Searching for Our Lost Associate's Degrees:

Project Win-Win at the Finish Line

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Executive Summary

Project Win-Win recruited 61 associate's degree-granting institutions in nine states—Florida, Louisiana, Michigan, Missouri, New York, Ohio, Oregon, Virginia, and Wisconsin—to (a) identify and find former students whose records qualified them for degrees but who never received those degrees, and retroactively award them their associate's degrees, and (b) to identify and find former students whose records indicated that they were within striking distance of an associate's award, and bring them back to school to complete the few credits they had left to qualify for the award.

Each participating institution had two years to complete these tasks, and 60 of them did, to different degrees. In addition, four of these institutions took on a second project, a version of what contemporary discourse calls "reverse transfer," an attempt to transfer back credits from a four-year college to the community college from which currently degree-less students had come. In each of the "Win-Win" versions of these credit reallocation efforts, only two institutions are involved: The community college and the principal four-year school to which its students transfer. We called this a "feeder" relationship.

The Core Win-Win Sequence of Tasks

The core Win-Win sequence of activities for each participating 5. Find and contact the "potentials"; persuade them either to institution consisted of five steps:

- 1.Define a student "universe of interest" in the institution's data files composed of students who had entered any time after the fall term of 2002 in terms of (a) a minimum earned-credit threshold of 60, (b) a cumulative GPA higher than that required for graduation, (c) no credential of any kind ever issued by the institution to the student, and (d) the student had not been enrolled at the school for at least one year working backwards from the institution's Win-Win start date.
- 2. Match the universe of interest against both state and the National Student Clearinghouse (NSC) data bases to eliminate students who had already earned a degree elsewhere or were currently enrolled elsewhere.
- 3. Perform a degree audit on the students remaining under consideration to yield one of three judgments for each student: eligible for an associate's degree award, potential completer with nine or fewer credits to go, or neither of the above.
- 4. Find the "eligibles" and award them retroactive associate's degrees.

return in the current academic year or to commit to return in the following year.

Needless to say, there were considerable variations in the ways 60 completing institutions redefined and carried out each of these steps, and a considerable amount of student mobility they discovered along the way: Transfer-in to the initial institution, transfer out, and currently unlocatable—features of student histories that only complicated the five core tasks.

That so many errors and mismatches were made in the process demonstrated how few of these institutions were prepared to track their own students, and how few state data systems were in any condition to help them out. New variables had to be created in local data bases, students slipped through faulty algorithms, duplicate records sprouted, and required agreements for data exchange between two- and four-year sectors in the same state never materialized. It is no wonder that the initial universe of interest constantly swayed between 126,000 and 134,000 before settling at 128,614—and that was just the beginning of variations the project witnessed.

The Fulcrum of the Degree Audit

As anticipated, the degree audit process was the most labor-intensive, time-consuming, and critical step in the Win-Win sequence. State matchings, NSC matchings, and idiosyncratic institutional interpolations reduced the initial universe of interest from 129,000 to 41,000, but 41,000 is still a lot of students—even across 60 institutions—whose records merited the kind of attention they should have received when the students were last seen at those schools. Software systems may have helped somewhat in the degree audit process, but ultimately virtually all institutions turned to hand-and-eye, line-by-line examination of student transcript information.

Issues such as which associate's degree template should be used, which catalog requirements should be in force in the examination, what course substitutions were possible, which non-academic degree requirements (such as swimming tests) could be ignored, and whether multi-institutional attendees met residency requirements at the cognizant institution—all these arise in degree audit, and all are beyond the reach of software programs. Institutional academic integrity is at stake in degree audits. As one participant put it, "You can't let a machine award degrees."

Result of Degree Audits and Their Follow-up Actions

Integrity is very much evident in the results of degree audits. No institution passed out empty pieces of paper; nobody was indiscriminate. The degree audit outcomes speak eloquently to the core characteristics of this undertaking. These audits produced the following results:

- 6,733 eligible for the award of an associate's degree
- 20,105 potential completers
- •14,872 neither eligible nor potential

The 16 percent eligibility rate exactly matched the 16 percent predicted on the basis of earlier Win-Win type undertakings grounded in analyses of the U.S. Department of Education's transcript-based longitudinal studies. However, only 4,550 of the eligibles actually received degrees, principally because 67 percent of Win-Win projects were housed in institutions with "opt-in" degree award policies that required the student to apply for the degree (and often either pay a fee or be enrolled in the term in which the degree was awarded), and 23 percent of the eligibles could not be located. Some 26 percent of the potential completers could not be located either, meaning that advisors could not even attempt to persuade them to return to school. A somewhat overlapping 26 percent¹ were missing at least one mathematics course required for graduation, hence were unlikely to return, and were placed low on the priority contact lists. Of more than 20,000 Win-Win "potential completers," only 2,076 have either returned to school or indicated their intention to return.

Of students in the four feeder projects, 18 percent of those who went through degree audit were found eligible for degrees. However, only 25 percent of the feeder universe of interest even reached degree audit (versus 34 percent for the Win-Win universe as a whole)—partly because, under the Family Educational Rights and Privacy Act (FERPA) guidelines, students did not grant permission to be included in the community college's cohort, and partly because the four-year college partner removed students from consideration.

FIGURE 1 sets forth the sequence of Win-Win numbers, from the universe of interest to degree awards and the returns of potential completers. Numbers, however, are less than half the Win-Win story.

¹ We did not ask institutions to determine the overlap, hence cannot provide a specific figure.

KEY OUTCOMES FROM PROJECT WIN-WIN²

Step 1: Identify Students in the Universe of Interest

128,614



Step 2: Remove Students Receiving Degrees or Reenrolling Elsewhere (or Other Local Exclusions)

86,925

(68 percent of universe)



Step 3: Evaluate Students for Degree Audit³

41,710

(32 percent of universe)



of Eligibles

6,733

(5 percent of universe)



of Neithers

14,872

(12 percent of universe)



of Potentials

20,105

(16 percent of universe)



of Eligibles Awarded Degrees

4,550

(4 percent of universe)



of Potentials Returning to School

1,668

(1 percent of universe)

² 60 of 61 institutions reporting through degree audit; 59 reporting number of eligibles awarded degrees and potentials returning to school.

³ Some students were identified for degree audit after the matching process; others' degree audits could not be completed, for a total of 41,710 students evaluated through degree audit.

The Rest of the Story: What Win-Win Learned, What it Recommends

Win-Win's work to identify and assist as many qualifying students as possible to earn associate's degrees revealed much about the promises and pitfalls of degree completion, lessons that are more than relevant for state systems and institutions that would undertake similar efforts. Here is a sample of what we learned and what we recommend:

Get the right team in place, and keep it there. Each phase of Win-Win requires appropriate expertise in lead roles, but all team members should be working together from beginning to end: Institutional research officers, registrar, counselors and advisors, and academic officers. The registrar has to be the lead, as that office is responsible for degree audit. Counselors and advisors enter the project in the phase of contacting potential completers.

Understand what is involved in tracking students, and build a tracking system. Most institutions and state higher education authorities did not build their data systems with student tracking in mind. Given the extent of student mobility across institutions, sectors, levels, and state borders, it is about time that everybody did so. That means setting common variables, reaching data-sharing agreements within states and across state borders, and making sure that all institutions are participating with full membership in NSC.

Determine and build data capacity from the start. The initial steps of Win-Win require student-level data systems that can construct the universe of interest, including such variables as transfer-in flags, first date of attendance, GPAs in majors where applicable, and so on. The system should be tested before any subsequent steps are taken, otherwise the institution will be stumbling and reconstructing for too long.

Tighten the data parameters for the initial universe of interest. Use a cumulative GPA threshold higher than 2.0, to avoid later problems of students who are just scraping by. Increase the minimum period of time since the student's last term of enrollment from 12 to 18 months as a marker of those who

have truly left, even though they might have gone somewhere else. Both steps will reduce the numbers sent to degree audit, but increase the likelihood of finding both those eligible and potential completers who actually return to school.

Clean up state higher education data. About half of Win-Win institutions that had access to state data skipped matching their universes of interest with state data systems on the grounds of considerable duplicate records, conflicts of records, and unresponsiveness. The Win-Win experience has, in fact, cast doubt on the validity and efficiency of state data systems, even when the state authority performed the initial steps of creating a universe of interest and culling it for students to be sent to degree audit.

Move through the Win-Win sequence at a faster pace. Our project gave each institution two years to complete the process. Given that much time, one confronts considerable changes in student status, resulting in constant recalculations. Institutions that can produce a firm universe of interest within a week can move forward to the more time-consuming tasks of degree audit and contacting potential completers, and still reduce the overall length of the project from 24 to 18 months. And when state data are in doubt or the state matching process is fraught with delay, going directly to NSC for the matching step will save even more time.

Do not exclude students from degree audit on the grounds of financial holds, disciplinary holds, residency questions, or missing curricular pieces. Ultimately, an institution should want to know how many students who would otherwise qualify for a degree could not receive it due to one or more of these non-academic and academic barriers. These factors can be used to prioritize the order of consideration, for those whom the degree audit classifies as potential completers (see below "Prioritize the potential completer population for outreach to increase the odds of return").

Change institutional degree award policies. Opt-in has proven to be a major barrier to degree awards. Partly as a result of their Win-Win experience, some of Oregon's 17 participating community colleges have already shifted to an opt-out model, under which the institution awards the degree whenever a student qualifies, unless the student explicitly declines. If the students cannot be located to convey their intent, the degree is awarded anyway. More institutions at all levels should follow, and follow, too, the State University of New York practice of building graduation charges into regular student service fees, thus eliminating another tripping point on the way to degree awards.

Prioritize the potential completer population for outreach to increase the odds of return. Some 26 percent of the universe of potential completers was missing a college-level math requirement, and students who have been out of school for a while are not likely to return to complete a math requirement, particularly the default college Algebra. Until the definition of acceptable college-level math has been changed (see section below), this block should go to the bottom of the contact list. For the balance, give highest priority to those with the fewest number of credits left to meet degree requirements, but low-rank the low GPAs.

Develop a more inclusive definition of college-level math. Revising the traditional college-level math requirement to include finite math, statistics, combinatorics, and game theory—and all their combinations—along with the existing qualifying courses, would go a long way toward expanding the pool of potential degree completers at all levels.

Offer potential completers an attractive package. Any package the institution's advisors discuss with potentials should include the following features: A policy on transferring in credits earned at other institutions, a policy on the extent and mechanisms for assessment of prior experiential learning, a list of courses that would satisfy degree requirements for that student, and indications of how these can fit into work and family commitments.

Refine degree audit systems so they can become standard institutional practice. Degree audits also should apply to current students at key points in their higher education careers: At entry for students who transfer in, at a 45-credit marker, and at a point when the student verges on completion of degree requirements. Win-Win participants also recommended student sign-off on degree audits.

Above all, do for your current students what you learned to do for Win-Win students.

The extended narrative that follows covers all these sequences, events, conclusions, and recommendations in considerable detail and with program notes and stage directions from Win-Win participants themselves. Their puzzlements, explorations, mistakes, reconstructions, and breakthroughs have become our learning. We owe them a great deal.

Project Win-Win at the Finish Line

Degree Completion: The Sound, The Fury, and The Silences

For the past few years, U.S. higher education has been in a fury of focus on degree completion. Legislators, higher education associations, foundations, and the president himself have all set markers. We have seen the birth of Complete College America, Project Degree Completion, the Adult College Completion Network, degree completion projects driven by state legislatures, and hundreds of institutions advertising online degree completion programs for former students who had left our higher education system empty-handed.

Hardly a month passes without a resolution from an august authority. Hardly a year passes without two dozen presentations on the topic at national higher education conferences. Much of the fury has been driven by international comparisons published in the annual *Education-at-a-Glance* by the Organization for Economic Cooperative Development (OECD), even though these comparisons are based on faulty population ratio assumptions and use different time frames for different countries. Yet OECD presents these comparisons as if they are the same, and conveniently overlooks normative changes in the time period of degrees since the 1999 Bologna Declaration began affecting the degree cycles of 47 European countries.⁴

I will not use international comparisons as a bludgeon here. That's been done. Irrespective of what other countries do, U.S. higher education ought to be doing a better job on completions even though it is the biggest ship in the harbor of comparisons and continues to sport a growing population denominator. Wherever they start out in higher education, more of our students—who invest considerable time and money along a path that has established ends and markers of ends—ought to reach those ends and be formally recognized with degrees.

The Associate's: America's Forgotten Degree

But here a silence falls into ambiguity. Which degrees, which markers, are we talking about? The default of our noisy worry is the bachelor's degree. But should the bachelor's degree be our principal source of concern? **TABLE 1**, based on the *Beginning Postsecondary Students Longitudinal Study (BPS)* of 2003–09,⁵ divides six-year completion rates by both age at the date of entrance to higher education and level of institution first attended.

⁴ The U.S. data are for six-year bachelor's completion rates; the French and Dutch data are for seven-year rates; the Finnish rates are for 10 years, yet OECD presents them as if the same time frame applies to each. The normative time for a U.S. bachelor's degree is set at four years, whereas the majority of European "first degrees" (bachelor's) have changed from five or six years to three under the Bologna Process. See Adelman, C. 2009. The Spaces Between Numbers: Getting International Data on Higher Education Straight. Washington, D.C.: Institute for Higher Education Policy.

⁵ With the exception of some data provided by Samuel Barbett of the IPEDS staff at the National Center for Education Statistics, all data cited in this document were generated by the online PowerStats application at nces.ed.gov.

Comparative Six-Year Completion Rates of Bachelor's and Associate's Degrees: By Age at Postsecondary Entrance and First Type of School Attended

	Started College at Age 20 or Less	Started College at Age 21 or More	All Students
Started in Four-Year College and Earned Bachelor's Degree Anywhere	63%	21%	58%
Started in Community College and Earned Associ- ate's Degree Anywhere	21%	6%	14%

Source: Beginning Postsecondary Students Longitudinal Study (2003-09)

We could add another dozen tables here from the BPS Longitudinal Study (2003-09), but the two messages of this basic table are inescapable. First, age at entrance makes an enormous difference in six-year completion rates at both degree levels, and it should be noted that the proportion of older beginning students in two-year colleges is much, much higher (37 percent) than that in public four-year colleges (7 percent).6 Second, no matter how you slice the data, the associate's degree completion rate for students who start in associate's degree-granting institutions is about one-third that of the bachelor's completion rate for students who start in bachelor's degree-granting schools. And when associate's degree completions are presented in international comparisons with rates in those countries that offer analogous degrees—though with other forms of calculation (most notably in OECD's annual Education-at-a-Glance)—our completions look awful, and politicians and pundits bang the table in predictable ways.

Project Win-Win selected the associate's degree as its sole focus. Given the data just cited, is anyone surprised? The associate's is America's largely-forgotten degree—except in the research literature, which is loaded with analyses of community college non-completion. "Win-Win" took a different approach. We were not going to complain or analyze. We were going to do something about it, and, in the process, figure out what we all could learn about doing something about it.

A Pioneering Effort

Quite frankly, nothing like Win-Win had ever taken place over the 40 years of my work in U.S. higher education, certainly not at the scale of its institutional involvement, let alone with associate's

degree templates. Nine pilot institutions in 2009 grew to 32 by 2010 and reached 61 by 2011. What the project called its student "universe of interest" jumped from 10,000 in 2009 to 130,000 by 2011.

Roughly 200 people at those 61 institutions, along with state coordinators and data analysts, worked on various stages of the Win-Win process over that period. Virtually nobody in this group had previously dealt with student tracking questions. Their labor constitutes a classroom for the rest of us. They sweated every ounce of putting it together, and were extraordinarily candid about what one participant called "our bumps and bruises," about going back to drawing boards, errors in algorithms, conflicting data, decision-rule frustrations, policy misperceptions and their consequences, dead-end searches. Yet they produced results that told them more about how to approach tomorrow's students than they had ever imagined. Their bumps and bruises have produced learning that will become yours.

What happened and what did we learn over the three years of this project? The account that follows draws on discussions with Win-Win participants in the course of 18 site visits during the project, and previous presentations about Win-Win at different stages of its evolution to the American Association of Community Colleges (2011), the Council for the Study of Community Colleges (2012), the Association for Institutional Research (2013), and at its final set of public panels at the Newseum in Washington, D.C., in July 2013. The story is not a simple one.

Win-Win, undertaken in a partnership of the Institute for Higher Education Policy (IHEP) and the State Higher Education Executive Officers (SHEEO), has been funded principally by Lumina Foundation since 2009, and, for Michigan, by the Kresge Foundation since 2011. As of July 2013, all but one of its 61 institutional participants had identified and completed degree audits for 41,000 students, from which the judgments of "eligible," "potential," and "neither" emerged, and with 6,700 students deemed eligible for the retroactive award of the associate's degree. The project is in process of being evaluated by SHEEO, and all its pieces have concluded.

If one projects the numbers just cited out across U.S. community colleges and public four-year colleges that award associate's degrees,⁷ one is looking at roughly a 16 percent increase (or 121,770) in the number of associate's degrees awarded by those institutions. This would be a considerable down payment on the "big goals" of increased degree completion set by a variety of authorities. Students with a high number of credits and degree-qualifying GPAs are comparatively easy candidates for credentials—what the casual literature would call "low-hanging fruit."

⁶ These are separate PowerStats results from the BPS Longitudinal Study (2003-09).

⁷ For these estimates, we are using only associate's degree-granting public institutions because they account for 58 of the 60 Win-Win schools that completed the project. The 934 community colleges (multi-campus institutions report to IPEDS as singular entities) and 312 public four-year colleges in this universe produced 74.3 percent of all associate's degrees awarded in 2011–12. Given the Win-Win universe of institutions, it would not be accurate to include in the base for these projections either private not-for-profit or private for-profit institutions that award associate's degrees.

Project Win-Win involved 61 associate's degree-granting colleges in nine states (Florida, Louisiana, Michigan, Missouri, New York, Ohio, Oregon, Virginia, and Wisconsin) in finding former students, no longer enrolled anywhere and never awarded any degree, whose records qualified them for associate's degrees, and getting those degrees awarded retroactively. Simultaneously, this effort identified former students who were "academically short" of an associate's degree by no more than nine to 12 credits, and sought to find them, and bring them back to complete the degree.

More important than completion, though, are what participating institutions learned about their own data systems, the efficiency of "matching" their student record data with state authorities and the National Student Clearinghouse (NSC), how they define college-level math, how degree audits can account for course substitutions, the efficiency of their locating systems, the effects of residency and recency requirements in an age of multi-institutional attendance, and mechanisms for awarding degrees. This narrative covers all these learnings.

All participating institutions were selected and recruited by central state or system higher education authorities. With the exception of Oregon, where the state agent performed the first three major steps of the Win-Win analysis, each participating institution received a small grant to support its efforts, administered—with other support—by its state system central office. All participating institutions contributed a significant amount of staff time to this effort because they realized the potential of its impact on local graduation rates.

Origins and Current Status of Win-Win

Research conducted by the author in the mid-1990s when he was a senior research analyst for the U.S. Department of Education, was ultimately the source for what became Win-Win. Working with transcript-grounded national longitudinal studies data bases, he pointed out that 15 percent of traditional-age students in any cohort had, eight or 10 years later, earned more than 60 credits with a grade point average above 2.5, yet held no degree whatsoever and were no longer enrolled anywhere. Could this "60 plus" group be brought back to finish?

In 2009 (nearly 15 years after the potential was first identified), and with calls becoming screams for degree completion swirling around, Margarita Benítez (then of The Education Trust and formerly in the U.S. Department of Education) remembered the "60 plus" group. Benítez asked the National Association of System Heads (NASH), which had some money to spare from a Lumina

Foundation grant, to sponsor IHEP to design and manage a pilot project the author called Project Win-Win. Envisioned as a win for the student and a win for the institution, the project would advance on and implement the original vision of completion, but focused at the associate's degree level. The pilot phase headed forward with three states (Louisiana, New York, and Ohio), and designated senior state higher education systems personnel as "cognizant" officers.

There was enough publicity behind the effort to intrigue other state systems. Even as the nine pilot institutions were stumbling through some strange territory, IHEP proposed an expanded framework to Lumina Foundation, carrying forward the three pilot states and expanding their portfolios of institutions, and adding three new state systems: Missouri, Virginia, and Wisconsin. The combined group, consisting of 32 distinct institutions (three associate's degree-granting branch campuses of Kent State in Ohio reported as one, and 13 small associate's transfer-degree-only schools called the University of Wisconsin colleges reported as one), lifted off the ground in November 2010.

Even then, Win-Win expansion was incomplete. In the fall of 2011, three more states came into the fold, each one in a different way. Florida and Oregon were under Lumina Foundation sponsorship, with three community colleges in Florida and all 17 community colleges in Oregon. In both cases, a state authority (and not individual institutions) performed the first two tasks in the standard Win-Win sequence (see "The Core Work of Win-Win"). Michigan, which has no separate higher education authority, came into Win-Win with nine community colleges under the umbrella of the Michigan Association of Community Colleges and with sponsorship by the Kresge Foundation. Win-Win now had a full contingent. There was no more room if the project was to remain manageable, yet other state systems and individual institutions now have the opportunity to capitalize on what Win-Win participants accomplished and learned.

Where does project participation sit at the finish line? Win-Win counts 61 institutions, 8 of which 10 are four-year institutions authorized to award associate's degrees (three each in Louisiana and Wisconsin, two in Missouri and New York), and 51 community colleges, all performing the core Win-Win sequence. In addition, four of these institutions (Clinton Community College, Monroe Community College, Suffolk County Community College in New York, and South Louisiana Community College) mounted second projects devoted to a direct "feeder" line. This effort followed their degree-less transfer students to a specific four-year school, in hopes of kicking back credits from the four-year to the community college so that the latter could award associate's degrees (see section entitled, "The 'Feeder' Projects").

At a time of heavy drum-pounding from all quarters for degree completion, one would think that this undertaking would receive considerable enthusiasm and support, particularly as it was designed to produce results in two years or less for any one institution. At a time of higher education head-scratching after Congress rejected a national student unit record tracking system, Win-Win was plunging ahead with a model that uncovered the perils of extant data and student mobility. The project indirectly led to others such as the Adult College Completion Network, Credit When It's Due, and the building of coordinated, interstate student-level data mining. While these are all works in progress, Win-Win is not: It is a plowed and fertile field—and has resulted in the real award of degrees that previously were neither seen nor acknowledged, something few of the other projects have done to date. Maybe they will, and we certainly hope so.

⁸ Two schools did not finish the most critical variables in the process. For one of these, the data presented were so contradictory that they had to be dropped altogether. For the other school, we include all data through the degree audit phase of Win-Win.

The Piebald Map of Win-Win Institutions

Win-Win was blessed with a fascinating group of institutions (see **APPENDICES A** and **B** for a full listing, along with their 2011–12 enrollment and associate's degree award data). Although these institutions might not be representative of U.S. higher education or of that segment of U.S. institutions that award associate's degrees, they were a group that provided insights into the main and side streets, the fields and coves of our enterprise. All but two were public institutions, an inevitable by-product of using state system higher education offices to recruit and organize participants. The two exceptions were in Missouri, where the state department of higher education has authority over both public and private (including for-profit) higher education.

The four-year schools ranged from those that historically had not paid much attention to the associate's degree they were authorized to award (Wisconsin), to small technical and agricultural institutions that did (New York), to mid-size universities whose authority to award the associate's faced an uncertain future (Louisiana). They included the one forprofit school in the group (DeVry of Kansas City, Mo.) and the unusual and large private institution that traditionally awarded a considerable number of associate's degrees, partly in its service to military personnel in multiple locations (Columbia College).

For some institutions, the discovery of the associate's degree was an eye-opener in which they took obvious pride. For example, the University of Wisconsin–Stevens Point added a page to its 2012 commencement program listing 145 associate's degree graduates under the Win-Win banner. For others, it was a struggle to incorporate all or part of the Win-Win analytical sequence in their normal operations, let alone to locate degree-eligible students who had most likely forgotten that the associate's was a degree for which they could qualify and receive. It should be noted that institutions whose primary degree purpose lies at the bachelor's level are likely to have special curricular requirements for the award of associate's degrees. For example, the University of Wisconsin–Green Bay asks for four courses within a single discipline, and 10 such disciplines were defined for Win-Win

⁹ Win-Win will not claim to be the source—or even the principal inspiration—for system completion efforts such as Virginia's "Finish Line" and Florida's "Finish Up Florida," but there is no doubt that, as these undertakings mature, they draw ever more on the lessons of Win-Win. The proximity of Win-Win and these other efforts is too tight to avoid influence.

students and presumably carried forward for future associate's degree candidates. Even so, 10 students in the Green Bay associate's eligible pool wound up with bachelor's degrees.

Authorization of public four-year colleges to award associate's degrees can be contentious in some state systems, but Win-Win's four-year participants generally argued that the availability of the associate's degree, along with a Win-Win type analysis, enabled them to identify and describe their "early leavers," as they put it, see what pieces of degrees these students are missing, and, if they qualify, offer them an intermediate-level credential. If the authority to award associate's degrees is on hold in some state systems, it is expanding in others. For example, all four-year colleges in Ohio will have that authority in 2015. Whether they are all ready for it is another story, one for which the Win-Win experience can offer strong guidance.

The 51 community colleges ranged from the tiny (Tillamook Bay Community College and Oregon Coast Community College in Oregon) to the vast (multi-campus Northern Virginia Community College and Broward College in Florida). They were rural, suburban, and urban. They included community college districts. such as St. Louis, three of the Kent State University regional campuses where the associate's is the highest degree offered, and the 13 small campuses of the University of Wisconsin Colleges that award only the associate of arts (A.A.) and the associate of science (A.S.) degrees, but not any associate of applied science (A.A.S.) degrees or their analogs. Counting all the units and distinct campuses of the 51 Win-Win community colleges, the total is closer to 100.

Considerable variation exists in the organization and what Win-Win called the state "cognizant authorities" of Win-Win community colleges. The nine participating institutions in Michigan were recruited and assisted by the Michigan Community College Association, in the absence of a state higher education authority. To the east, the six participating community colleges in Virginia were assembled by the central office of the Virginia Community College System and stretched the breadth of the state from Tidewater on 10 Go to nces.ed.gov/collegenavigator, Florida, two-year public institutions, and, for each school, the coast to Virginia Western in the Appalachian foothills.

All three of the participating community colleges selected by the Florida Department of Education are authorized to award bachelor's degrees in a limited number of fields, though only two of them (Broward College and Indian River State College) have done so to a measurable extent. Even then, the ratio of associate's to bachelor's degrees awarded is very high in both cases—22 to one at Broward; nine to one at Indian River. 10 The State University of New York selections started with schools experienced in Win-Win type projects at opposite geographic ends of the state (Monroe Community College in Rochester and Suffolk County Community College on Long Island), then added two community colleges in between (Clinton and Orange County Community Colleges). In all four of these states, Win-Win has opened the door to expansion to the rest of the states' community colleges.

Oregon set an example of what might happen when an entire state system is involved, as all 17 of its community colleges, behaving as independents under the wings of the state Department of Community Colleges and Workforce Development, are Win-Win schools.

go to "programs/major." Divide the number of associate's degrees awarded by the number of bachelor's degrees awarded.

The Core Work of Win-Win

All 61 Win-Win schools set out to follow a core sequence of tasks as follows:

- **Step 1:** Identify the universe of interest.
- **Step 2:** Remove students receiving degrees or reenrolling elsewhere from the universe of interest.
- Step 3: Perform degree audits to identify "eligibles" and "potentials."
- Step 4: Award degrees to the eligibles.
- Step 5: Locate, contact, and reenroll potentials.

A seemingly straightforward process, it actually took each participating institution roughly two years to complete these tasks, for reasons that will emerge in the narrative below. Yet those involved in Win-Win by and large felt that the benefits outweighed their uncalculated cost of labor, as will also emerge in the ensuing narrative.

Step 1: Identifying the Universe of Interest

Each institution determined a set of parameters with which to troll through its student records to haul out an initial universe of interest (in technical quarters, these are known as preludes to data mining). The default set of parameters consisted of five markers:

- The student first attended the institution in the fall term of 2002 or later (the more recent the cohort, the more likely institutions would avoid problems of old credits).
- The student's record indicated 60 or more additive credits earned, with "additive" defined as "counts toward a degree."
- The student's cumulative grade point average was 2.0 or higher, depending on the institution's degree requirements.
- The student never earned any credential from the institution—no associate's degree, no certificate, no nothing.
- •The student had not been enrolled for the most recent three semesters or their equivalent, working backwards from the fall term of 2010 (for the nine pilot institutions, the marker was the fall term of 2009; for Florida, Oregon, and Michigan, it was the fall term of 2011).

In other words, students in the universe of interest were at or close to a degree-qualifying set of thresholds, had earned nothing, and had not been seen at the institution for a while, hence were assumed to be dropouts.

Variations in the Universe

Did all institutions observe these parameters? No. As one of the Win-Win state data managers reflected, "IHEP gave us a Betty Crocker cookbook, but once in the kitchen, we wound up using family recipes." For example, the first date of attendance marker ranged from the fall term of 2000 to the fall term of 2005. The resulting "catchment periods," time between the first and most recent dates of attendance, ranged from five to 8.5 years. The threshold semester-equivalent credit level also ranged from 45 to 64, depending on how many students the governing authority wanted to capture and different degree-qualifying levels. Most institutions used 60 or higher; some changed thresholds during the project.

Two institutions used 2.5 and not 2.0 as the GPA threshold. As one of them explained, the higher GPA ensures that eventual degrees were not awarded to students who "were just scraping by." There is no doubt that the higher the GPA threshold, the lower the number of students who will wind up going through the labor intensive degree audit. Twelve institutions added residency requirements, financial holds, and disciplinary holds as flags to exclude students from the universe of interest, though this is not the place to do that. Why? Ultimately, colleges would want to know how many students who were otherwise judged eligible for the retroactive award of an associate's degree could not receive the degrees due to these conditions. Residency turned into a major issue going forward.

Some institutions added curricular requirements to exclude students from the initial count, though again, this is not the most appropriate place to do so. Ultimately, chief academic officers and academic advisers would want to know how many students who were otherwise judged potential degree completers were missing those degree requirements. If they are excluded up front, one never sees the answer to the question, nor fully grasps where, in the curriculum, the degree completion blockage lies.

Data-Mining Time: Applying the Parameters

Each institution took the parameters it had defined and ran through its student records to produce an initial universe of interest. Did that data mining work cleanly? No. As one participant wrote, "We're in the Stone Age here." And, as another remarked, "IT [information technology] systems do not understand students with messy lives."

Some institutional databases could not be instantly manipulated to produce the five variables of the parameters—let alone other variables added by the institution. More than one institution was lacking requisite variables in its student-level data files, and had to create them. Within the same state system, some institutions provided code to others, as when Tidewater Community College furnished it to Virginia Western Community College.

A small number of institutions faced formal internal requirements to request data elements such as transfer-in status and date of birth (to determine current age for the demographic data). This request and approval procedure obviously slows down the construction of an analysis file. To avoid this problem, any institution contemplating an undertaking like Win-Win should make sure that its team includes at least one individual with the authority to access student-level data without any questions or delays.

Disconnections and dissonance marked some institution's data systems and reporting lines. In many cases, IT, institutional research, the degree awarding unit, and academic affairs were not linked or housed conflicting student-level information. One unit may have records of degrees awarded and another not, so students without degrees show up in a universe of interest and must later be removed when another internal data authority shows these students with degrees.

Some institutions had changed data systems at some time during the "catchment" period and had not fully reconciled the old code with the new code. This changeover influenced the decision of the Florida Department of Education, as it oversaw the first two steps of the Win-Win sequence, to choose a temporal criterion of "students enrolled in the fall term of 2005" no matter when they really entered the three participating Florida community colleges. And what we learned at this stage, from Oregon where the de facto state authority performed the first three Win-Win tasks, is

that not all state postsecondary data systems are designed for student-level tracking. Oregon had to develop new tracking fields within its current system to handle the Win-Win questions. Even in Florida, whose state data are held in high regard, Indian River State College found duplicates and dead students in the core list produced by the state agency.

The results from all this included not only duplicate records, but also students who had already graduated and others outside the catchment period. For example, Suffolk County Community College had 97 of the latter who slipped through the sorting algorithm and weren't discovered until the degree audit. Meanwhile, some of these students had already reenrolled. The longer it took the institution to produce its universe of interest, the more likely were changes in student status.

The upshot: More than half of the Win-Win institutions had to rerun their universe of interest—sometimes twice—to obtain a usable population. These revisions continued into the final days of the project. In its consequent iterations, the total number of students in the initial universe of interest across all 61 Win-Win institutions and 65 Win-Win projects ranged from 129,000 to 134,000 during the project period, settling (after one school's data had to be dropped for lack of comparability) at 128,614 (with 1,553 of these students in the four "feeder" projects).

If these 60 remaining institutions produced an initial universe of interest of 128,614, then the 1,246 public associate's degree-granting institutions in the United States would produce a universe of interest totaling roughly 2,670,400.11 That, of course, does not mean all these people would wind up as Win-Win degree candidates. The matching processes described later would remove more than half of them. In the meantime, closer analysis of the universe of interest introduces the complexifying and sometimes frustrating feature of student mobility into the data chase.

In third-grade arithmetic, that is 128,614 divided by 60=2,144, then multiplied by 1,246=2,670,424. Because the universe figure of 128,614 is a full census, a weighted average is moot.

Project Win-Win's First Encounter with Students in Motion

For Win-Win's universe of interest, each institution was asked to determine the number of these students who were transfers-in to their respective institutions and the average number of credits these transfers-in brought with them. Even in Florida and Oregon, where a state agency constructed the universe of interest, the list of students in that universe was sent to the individual institutions to determine transfer status and credits.

These data tell a story of student mobility that permeates the Win-Win population, and condition the way one reads the whole stream of student behaviors examined. It also helps institutions judge whether students meet residency requirements. It sounds like an easy task. For some institutions it was not easy at all: One institution was unable to produce any of these data, and a dozen more that revised their universe of interest had to recalculate transfer-in information.

Don't ask, but to compound the problem, some institutional student-level databases have never included a transfer flag. Such schools had to go back to their student records to create a new variable, and while that task was burdensome, it produced valuable information for them. Within this transfer flag universe, too, lie inconsistent decision rules on the treatment of Advanced Placement and dual-enrollment credits. The situation is sometimes no better at the state data level: As one of the Win-Win state data managers remarked, "No algorithm existed to capture different modes of credits coming in, not that way."

The matter of how many credits came in with the transfer is another problem since data systems record either individual courses, blocks of credits, or blocks of courses with no credit indicators attached. Oregon defined transfer-in in such a way that the institutional reference was only to other Oregon community colleges. Neither out-of-state, private, nor Oregon University system origins for students could be counted. Nonetheless, the executors of Oregon Win-Win data imputed the number of credits transferred in from all sources. Very creative. Likewise, Florida provided a partial account on the transfer-in issue because a prior agreement on the sharing of student information between public two- and four-year sectors was not executed, hence the four-year sector data were missing. In all large projects, such crossed wires are inevitable.

Excluding Oregon, and counting only the 42 other institutions¹³ for which these data are available, 39 percent of the universe of interest students were transfers-in, and brought with them an average of 36 credits. Including Oregon, those figures are 31 percent transfers-in and an average of 37 credits. Those are whopping numbers, no matter how we set the parameters. It is obvious that there is more horizontal transfer going on at the two-year level than mythology would have it.

¹² AP may be a minor issue in associate's degree-granting institutions, but dual enrollment is not. Certainly a decision rule should exist somewhere as to whether these credits, earned while the student was in high school, should be considered as "transfer," depending, of course, on whether the locus of classes was the high school or the community college.

¹³ In all instances in this document in which numbers of respondents are indicated, the reference is to institutions and not projects. Therefore, the reference base is 60. The four feeder projects are not separate.

Step 2: Cutting the Universe of Interest Down to True Size

In its original design, Win-Win institutions were instructed to match the list of students in the universe of interest to two external sources to determine who earned a degree somewhere else after the last enrollment term at the cognizant institution or who was currently enrolled elsewhere. Both these degree earners and current enrollees were then to be dropped from any further consideration under Win-Win.

First, the school was to send its list to the central state data authority, receive back the matches, and drop the matched students from any further participation in the Win-Win sequence. Second, the school was to send the residual players to NSC, which would pick up whoever state data count did not pick up. Subtracting those two groups of matches from the original universe of interest would yield the population subject to degree audit and determination of Win-Win status. It sounds easy, but the question is less one of ease than it is of accuracy. Let's present the results first, then take up the details.

The state matching process eliminated 49,886 (39 percent) of the students in the universe of interest, and NSC match removed another 28,214 (22 percent), for a total of 76,695 (61 percent) out of consideration. If one parses the balance over 1,246 public associate's degree-granting institutions, the 2.67 million former students in the national universe of interest shrinks to 1.04 million who would be subject to degree audit. That does not mean that all these people would be found eligible for retroactive associate's degrees, but it provides a solid estimate of the number of former students of associate's degree-granting institutions who appear to have solid academic records but who haven't been seen for a while, are wandering around empty-handed, and not enrolled anywhere. I repeat: 1.04 million.

Mobility and Matching

And what does the 61 percent matching figure also tell us? More mobility in our student population, hence the difficulty of coming up with clean story lines. Remember that 39 percent of the universe of interest were transfers-in; and now we have 61 percent transfers-out. To be sure, there would be some overlap here if institutions could track all these students, but it is reasonable to claim that half of those who start in associate's degree-granting institutions and stick around long enough to accumulate some 60 credits are multi-institutional attendees. In fact, in the BPS study of 2003–09, 41 percent of two-year college beginners who earned more than 60 credits attended two institutions, and another 23 percent attended three or more schools. Yes, further

divisions of this population are possible, for example, by ultimate degree status, but that would be a distraction, and the BPS parameters are as close as possible to those of Win-Win. The Win-Win community college president who remarked that "we serve a lot of students just passing through" was not exaggerating.

The mobility issue raises the question of which institution is responsible for tracking when the student has attended two or more institutions in the same state. The whole state system has to arrive at a decision rule in this case. Win-Win had only one such system, Oregon, in which all 17 participating community colleges agreed that the "cognizant college" for a given multi-institutional attendee would be the most recent school at which that person earned at least 24 credits. It is possible that some students would fall through the cracks with this decision rule, but given a threshold of 60 total credits, the number of such students would be extremely small.

Win-Win participants themselves have raised the question of student "ownership" in the presence of porous state borders for higher education, the best example of which would be Missouri and Illinois and Missouri and Kansas. With students driving back and forth over bridges, it is very possible that two state systems could claim the same human being, a situation which could lead to problematic tracking.

State Data Matching

Excluding Florida and Oregon, where state system offices also conducted the basic matching process, and Michigan, where there is no state office or state higher education database, 14 Win-Win institutions used state data systems in the matching process, and 17 did not. Of the 14 institutions that used state data, four reported duplicate records, and four had to reprogram student identification numbers, so that the data could be matched. Of the 17 that did not use state data, nearly all cited non-responsiveness among state data authorities, long turnaround times in delivery, or incompatible data formats. What's more, state data had deep holes, as when the local institution had students earning degrees as long ago as 2006 and the state data system did not, or where information from private institutions was not included. All of this leaves consolidated state data reporting in higher education in some doubt.

¹⁴ Some of this reprogramming is FERPA-driven when social security numbers are involved, and the tradeoffs should be marked: As one Win-Win operative involved in the matching process observed, stripping out social security numbers or replacing them with a different ID lowers accuracy but "made everyone feel more comfortable."

National Student Clearinghouse Matching

The National Student Clearinghouse (NSC) was the next stop for matching. More than 3,300 institutions report student-level enrollment data to NSC, and more than 2,500 report degree data. A few Win-Win institutions initially were not members of NSC, but used the occasion of participating to get on board (given current strictures on national tracking, there really is no excuse for an accredited institution of higher education not to be logged in the NSC universe). Yet one of our institutions, for inexplicable reasons, skipped the NSC match, and, by doing so, wound up with a heavier degree audit load than would have been the case otherwise.

NSC's principal virtues are a turnaround time for matching in less than one week, the inclusion of data from private institutions, and (if one asks) help in writing formulas that will yield outputs that go one step beyond core matching information. Its drawbacks include a three to four month lag in its information database (no worse than state system data, to be sure), and, as Southeastern Louisiana State University pointed out, NSC cannot provide matches to institutions that either have never reported to them or have not reported several years of degree awards. Further, NSC does not produce any data on credits earned or attempted (nor, in fact, do many state data systems, which are dependent on institutions for upflow).

Other Eliminations from the Universe of Interest

Did everybody either follow the sequence of state plus NSC or use either one of them exclusively for matching? No. Some 6,100 students from 13 institutions were "matched out" with reference to sources that were never identified, and another 2,900 from 16 institutions were excluded from subsequent Win-Win analysis. In other words, they were not "matched," but simply removed for what we euphemistically called "local reasons," most of which are very legitimate, because students were deceased, under a disciplinary cloud, international (hence, almost guaranteed neither to be found nor brought back to school), and, more critically, because they were candidates for nursing or allied health degree programs that provided no elasticity for degree audits.

Lessons Before Degree Audit

Despite all the noise about degree completion, most Win-Win institutions had never asked a retrospective question about the histories of students who had not completed degrees. As one institutional representative remarked, "The kid has 72 credits [actually, the average number of semester-equivalent credits for Win-Win eligibles was 81], so there has to be a degree somewhere in there, but we never looked for it." Whether the inquiry comes out positive or not, degree audit is the place for resolution, and there are four lessons to be considered prior to commencing that process:

- (1) Anticipating that degree audits would be an incredibly timeconsuming, labor-intensive task, institutions had a choice about how many students they wanted to let into the degree audit process. Those who wished to lessen the load put up more restrictions on who was counted. Those who wished to avoid embarrassment by the revelation of degrees the institution should have conferred appear to have changed parameters or rules to allow more local exclusions. These decisions were not neutral in either intent or results.
- (2) There are considerable problems in data sharing among institutions and between institutions and state central databases. If a student transferred into your community college from a fouryear school, and you didn't have a record-sharing agreement with the four-year college system in your state, how could you know how many credits the student had really earned? Even if the student sent a transcript in transfer, those data might not be recorded in your institution's archive. I know it's hard to believe, but it happens.
- (3) It is inevitable that some students will be lost in data transit, and others will appear out of the mists. Comparing the number who should have been passed through to degree audit with the number of those who were, in fact, moved forward, Win-Win lost 70 in five institutions, but gained 122 in four others. In a universe of 41,000, one doesn't worry about such variances.

(4) The institutions that walked through the first two steps of the Win-Win process with minimal hitches were those that had done something like it previously, for a prime example, Monroe Community College in Rochester, N.Y. Oregon reflected that its low count of degree-eligible students (170 out of 6,100 degree audits) was due, in part, to a number of community colleges that had previously undertaken efforts like Win-Win.

Step 3: The Anvil of Degree Audit

By far, the degree audit was the most difficult and time-consuming Win-Win task in determining—despite credits, GPA, and other qualifying features of the original sorting—whether students really should be awarded an associate's degree, or, if not, whether they were "potential completers" with nine or fewer credits to go (some institutions used 12; Florida used 15 for all three of its schools). Following the audit, students fell into one of three "bins": 1) Eligible for associate's degree award, 2) potential completer, or 3) neither.

Sounds easy. It's not. For example, at one large participating community college district, a student who has been out of school for two or more years must reenroll just to qualify for a degree audit! And one institution's enrollment services unit would not allow Win-Win registrars to conduct a degree audit at all-until there was a lot of banging on doors. There are local rules and behaviors like this everywhere. One of Win-Win's state data managers asked, irrespective of local rules, why institutions do not flag degree-relevant credits separately from other credits, a marker that would assist tracking and advising. Yes, the degree audit process basically does that job, but with reference to different degree templates, that is, what is relevant to an associate's degree in applied science (A.A.S.) in graphic design may not be relevant to an associate of arts degree (A.A.). In answer to the data manager, one cannot determine a truly useful priority. The answers emerge only in context, through a degree audit.

Software Versus Hand and Eye

Even though there are software programs that can comb a student's record against markers for degree awards, institutional academic integrity is on the line, and, as one of our registrars put it, "You can't let a machine award degrees." Five software packages were invoked by five or more Win-Win institutions: Degree

Works, DARS (Banner), CAPP, Jenzibar, and Datatel. Yet nearly all institutions that employed these tools supplemented their findings with hand-and-eye readings; 11 schools used nothing but hand and eye.

The digital world is not going to do what the regional institutions of Kent State University did (see "The 'Catalog in Force' Question" section), though the digital world is superficially less labor-intensive. There are exceptions, of course. Mt. Hood Community College in Oregon evidently had enough confidence in its degree audit software to claim a limit of 15 seconds for an individual assessment. But, as its registrar advised, "Make sure your degree audit software system can handle the work, before you assign it to do the work."

To repeat, even if the software data mine was current and populated with all courses offered by the school, academic integrity requires hand-and-eye reading of each record. If 1,000 or more students pass into degree audit, and auditing each record takes an average of 18 concentrated minutes to work through, the institution is looking at 300 hours labor for these 1,000 decisions. That's two months for one person who does nothing else, and of course employees engage in other tasks. To put this in perspective, 10 Win-Win schools had 1,000 or more students in the audit queue; four schools had more than 2,500.

Among 60 Win-Win institutions, only one had a single person dedicated to the audit process, and that person spread out the work load by first separating out the eligibles, then taking the balance, sending everyone else graduation applications, and conducting degree audits only when those applications were received. Whatever the risks/rewards of that strategy—losing students with rotten addresses balanced by gaining students who turn out to deserve eligibility—Win-Win thus told its participants to allot six months for pounding the degree audit anvil. We lost more than one invited institution that took one look at the degree audit task and ran screaming out the door even before the process began. One institution hit the degree audit hump and could never resolve who was to be counted or how; another didn't figure it out until the last week of the Win-Win undertaking, and then had to redo major pieces of its data story.

Who does the degree audit? The registrar is central, but some Win-Win institutions hired temporary employees with the necessary background and knowledge of institutional protocols to handle the load. These included retired deans of students and former institutional research officers—all working part-time.

The Catalog in Force Question

When you pick up a student record, the first questions you ask are (a) what degree(s) am I reading this for? (the default transfer degree, that is, A.A., A.S. or the associate of general studies (A.G.S.), or one of the Applied Associate of Science degrees, such as Medical Technology or Graphic Arts); and (b) which catalog is in force: The current catalog, the catalog at the time the student first enrolled, or the catalog in the term of the student's last attendance? Did all Win-Win institutions ask those questions? No. The easiest route is the transfer degree with the current catalog requirements. The student might have been a candidate for an A.A.S. in a particular occupational field to which the institution would probably respond, "That's nice, but (a) if that was your objective, you are 22 credits short, and (b) we haven't seen you (nor has anyone else) for 18 months, so that degree is off the table."

Yet the regional campuses of Kent State University, which changed their core requirements in math and science during the Win-Win catchment period, took each student record and worked backwards through the changing catalog requirements with a set of decision rules based on advantage to the student. With 1,000 students in line, this was not a fast operation. Tidewater Community College in Virginia took a different approach by starting with the catalog in force at the student's entrance date, then invoking any other catalog in force within the subsequent six years of that point. As frequently noted in this narrative, not every institution does things the same way, but any institution embarking on a project like Win-Win needs to make such decisions at the outset.

The Kent State regionals' procedure is one type of "progressive audit." Another type of progressive audit found among Win-Win institutions was based on changes in major programs. That is, institutions took a template for each of the degrees under which the student had a reasonable chance of eligibility, and ran each of them, in sequence, until a match was found—or not, as the case might be.

Types of Associate's Degrees

Are there any exceptions to the default type of associate's degree? There sure are. For example, in the Oregon Win-Win project, the state agency conducted two degree audits for every-body, one using customized software developed for Win-Win, and a hand-and-eye audit with the Associate of Arts Oregon Transfer Degree (A.A.O.T.) as the matrix. Then the state passed the list of audited students to each institution, which made its own determination of whether each student could qualify for the A.A.O.T. or a different degree.

Even more tellingly, some Win-Win institutions would take a student record, and work through every possible degree for which the student's record might qualify, a process that takes a lot more than 18 minutes. Thomas Nelson Community College in Virginia, for example, had no problem with the first 204 students it put through degree audit, but the next 211 were more difficult, and were set forth in terms of 13 types of associate's degrees according to student "degree plans" before digging into further eligibility issues, degree-type by degree-type.

At institutions with more delimiting policies, variations push the average temporal span of catalog-in-force rules. At Rhodes Community College in Ohio, for example, there is a limit of two years, working backwards from the current term, for catalog-inforce determination, but that bracket differs by major (such as for nursing and allied health), as well as for specific course requirements that date to 2003. At one time, Rhodes had more than 1,100 students in line for degree audits. Given its catalog rules, degree audit would have been a six-month job, but the nursing and allied health requirements were so unforgiving that these

students were simply dropped from consideration altogether, and 1,100 shrank to 334.

There is a core set of default associate's degrees other than the various associate of applied science (A.A.S.) in specific fields, such as medical technology, criminal justice, and paralegal studies. As noted earlier, these are the A.A., the A.S., and the A.G.S.. The first two of these are regarded as default transfer degrees. The status of the A.G.S. is more fragile, and, as testified by Win-Win participants, students do not generally consider the A.G.S. the most desirable degree, partly because some of its credits are not transferable. So if a student is eligible by virtue of meeting requirements for the A.G.S. degree, more than one Win-Win participant advised, do not expect that student to accept it.

A tighter alternative, used by only two Win-Win institutions (Columbia College in Missouri and Northwestern Community College in Michigan) is the associate of science and arts (A.S.A.) degree, a credential requiring half of the credits earned to come from traditional arts and sciences fields. Would the A.S.A. prove to be more transferable than the A.G.S.? That's a research question requiring a much higher volume of cases to resolve than offered within the Win-Win institutional universe.

And, of course, while you were working all your students through degree audit, some of them returned to school, and some even finished their degrees. To be sure, that doesn't happen by the hundreds, but it certainly contributes to numbers that are always in motion. Of the 825 students lined up for degree audit at the Metropolitan Community College District in Kansas City, Mo., for example, 48 reenrolled while the degree audit was running. Across the state in the St. Louis Community College District, 12 of the 380 students classified as potential completers had, in fact, completed while Win-Win was running. Thomas Nelson Community College in Virginia found numerous completers, both at home and elsewhere in Virginia, during both degree audit and follow-up processes. And students in the degree audit universe at their home institution might have completed degrees elsewhere while the process was running. Broward County

Community College went back to NSC for a second time after their degree audit to check on its base, and found more than 1,300 of its degree audit universe enrolled elsewhere, necessitating a last-minute move of this large group from degree audit to the "matched-out" column of data tracking.

Course Substitution in Degree Audits

In the matter of degree requirements, dedicated registrars and former deans also spotted potential substitutions that no software could pick up. For example, a student at a rural community college in Ohio was missing a communications requirement. The registrar noted, however, that the student had earned a B+ in Agricultural Sales. She checked the syllabus for Agricultural Sales and discovered that the course required (a) at least two PowerPoint presentations, (b) a paper with an agricultural products marketing plan, (c) a simulation involving a sales pitch for sausage, and (d) correct written answers on examination questions on links between weather, crop rotation, and prices. That certainly was a collection worthy of satisfying a communications requirement. It did, and the substitution was approved by the academic dean. There were dozens of similar cases throughout Win-Win history. But think about what had to happen, and how much time and effort were involved, especially if you have 1,000 students going through degree audit.

Clinton Community College in New York declined to consider course substitutions at all since each one would involve four levels of approval (faculty coordinator, program coordinator, department chair, and appropriate dean). The Clinton Win-Win operation regarded the process to be "a losing battle in the attempt itself." Other participants would disagree: Northwestern Louisiana State found courses transferred in as a rich source of substitutions, and Tidewater Community College advised that as long as there were "a lot of eyes on the process," substitution maintains its integrity.

Curricular and Non-Curricular Barriers to Completion

For students in the Win-Win sequence whose records were sent to degree audit, remediation is not a principal barrier to completion. Anyone who had crossed the thresholds of additive credits that Win-Win institutions had set—whether 45, 51, 60, or 64—had either conquered or bypassed remediation. So, one might ask, what were the most noted curricular barriers to completion that turned up in degree audits. These include:

- Computer competency, defined as Microsoft Office (and when was the last time you used Access?).
- "College-level math," defined as college Algebra, when such options as finite math, statistics, 15 combinatorics, game theory, and combinations of these exist (in some A.A.S. programs, applied Trigonometry could be another option).
- Physical education and other health-related courses.

That is not a very strong set of logs with which to build a barrier. And as one Win-Win community college president asked, "If third-graders are doing Smarter Balance and taking keyboarding classes, why do we have basic computer literacy/competency classes as requirements in college in the first place?"

Degree audit judgments do not include (or should not include) "holds" on degrees of any kind (more on that in a moment), but they do take residency and recency issues into account. A student can own 103 credits, but only 14 at your institution, and those 14 do not meet residency requirements (which most regional accreditation agencies define and enforce). Nomads, jumping from one school to another, also may not have fulfilled recency requirements, that is, a set number of the student's most recent credits that must be earned at your institution.

Chances are that the case of 14 credits results in the judgment of neither eligible nor potential, and the student gets tossed in the trash heap. Yet the latter could result in a judgment of potential completer, if only the student were readmitted and completed enough credits to cross the recency requirement threshold.

There is nothing preordained in a degree audit process, though the tighter the original universe of interest algorithms, the more likely a higher percentage of eligibles will emerge. The Metropolitan Community College District in Kansas City, Mo., for example, sent 825 students into the maw and found no eligibles at all. Zero. New River Community College in Virginia, on the other hand, determined that all 80 students it put on the degree audit conveyor belt qualified to receive degrees. All: That's 100 percent. Yet there is no evidence that Metropolitan was too restrictive or that New River was too loose. Even with controlled parameters, random bimodal results will sprout in multiple locations.

¹⁵ In their discussions of the college-level math issue, Win-Win participants acknowledged that statistics is often presented in specialized business and allied health context courses, hence cannot be "standardized" in terms of transfer. But the point is something different, as each school can define and defend what it marks as college level math for purposes of awarding an associate's degree.

Making Degree Audits the Norm

Win-Win has taught us to view degree audits as normal institutional practice. They should be. They are a service to students. As formative summary reviews, they show students precisely where they stand on the road to degrees: What has been accomplished, what remains. Ideally, in communications with the student, the degree audit summaries indicate where transfer credits were placed, where courses were repeated and with what consequences, where credits may have been duplicated, how internships were treated, where the student stands with respect to residency requirements, and what the student should plan given recency requirements.

As summative documents, degree audit reports validate the decision of the institution to award the degree. As a result of doing degree audits for Win-Win students, a significant number of institutions testified that their practices in this field were lacking or too casual. It was suggested that all candidates for any type of associate's degree receive, review, and sign off on a degree audit at 45 credits (some four-year colleges require this verification at 75 or 90 credits). Requiring degree audits at trigger credit markers would certainly improve both institutional provision and student wake-up calls. Given their extensive experience with the complexities of degree audits, Win-Win institutions made a clear recommendation: Audit your degree audit system before you do anything.

Degree Audit Results

The numbers appear three times in this document, and this is an appropriate place for a reminder before we dig into further details and learning. The degree audit of 41,710 students in 60 Win-Win institutions produced:

- 6,733 eligibles
- •20,105 potential degree completers
- •14,872 who were neither

That is, approximately 16 percent of those audited were found to qualify for the retroactive award of an associate's degree, and another 48 percent were deemed within reach of a degree, though to different degrees of "within reach," as we will see.

Step 4: Awarding Degrees to the Eligibles

So you have all your degree audit judgments. What happens to the eligibles? Before an institution can begin to answer this seemingly simple question, it has to come to terms with its own degree-award policy. This task, as it turns out, only complexifies matters.

Uncovering Degree Award Policies

There are three possible institutional degree-award policies: Opt-in, under which the student must accept the degree (and, in a majority of cases, file an application for the degree, often with a small fee) in order for the degree to be awarded; opt-out under which the student is notified that the degree will be awarded on the date of the next commitment unless the student responds that he/she does not want the degree; and institutional override, under which the institution awards the degree on its books without asking the student, notifies the student, and says that the

piece of paper will be delivered only on the student's request, if all financial "holds" are satisfied. When initially asked, at least a third of the institutional respondents were unsure of their own school's policy. When finally pushed to the wall, of 60 institutions responding, 40 (67 percent) were opt-in, 12 (20 percent) were opt-out, and eight (13 percent) were one form or another of institutional prerogative.

However, partly as a byproduct of the Win-Win experience, there has been a major change in degree-award policies across the 17 Oregon community colleges, with two shifting outright from opt-in to opt-out and two from opt-in to institutional override. Mott Community College in Michigan took another approach, offering students the option of opt-out on their application form. So the figures above ultimately will look very different. As one Oregon community college wrote, "We are now going to work to find them, rather than require that they find us." That's a sea change that could ripple across all degree-granting institutions at all degree levels. It is one of Win-Win's gifts to a previously myopic degree completion movement.

The Rest of the Degree Award Story

Both opt-in and opt-out policies require the institution to communicate with students—which means, first, finding them. This issue turned up with a vengeance in the universe of potential completers (see "Find 'Em" below). Some 1,564 (24 percent) of the eligibles could not even be located so they had no chance to opt in or out. Regrettably, 889 (57 percent) of these students came from opt-in institutions, so they were lost for good. In the experience of Win-Win schools, students were notorious for missing graduation application deadlines, and by the time institutions caught up with them, many had transferred or disappeared beyond the reach of any locating service. Hence,

it was recommended to automate the graduation process, with notifications three to four months ahead of deadlines—and repeated one month before the door closes. Few Win-Win schools beyond Oregon have shifted away from opt-in award policies. Doing so would automatically increase associate's degree awards.

Then we have recency requirements, that is, policies that hold the actual award of a degree hostage to the student's being in residence for the term or year during which the degree is awarded or for the student's qualifying record to show a certain number of credits earned at the awarding institution as the most recent credits earned. But to the best of our ability to determine the matter, outside of Oregon, only two Win-Win institutions required the student to register in the term of the degree award (and the Oregon system requirement is one credit during the year in which the degree is awarded). Where separate payments of graduation fees existed, most were waived for Win-Win students. The State University of New York system, including its community colleges, avoids the graduation fee altogether by building these modest amounts into regular student fees so no graduation barrier—better, "trip line"—of this type arises.

Of the 6,733 eligibles, 4,550 degrees have been awarded or students sent into the commencement queue for a 68 percent execution rate. Given the distribution of institutional degree award policies, this is an expected percentage, but should be higher. Win-Win projects, as the reader may recall, each lasted two years. In a four-year institution authorized to award associate's degrees, what would happen to both associate's degree eligibility and degree award rates if the original degree-audited cohort were followed for a longer period of time? Two Win-Win institutions, Suffolk County Community College in New York and Northwestern Louisiana University, both pilot-phase schools that started at the end of 2009, voluntarily did this. By the summer of 2013, Northwestern's associate's degree awards had roughly doubled from their total in the summer of 2011.

A few of the eligibles (503 or 7 percent) had holds on their degrees. Most of these were due to missing transcripts from institutions the student attended prior to entering the reporting institution, and these are usually a consequence of the student failing to pay back loans received while enrolled at previous institutions. Indeed, overdue payments on educational loans accounted for the largest single chunk of these holds.

Why would some students decline to accept an associate's degree? Some just don't want any associate's degree, period a factor the college completion stampede overlooks. Then, in addition to the specific degree offered, such as the A.G.S., some students are under the impression that accepting an associate's degree will close the financial aid window should they return to school. For federal financial aid, this perception is false: The only degree award that closes the window is the bachelor's. Another false perception is that if students accept the associate's degree, their repayment schedule for federal loans starts immediately, and some students cannot afford to start repaying. But only the fact of not being enrolled triggers the repayment schedule. Since all Win-Win students who reached the degree audit stage have not been enrolled for at least a year, they should have been repaying federal loans anyway. As long as students stay enrolled. they can go on from the associate's degree, to the bachelor's to the master's, and not have to begin repayment.

Some institutions have both philosophical and policy problems with the retroactive award of degrees, and some have solved those problems by either requiring the students to register (with no fees) for the term in which they receive the award or opening the window temporarily for just such awards—and then closing it. Opening and closing windows makes sense particularly in cases where the degree in question is no longer offered, for example, the template for judging the student's attainment was set to an A.A.S. major in printing technology that the institution dropped and merged into graphics and design communications five years ago. In this context it should be noted that no Win-Win degrees were back-dated: They were marked in the year in which they were awarded, and reported as such, even

at the risk of appearing to award fewer degrees in the following year and hence earning the next year's wrath of legislators and local pundits.

Win-Win asked all participating institutions to provide some demographics on the degree-eligible students. On average, eligible students had the following profile: 55 percent were women; 73 percent were White, 9 percent were Black, and 3 percent were Latino; 14 percent were other or unknown; and 63 percent had entered higher education by age 20. That's about on target for everybody, but low for Latinos, particularly given their significant presence in community colleges—which may mean that large numbers are either graduating at higher rates or that they are not getting as far as others in meeting threshold requirements for eligibility. We had also asked after the percentage of eligibles who had received Pell grants, as an attempt to test a proxy for low-income students. It didn't work. After all, a student could be eligible for Pell one year and not the next, and we're looking at anywhere from five to eight years of academic history. What's more, there is debate as to whether a Pell grant as low as \$100 is a true proxy. Some institutions (18 of 60) computed the data anyway, but most resisted, with reason.

Step 5: Locating, Contacting, and Bringing Potentials Back to School

Again, once you have all your degree audit judgments, what happens to the potential completers, the largest group (roughly half) to emerge from the audit process? Unfortunately, many Win-Win institutions took so much time defining their universes and auditing degrees that too few weeks remained at the end of their two-year funding period to address the "potential" population.

Find 'Em!

The first problem is locating the potential completers so that, at the very least, you could contact them with a proposal for finishing the associate's degree in a comparatively short period and, after discussion, walk them through the necessary steps. Win-Win institutions have employed a variety of locating methods and services, including Alumni Finder, People Finder,

Accudata, snail mail, e-mail, social media (not as common as other methods, in part, as Rhodes Community College in Ohio noted, because many students invoke privacy status on social networks), and the National Change of Address processing database the Kent State regional campuses reported to be more efficient than others.

Win-Win participants also offered fulcrums such as working with the Veteran Affairs department to find veterans, and asking state tax offices to forward messages to former students, and, at Northwestern State Community College in Ohio, connecting with the local radio station for public service air time (a strategy that also increased the overall rate-of-return). Despite such efforts, 54 institutions reported 5,241 potentials (26 percent of the total number of potentials) as unlocatable.

Sorting and Prioritizing the Potentials

Let's remember the principal differences between Win-Win and other projects seeking to bring adults with some college back to school to finish. For Win-Win, "finish" means earning the associate's degree—not the bachelor's degree, not pre-baccalaureate certificates, not some piece of paper from an institution of indeterminate status that says you finished a course that may have lasted for three weeks. And in contrast to other completion efforts, the target universe for Win-Win consists of people who already have earned 60 credits but who have holes in their portfolios that render them "academically light," and are targeted for return by the institutions themselves.

Other projects generally do not state credit thresholds, rather wait for people to come in off the street in response to advertisements and recruiting, and do not analyze past records until the student arrives. It is very possible that students with much fewer previously earned credits—say 22, 34, or 17—are more likely to return to school than those with 60 or more. But that's something for a separate research project. The architecture of Win-Win could not address that question.

The Win-Win experience suggests that, after setting aside potential completers who could not be located after three attempts, institutions should prioritize the others by the type of characteristics that might affect their decision to return to school. First priority, illustrated by Columbia College: Flag all potentials with potential holds on degrees as by-products of past due balances/bad debts, and either write them off or place them at the bottom of the contact priority list.

Second suggestion: Set aside those who are missing college-level mathematics in their records, even if you disagree with the way in which your institution defines "college-level math." The Win-Win data indicate 26 percent of the potentials were missing the math requirement for an associate's degree. The likelihood that these people will return to school to complete a math course, particularly if they have been on the run in the world (and not in school) for four or seven years, is highly unlikely. Given a large group of potentials, the amount of time devoted to them should vary by chances of reenrollment, and the chances are low for the math-completion group.

Another suggestion from participants would divide the potentials by the number of credits they are academically light, with students who need four or fewer credits receiving the most immediate attention, followed by credit brackets 5–9, 10–12, and 13–15, stopping there. By Win-Win standards, if students need more than 15 credits, they don't belong in the potential completer group to begin with.

Overcoming a missing mathematics requirement is one of the premier barriers for potential completers to return to college. When a person has been out of school for some time, let alone taken and failed a college-level math course five or six years previously, the math is both forgotten and formidable. The large proportion of this population who fell short of satisfying math requirements stimulated a half-dozen Win-Win schools to rethink what they meant by college-level math. For most community colleges, the default is college Algebra, but as was pointed out above, finite math, statistics (including applied statistics in business or allied health), combinatorics, and game theory are all

college level and could be offered as alternatives to the courses students failed in past years. Of course, these alternatives require academic authority approval, and what would apply to Win-Win students should—and would—apply to everyone.

Quite frankly, what is recognized and credited as college-level math is long overdue for reassessment. There is no question, for example, that the cognitive logic operations that lead through finite and discrete math to computer mathematics constitute a valid path of learning different from the path to and through the infinite math of calculus. As Win-Win's Wisconsin coordinator noted, if students are missing the math requirement for an associate's degree and that requirement is rigid, "They are not sure how to return to school."

The potential completer group is not likely to include significant numbers of former students with marginally acceptable GPAs. As was pointed out by more than one Win-Win institution, students who return to school to raise their GPAs to levels comfortably above graduation requirement rarely succeed. Hence, it was suggested, that if an institution is prioritizing a large number of potential completers, this group should be low ranked.

As of this writing, only 42 of 60 Win-Win institutions have worked through the process of locating and contacting potential completers. There were 16,857 potentials in those schools, of which 1,668 had returned as of this academic year, and another 408 indicated their intent to return at a later date. As one indication of how little work these students faced to complete, Indian River State College in Florida reported that 74 of their returnees had earned associate's degrees before the Win-Win window closed, and Broward Community College reported 260 who had done the same.

To be sure, even as we write this document, participating institutions are discovering others coming back of their own accord and still others whom the data dragnet had missed turning up in the classroom. Just because the Win-Win project came to a formal ending does not mean that the students in its various universes have stopped moving.

The 16,857 potential completers and the 12.3 percent return rate of this group¹⁶ can help us estimate the potential number of returnees from public associate's degree-granting institutions nationwide. The weighted national estimate of those sent to degree audit was 1.04 million. Of this group, 48 percent were judged potential completers in the Win-Win schools, which extrapolates to 499,200 nationally. If 12.3 percent proved to be returnees, that means the nation has 61,000 students—low-hanging apples—to find and bring back in projects such as the Adult College Completion Network. On balance, 61,000 is not a big group, and return on this scale is doable.

What Does One Do for the Potentials?

If an institution has isolated a promising subset of the potentials that don't need either math or English requirements, what kind of package might it offer? Any discussion with a potential completer should include a number of features, Win-Win participants indicated:

- A policy for transferring in credits earned at other institutions since the student was last enrolled.
- For each student, a list of courses that would satisfy degree requirements.
- A clear policy and position on the extent to which assessment
 of prior learning (APEL) and other credit-by-examination (e.g.,
 CLEP) the institution is prepared to accept. Many assume the
 small credit gaps can be closed with some form of assessment or credit for prior experiential learning. However, few
 Win-Win institutions were prepared to engage in APEL, and,
 it was observed, students generally do not know the ropes of
 APEL processes.
- Dependent on prior decisions and approvals, the teaser of contingent financial aid, such as tuition waivers if students complete

their outstanding credits with a grade of "C" or better. If you do that, it was suggested, you would have to use funds from the institution's own foundation (not all schools have them) or quietly draw from private sources since using regular operating funds would draw howls from regularly enrolled students to whom such aid would not be available.

There is a much bigger issue here: What our institutions are doing for Win-Win students they should be doing for everybody, but historically have not. That larger issue raises others, such as the shortcomings of data systems—let alone the kind of monitoring and flexible adjustments that a degree audit provides.

For people who wind up as potential completers with such a short academic space to cover, whatever life events led them to leave the higher education system are difficult to wash away. The University of Wisconsin Colleges located and talked with three-quarters of its potentials; those who declined to return to school (two-thirds of this group) cited full-time work, relocation, and military service as life detours away from reenrollment.

At this stage of any process to bring students back, Win-Win schools testified, the principal players shift from the registrars, IR officers, and academic deans to admissions officers and counselors. A number of Win-Win institutions prepared exemplary form letters/e-mails for this stage of persuasion, but, as the Win-Win's coordinator at Northwest State Community College in Ohio reflected, all it took to motivate the student with two courses to complete was a personal note, and more so, as the degree evaluator at Linn-Benton Community College in Oregon marked, the personal tag of a phone call. Advisers know how to write such notes, and what to say on the phone. They are more than facilitators: They are coaches. Those touches, piece by piece, say that the institution cares. There are, after all, procedural and psychological hurdles to overcome. But for those who express interest or lean toward returning, the principal conflict turns out—not surprisingly—to be work and work hours versus course schedules. To the extent to which their completion templates include courses that are offered online, these conflicts can be mitigated.

¹⁶ Again, basic arithmetic: 1668 immediate returnees + 408 intended returnees=2,076, divided by 16,857=12.3 percent.

The Feeder Projects: Project Win-Win's Version of Reverse Transfer

Many college completion efforts that focus on associate's degrees are predicated on what is assumed to be an easy reappropriation of credits from a four-year college to a community college for students who had transferred to the four-year college, and either subsequently dropped out or had not yet earned any degree.¹⁷ Presumably, these reappropriated credits would allow the community college to award the associate's degree retroactively, depending on local degree award policy.

In that vein, each of the four Win-Win "feeders" followed a simple path from one community college to its traditionally heaviest volume transfer institution, thus avoiding potential quarrels among community colleges over "ownership" of students who had attended more than one:

- Monroe Community College to The College at Brockport, State University of New York (SUNY)
- Suffolk County Community College to Stony Brook University, SUNY
- Clinton Community College to SUNY at Plattsburgh
- University of Louisiana at Lafayette from South Louisiana Community College

Notice the way the last of these is phrased. In the Louisiana case, the four-year college initiated the inquiry, and ironically took some of the zing out of South Louisiana Community College's regular Win-Win inquiry. All cases, however, depend on institutional relationships, student attitudes toward their own educational trajectories, and the potential role of associate's degrees in those trajectories. In the Louisiana case, to set an example, one of the state's two Win-Win authorities produced a mock-up of degree audits using data from both community colleges and four-year institutions. While the example applied to the regular Win-Win sequence, it echoed in the credit reallocation effort: The degree audit was central.

What happened here was complex and variable. For example, 10 percent of the initial records in one of the feeder projects turned out to be duplicates. Grades in specific courses required for degrees and GPAs at one or the other end of the feeder line could easily cut out a third of the original feeder universe of interest.

Even more critical were Family Educational Rights and Privacy Act (FERPA) rules that require students' prior written consent to the sharing of transcripts, even if the purpose is to determine their degree eligibility by the institution from which they transferred. Authorities from the U.S. Department of Education confirmed this application of FERPA, in the course of a webinar on June 20, 2013, hosted by the Western Interstate Commission for Higher Education. A sample of the type of agreement necessary for institutional data sharing appears in **APPENDIX D**.

A Win-Win Case on Long Island

As it turns out, Win-Win has been through FERPA lessons already. Consider how this attempted transaction worked between one community college and its primary four-year feeder recipient: Suffolk County Community College on Long Island and its neighbor (and principal vertical "feed to"), Stony Brook University.

- First, the two institutions had to hammer out a data-sharing agreement that met FERPA standards, which took some time for the lawyers to negotiate. There is a big difference between sharing information among institutions, and the permission to share, a prerogative of students.
- There were 370 students in the original file. Stony Brook removed 190 of them because they were "close to finishing a bachelor's degree." Whatever "close" means, you have to respect the decision.
- That left 180 students. But under the FERPA-negotiated agreement, these students had to be contacted and sign a FERPA waiver
 that allowed their Stony Brook transcripts to be shared with Suffolk County Community College. It was Stony Brook that took
 the lead in this matter, contacting students and explaining the project and the degree that might be awarded.
- Of the 180 students, 120 agreed and met basic Win-Win criteria to be evaluated. Unless you are living in a FERPA-free environment, you cannot micromanage this student choice. (Monroe Community College experienced a similar decline, from 257 in their universe of interest to 148 agreeing to review for potential award of the associate's degree.)
- With deans, transfer credit evaluator, and a graduation specialist weighing in, 15 of the 120 students were judged associate's
 degree eligible. Bottom line, and without marking all the details—courses flunked at Stony Brook, courses that would not
 transfer, transcripts previously sent to Suffolk but without any effect on degree requirements, and so on—the 15 eligibles were
 sent letters under a degree opt-out option. Of those remaining, 35 were treated as potential completers and 60 as nowhere near
 any completion anywhere.

Throughout all of this, the genuine joining of forces between Suffolk and Stony Brook was essential, as was, Suffolk's registrar reminded us, "A central person, the graduation specialist in charge of both capturing and consolidating data and controlling the process." The University of Louisiana at Lafayette offered the same sentiment, observing that the joint feeder project with South Louisiana Community College allowed two sectors to work on a challenge that "required information exchanges and joint decision-making." In the end, out of 180 subject students, Suffolk got 15 completers. That is an 8.3 percent return on investment of a lot of time, compared with the 14.6 percent return on Suffolk's regular Win-Win sequence.

In a similar case, Virginia community colleges judged this kind of effort questionable. When asked about the potential of future feeder relationships, the Virginia system concluded that even if the effort were classified under "research" and the student was nonetheless contacted to request permission to examine records, the institution would be on shaky legal ground.

Legislative mandates for the credit reappropriation process provide momentum, but conflicts of authority over residency requirements remain. When Missouri and its accrediting body, the Higher Learning Commission of the North Central Association agreed on a 15-credit minimum as a threshold for residency, it was agreed that this low marker, in practice, would be rare. In other words, most students affected by credit return would evidence much more than 15 credits at their base community college. It is an issue all those engaged in credit reappropriation should resolve in a persuasive manner.

¹⁷ This phenomenon is commonly dubbed "reverse transfer," a term Win-Win initially avoided in favor of "credit kickback." The term reverse transfer has been historically used to describe students who start in a four-year college, and then move to a community college (as do 26 percent of SUNY students, compared with 35 percent moving in the other direction, as reported by Win-Win's New York coordinator). However, we came to recognize that the term "kickback" would not be well received in state legislatures, and have dropped it, but still will not replace it with reverse transfer. SUNY has it right.

Where Do We Stand After All This: In Numbers and in Learning?

The above narrative has spilled out a lot of numbers along the way, and is worth a slightly elaborated version of the figures presented in the executive summary. The numbers are easy to recite:

- 128,614 students in the universe of interest in 60 institutions.
- 86,925 eliminated from the universe of interest by determining they had either earned degrees elsewhere or were currently enrolled elsewhere, or (in 15 institutions) by local decisions based on changing or special program degree requirements.
- 41,689 set for degree audit in 60 institutions.
- 41,745 actually sent to degree audit (somehow, 56 students ducked under the algorithm line).
- 41,710 completed degree audits in 60 reporting institutions (including a few students from outside the degree audit line who somehow turned up).
- 6,733 eligible students (16 percent of those who went through degree audit, exactly what was predicted) of which 4,550 (68 percent) have either received associate's degrees or are in line to receive them (with 59 of 60 institutions reporting).
- 20,105 potential completers, of which 2,076 have either returned to school or have indicated intent to return (from only 42 institutions, but a much lower number than public mythology would expect).
- 14,872 who turn out neither to qualify for a degree nor to be in range.

Are these numbers good, bad, or indifferent? We are agnostic on the answers at present, and no doubt some participating institutions will be reviewing their earlier accounting. There is a modest amount of work some will finish on their own and a modest number of cells they might fill in on the project spreadsheet. Then, too, for individual institutions to arrive at a balanced interpretation of what might seem to be a disappointing number

of eligibles, a comparison showing a significant increase in associate's degree awards vis-á-vis a low eligibility rate would imply that the institution is functioning more efficiently in bringing students to completion.

Conversely, if one finds a high number of eligibles and total degree awards that have not measurably increased over the period investigated, the institution should be looking more intensely at its internal monitoring and communications. As the former registrar at Tidewater Community College observed, if schools followed the Win-Win sequence annually or every other year, the burden would be "less overwhelming," and a higher level of degree-award efficiency would result. Win-Win did not engage in this analysis for the 60 participating Win-Win schools. That's something they might do on their own.

Others, representing institutions in states with performance-funding policies, were more skeptical than agnostic. "Where's the money?" some asked. That is, if an institution put as much labor into finding lost degree-qualifiers and coaxing near-completers back to school as Win-Win requires, state funding rewards were expected, if only to compensate for labor costs. If a project like Win-Win produces 1,500 associate's degrees (as did three institutions in Florida) or 555 (six institutions in New York), and it is a one-time event, and there is no monetary reward from the state, the skeptics add, why should we do it?

Win-Win's answer: People, not money. One could back off both agnosticism and skepticism, and note that 64.3 percent of the cases that made it through degree audit were either eligible or potential degree recipients. This figure validates Win-Win's driving assumption that there were a substantial number of empty-handed students out there who are worth a second look. That proportion should encourage other institutions and systems to engage in similar efforts. From another angle, Win-Win found 27,000 students (eligibles plus potentials) who had no idea how close they were to finishing a degree, let alone actually qualifying for one. If the students didn't know, as one Win-Win institutional manager remarked, that meant someone wasn't telling them.

¹⁸ More arithmetic: 6,733 eligibles plus 20,105 potentials=26,838. Divide 26,838 by the 41,710 for whom judgments were leveled in the degree audit process, and you get 64.3 percent.

All the more reason to execute regular degree audits, to maintain accurate contact information, and to reach out regularly, especially if continually redeployed military populations are at issue. In Win-Win's universe, that meant not only Columbia College in Missouri, but also most of the participating community colleges in Virginia.

The narrative has also produced dozens of advice and qualification flags along the way, all of them attached to specific steps of the core Win-Win process, and all offering guidance for similar future efforts. What else can we conclude?

- People have to work awfully hard to get to this point, bit by bit, ounce by ounce—(yes, I know I'm repeating Stephen Sondheim lyrics, but "Putting it Together" perfectly describes the Win-Win story). If everything in the data, tracking, and communications with students processes were fixed, the tasks would be much easier.
- Win-Win had to overcome a lot of personnel turnover, both at the state and institutional levels. Just about everyone who stepped into the gaps came up to speed reasonably quickly. Whether this happens in other data-oriented student tracking and degree-completion projects no one knows.
- The Win-Win process has demonstrated what academic integrity in certifying students eligible for degrees means: Nobody passed out empty pieces of paper; nobody was indiscriminate.
- Win-Win is about numbers, not about content. It is not about what students learn: For that task ever-increasing numbers of institutions are turning to the Degree Qualifications Profile and/ or for what students learn in their major fields of study, to the ever-expanding process known as "tuning." Those are other story lines, not this one. When one of Win-Win's state coordinators asked whether eligible students were any smarter for our efforts, the answer was a clear "I doubt it!"
- •We cannot micromanage student behavior or sacrifice academic standards to shape outcomes that make institutions look better, but we can smooth out and, in some cases, wipe out procedures and rules that are artificial barriers to student completion. Yes, the institution might look a little better; but Win-Win is ultimately about students.

Will efforts like Win-Win measurably increase the proportion of the young adult population (25–34 years old) with degrees, as policymakers and pundits urge? No, and for a reason that should recall your fourth-grade math. Unlike most other advanced post-industrial democracies, the United States has a population denominator that has been rising. That denominator (the number of 25–34 year-olds) was large to start with and will get even bigger over the next 20 years, then begin to decline as current fertility rates have fallen below the replacement line. What happens to fractions—hence percentages—when the denominators grow faster than the numerators (and the relatively slow change in numerators marking human behaviors such as college attendance and completion is something every demographer in town knows well)? That's a no-brainer. Enough said!

Bigger than Win-Win are the challenges of cultural change in attitudes toward associate's degrees. In institutions that offer both the associate's and bachelor's degrees, the former is often regarded as a "drive-by" credential, hence not seen in a golden light. And the current fad of certificate worship in higher education shifts value from the degree to something less.

Win-Win has a different message for students. First, there is nothing wrong with completing intermediary credentials. Secondly, completion of the intermediary is far better than walking around empty-handed. Finally, certificates are far less broadly understood than degrees in both labor markets and in the society writ large. Internationally, certificates are not counted as higher education; associate's degrees are, whether in the United States, Japan, Korea, France, England, Ireland, Denmark, the Netherlands, or other countries where they are offered under different names but with similar criteria.

¹⁹ See Adelman, C. 2009. The Spaces Between Numbers: Getting International Data on Higher Education Straight, Table 5, p. 23.

Win-Win posits a challenge to the larger higher education community: If the universe of schools that awards associate's degrees followed the Win-Win sequence, it would find 64 percent of the students emerging from degree audit should have been subjects of continuous monitoring and contact a long time ago. To be sure, the 64 percent is an average. For some institutions, a higher percentage would emerge; for others, a lower proportion.

Higher or lower, do we sincerely want to find these former students, one-by-one, ounce-by-ounce, give the eligibles their due, and do our best to bring the potential completers to completion?

In the opinion of Win-Win participants, agnosticism doesn't have a chance in the face of that volume. 💥

If We Had to Do It All Over Again, What Would We Change?

The ideas that follow should add grist to the planning mills of systems and institutions contemplating projects analogous to Win-Win. In the same spirit of candor exhibited by Win-Win participants, we offer several admissions and guidances:

- Set parameters for the initial data mining. We urge a minimum
 of 18 months, working backwards from the project start date,
 during which the student was not enrolled at the school. Many
 of our Win-Win schools used 12 months, and we did not object.
 But an 18-month gap is more likely than a 12-month gap to
 indicate a true school dropout (though not necessarily higher
 education dropout, which is something determined in the
 matching process).
- Use a higher threshold GPA than the Win-Win 2.0. We acknowledge the point of institutions that used 2.5: To avoid dealing with marginally qualified students, they insisted on a higher level of performance. Besides, a higher threshold—which need not automatically mean a 2.5—would cut down on the degree audit load. Setting a marker, though, would require running a distribution of all GPAs above 2.0 for a tentative universe of interest, then agreeing on a statistical decision rule to reshape the tentative with a firm, final GPA threshold.
- Consider the GPA in the student's major. GPA in major (yes, community colleges have majors!) proved to be a critical miss in our parameter statements for the initial universe of interest because, in the course of degree audit, students with below-acceptable performance in the major will be classified as either potential or flat-out ineligible for anything. It's a fruitless task to ask potential completers with low GPAs in their majors to return to school for the sake of more credits with better grades. Some Win-Win participants suggested excluding from the universe of interest students with low GPAs in their majors up-front.

- Audition the data mining. Any future Win-Win effort should require a pre-participation data test of any would-be Win-Win school. If the school cannot produce a universe from its existing student level data in two or three days (including transfer-in data with clear decision rules), it would be barred from further involvement. The algorithms are easy, but if the data elements are not present, the school might stumble along for months, and the longer the initial take drags out, the more project momentum declines in sync.
- Reduce the project length from 24 months to 18 months.

The shorter the period, the less likely the results will be contaminated by people returning to school, who then should not have been in the universe of interest to begin with. The two most time-consuming phases in the Win-Win sequence are auditing degrees and then locating, contacting, and negotiating with potential completers. One sees immediately why we advocate a pre-participation test: It shortens the process by two to three months. We would also shorten the time span by skipping matches with state data, and their contentious results, and going directly to NSC. That, in the experience of current Win-Win institutions, would cut another two months from the schedule.

- Set clear rules on local set asides. For the matching process, designed to eliminate currently enrolled students and previous degrees, we would require all participating institutions to provide specific sources or decision rules for any student who is set aside during this process. Win-Win saw more than 6,000 students in 11 institutions dropped with no indication of source or rationale, and that is simply unacceptable.
- Survey students about their experience. Win-Win did not ask participating institutions to survey various student populations, for example, asking those who refused to accept offered

associate's degrees why they refused (assuming, of course, these students could be located in the first place), or asking contacted potential completers who declined to reenter school why they did not wish to complete. It would be helpful to know, for example, the proportion of refuseniks who were under the erroneous impression that accepting an associate's degree would cut off all future financial aid. It would also be more than relevant to our assessment of college completion to know the proportion of students put through degree audit who regarded a degree as irrelevant to their education. Surveys would have added a considerable amount to the budgets for Win-Win projects, and project designers, the author included, chose breadth over depth of coverage. Future efforts analogous to Win-Win might behave differently.

- Follow student mobility within the project. Win-Win did not establish a separate data grid to account for students from the original universe of interest or the degree audit population who reenrolled (and even earned degrees) during the two-year period in which an institution was working through its Win-Win sequence. And we did not ask participating institutions to keep records of students entering the Win-Win universe after its initial cut. They all had enough troubles shaping the data extant after Win-Win parameters were drawn.
- Document residency and recency policies. Win-Win did not survey participating institutions to determine who trumps who (the state system versus the regional accrediting authority) in terms of residency or recency requirements for degrees.
- Track level of effort. We did not ask institutions to record the number of staff hours spent on Win-Win activities, which would have provided a better sense of costs and benefits. Answers to both these questions would provide a richer tapestry.

• Improve project data collection. With 60 institutions and 40 variables (not all of them pursued vigorously) in the Win-Win sequence, we would have been better served with a URL in which institutions entered and revised their own data and information such as methods of locating students, software products used in degree audits, and degree award policies. Instead, participants passed on their information in a variety of communications for inclusion so that it ultimately wound up (and sometimes inaccurately) in a master spreadsheet at IHEP. Some of the errors and bad translations along the way have been the project director's fault.

What we can say of Win-Win at its finish line is that it has been an extraordinary learning venture for all of U.S. higher education. It took the hands and efforts of people who went beyond their calls of duty, persistently and over long periods of time. The project has produced some degrees; it has brought some former students back to school to complete. Far more importantly, it has taught everyone what lies on the road to quality data, quality accounting, and service to students: A lot of work in the trenches, because the road turns out to have more turns, craters, and washouts than previously imagined. Win-Win people have borne witness to both those challenges and the joys of students when the challenges were overcome. Stephen Sondheim's lyrics say it too well: Putting it together—bit by bit, ounce by ounce—hasn't been easy. The people behind Project Win-Win, up and down the line, deserve considerable plaudits.

Appendix A

Institutions Participating in Project Win-Win and Their Characteristics

State	Institutions	2011–12 Enrollment (Rounded to 100)	2011–12 Associate's Degrees Awarded	Win-Win Years
	Blue Mountain Community College	2,700	301	2011–13
	Central Oregon Community College	7,100	652	2011–13
	Columbia Gorge Community College	1,200	188	2011–13
	Chemeketa Community College	12,600	1,284	2011–13
	Clackamas Community College	7,900	712	2011–13
	Clatsop Community College	1,300	101	2011–13
	Klamath Community College	1,400	138	2011–13
ΔD	Lane Community College	12,800	1,201	2011–13
OR	Linn-Benton Community College	6,300	656	2011–13
(17)	Mt. Hood Community College	9,900	1,060	2011–13
	Oregon Coast Community College	500	48	2011–13
	Portland Community College	34,600	3,232	2011–13
	Rogue Community College	5,800	525	2011–13
	Southwestern Oregon Community College	2,100	274	2011–13
	Tillamook Bay Community College	500	25	2011–13
	Treasure Valley Community College	2,600	344	2011–13
	Umpqua Community College	3,100	414	2011–13
	Bay de Noc Community College (Bay College)	2,700	422	2011–13
	Henry Ford Community College	17,700	1,498	2011–13
	Lake Michigan College	4,700	455	2011–13
R/II	Mott Community College	11,800	1,736	2011–13
MI	North Central Michigan College	3,000	308	2011–13
(9)	Northwestern Michigan College	5,200	731	2011–13
	Oakland Community College	29,200	2,415	2011–13
	Southwestern Community College	3,000	359	2011–13
	St. Clair County Community College	4,600	553	2011–13
	Bossier Parish Community College	7,100	630	2009–11
	Delgado Community College	20,400	1,253	2009–11
1.4	McNeese State University *	8,800	119	2009–11
LA	Northwestern State University of Louisiana *	9,200	869	2009–11
(7)	Nunez Community College	2,400	160	2010–12
	Southeastern Louisiana University *	15,400	62	2009–11
	South Louisiana Community College	3,900	284	2011–13
	Alfred State University *	3,600	826	2011–13
	(State University of New York College of Technology)	2,222		
NY	State University of New York College of Agriculture and Technology at Cobleskill *	2,500	342	2011–13
(6)	Clinton Community College	2,300	323	2010–12
(5)	Monroe Community College	17,700	2,703	2009–12
(Orange County Community College	7,300	761	2010–12
	Suffolk County Community College	26,800	3,438	2009–12

State	Institutions	2011–12 Enrollment (Rounded to 100)	2011–12 Associate's Degrees Awarded	Win-Win Years
	Germanna Community College	7,800	656	2011–13
	New River Community College	5,200	482	2011–13
VA	Northern Virginia Community College	50,000	5,452	2011–13
(6)	Thomas Nelson Community College	11,000	879	2011–13
	Tidewater Community College	32,100	2,923	2010–12
	Virginia Western Community College	8,600	670	2010–12
	Clark State Community College	4,900	446	2009-11
ОН	Kent State University regional campuses-Stark, Trumbull, and Tuscarawas	10,800	555	2010–12
(5)	Lakeland Community College	9,500	926	2009-11
. ,	Northwest State Community College	3,600	360	2011–13
	Rhodes State College	4,100	616	2011–13
	Columbia College *	18,100	1,520	2010-12
MO	DeVry University, Kansas City *	1,400	71	2011–13
(4)	Metropolitan Community College (district)	5,200	1,889	2011–13
	St. Louis Community College (district)	29,200	2,113	2010-12
	University of Wisconsin Colleges (13)	14,400	1,751	2010-13
WI	University of Wisconsin-Green Bay *	6,700	20	2010-12
(4)	University of Wisconsin-Platteville *	8,300	4	2010-12
	University of Wisconsin-Stevens Point *	9,500	167	2010-12
	Broward College	42,200	6,218	2011–13
FL	Indian River State College	17,500	2,691	2011–13
(3)	St. Johns River State College	6,200	882	2011–13
	TOTALS	628,000	62,693	

Source: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System (IPEDS) *Historically bachelor's degree-awarding institutions that also award associate's degrees.

Appendix B

Distribution of Project Win-Win Institutions by Enrollment and Number of Associate's Degrees Awarded

2011-12 Enrollment:

	2-Year Colleges	Historically Four-Year Colleges
More than 20,000	8	0
15–20,000	3	2
10–14,999	6	0
5–9,999	14	5
2-4,999	15	2
Less than 2,000	5	1
Total 2011–12 Enrollment	544,500	82,500
Total 2011–12 Associate's Degrees Awarded	59,035	3,658

Appendix C

Data Reported in Project Win-Win

Variable	Rating	# of Institutions Affected	# of Institutions Reporting	Comments
Step 1: Reporting Students in the Universe of Interest	Critical	61	61	
% Who were Transfers-In	Important	60	59	1 couldn't do it
Ave. Credits Transferred-In	Important	60	59	1 couldn't do it
Step 2: Reporting Students Earning Degrees, Reenrolling Elsewhere or Other Exclusions	Critical	60	60	
Matched with State Data	Critical	35	35	Others did not use state
Matched with NSC Data	Critical	54	54	28 also matched with state
Of NSC Matches, % in 4-Year	Important	54	43	3 with unreliable data
Available for Degree Audit	Critical	60	60	
Step 3: Reporting Students Sent To Degree Audit	Critical	60	60	
% Who Were Transfers-In	Nice to know	60	47	Wasn't mandatory
% Who Attended > 2 Schools	Nice to know	60	32	Wasn't mandatory
Reporting "Eligibles"	Critical	60	60	1 had no eligibles
Ave. # Credits Earned	Critical	59	52	
Could Not Locate	Important	59	57	
Awarded Degrees	Critical	59	56	
Demographics	Important	59	57	
Reporting "Potentials"	Critical	60	60	1 had no potentials
Missing Math	Critical	59	55	
Missing English	Nice to know	59	42	Wasn't mandatory
Could Not Locate	Important	59	48	Not finished yet
Returning to School	Important	43	31	Not finished yet
Reporting "Neithers"	Critical	60	60	1 had no neithers
Other				
Methods of Degree Audit	Important	61	59	
Methods of Locating	Important	61	60	
Degree Award Policy	Critical	61	61	

Appendix D

Sample State/Institution Project Win-Win Data Sharing Agreement

THIS AGREEMENT is entered into between	n and among SUNY
System Administration, located at SUNY	Plaza, Albany, New
York 12246 (System);	, a community
college operating under the program of t	the State University
of New York and located at	
, a state-operated institu	ution within the State
University of New York and located at	
(College 2) for the purpose of cre	
arrangement between and among the par	
with the Family Educational Rights and Priva	acy Act (FERPA) and
its implementing regulations.	

The data shared between the Colleges is in furtherance of an evaluation of the effectiveness of the State-supported educational programs at each institution and in SUNY generally within the framework of Project Win-Win as funded by the Lumina Foundation.

- 1. The personally identifiable student information (PII) shared hereunder will be used exclusively for the purposes of Project Win-Win (the Project) to enable each institution to determine whether identified students have met applicable degree requirements.
- 2. System designates Colleges 1 and 2 as its authorized representative for purposes of implementing the Project. Each party shall identify in Appendix A their staff members who will have exclusive access to the PII shared hereunder.
- 3.The PII to be shared under this Agreement consists of official student transcripts (add other information if necessary).
 College 2 will provide such transcripts to College 1 based on the following criteria: (describe how students will be identified).
- 4. College 1 will destroy such official student transcripts when the information is no longer needed for the purposes described hereunder but no later than ______. This time period

may be extended by mutual agreement of the parties if necessary for the purposes of the Project. Destruction of such records shall be by shredding or comparable method.

- 5. The Parties agree to preserve the confidentiality of all personally identifiable information about individual students obtained pursuant to this Agreement. Consistent with FERPA, SUNY policy and NYS Personal Privacy Protection Law, PII from education records exchanged hereunder will be used exclusively for the purposes of the evaluation being conducted under the Project and shall not be re-disclosed to any individual or entity not listed in Appendix A. However, the recipient of PII may re-disclose it back to the providing party. Each party will establish procedures and protocols for the security of the PII which procedures shall be subject to review and audit by System. Such procedures shall include (encryption of computer data, procedures to limit access to PII by unauthorized persons, storage of PII in locked facilities, employee training on FERPA requirements, etc.) Each party shall ensure that its employees listed in Appendix A are aware of the prohibition against re-disclosure and of the potential for disciplinary sanctions for violation of FERPA and this Agreement.
- 6. In the event of a material breach of the confidentiality obligations of this Agreement, System may terminate the Agreement as to the breaching party upon 30 days notice to the breaching party, provided that the breaching party has been given notice of the breach in writing and has failed to cure the breach satisfactorily within 30 days. Upon termination for cause, the breaching party shall immediately cease the use of all data received from the other parties pursuant to this Agreement and shall immediately destroy such data.
- New York Information Breach and Notification Requirements.
 The Colleges hereby acknowledge and agree to use reasonable efforts to maintain the security of private information (as

defined in the New York State Information Security Breach and Notification Act, as amended "ISBNA" (General Business Law § 889-aa; State Technology Law § 208) that it creates, receives, maintains or transmits on behalf of SUNY and to prevent unauthorized use and/or disclosure of that private information; and implement administrative, physical, and technical safeguards that reasonably and appropriately protect the confidentiality, integrity and availability of electronic private information that it creates, receives, maintains or transmits on behalf of SUNY ("SUNY Data"). The Colleges hereby acknowledge and agree to fully disclose to SUNY pursuant to the ISBNA, and any other applicable law any breach of the security of a system where the Contractor creates, receives, maintains or transmits private information on behalf of SUNY following discovery or notification of the breach in the system as to any resident of New York State whose private information was, or is reasonably believed to have been acquired by a person without valid authorization ("Security Incidents"). The disclosure shall be made in the most expedient time possible and without unreasonable delay, consistent with the legitimate needs of law enforcement or any measures necessary to determine the scope of the breach and restore the reasonable integrity of the system. The Colleges shall be liable for the costs associated with such breach if caused by the their negligent or willful acts or omissions, or the negligent or willful acts or omissions of the College's agents, officers, employees or subcontractors. In the event of a Security Incident involving SUNY Data pursuant to the ISBNA, SUNY has an obligation to notify every individual whose private information has been or may have been compromised. In such an instance, the Colleges agree that SUNY will determine the manner in which such notification will be provided to the individuals involved pursuant to the ISBNA and agrees to indemnify SUNY against any cost of providing any such legally required notice. Upon termination or expiration of this Agreement, the College's will follow SUNY's instructions relating to any SUNY Data remaining

in the Contractor's possession. Upon authorization from SUNY, the Contractor will use data and document disposal practices that are reasonable and appropriate to prevent unauthorized access to or use of SUNY Data and will render the information so that it cannot be read or reconstructed.

- 8. The parties will ensure that the results of the evaluation undertaken for the Project shall not be published in a way that will allow individual students to be identified.
- 9. The Parties designate as points of contact for this Project the following persons:

System: Dr. Robert Kraushaar, Associate Provost, SUNY System Administration, One University Plaza, Albany, NY 12246, (518) 320-1670, Robert.Kraushaar@SUNY.edu

College 1: name, title, address, phone, e-mail

College 2: name, title, address, phone, e-mail

All notices and requests for information, its format, method of delivery, extensions of time, etc., shall be sent by electronic mail or regular mail to the Party's point of contact.

- This Agreement may only be amended in writing signed by the Parties.
- 11. The Agreement may be executed in separate originals, which together shall comprise one single fully executed document.



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