Community College
Bridges to Opportunity

Using State Data to Improve Community College Student Success and Attainment

ACHIEVING THE DREAM
COMMUNITY COLLEGES COUNT

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State Student Data Project
Discussion Paper

Reaching Consensus on Common Indicators: A Feasibility Analysis

Background

Eleven states that are participants in the Ford Bridges to Opportunity ("Bridges") and the Lumina Achieving the Dream ("AtD") initiatives have agreed to partner on an effort to improve the use of available data resources in state strategies to increase access and attainment among underserved community and technical college students. The states are: Colorado, Connecticut, Florida, Kentucky, Louisiana, New Mexico, North Carolina, Ohio, Texas, Virginia and Washington. The project is funded by the Ford and Lumina Foundations. Three organizations are partnering to organize the project and provide technical assistance to participating states: Community College Research Center (CCRC), Jobs for the Future (JFF) and the National Center for Higher Education Management Systems (NCHEMS).

The project is designed to benefit the participating states in the following ways:

- ✓ Improved knowledge about the potential audience for community and technical colleges in each state, the characteristics of each state's community college students, their experience and success while enrolled, and their labor market and further education outcomes once they leave.

- ✓ Leverage from participation in a multi-state initiative that might be useful in opening access to data (such as Unemployment Insurance wage records) that in some states have been difficult to acquire due to legal (e.g., FERPA) or bureaucratic barriers.

- ✓ Opportunity to share ideas with other states on how to use data collected by states to assess institutional and system performance, inform practices and policies that lead to increased access for historically underserved populations, improve outcomes for community and technical college

students, document the beneficial impacts of community and technical colleges, and communicate this information in ways that build support for community colleges and their students.

- ✓ Creation of a coalition of states that are measuring access and attainment of community college students and could influence national debates about how best to define community college performance for accountability purposes and other related issues.

As a first step in this process, a meeting was held on April 8, 2005 at Jobs for the Future in Boston to discuss an initial framework for the development of common indicators prepared by NCHEMS. As a result of that meeting, NCHEMS revised this framework extensively and distributed it as a foundation for discussion during state site visits conducted in the summer and fall of 2005. Each state was visited by a team of two NCHEMS staff members and, wherever feasible, representatives from CCRC and JFF (see Appendix C). Purposes of these site visits were a) to assess the general characteristics of the data resources available to each state that would enable them to track the progress and success of community college students consistent with overall project purposes, b) to examine the feasibility of producing each of the proposed measures in the NCHEMS framework and, c) to provide technical assistance and advice to each state as needed.

This paper presents the results of this exercise in three sections. First, the general characteristics of data resources in the participating states are examined thematically to provide an overview of their scope and capacity in the light of Bridges/AtD objectives. Second, two sets of proposed benchmarking measures are presented in the light of the review—one that represents the "least common denominator" that can currently be produced by all eleven states, and an additional set of measures that can currently be produced by at least half of the participating states. Finally, a number of cross-cutting challenges are identified that might provide an agenda for future development in the data initiative, where the leverage of the project might be brought to bear to make further progress in extending state capacity in this important arena.

Data Resources in the Participating States: An Overall Assessment

The principal data resource in each participating state is its basic Student Unit Record (SUR) database that contains various kinds of information about student characteristics and enrollments. In some cases, this database is held and maintained by the state community college system and in some cases it is held and maintained by the state higher education executive office (SHEEO), which collects data for a wider set of institutions in the state. In virtually all cases, however, the basic SUR database was not originally designed to support the kinds of research and tracking purposes that this project demands. Most were

developed to monitor enrollments for the purposes of a funding formula and/or for basic accountability purposes (i.e. generating performance indicators and supporting SHEEO or system-level reporting to the governor or legislature). All are databases that are kept on a term-by-term basis, often with separate files for each term. This structure means that they are adequate for generating cross-sectional statistics but are limited in varying ways with respect to tracking cohorts of students over time. In most cases, this challenge can easily be overcome and all states have been able to generate basic longitudinal tracking information. But it is a condition that needs to be taken into account in any assessment of feasibility because the development of complex measures may involve a heavy investment of programming and analytical talent.

- Basic SUR Data Contents. All eleven states maintain sound basic data on enrollments and awards for credit-bearing students attending community colleges. Data on non-credit and non-degree-seeking students are far less extensive and in many states not present at all. All states also maintain unit-record data on a range of common student characteristics that are useful for disaggregating populations of interest, but these data elements in some cases do not go beyond those necessary for federal IPEDS reporting. All states, for example, maintain data on gender, race/ethnicity, geographic origin (including out-of-state or foreign), age, full-time/part-time status (or credits enrolled for), and degree-seeking status. Many also maintain data elements that describe particular populations of interest to the state such as single parents, Pell-grant or need-based aid recipients, or first generation college students. But these records do not contain information on many matters of concern to the project such as family income level. Basic enrollment data are in some cases further limited by reporting only credits attempted each term with no records kept about credits completed (e.g. TX, NM). This means that many of the proposed NCHEMS performance measures (e.g. the achievement of "College Ready" status) cannot be computed without accessing course databases, which may require a good deal of work. Similarly, most of these databases are substantially limited in their coverage of student performance outside certificate or degree attainment. For example, some do not collect any state-level information about grades (TX, OH, NM) and only a few provide mid-level benchmarks of progress toward a credential such as workforce or job-ready status or readiness for college transfer (FL. TX, WA).

- Transcript-Level Detail. Most of the eleven participating states maintain SUR data at the course level (FL, KY, LA, NC, OH, VA, WA). That is, they are able to access records on student performance (enrollment, completion, and usually grade earned) for every course taken by every student for every term of enrollment. Such data are necessary for calculating many of the NCHEMS measures—especially those related to developmental work and the achievement of transfer-ready status. But

states vary substantially in their ability to access and manipulate these data, and in their experience in doing so. For example, FL and WA have regularly conducted studies that depend on constructed measures built from course records. Remaining states have these data available, but do not have a great deal of experience with accessing and manipulating records at this level of detail, or of conducting in-depth analyses of the resulting statistics.

- Developmental Education. Many of the SUR databases are limited in their ability to provide information on developmental education, either because actual test score data are not included in the files or because developmental placement in the state does not involve comparable standards across institutions. Using either transcript records or flags in the regular SUR database, all states can determine if and when a student took a developmental class, and if and when a student successfully completed these classes—and they can do this for all three developmental skills areas of interest (mathematics, writing, and reading). But only a few (e.g. FL, WA) can track students through different levels of developmental education. Similarly, only a few indicate initial placement into skills deficient status (e.g. CT, FL, WA, TX, OH), and only a few maintain SUR records on actual test scores (CT, FL, TX, OH). Again, those that maintain transcript level detail could construct basic measures of developmental effectiveness but it may take some work to do so. Finally, institutions in a number of states (CT, NC, NM, TX, KY, OH) can establish their own placement policies that are higher than established state minimums. In other cases (NC, NM) institutions can choose from multiple placement tests or develop their own to determine the need for remediation. And in a few states, directed placement policies are not in place that require students who are assessed as deficient to take remediation as a condition of advancement (NM).

- Non-Credit Activity. The vast majority of states are unable to provide much or consistent information on non-credit enrollments or success. Only two states (NC, WA) has complete authority over all non-credit adult education including GED, ABE, and ESL in the state. In other states, most vocational and similar training and development activity is handled as credit-bearing instruction and records are maintained for this reason (e.g. KY). In still others, separate databases have been created to maintain records on non-credit activity and can be tapped (CT, FL, KY, NM, OH). But these databases cannot always be readily cross-referenced with credit-based student information systems. All of these are limited by the fact that they only contain records on what community colleges have provided and this kind of instruction is offered by many other providers. Some of these other providers maintain good records and some do not, and some of them are willing to share these records and some are not. The cumulative overall result is that most states in the project cannot

calculate meaningful state-level statistics about the extent and success of non-credit programming.

- Links to Other Databases. State ability to tap information from three sources outside community college SURs is of considerable interest to the project because such linkages allow various kinds of further education and workforce placement measures to be created. All states can track re-enrollments throughout their community college systems, so they can determine if further education is taking place at a different institution within the two-year sector. For continuation at the four-year level, the picture is mixed. Some states can track these transfers on a unit record basis, but many can only obtain aggregate information on former two-year college enrollees who have re-enrolled at four-year institutions (CO, NC, VA, TX). And, for the most part, unit-record data on transfers are confined to public four-year institutions. Finally, most states supplement transfer data obtained from statewide unit record systems with data from the National Student Clearinghouse.

  Very few states have much information on prior high school performance in their own SURs or can link directly with K-12 SUR records to obtain such information. Only four states (FL, TX and, to a limited extent CT, WA) have recent experience in tapping and using data on prior high school performance. And in many states, the process of linking high school and higher education databases is complicated by the presence of different student identifiers in the two systems (CO, KY, NM, OH, NC, TX, and VA). Finally, only a few states regularly use employment or UI wage records to examine earnings or job placement (CT, WA, FL, NC, OH). Other states have established a method to tap UI wage record data and/or have used such linkages to conduct one-time studies but do not regularly do so (NM, CO, TX. KY, LA, VA, WA).

- Analysis and Reporting. States vary a good deal with respect to the extent to which they analyze data drawn from their SUR data resources, as well as the ways they report the findings of these analyses. In general, most data analysis is driven by state accountability and compliance reporting—for example, performance measures required by legislation or board policy, or federal IPEDS reporting requirements. The second most common driver of analyses is ad hoc requests by state policymakers. Most states generate required accountability measures on an annual basis and disaggregate them by institution among public institutions. But only a few regularly disaggregate these data further by population group—for example, minority status. Only a few states have undertaken in-depth policy studies on topics related to promoting student success for underserved students (e.g. FL, WA). No states currently supply “value-added” unit records that include data on subsequent transfer or job

placement back to individual community colleges.[1] This limits the ability of colleges to analyze important outcomes in relation to experiences and practices that might help improve local practices. Community college representatives in several states (e.g. FL, CY, NC, OH) explicitly expressed interest in gaining access to such data.

- Organizational and Political Issues. Many participating states are challenged by one or more issues of organizational capacity in undertaking this kind of work. Several are in the midst of or have recently completed a registration system conversion that may limit the amount of historical data that can be accessed and certainly represents a substantial (though necessary) diversion of staff effort (CO, NC, VA). Others have small staffs and severe budget constraints which have had a negative impact on their programming and analytical staffs, or simply have limited staffing to begin with (CO, KY, LA, NM). Still other states have mixed data quality because of inconsistent protocols for institutional reporting (CO, LA, NM), although most of these deficiencies are in the process of being remedied.

  Finally, privacy issues (principally associated with FERPA) were mentioned by a number of states as limiting the ability to link or exchange data. As noted, this is most common with respect to obtaining data from four-year institutions when community colleges and four-year institutions are administered under different governing arrangements (e.g. NC, WA), but these issues also affect states where SUR data are maintained by SHEEO agencies (e.g. CO, CT, KY, TX, VA). Similar privacy-related concerns have led to limitations in the ways linkages can be established with UI-wage records (e.g. TX). While some of these issues are undoubtedly real, many of them appear to be political. A recent letter from the Family Services and Compliance Office of the USDOE in response to an institutional complaint about reporting degree records on a unit record basis has meanwhile raised the salience of the privacy issue in KY. Perceptions of this matter are also being colored by the recent politically-charged proposal by NCES to establish a national postsecondary unit-record reporting system.

As indicated in the following section, none of these considerations prevent participating states from making progress on implementing some commonly-defined benchmark measures. But for most states, providing the majority of the measures proposed in the original NCHEMS list is beyond current capacity.

[1] As noted later, this is largely because of their interpretation of the prohibition against "re-disclosure" of student records established by FERPA.

Some Possible Benchmarking Measures

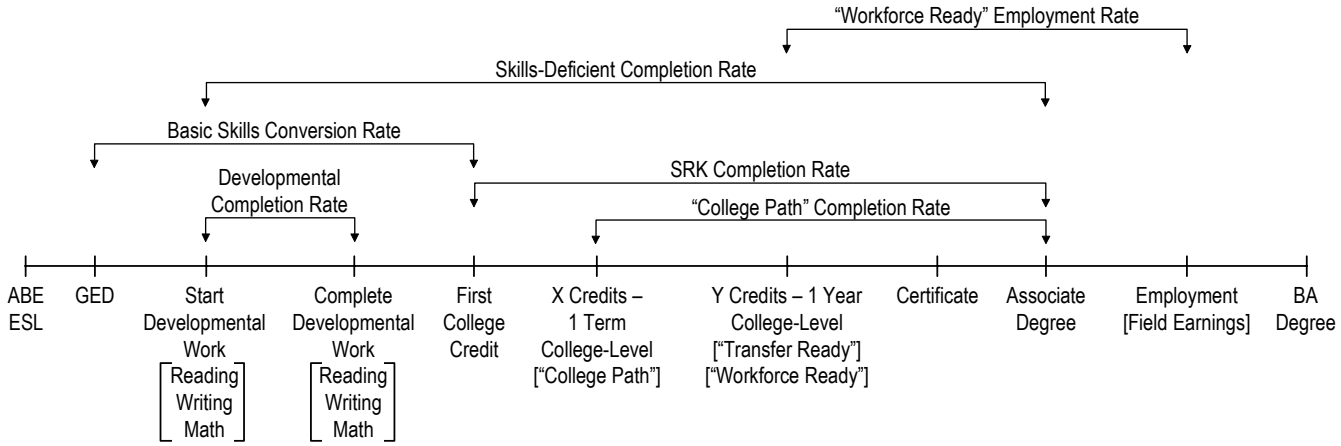
In its original draft, NCHEMS proposed a number of performance measures that might be considered by participating states for monitoring progress and cross-state benchmarking. One of the objectives of the site visits was to assess the current capacity of each state to generate each measure. As a result of this review, two subsets of these measures are presented in this section. Measure Set A consists of measures in the original list (with a few additions suggested by state representatives) that all or most states could currently generate on a consistent basis. Measure Set B consists of an additional subset of the originally-proposed measures that about half of participating states can currently generate, and that others could generate in the future with a moderate level of additional effort and investment.[2] For each measure, a brief assessment is provided of the states that could produce it.

As in the original NCHEMS document, recommended performance measures are defined longitudinally within a given cohort in terms of the relationship between two or more events in a given student's enrollment history within a given period of time. For example, the Basic Completion Rate relates a given student's achievement of an associate degree with his or her first credit enrollment within a specified time period. As another example, the "Skills Deficient Completion Rate" relates the point at which a given student is placed below the college level in one or more basic skills with his or her attainment of an associate degree. An illustrative chart of "milestone events" of this kind is presented in Figure 2. Cohorts are also established as described in the original NCHEMS document. The basic start point for the cohort is defined by the point of first contact of the community college system with a given student. That is, a student is assigned to the cohort that corresponds to the time at which (s)he is enrolled in the system for any purpose (credit, non-credit, degree-seeking, ABE or basic skills, dual enrollment in high school, etc.). At this point, only fall cohorts will be used. A student is a member of the cohort if (s)he was enrolled at any point in the period July 1 through the census date of the fall term. Students who enter with an Associate Degree or higher should be excluded.

[2] The original set of measures proposed by NCHEMS was, in general, viewed with favor by all states and is retained as an "aspiration" list (these measures are provided as Appendix B). The data elements needed to calculate the measures in Measure Sets A and B are listed in Appendix A.

Figure 2

"Milestone Events" in a Student Enrollment Pathway



These performance measures recognize the fact that that such "milestone events" may occur in a different order for different students. For example, students may enroll for their first college-level credit at a point either before or after their enrollment in a developmental course. Similarly, students may transfer before or after they have earned a credential or achieved "transfer ready" status. Given that they will be calculated from statewide databases, they also recognize the fact that these events may take place at different institutions. Each performance measure should be calculated independently in this manner within a given cohort.

Measure Set A. The measures in Set A are fairly basic and for the most part depend only upon the presence of basic enrollment and completions data in state or system SUR databases. The exceptions are proposed measures on developmental education, which will require some states to tap transcript-level detail for developmental courses. None of these measures address non-credit instruction and none of them, except the transfer measure, require linkages to other databases.

- Basic Completion Rate (Credentials). The proportion of students in a cohort who earn a credential, tracked from the point at which they enroll for the first time in instruction that leads to a credential, calculated at annual intervals out to six years.[3] Credentials include degrees, certificates, diplomas or any other formal award. Students placed in developmental work are considered to have reached this start point if they

[3] Because of system conversions or similar limitations in historical data, some states will not be able to track students to the originally-proposed ten year mark, but all who can should be encouraged to do so.

are enrolled in a course of study that leads to a credential. The status of participating states with respect to their ability to calculate this measure is:

CO: Can be calculated (confined to "degree-seeking" students as stated on application).
CT: Can be calculated as defined.
FL: Can be calculated as defined.
KY: Can be calculated as defined.
LA: Can be calculated as defined.
NM: Can be calculated as defined.
NC: Can be calculated as defined.
OH: Can be calculated as defined (but institutions vary in reporting credentials below Associate Degree).
TX: Can be calculated as defined.
VA: Can be calculated as defined.
WA: Can be calculated as defined.

- Basic Completion Rate (Degrees). The proportion of students in a cohort who earn an Associate Degree, tracked from the point at which they enroll for the first time for credit leading to a degree, reported at annual intervals out to six years.[4] Students placed in developmental work are considered to have reached this start point if they are enrolled in the appropriate course of study. The status of participating states with respect to their ability to calculate this measure is:

  CO: Can be calculated (confined to "degree-seeking" students as stated on application).
  CT: Can be calculated as defined.
  FL: Can be calculated as defined.
  KY: Can be calculated as defined.
  LA: Can be calculated as defined.
  NM: Can be calculated as defined.
  NC: Can be calculated as defined.
  OH: Can be calculated as defined.
  TX: Can be calculated as defined.
  VA: Can be calculated as defined.
  WA: Can be calculated as defined.

- Basic Overall Persistence/Success Rate. The proportion of students in a cohort who a) have completed a credential or a degree, b) remain enrolled in a program leading to a credential or a degree, or c) have transferred to another institution in a program leading to a credential or a degree,[5]

[4] Note that this is a subset of the rate above.
[5] Only aggregate information on transfers to four-year institutions is available in many states. This may limit the subpopulation breakdowns that can be provided for this measure although all participating states should be able to generate the basic statistic for the state as a whole. Also, even with states that have unit-

tracked from the point at which they enroll for the first time for credit leading to a degree, reported at annual intervals out to six years. The three components of the measure should be reported separately. The status of participating states with respect to their ability to calculate this measure is:

CO: Can be calculated (confined to "degree-seeking" students as stated on application). Only aggregated data on transfers is currently available.
CT: Can be calculated as defined.
FL: Can be calculated as defined.
KY: Can be calculated as defined. Only aggregated data on transfers is currently available.
LA: Can be calculated as defined.
NM: Can be calculated as defined. Limited data about transfers is available.
NC: Can be calculated as defined. Only aggregated data on transfers is currently available.
OH: Can be calculated as defined (but institutions vary in reporting credentials below Associate Degree).
TX: Can be calculated as defined.
VA: Can be calculated as defined.
WA: Can be calculated as defined.

- Developmental Success Rate I. The proportion of students tracked from the point they begin developmental work who successfully complete developmental work, reported annually out to five years. Reporting should distinguish: a) beginning developmental work in *any* field to the completion of *all* required developmental work and b) be broken down separately to reflect beginning and successful exit in reading, writing, and mathematics. An alternative for states that have test scores or placement levels is to use students identified as deficient as the denominator for this measure. The status of participating states with respect to their ability to calculate this measure is:

CO: Can be calculated on the basis of first registration in developmental education (confined to "degree-seeking" students as stated on application). AccuPlacer test scores available for students who do not place out of testing on the basis of ACT/SAT.
CT: Can be calculated as defined. Accuplacer test scores available for students who do not place out of testing on the basis of SAT. No common cutoff scores.

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record data on transfers, only transfers to public institutions are typically included. Finally, many states can supplement their transfer records with data obtained from the National Student Clearinghouse.

FL: Can be calculated as defined based on reported placement level. Some institutions have established higher cut scores for developmental placement than the state requires. CPT test scores are available for students who do not place out of testing on the basis of ACT/SAT.

KY: Can be calculated as defined on basis of first registration in developmental education. Compass test scores are available for students who do not place out of testing on the basis of ACT/SAT.

LA: Can be calculated as defined. New Master Plan will have guidelines for placement.

NM: Cannot be calculated. No transcript information is available that will indicate first enrollment in a developmental course. No test scores are currently maintained and institution-defined placement and testing policies make comparisons across institutions risky.

NC: Can be calculated as defined on the basis of first registration in developmental education. Institutions use many different tests (AccuPlacer, Compass, ASSET and SAT/ACT) and local placement policies vary.

OH: Can be calculated as defined on the basis of first registration in developmental education.

TX: Can be calculated as defined based on reported placement level via the CBM002 record. Institutions use many different tests (AccuPlacer, Compass, ASSET and SAT/ACT, TASP) and local placement policies vary.

VA: Can be calculated as defined. Compass and Asset are used. Colleges differ in how they code this variable and the test taking schedule differs by college.

WA: Can be calculated as defined on the basis of reported placement levels.

- Developmental Success Rate II. The proportion of students tracked from the point they begin developmental work that successfully complete developmental work and enroll for credit at the college level, reported annually out to five years. Basic reporting should reflect *any* college-level enrollment after the successful completion of developmental work. The status of participating states with respect to their ability to calculate this measure is:[6]

  CO: Can be calculated on the basis of course registrations (confined to "degree-seeking" students as stated on application).

[6] Includes all of the comments associated with the above measure about establishing the beginning of developmental work.

CT: Can be calculated as defined on the basis of college and developmental credits completed.
FL: Can be calculated as defined on the basis of course registrations.
KY: Can be calculated as defined on the basis of course registrations.
LA: Can be calculated as defined on the basis of course registrations.
NM: Cannot be calculated. No transcript level information is maintained and only hours enrolled for are reported.
NC: Can be calculated as defined on the basis of college and developmental credits completed.
OH: Can be calculated as defined on the basis of course registrations.
TX: Can be calculated as defined on the basis of college and developmental credits enrolled for only.
VA: Can be calculated as defined on the basis of course registrations.
WA: Can be calculated as defined on the basis of course registrations.

- Transfer Rate. The proportion of students in a cohort, tracked from the point they first entered a transferable degree program, that subsequently enroll in a degree-program at a baccalaureate degree granting institution,[7] tracked annually out to six years. Reporting should distinguish students who earned an associate degree from those who did not earn an associate degree. The status of participating states with respect to their ability to calculate this measure is:

  CO: Can be calculated (confined to "degree-seeking" students as stated on application). Only aggregated data on transfers is currently available.
  CT: Can be calculated as defined. Only aggregated data on transfers is currently available beyond data obtained from the National Student Clearinghouse.
  FL: Can be calculated as defined.
  KY: Can be calculated as defined. Only aggregated data on transfers is currently available.
  LA: Can be calculated as defined.
  NM: Can be calculated, though may be difficult. Limited transfer information is available.
  NC: Can be calculated as defined. Only aggregated data on transfers is currently available.
  OH: Can be calculated as defined.

[7] See note 6 above.

TX: Can be calculated as defined.
VA: Can be calculated as defined.
WA: Can be calculated as defined.

Measure Set B. The measures in Set B are intended to supplement those in Set A. All depend a great deal on the ability to access transcript-level information and to link to the UI wage record. It is recognized that not all states are now able to generate these measures, either because of current limitations in the available data or because generating them would require considerable programming or analytical effort.

- Basic "College Pathway Status" Achievement Rate. The proportion of students in a cohort who achieve the enrollment milestone of "College Pathway" status, tracked from the point at which they enroll for the first time in instruction that leads to a credential, calculated at annual intervals out to six years. "College Pathway Status" is achieved when the student has completed one term (e.g. 12 SCH or equivalent) of college-level work, and can therefore be considered to be seriously on the path toward achieving a college credential. The status of participating states with respect to their ability to calculate this measure is:

  CO: Can be calculated (confined to "degree-seeking" students as stated on application).
  CT: Can be calculated as defined.
  FL: Can be calculated as defined.
  KY: Can be calculated as defined.
  LA: Can be calculated as defined.
  NM: Cannot currently be calculated (only hours attempted are available).
  NC: Can be calculated as defined.
  OH: Can be calculated as defined.
  TX: Cannot currently be calculated (only hours attempted are available).
  VA: Can be calculated as defined.
  WA: Can be calculated as defined.

- College Path Completion Rate (Credentials). The proportion of students in a cohort who earn a credential less than an Associate Degree, tracked from the point at which they had completed one term (e.g. 12 SCH) of college-level work, calculated at annual intervals out to six years. Credentials include degrees, certificates, diplomas or any other formal award. The status of participating states with respect to their ability to calculate this measure is:

  CO: Can be calculated (confined to "degree-seeking" students as stated on application).

CT: Can be calculated as defined.
FL: Can be calculated as defined.
KY: Can be calculated as defined.
LA: Can be calculated as defined.
NM: Cannot currently be calculated (only hours attempted are available).
NC: Can be calculated as defined.
OH: Can be calculated as defined (but institutions vary in reporting credentials below Associate Degree).
TX: Cannot currently be calculated (only hours attempted are available).
VA: Can be calculated as defined.
WA: Can be calculated as defined.

- College Path Completion Rate (Degrees). The proportion of students in a cohort who earn an Associate Degree, tracked from the point at which they had completed one term (e.g. 12 SCH) of college-level work, reported at annual intervals out to six years. Students placed in developmental work are considered to have reached this start point if they are enrolled in the appropriate course of study. The status of participating states with respect to their ability to calculate this measure is:

  CO: Can be calculated (confined to "degree-seeking" students as stated on application).
  CT: Can be calculated as defined.
  FL: Can be calculated as defined.
  KY: Can be calculated as defined.
  LA: Can be calculated as defined.
  NM: Cannot currently be calculated (only hours attempted are available).
  NC: Can be calculated as defined.
  OH: Can be calculated as defined.
  TX: Cannot currently be calculated (only hours attempted are available).
  VA: Can be calculated as defined.
  WA: Can be calculated as defined.

- College Path Overall Persistence/Success Rate. The proportion of students in a cohort who a) have completed a credential or a degree, b) remain enrolled in a program leading to a credential or a degree, or c) have transferred to another institution in a program leading to a credential or a degree,[8] tracked from the point at which they had completed one term (e.g. 12 SCH) of college-level work, reported at annual intervals out to six years. The status of participating states with respect to their ability to calculate this measure is:

[8] See note 6 above.

CO: Can be calculated (confined to “degree-seeking” students as stated on application). Only aggregate data on transfers are available.
CT: Can be calculated as defined. Only aggregate data on transfers are available.
FL: Can be calculated as defined.
KY: Can be calculated as defined. Only aggregate data on transfers are available.
LA: Can be calculated as defined.
NM: Cannot currently be calculated (only hours attempted are available).
NC: Can be calculated as defined. Only aggregate data on transfers are available.
OH: Can be calculated as defined (but institutions vary in reporting credentials below Associate Degree).
TX: Cannot currently be calculated (only hours attempted are available).
VA: Can be calculated as defined.
WA: Can be calculated as defined.

- Developmental Success Rate III. The proportion of students tracked from the point they begin developmental work that successfully complete developmental work and complete one term (e.g. 12 SCH) of college-level work, reported annually out to five years. The status of participating states with respect to their ability to calculate this measure is:

  CO: Can be calculated on the basis of first course registration in developmental education and cumulated college-level credits (confined to “degree-seeking” students as stated on application).
  CT: Can be calculated as defined on the basis of first course registration in developmental education and cumulated college-level credits.
  FL: Can be calculated as defined on the basis of first course registration in developmental education and cumulated college-level credits.
  KY: Can be calculated as defined on the basis of first course registration in developmental education and cumulated college-level credits.
  LA: Can be calculated as defined on the basis of first course registration in developmental education and cumulated college-level credits.
  NM: Cannot currently be calculated (only hours attempted are available) and no transcript level data is present.

NC: Can be calculated as defined on the basis of first course registration in developmental education and cumulated college-level credits.
OH: Can be calculated as defined on the basis of first course registration in developmental education and cumulated college-level credits.
TX: Cannot be calculated as defined (only hours attempted are available) and no transcript level data is present.
VA: Can be calculated as defined on the basis of first course registration in developmental education and cumulated college-level credits.
WA: Can be calculated as defined on the basis of first course registration in developmental education and cumulated college-level credits.

- Developmental Success Rate IV. The proportion of students tracked from the point they begin developmental work in Writing that successfully complete the college-level course in English Composition (or equivalent) and the proportion that begin developmental work in mathematics that successfully complete a first college-level mathematics course, reported annually out to five years. The status of participating states with respect to their ability to calculate this measure is:

  CO: Cannot be calculated without consulting individual course records for each college.
  CT: Cannot currently be calculated.
  FL: Can be calculated as defined.
  KY: Can be calculated as defined.
  LA: Can be calculated as defined.
  NM: Cannot currently be calculated because no transcript level data is present.
  NC: Can be calculated as defined.
  OH: Can be calculated as defined.
  TX: Cannot currently be calculated because no transcript level data is present.
  VA: Can be calculated as defined.
  WA: Can be calculated as defined.

- Non-Credit Conversion Rate: The proportion of students who entered the cohort as non-credit students (i.e. their "first contact" with the community college was enrollment in a non-credit offering) who subsequently enroll in a program leading to a credential, reported annually out to five years. Reporting should distinguish between entering a degree program and entering a credential program. Reporting should also distinguish between different non-credit tracks including GED, ABE, ESL, etc. The status of participating states with respect to their ability to calculate this measure is:

CO: Can partially be calculated. Limited to students served in these programs contained in the VE-135 database which includes secondary and vo-tech center students; but there are significant potential matching problems with student identifiers.
CT: Can partially be calculated. Limited to students in public community colleges and those institutions that enter this data into their databases.
FL: Can partially be calculated. Limited to students served in these programs by public community colleges.
KY: Can be calculated through the CPE-maintained statewide AERIN database.
LA: Cannot be calculated given current data available.
NC: Can be calculated as defined.
NM: Can partially be calculated. Limited to students served in these programs contained in a separate database; but there are significant potential matching problems with student identifiers.
OH: Can partially be calculated. Limited to students funded through WIA.
TX: Can partially be calculated. Limited to state-funded students in non-credit work as reported via the CBM008 record. Students in different non-credit programs cannot be distinguished. ABE (and some ESL/GED) data is available from TEA via the TACES database; but this database does not capture all ABE activity in the state.
VA: Cannot be calculated given current data available.
WA: Can be calculated as defined.

- Basic Employment Rate. The proportion of students in a cohort, tracked from the point they first enrolled in instruction leading to a credential, who are employed in the third UI-Wage Record reporting quarter after having a) completed a credential or b) their last known enrollment in the program. Reporting should distinguish students who completed a credential from those who did not complete a credential. The status of participating states with respect to their ability to calculate this measure is:

  CO: Capacity to calculate is present, but no recent experience.
  CT: Can be calculated as defined, but currently calculated only for vocational program students.
  FL: Can be calculated as defined.
  KY: Experimental work at CPE has demonstrated how the UI wage match can be accomplished, but no recent experience.
  LA: Capacity to calculate is present, but must be done through the Workforce Commission.

NM: Capacity to calculate is present through CHE, but no recent experience.
NC: Can be calculated as defined through the "Common Follow Up System" through the Employment Security Division (but NCCCS staff are cautious about use of these data).
OH: Can be calculated as defined (though typically fourth quarter is used).
TX: Community colleges currently calculate this measure because a change was made to place UI-wage record matching under THECB control; steps are being taken to provide this information through THECB.
VA: Capacity to calculate is present through SCHEV, but experience is limited.
WA: Can be calculated as defined.

- Earnings Differential. The annualized earnings of a student in the third UI-Wage reporting quarter after having completed a credential or their last known enrollment in a credentialing program minus the annualized earnings of a student in the UI-Wage record reporting quarter corresponding to the student's first known enrollment. If possible, the UI-wage record should be adjusted for self-employment.

CO: Capacity to calculate is present, but no recent experience.
CT: Can be calculated as defined, but currently calculated only for vocational program students.
FL: Can be calculated as defined.
KY: Experimental work at CPE has demonstrated how the UI wage match can be accomplished, but no recent experience.
LA: Capacity to calculate is present, but must be done through the Workforce Commission.
NM: Capacity to calculate is present through CHE, but no recent experience.
NC: Can be calculated as defined through the "Common Follow Up System through the Employment Security Division (but NCCCS staff are cautious about use of these data).
OH: Can be calculated as defined (though typically fourth quarter is used for end point data).
TX: Community colleges currently calculate this measure because a change was made to place UI-wage record matching under THECB control; steps are being taken to provide this information through THECB.
VA: Capacity to calculate is present through SCHEV, but experience is limited.
WA: Can be calculated as defined.

Most of the remaining measures included on the original NCHEMS list (see Appendix B) can currently be calculated by only a few states. But mid-point measures such as "transfer ready" and "workforce ready" are recommended for common future development because of their importance in providing indicators of success short of attaining a formal credential.[9]

Recommended Subpopulations. Proposed measures in Set A and B can at minimum be calculated for the state as a whole. But benchmarking will be considerably more informative if these measures are broken down by a set of agreed-upon subpopulations. The following subpopulations can be generated by all participating states:

- Gender. Standard IPEDS.

- Race/Ethnicity. Standard IPEDS.

- Age. The following breakdown is recommended:
  Traditional Age (under 22 years old).
  Younger Working Age Adult (22-35)
  Older Working Age Adult (36-64)
  Older Student (65 and above)

- Part-Time Status. IPEDS definition for the first term of enrollment.

- Transfer Status. Entering as first-time in college student or as transfer student (further breakdowns of entering transfer students are recommended at term-length intervals (e.g. 15 SCH)).

- Need-Based Aid Status. Students qualifying for need based aid (Pell or equivalent) in their first term of enrollment.

- Family Income. The estimated family income of the student based on the median census-reported income for the Zip code (or census tract) within which the student resides [Measure Set B only].

- Single Parent. Indicates that the student is not married and has dependent children living at home [Measure Set B only]

- First Generation. Indicates that neither of the student's parents attended college [Measure Set B only].

Many other subpopulations of interest can be defined, but the above breakdowns should be sufficient for benchmarking.

[9] Several participating states currently calculate such measures, but they use different definitions.

Common Issues for Project Attention

Because of its high visibility and multi-state character, the Bridges/AtD effort may provide some valuable opportunities to bring multiple stakeholder voices to bear on issues of common interest. While not all of these issues can be foreseen, the state-by-state review suggested that further effort be expended on the following:

- Establishing Linkages Across Databases. Four of the participating states only receive aggregate data on former student transfers to four-year colleges in their states, but there is no technical reason why unit-record data could not be made available. Indeed, individual four-year institutions in these states in many cases have expressed their willingness to provide such data directly because of the importance of their transfer relationships with community colleges. The principal reason advanced for only sharing aggregate data is concern about privacy and violations of FERPA. Because community college systems in the majority of project states can receive detailed information about four-year transfers, there may be an opportunity to mobilize these states' collective experience to demonstrate to those not sharing four-year data how such exchanges can be managed effectively and responsibly. An analogous, but somewhat different, situation exists with respect to linkages to UI-wage record data in many states. Here a number of states are potentially able to make the linkage because pathways have been established through the SHEEO agency or workforce commission, but they lack the experience needed to do this regularly and interpret the results appropriately. Once again, states with more experience in this matter could be of significant help to those that lack such experience. Setting up linkages to K-12 data is also challenged by many factors including privacy and lack of experience. But the biggest issue here is growing lack of correspondence between the special student identifiers assigned by schools and the identification numbers (usually Social Security Numbers) used by colleges and universities. Here the project could consider hosting a "summit" or similar event or initiative to bring representatives from K-12 and postsecondary SUR systems together to work on solutions to this emerging issue.[10]

- Data on Non-Credit Students. Routes into postsecondary education for underserved students often begin with ABE, ESL, GED or various workforce development coursework. Understanding (and maximizing) these transitions is important to achieving the goals of the Bridges/AtD agenda. Yet most states, while they have the data needed for compliance reporting, lack consistent and complete data about

[10] The "Data Quality Campaign" that has just been launched for K-12 SUR systems by the National Center for Educational Accountability and Just For the Kids would be a good co-sponsor of such an initiative.

participation in these programs and they know even less about student success within them. In many cases, this is simply because the state's community colleges are responsible only for a part of this arena. But even in cases where community colleges are responsible for delivering such courses, data about them is collected inconsistently or housed in special-purpose databases that are not connected to the regular student information system.

Although each state's approach to delivering these kinds of programs is different, the project might fruitfully undertake an effort to align and standardize the way such records are maintained. A first step toward doing so might be to develop a core set of data elements and a further set of success measures in this important area. Such an effort would not address the "completeness" problem that arises from differing areas of responsibility for delivering such instruction. But it would at least begin to address the current challenge of community college systems in different states keeping different kinds of records on non-credit students. Once again, the experience of states that have made the most progress in this arena (e.g. NC, WA) might be tapped for "best practices."

- Data on College Readiness. While all states can provide some information on the proportions and characteristics of students who enroll for and complete developmental coursework, the number that maintain (or can meaningfully access and analyze) data on actual test scores in reading, writing, and mathematics is quite limited. And only a few of these can provide data about students who start their experience at different levels of basic skills deficiencies. Finally, almost no states have data on individual student performance on high school exit tests in their postsecondary student record systems. Unlike the issues discussed previously, this is primarily a matter of *missing* data—the data are either not loaded into the postsecondary or community college SUR system or they are not collected in the first place. Having such data available, however, would enable much more meaningful and complete longitudinal tracking databases to be established, which would allow institutions and states to investigate in detail the effects of different kinds of interventions for students with quite different levels of skills gap. Once again, collective attention to this challenge through a systematic initiative aimed at assembling more complete test score databases might be extremely fruitful.

- FERPA and Privacy Issues. As noted earlier, many of the difficulties involved in linking databases—especially with respect to four-year institutions and the UI-wage record—are bound up with varying state (and SHEEO agency) interpretations of privacy laws like FERPA. These concerns have only been heightened by the recent proposal by

NCES to establish a national student unit record system in postsecondary education—a proposal which has achieved a high enough level of visibility in many states to raise questions about data-matching procedures to track students that have been operating for many years. JFF has already produced a valuable issues piece, "State Data Systems and Privacy Concerns: Strategies for Balancing Public Interests," on this matter that might be more widely disseminated and used as the starting point for a joint effort to clarify state-level interpretations of FERPA and other privacy laws, and to begin to develop a consistent set of guidelines. Again, successful practices of states like Florida might be used as models for moving forward.

Other candidates for common action may well emerge as discussions among the eleven states proceed. Based on the state site visits, though, these four seem particularly germane to pursue at this point.

Conclusion

The eleven participating states are at different stages in their evolution of the kinds of SUR data resources needed to support longitudinal measures to track student success consistent with the objectives of the Bridges/AtD initiative. But all states currently can produce a useful core of measures and many can produce a number of others drawn from the set proposed by NCHEMS. The upcoming project meeting in January will be an excellent time to determine which, if any, of these measures should be pursued by participating states and how a potential agenda for common action on the four common issues identified might be undertaken.

Appendix A

Data Elements Needed to Produce the Recommended Measures

Measure Set A

Variable Name	Description	Data Type	Format	Valid values
SSN	Social security number	Alpha	xxx-xx-xxxx	
Student ID	Number assigned by college (alternative to SSN)	Alpha	XXX-XX-XXXX	
Cohort	Cohort year	Numeric		2002 = 2002 Fall cohort 2003 = 2003 Fall cohort 2004 = 2004 Fall cohort 2005 = 2005 Fall cohort 2006 = 2006 Fall cohort 2007 = 2007 Fall cohort
CredCohrtFlag	Indicates date or term at which student first enrolled in a program leading to a credential	Numeric	Derived Variable	Term ID
DegCohrtFlag	Indicates date or term at which student first enrolled in a program leading to a degree	Numeric	Derived Variable	Term ID
DevCohrtFlag	Indicates date or term at which student first enrolled developmental class	Numeric	Derived Variable	Term ID

NCrdCohrtFlag	**Indicates date or term at which student first enrolled in non-credit work not associated with a credential**	**Numeric**	**Derived Variable**	**Term ID**
Gender	**Gender of student**	**Numeric**		**1 = Male** **0 = Female** **-1= Missing**
Birth Year	**Student's year of birth**	**Numeric**	**Yyyy**	**Continuous** **-1 = Missing**
Race	**Race of the student, option 1**	**Numeric**		**1 = American Indian/Alaskan Native** **2 = Asian** **3 = Black/African American** **4 = Native Hawaiian/Other Pacific Islander** **5 = White** **6 = Non-resident alien** **7 = More than one** **8 = Other** **0 = Unknown** **-1 = Missing**
Age	**Age of the student – Calculated**	**Numeric**		
RaceEthnicity	**Race/ethnicity of student, option 2**	**Numeric**		**1 = American Indian/Alaskan Native** **2 = Asian** **3 = Black/African American, non-Hispanic** **4 = Native Hawaiian/Other Pacific Islander** **5 = White, non-Hispanic** **6 = Hispanic** **7 = Non-resident alien** **8 = More than one** **9 = Other** **0 = Unknown** **-1 = Missing**

Citizenship	**What is student's citizenship status?**	**Numeric**		
PPColl	**Prior non-college level activity in the CC system**	**Numeric**	**Derived Data Element**	**1 = prior non-college level activity 2 = no prior non-college level activity**

Term Data Elements

Variable Name	Description	Data Type	Format	Valid values
TERM	**Term to which all of the following elements apply**	**Numeric**		
AcadStatus	**Student is classified as either full or part time in terms of student status**	**Numeric**		
MaRAI	**Student attempted remedial math course; course 1 level below college level**	**Numeric**		**0 = No 1 = Yes -1 = Missing**
EnRAI	**Student attempted remedial English course; course 1 level below college level**	**Numeric**		**0 = No 1 = Yes -1 = Missing**
RdRAI	**Student attempted remedial Reading course; course 1 level below college level**	**Numeric**		**0 = No 1 = Yes -1 = Missing**
NumCdtA	**Number of credits attempted by student in the term.**	**Numeric**		**Continuous -1 = Missing**
NumCdtC	**Number of credits completed by student in the term**	**Numeric**		**Continuous -1 = Missing**
TermGPA	**Student's GPA for the term**	**Numeric**	**x.xx**	**Continuous -1 = Missing**
CumGPA	**Student's cumulative GPA**	**Numeric**	**x.xx**	**Continuous -1 = Missing**
CumCredLoc	**Cumulative credits earned by the student at this institution**	**Numeric**		

	(local)			
TtlPell	The amount of Pell grant received by the student	Numeric		Continuous 0 = Valid zero -1 = Missing
SubInstitut	The identification of any other institution that the student attended after program completion or withdrawal	Numeric		Six digit numeric code

Measure Set B

Variable Name	Description	Data Type	Format	Valid values
SSN	Social security number	Alpha	xxx-xx-xxxx	
Student ID	Number assigned by college (alternative to SSN)	Alpha	XXX-XX-XXXX	
Cohort	Cohort year	Numeric		2002 = 2002 Fall cohort 2003 = 2003 Fall cohort 2004 = 2004 Fall cohort 2005 = 2005 Fall cohort 2006 = 2006 Fall cohort 2007 = 2007 Fall cohort
CredCohrtFlag	Indicates date or term at which student first enrolled in a program leading to a credential	Numeric	Derived Variable	Term ID
DegCohrtFlag	Indicates date or term at which student first enrolled in a program leading to a degree	Numeric	Derived Variable	Term ID

DevCohrtFlag	**Indicates date or term at which student first enrolled developmental class**	**Numeric**	**Derived Variable**	**Term ID**
NCrdCohrtFlag	**Indicates date or term at which student first enrolled in non-credit work not associated with a credential**	**Numeric**	**Derived Variable**	**Term ID**
Gender	**Gender of student**	**Numeric**		**1 = Male** **0 = Female** **-1= Missing**
Birth Year	**Student's year of birth**	**Numeric**	**Yyyy**	**Continuous** **-1 = Missing**
Race	**Race of the student, option 1**	**Numeric**		**1 = American Indian/Alaskan Native** **2 = Asian** **3 = Black/African American** **4 = Native Hawaiian/Other Pacific Islander** **5 = White** **6 = Non-resident alien** **7 = More than one** **8 = Other** **0 = Unknown** **-1 = Missing**
Age	**Age of the student – Calculated**	**Numeric**		
RaceEthnicity	**Race/ethnicity of student, option 2**	**Numeric**		**1 = American Indian/Alaskan Native** **2 = Asian** **3 = Black/African American, non-Hispanic** **4 = Native Hawaiian/Other Pacific Islander** **5 = White, non-Hispanic** **6 = Hispanic**

				7 = Non-resident alien **8 = More than one** **9 = Other** **0 = Unknown** **-1 = Missing**
Zipcode	**Student's zip code of permanent residency**	**Alpha**	**xxxxx-xxxx**	**-1 = Missing**
CountyOrigin	**Students county of origin**	**Numeric**		
StateOrigin	**Student's state of origin**	**Numeric**		
Citizenship	**What is student's citizenship status?**	**Numeric**		
FamStat	**The marital or family status of the student at the time of entry [May include Single Parent Indicator]**	**Numeric**		
Depends	**The number of dependents supported by the student at time of entry**	**Numeric**		**1 = zero** **2 = one or two** **3 = three or more**
Edufath	**Highest level of formal education obtained by the student's father**	**Numeric**	**Edufath**	**Highest level of formal education obtained by the student's father**
Edumoth	**Highest level of formal education obtained by the student's mother**	**Numeric**	**Edumoth**	**Highest level of formal education obtained by the student's mother**
EngRRef	**Student referred to any English remedial courses**	**Numeric**		**For institutions with one level of remediation:** **0 = No** **1 = Yes** **-1 = Missing** **For institutions with multiple**

				levels of remediation: **0 = No** **1 = Yes, 1 level below college level** **2 = Yes, 2 levels below college level** **3 = Yes, 3 or more levels below college level** **-1 = Missing**
RdRRef	**Student referred to any reading remedial courses**	**Numeric**		**For institutions with one level of remediation:** **0 = No** **1 = Yes** **-1 = Missing** **For institutions with multiple levels of remediation:** **0 = No** **1 = Yes, 1 level below college level** **2 = Yes, 2 levels below college level** **3 = Yes, 3 or more levels below college level** **-1 = Missing**
EngRRef	**Student referred to any English remedial courses**	**Numeric**		**For institutions with one level of remediation:** **0 = No** **1 = Yes** **-1 = Missing** **For institutions with multiple levels of remediation:** **0 = No** **1 = Yes, 1 level below college level** **2 = Yes, 2 levels below college**

				level **3 = Yes, 3 or more levels below college level** **-1 = Missing**
MathExmP	**Student's result from the math placement test**	**Numeric**		**0 = Student tested at college level** **1 = Student tested 1 level below college level** **2 = Student tested 2 levels below college level** **3 = Student tested 3 or more levels below college level** **-1 = Missing**
EngExmP	**Student's result from the English placement test**	**Numeric**		**0 = Student tested at college level** **1 = Student tested 1 level below college level** **2 = Student tested 2 levels below college level** **3 = Student tested 3 or more levels below college level** **-1 = Missing**
ReadExmP	**Student's result from the reading placement test**	**Numeric**		**0 = Student tested at college level** **1 = Student tested 1 level below college level** **2 = Student tested 2 levels below college level** **3 = Student tested 3 or more levels below college level** **-1 = Missing**
PPColl	**Prior non-college level activity in the CC system**	**Numeric**	**Derived Data Element**	**1 = prior non-college level activity** **2 = no prior non-college level activity**

Term Data Elements

Variable Name	Description	Data Type	Format	Valid values
TERM	**Term to which all of the following elements apply**	**Numeric**		
AcadStatus	**Student is classified as either full or part time in terms of student status**	**Numeric**		
MaRAI	**Student attempted remedial math course; course 1 level below college level**	**Numeric**		**0 = No 1 = Yes -1 = Missing**
EnRAI	**Student attempted remedial English course; course 1 level below college level**	**Numeric**		**0 = No 1 = Yes -1 = Missing**
RdRAI	**Student attempted remedial Reading course; course 1 level below college level**	**Numeric**		**0 = No 1 = Yes -1 = Missing**
MaRGI	**Grade student achieved in remedial math course; course 1 level below college level**	**Numeric**	**x OR x.xx**	**<u>If pass/fail</u>: 9 = Pass 0 = Fail -1 = Missing -2 = Incomplete <u>If grades given</u>: Continuous -1 = Missing -2 = Incomplete**
EnRGI	**Grade student received in remedial English course; course 1 level below college level**	**Numeric**	**x OR x.xx**	**<u>If pass/fail</u>: 9 = Pass 0 = Fail -1 = missing -2 = Incomplete <u>If grades given</u>: Continuous -1 = Missing -2 = Incomplete**
RdRGI	**Grade student received in remedial reading course; course 1 level below college level**	**Numeric**	**x OR x.xx**	**<u>If pass/fail</u>: 9 = Pass 0 = Fail -1 = Missing -2 = Incomplete <u>If grades given</u>: Continuous -1 = Missing -2 = Incomplete**

CAlgP	**Grade student received in college-level algebra/math**	**Numeric**	**x OR x.xx**	**Continuous 0 = Valid zero -1 = Missing/did not take -2 = Incomplete**
CEngP	**Grade student received in college-level English**	**Numeric**	**x OR x.xx**	**Continuous 0 = Valid zero -1 = Missing/did not take -2 = Incomplete**
NumCdtA	**Number of credits attempted by student in the term.**	**Numeric**		**Continuous -1 = Missing**
NumCdtC	**Number of credits completed by student in the term**	**Numeric**		**Continuous -1 = Missing**
TermGPA	**Student's GPA for the term**	**Numeric**	**x.xx**	**Continuous -1 = Missing**
CumGPA	**Student's cumulative GPA**	**Numeric**	**x.xx**	**Continuous -1 = Missing**
CumCredLoc	**Cumulative credits earned by the student at this institution (local)**	**Numeric**		
TtlPell	**The amount of Pell grant received by the student**	**Numeric**		**Continuous 0 = Valid zero -1 = Missing**
SubInstitut	**The identification of any other institution that the student attended after program completion or withdrawal**	**Numeric**		**Six digit numeric code**
Subemployment	**Describes the employment situation of the student after program completion or withdrawal.**	**Numeric**		**1 = 40 hours 2 = 30-39 hours etc.**
SubIncome	**The annualized income of the student after program completion or withdrawal**	**Numeric**		

Appendix B

Original Proposed List of Measures ("Aspiration Measures")

- Basic Completion Rate (Credentials). The proportion of students in a cohort who earn a credential, tracked from the point at which they enroll for the first time in instruction that leads to a credential, calculated at annual intervals out to ten years. Credentials include degrees, certificates, diplomas or any other formal award.

- Basic Completion Rate (Degrees). The proportion of students in a cohort who earn an Associate Degree, tracked from the point at which they enroll for the first time for credit leading to a degree, reported at annual intervals out to ten years. [Note: this is a subset of Completion Rate (Credentials) above.] Students placed in developmental work are considered to have reached this start point if they are enrolled in the appropriate course of study.

- SRK Completion Rate. The standard federal three-year Associate Degree completion rate for first-time full-time students. [Note: this is a subset of Completion Rate (Degrees) above.] Although few students served by community colleges are included in the scope of Student Right to Know (SRK) reporting, this is a measure that is sufficiently widely accepted and recognized that it should be used as a performance measure.

- Basic Overall Persistence/Success Rate. The proportion of students in a cohort who a) have completed a credential or a degree, b) remain enrolled in a program leading to a credential or a degree, or c) have transferred to another institution in a program leading to a credential or a degree, tracked from the point at which they enroll for the first time for credit leading to a degree, reported at annual intervals out to ten years.

- Basic "College Pathway Status" Achievement Rate. The proportion of students in a cohort who achieve the enrollment milestone of "College Pathway" status, tracked from the point at which they enroll for the first time in instruction that leads to a credential, calculated at annual intervals out to ten years. "College Pathway Status" is achieved when the student has completed one term (e.g. 12 SCH or equivalent) of college-level work, and can therefore be considered to be seriously on the path toward achieving a college credential.

- Basic "Transfer Ready Status" Achievement Rate. The proportion of students in a cohort who achieve the enrollment milestone of "Transfer Ready" status, tracked from the point at which they enroll for the first time in instruction that leads to a credential, calculated at annual intervals out

to ten years. "Transfer Ready Status" is achieved when the student has a) completed one year (e.g. 30 SCH) of college-level work; b) has passed or placed out of all developmental work and; c) has completed English Composition, a college-level math course, and one college-level course in each basic discipline cluster (science, social science, and humanities).

- Basic "Workforce Ready Status" Achievement Rate. The proportion of students in a cohort who achieve the enrollment milestone of "Workforce Ready" status, tracked from the point at which they enroll for the first time in instruction that leads to a credential, calculated at annual intervals out to ten years. "Workforce Ready Status" is achieved when the student has a) completed one year (e.g. 30 SCH) of college-level work at least half of which consists of vocational courses.

- College Path Completion Rate (Credentials). The proportion of students in a cohort who earn a credential less than an Associate Degree, tracked from the point at which they had completed one term (e.g. 12 SCH) of college-level work, calculated at annual intervals out to ten years. Credentials include degrees, certificates, diplomas or any other formal award.

- College Path Completion Rate (Degrees). The proportion of students in a cohort who earn an Associate Degree, tracked from the point at which they had completed one term (e.g. 12 SCH) of college-level work, reported at annual intervals out to ten years. [Note: this is a subset of Completion Rate (Credentials) above.] Students placed in developmental work are considered to have reached this start point if they are enrolled in the appropriate course of study.

- College Path Overall Persistence/Success Rate. The proportion of students in a cohort who a) have completed a credential or a degree, b) remain enrolled in a program leading to a credential or a degree, or c) have transferred to another institution in a program leading to a credential or a degree, tracked from the point at which they had completed one term (e.g. 12 SCH) of college-level work, reported at annual intervals out to ten years.

- College Path "Transfer Ready Status" Achievement Rate. The proportion of students in a cohort who achieve the enrollment milestone of "Transfer Ready" status, tracked from the point at which they had completed one term (e.g. 12 SCH) of college-level work, calculated at annual intervals out to ten years. "Transfer Ready Status" is achieved when the student a) has completed the equivalent of one year of college-level study (e.g. 30 SCH); b) has passed or placed out of all developmental work and; c) has completed English Composition, a college-level math course, and one

college-level course in each basic discipline cluster (science, social science, and humanities).

- College Path "Workforce Ready Status" Achievement Rate. The proportion of students in a cohort who achieve the enrollment milestone of "Workforce Ready" status, tracked from the point at which they had completed one term (e.g. 12 SCH) of college-level work, calculated at annual intervals out to ten years. "Workforce Ready Status" is achieved when the student has completed the equivalent of one year of college-level work, at least half of which consists of vocational courses.

- Developmental Success Rate I. The proportion of students tracked from the point they begin developmental work who successfully complete developmental work, reported annually out to five years. Reporting should distinguish: a) beginning developmental work in *any* field to the completion of *all* required developmental work and b) broken down separately to reflect beginning and successful exit in reading, writing, and mathematics. An alternative for states that have test scores or placement levels is to use students identified as deficient as the denominator for this measure.

- Developmental Success Rate II. The proportion of students tracked from the point they begin developmental work who successfully complete developmental work and enroll for credit at the college level, reported annually out to five years. Basic reporting should reflect *any* college-level enrollment after the successful completion of developmental work. It is recommended that reporting also distinguish: a) successful completion of developmental work in reading followed by enrollment in any college-level course, b) successful completion of developmental work in writing followed by enrollment in any college-level English course and, c) successful completion of developmental work in mathematics followed by enrollment in any college-level mathematics course. An alternative for states that have test scores or placement levels is to use students identified as deficient as the denominator for this measure.

- Literacy Student Persistence/Success Rate. The proportion of students who entered the cohort by enrolling in a literacy development program that completes the attempted level or goal, or re-enrolls successfully at a higher level within two years.

- Non-Credit Conversion Rate: The proportion of students who entered the cohort as non-credit students (i.e. their "first contact" with the community college was enrollment in a non-credit offering) who subsequently enroll in a program leading to a credential, reported annually out to five years. Reporting should distinguish between entering a degree program and entering a credential program. Reporting should also distinguish between different non-credit tracks including GED, ABE, ESL, etc.

- Transfer Rate. The proportion of students in a cohort, tracked from the point they first entered a transferable degree program, who subsequently enroll in a degree-program at a baccalaureate degree granting institution, tracked annually out to ten years. Reporting should distinguish students who earned an Associate degree from those who did not earn an Associate degree. Supplementary reporting might track transfer from the point of either earning an Associate degree or after a year has elapsed from their last known enrollment.

- Transfer Completion Rate. The proportion of students in a cohort, tracked from the point they first enrolled in a transferable degree program, who subsequently earn a baccalaureate degree, tracked annually out to ten years. Reporting should distinguish students who earned an Associates degree from those who did not earn an Associates degree. Supplementary reporting might track transfer from the point of either earning an Associate degree or after year has elapsed from their last known enrollment.

- Basic Employment Rate. The proportion of students in a cohort, tracked from the point they first enrolled in instruction leading to a credential, who are employed in the third UI-Wage Record reporting quarter after having a) completed a credential or b) their last known enrollment in the program. Reporting should distinguish students who completed a credential from those who did not complete a credential. If possible, the UI-wage record should be adjusted for self-employment.

- Credentialed Student Employment Rate. The proportion of students who are employed in the third UI-Wage reporting quarter after having completed a credential. If possible, the UI-wage record should be adjusted for self-employment.

- Average Earnings. The average earnings of a student in the third UI-Wage reporting quarter after having completed a credential or their last known enrollment in a credentialing program. If possible, the UI-wage record should be adjusted for self-employment.

Appendix C

State Site Visits

Colorado	August 17, 2005	Dennis Jones (NCHEMS) Peter Ewell (NCHEMS)
Connecticut	November 8, 2005	Dennis Jones (NCHEMS) Karen Paulson (NCHEMS) Sue Goldberger (JFF) Vanessa Smith Morest (CCRC)
Florida	July 1, 2005	Peter Ewell (NCHEMS) Patrick Kelly (NCHEMS) Sue Goldberger (JFF) Peter Crosta (CCRC)
Louisiana	July 28, 2005	Dennis Jones (NCHEMS) Karen Paulson (NCHEMS)
Kentucky	August 12, 2005	Peter Ewell (NCHEMS) Patrick Kelly (NCHEMS) Davis Jenkins (CCRC)
New Mexico	August 22-23, 2005	Dennis Jones (NCHEMS) Patrick Kelly (NCHEMS) Richard Kazis (JFF)
North Carolina	August 29, 2005	Peter Ewell (NCHEMS) Karen Paulson (NCHEMS) Sue Goldberger (JFF) Heath Prince (JFF) Tim Leinbach (CCRC) Sara Rubin (MDC)
Ohio	July 20, 2005	Dennis Jones (NCHEMS) Karen Paulson (NCHEMS) David Jenkins (CCRC)
Texas	August 24, 2005	Peter Ewell (NCHEMS) Patrick Kelly (NCHEMS) Mike Collins (JFF) Tom Bailey (CCRC)

Virginia	August 11, 2005	Dennis Jones (NCHEMS) Karen Paulson (NCHEMS) Sue Goldberger (JFF) Mike Collins (JFF) Juan Carlos Calcagno (CCRC)
Washington	May 23-24, 2005	Dennis Jones (NCHEMS) Peter Ewell (NCHEMS)