs/coe/2009/section5/indicator44.asp#info> (See Indicator 44).

<sup>7</sup> Retrieved from the website link on January 11, 2010, [http://nces.ed.gov/programs/digest/d08/tables/dt08\\_370.asp](http://nces.ed.gov/programs/digest/d08/tables/dt08_370.asp) (See Table 370).

<sup>8</sup> Retrieved from the website link on January 11, 2010, [http://nces.ed.gov/programs/digest/d08/tables/dt08\\_188.asp](http://nces.ed.gov/programs/digest/d08/tables/dt08_188.asp) (See Table 188).

<sup>9</sup> Three credits may seem de minimis and by this rule someone could take 20 years to get a “four-year” degree and still be counted as “retained.” However, someone enrolled every year during that period is, in fact, being retained, and that is why a measure of progression is needed along with a measure of retention.

<sup>10</sup> Retrieved from website link on May 25, 2010, [http://nces.ed.gov/das/epubs/pdf/2007165\\_es.pdf](http://nces.ed.gov/das/epubs/pdf/2007165_es.pdf) (See pp. iii, v-vi).

<sup>11</sup> Retrieved from website link on May 25, 2010, [http://nces.ed.gov/das/epubs/pdf/2007165\\_es.pdf](http://nces.ed.gov/das/epubs/pdf/2007165_es.pdf) (See p. ix).

APPENDIX

**Tables for Proposed Institution-Level Measures**

*Table 1 – Associates Retention, Progression and Completion: All Students*

	Retention Rate	Progression Rate	100% Time Completion Rate	150% Time Completion Rate	200% Time Completion Rate
All Students					
All incoming transfer students					
Part-Time students					
Part-time incoming transfer students					

*Table 2 – Associates Demographic Matrix: All Students*

	Overall Retention Rate	Overall Progression Rate	150% Completion Rate	200% Completion Rate
Males				
Females				
Blacks				
Hispanics				
Whites				
Asian/Pacific Isl.				
Native Am/ Alaskan				
Others/ Unknown				
Pell Grant				
No Pell Grant				

*Table 3 – Associates Demographic Matrix: Part-Time Students*

	<b>Retention Rate</b>	<b>Progression Rate</b>	<b>100% Completion Rate</b>	<b>150% Completion Rate</b>
<b>Males</b>				
<b>Females</b>				
<b>Blacks</b>				
<b>Hispanics</b>				
<b>Whites</b>				
<b>Asian/Pacific Isl.</b>				
<b>Native Am/ Alaskan</b>				
<b>Others/Unknown</b>				
<b>Pell Grant</b>				
<b>No Pell Grant</b>				

*Table 4 – Associates Demographic Matrix: All Incoming Transfer Students*

	<b>Retention Rate</b>	<b>Progression Rate</b>	<b>150% Completion Rate</b>	<b>200% Completion Rate</b>
<b>Males</b>				
<b>Females</b>				
<b>Blacks</b>				
<b>Hispanics</b>				
<b>Whites</b>				
<b>Asian/Pacific Isl.</b>				
<b>Native Am/ Alaskan</b>				
<b>Others/Unknown</b>				
<b>Pell Grant</b>				
<b>No Pell Grant</b>				

*Table 5 – Associates Demographic Matrix: Part-Time Incoming Transfer Students*

	<b>Retention Rate</b>	<b>Progression Rate</b>	<b>100% Completion Rate</b>	<b>150% Completion Rate</b>
<b>Males</b>				
<b>Females</b>				
<b>Blacks</b>				
<b>Hispanics</b>				
<b>Whites</b>				
<b>Asian/Pacific Isl.</b>				
<b>Native Am/ Alaskan</b>				
<b>Others/Unknown</b>				
<b>Pell Grant</b>				
<b>No Pell Grant</b>				