



Issues

in Schoolwide Application Of Career Academies

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OF CAREER ACADEMIES

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I. Schoolwide Application of Career Academies

Since the mid-1990s a small but growing number of high schools and districts have been trying to boost student engagement and achievement by enrolling all students in career academies. These efforts have been inspired by strong evidence that career academies improve attendance, credits, grades, and graduation rates.¹

However, this evidence comes from schools where only a small fraction of the students belong to career academies. No one yet knows whether such positive results will be obtained when the career academy strategy is applied to an entire high school. Furthermore, schoolwide application of career academies poses additional problems, over and above the challenges of implementing a single academy within a high school. This paper describes some of those challenges.

To begin, it is useful to briefly recapitulate the three defining features of career academies. First, a career academy is a small learning community (SLC) in which a cluster of students share several classes each year, taught by the same team of teachers over a period of two to four years. This structure allows for increased personalization, connecting students more strongly to their teachers and peers. The teachers get to know each student from various classes and other contexts. The small learning community prevents the anonymity that too often prevails in large comprehensive high schools.

Second, each academy offers a college-preparatory curriculum organized around a career theme, such as health and bioscience, or business and finance.

¹ Kemple, J. J. and Snipes, J.C. (2000). *Career Academies: Impacts on Students' Engagement and Performance in High School*. New York: Manpower Demonstration Research Corporation.
Stern, D., Dayton, C., and Raby, M. (1998) *Career Academies and High School Reform*. Berkeley, CA: Career Academy Support Network, Graduate School of Education, University of California. <http://casn.berkeley.edu>
Maxwell, N.L. (1999). *Step to College: Moving from the High School Career Academy Through the Four-Year University*. Berkeley, CA: National Center for Research in Vocational Education, University of California. See also Maxwell, N. and Rubin, V. (2000, forthcoming): *High School Career Academies: A Pathway to Educational Reform in Urban Schools?* Kalamazoo, MI: W.E. Upjohn Institute for Employment Research.

By combining rigor and relevance, the curriculum motivates students to learn academic skills and concepts. Career-related applications answer the perennial student question, "When will I ever use this?"

Third, career academies immerse students in the adult world through partnerships with community groups including employers, parents, and higher education. Job shadowing, internships, service learning, and one-to-one mentoring connect students to the world beyond high school, where they are taken seriously by an adult who is not their teacher or their parent. These adult connections help keep students in high school and encourage them toward post-secondary education.

These three core elements have been present in the career academies that have been found to produce positive results for students. But implementing a career academy is not easy. All three central elements of the model require adaptations on the part of the high school and efforts beyond those normally made by teachers and administrators. When a high school implements one or two academies these additional tasks are substantial. When it moves to an all-academy structure the challenges become even bigger. Section II reviews some of the guides that have been developed for implementation of individual career academies. Section III describes new challenges that arise in applying the career academy model schoolwide.

II. Checklists and Rubrics for Monitoring Implementation of Individual Career Academies

Over the past three decades, much has been learned about implementation of individual career academies. Some of that wisdom has been summarized in checklists and rubrics that specify in detail what goes into making a successful career academy. Three of these instruments are described here, and copies are attached. The Oakland Unified School District has developed a "Career Academy Self-Assessment Tool." The School District of Philadelphia created an "assessment tool" focused on the alignment of its Small Learning Communities (SLCs) and the district's SLC components, curriculum,

and cross cutting competencies. The Career Academy Support Network (CASN) at U.C. Berkeley has developed a "Career Academy Implementation Checklist."

These three instruments have in common the purpose of providing guidance in assessing the implementation of career academies or SLCs.² But while they have a common purpose, they have important differences. For example, the Philadelphia document consists of a 10-page list of key practices. These are divided into eleven main categories ("ensuring instructional practice," "creating small learning communities," etc.) and 27 sub-categories, with a total of 119 items in all. These are presented as statements, to which one could respond with a simple yes or no. This is followed by a second section, a two-page set of specific implementation questions for the National Academy Foundation (NAF) Academies in Finance and Travel and Tourism, with 13 main items and 17 sub items. Some of the questions here also call for yes/no responses, others for examples or written explanations.

The Oakland document is also framed around practices that are viewed as essential to the implementation of an academy. These are divided into eight broad categories ("school-based learning," "work-based learning," "guidance and counseling," etc.). Here there is a place for rating each statement along a five-point scale, from "don't know" to "beginning," "emerging," "systematic," and "sustainable." There are a total of 81 items within the eight categories.

The CASN checklist is briefer. It provides a list of elements that match the common definition of career academies agreed to among several organizations supporting networks of academies. These elements are divided into three categories (small learning community, college prep curriculum with a career theme, and partnerships with employers, community, and higher education). There are a total of 34 items. For each, a three point rating scale is provided

² Generally, a small learning community within a larger high school can be defined as a group of students who share teachers, classes, and other experiences. A career academy is one kind of SLC, offering a college-and-career curriculum and workplace experiences linked to classroom studies. In Philadelphia, all SLCs are also expected to offer a college-and-career curriculum and workplace experiences linked to classroom studies. However, not all SLCs in Philadelphia are called career academies. The term "academy" in Philadelphia is reserved for SLCs that are associated with the Philadelphia High School Academies, Inc., the successor to the organization that first originated the career academy model in 1969.

(adequate, good, ideal), with a space for "other" or comments. Indicators of what constitute adequate, good, and ideal are provided for each item, most of them numerical.

One important difference among these three instruments is the degree of judgment needed to complete them. The Philadelphia checklist provides no scale for responses, although the items themselves suggest a range of possible achievement. For example, the first item reads: "Curricula for all courses are aligned to district standards and cross-cutting competencies." It seems possible some course curricula might be so aligned and some not. Thus this checklist provides in effect an ideal set of standards, a target at which to aim, but no benchmarks to gauge progress toward that ideal.

The Oakland checklist provides some help in this respect, with its five-point rating scale. The points along this scale are well defined. For example, 1-- "beginning," is defined as "early implementation stage; planning to or just beginning to implement the program element." Here also, however, numerical benchmarks are lacking. For instance, "Academy staff, including counselors and administrators, ensure that all students who attend the school and their parents are informed about the program." Just how completely such information has been provided and received appears to require judgment, and perhaps guesswork.

The CASN instrument rates each element in numerical terms. For example, one item reads "# of teachers with a release period or additional pay for academy work," with options offering numerical alternatives for adequate, good, and ideal. No judgments are required. However, the designation of what is adequate, good, or ideal is somewhat arbitrary. For example, for "# of students/ grade level," the options are "30 or less," "above 60," and "50-60." Although 50-60 may be considered ideal in California because of state legislation, some academies in other states contain as many as 200 students per grade level, and 50-60 students per grade level may not be feasible or ideal.

The range of topics covered is also an important difference among the three instruments. The CASN checklist covers those elements considered central to the academy model. However, the other two lists provide more depth around

these features. For example, the CASN checklist covers counselor involvement with one item, "counselor understanding and support," while the Oakland checklist contains 16 items on the topic of "guidance and counseling." Similarly, for meeting academic standards the CASN checklist refers to courses as "aligned with academic standards" and "meeting college entrance requirements." The Philadelphia list contains 13 items related to maintenance of district standards.

The Philadelphia and Oakland lists also cover some topics that are not included in the CASN list. For example, "reducing student-teacher ratios" and "creating a personalized and respectful learning environment" are two of the eleven key practices in the Philadelphia document. The Oakland list includes, among the eight main sections, "continuous quality improvement process" and "leadership and support." One is faced with a tradeoff: keeping the list relatively short and focused on central features of the academy model, or broadening it to provide more depth in the definition of these features and including related variables that will affect the quality of the program.

Another variable that is important in weighing these alternatives is the knowledge of the user. It is implied with all three that such a user has some knowledge of the career academy model. The Philadelphia and Oakland checklists also imply knowledge of at least some of the associated features that make educational programs effective. More knowledge is needed with the Philadelphia checklist because of the lack of benchmarks or guidelines for responding, while the Oakland checklist, with its rating scheme but lack of numerical benchmarks, falls between the other two.

These three instruments could be used for different purposes. The CASN checklist might be used as a quick way to identify basic gaps in implementation of the academy model. The Oakland and Philadelphia assessments offer greater depth and breadth of coverage. One could choose which to use on the basis of time available, or perhaps begin with one and move to the others.

III. Issues in Creating All-Academy High Schools

The instruments reviewed in the previous section (and attached) delineate the many specific tasks involved in creating an individual career academy. When a school sets out to transform itself entirely into career academies, these tasks are simply multiplied by the number of academies. But in addition, scaling up creates new issues and questions. Here we summarize the new issues, using the three core principles of career academies as an organizing framework.

A. Creating Small Learning Communities

A school that wants to group all students and teachers into career academies faces a number of questions about how to constitute those small learning communities.

A.1. Should all academies have career themes? By definition, the theme of a career academy is related to a field of work where students can apply academic concepts they are studying while in high school. When a school contains only one or two academies, it is usually not difficult to find career-related themes that appeal to a sufficient number of students and teachers, and that also attract local employers who provide internships and other experiences for students.

However, if the entire high school is to be organized around career academies, it will be necessary to find enough different career themes to attract all the students and teachers in the high school, and this may not be possible in some local labor markets. In addition, some parents may not want their children in programs with career themes.

The question therefore arises whether all the small learning communities must be career-related, or whether they must have any kind of theme at all. Conceivably, a school might have several career academies, plus one or two small learning communities that have a non-career focus -- for instance, "great books" or "math and science." Although these themes could conceivably have career-related connections, such connections would not be emphasized, and the

school would not try to arrange internships or other work-based learning experiences for students in these academies. Alternatively, students and teachers who are not in career academies could constitute one or more small learning communities with a general or college prep curriculum that is non-thematic.

A possible effect of having non-career or non-thematic SLCs would be separation of students according to level of academic achievement. High-achieving students intent on winning admission to competitive colleges and universities might tend to choose non-career options, where they can focus on taking advanced academic courses and not be expected to participate in applied learning. This may not be very different from the situation that exists in many comprehensive high schools now. But if one of the school's goals is to ensure that each SLC includes a mix of high- and low-achieving students, then defining some SLCs as non-career or non-thematic could make attainment of that goal more difficult.

A.2. How should teachers be recruited or assigned to academies? When a high school contains only one or two academies, it is possible, and preferable, for teachers to join an academy voluntarily. This increases the likelihood that academy teachers are interested in the academy theme, that they will be able to work together as a team, and that they are willing to accept the additional demands of starting and maintaining a high-quality career academy.

However, if all teachers are expected to join an academy, voluntary self-selection becomes much more difficult. At the inception of the all-academy plan, it may be possible to define academy themes so that a large majority of teachers can be given their first choice. But some teachers will have to accept placement in an academy where the theme does not interest them or where they do not work well with the other teachers. This kind of involuntary placement may also become more common over time as some of the founding teachers leave and are replaced by others who were not part of the original planning. Teachers may also have to switch from one academy to another, due to teacher turnover or enrollment shifts.

More generally, some teachers reject the whole concept of a career academy. They may not like the idea of a career-focused curriculum in the first

place. They may prefer to remain identified with the subject they teach, rather than with a career theme and a set of students. They may want to remain subject-focused rather than student-focused, and they may like working alone, not in a team with other teachers. Such teachers may actively resist being assigned to a career academy, perhaps trying to enlist the help of the local teachers' union to oppose involuntary assignment. Or they may accept the assignment grudgingly, creating problems for their colleagues in the academy. Including resistant teachers may be one of the toughest challenges facing an all-academy school.

A.3. How should students be recruited or assigned to academies?

Among high schools containing only one or two academies, the kinds of students who participate in academies vary from one school to another. Some academies attract high-achieving students who are assumed to be college-bound, others recruit low-achieving students who are considered at risk of not finishing high school, and in some academies students represent a broad range of academic achievement. The recruitment patterns of individual academies depend on their original purposes and school contexts.

When all students are expected to enroll in academies, however, the school must decide whether and how the academies will recruit different groups of students. Presumably, most schools want to avoid enrollment patterns that separate students by race, gender, or ethnicity. Many schools also may wish to avoid separating students by achievement level, preferring instead that each academy enroll a fairly representative cross-section of the student population.

Here a tradeoff arises between student choice, on the one hand, and equity or balance on the other. If assignment to different academies is determined entirely by students' preferences, and if similar students tend to choose the same academies, then the likely result will be disproportionate enrollment of certain kinds of students in certain academies. Avoiding that result would require the school to deny some students their first choice.

A tradeoff may also be necessary between student choice and teacher choice. Even if students do not tend to segregate themselves by race, gender, ethnicity, or academic achievement, it is likely that the numbers of students who

wish to enroll in certain academies will exceed the numbers of spaces available. And, correspondingly, the number of students applying to other academies will be less than the number of spaces. Since the number of spaces for students in each academy is largely determined by the number of teachers in that academy, giving all students their first choice may require transferring teachers on short notice from one academy to another.

In some all-academy schools, each academy is located on a different floor or in a separate wing. In these situations the physical space puts another constraint on the number of students who can be given their first choice.

Going all-academy also calls into question the age at which students make their initial choice. Usually this would be either grade 8, the last year of middle school, or grade 9, the first year of high school. Unlike the situation where there are only one or two academies in the high school and students who are not ready to choose an academy simply don't, the all-academy situation requires all students to choose, whether they are ready or not.

Whether or not they felt ready to make their initial choice, some students will decide subsequently that they want to change academies. To the extent that each academy has a different curriculum, transferring from one to another will be difficult. This is an issue in all-academy high schools.

Finally, transfers of students between academies may also be prompted by teachers, for instance if they wish to break up a group of students who are encouraging one another to misbehave. The problem here is to avoid a situation in which teachers in every academy are trying to pass their difficult students on to someone else.

A.4. How many academies should there be? One of the hallmarks of career academies and other small learning communities is personalization. Students and teachers all get to know each other; no one is anonymous. The smaller the academy, the more opportunity for everyone to become familiar with everyone else. There are no hard and fast rules about size, but the possibility for all students and teachers to know each other seems to diminish if there are more

than 200 students, and if there are more than 400 it becomes likely that some students will fall through the cracks.

Unfortunately, it also becomes very difficult to arrange a separate class schedule for each academy if there are more than five or six academies in the school. This means that high schools with more than about 1500 students will find it difficult to make sure that no academy is larger than 300 students. In other words, large high schools seem to face a tradeoff between keeping the class schedule manageable and keeping academies small enough to be personal.

On the other hand, academies can also be too small. For instance, if there is only one English teacher in the academy, students will have that same teacher for three or four years. This is fine if everyone gets along and the teacher has a large pedagogical repertory. But it is not fine if some students do not like that teacher, or vice versa. And if there are some things that teacher does not present well, those students will have gaps in their education.

A.5. Belonging to the academy versus belonging to the school. Issues may arise about whether students and teachers are identified primarily with their academies or with the school as a whole. For students, team spirit within the academy may detract from school spirit. Internships and other academy activities may interfere with sports, music, drama, and other schoolwide activities. For teachers, the effort to protect and advance their own academy programs may diminish the energy available for cooperation in the interest of the school as a whole.

Among the decisions that affect the balance between academy interests and schoolwide interests are the allocation of specialized staff including teachers of specialized courses, counselors, coaches, and office support staff. These may all be assigned full- or part-time to separate career academies, or kept entirely as schoolwide resources. Apportioning counselors' time among the academies, for instance, would help the operation of academies but would leave less time for schoolwide functions. How best to allocate these specialized resources is one of the questions an all-academy high school must face.

B. Curriculum and Teaching that Prepare Students for College and Careers

In high schools that contain only one or two academies, the academies themselves are responsible for developing or delivering a curriculum that combines college preparatory academic courses with technical and career-related learning. The National Academy Foundation provides specialized curriculum for its member academies in Finance, Travel and Tourism, and Information Technology. However, when an entire high school transforms itself into a set of career academies, more general questions arise about instructional leadership and support.

B.1. What are the responsibilities of academy leaders in relation to the principal, vice principals, department heads, and counselors? Within an academy, members of the teacher team must take on certain responsibilities over and above their regular teaching duties. One teacher usually has additional release time to serve as academy director or coordinator. Teachers' extra responsibilities can be divided into four areas:

- Recruitment, scheduling, and evaluation. This includes student recruitment and scheduling, orientation, testing, student recommendations, and program evaluation.
- Workplace-related activities, including guest speakers, field trips, mentor programs, internships, and career guidance.
- Extra help for students, which may include aides or tutors, special help classes, attendance monitoring and followup, student contracts, detentions, summer school, parent contacts and agency referrals.
- Publicity and special events, such as an academy newsletter, parent support group, student awards, special activities, and academy student government.

The academy director or leader coordinates the work of the other team members in these areas, in addition to other responsibilities which include: conducting meetings of the academy steering committee, conducting academy staff meetings, orientation of new staff and mentoring other team members,

administering the academy budget for supplies and other expenses, and coordination with the principal, vice principals, other academies, and the district office.

Academy teachers need shared planning time during the school year to coordinate their curriculum and their work with individual students. They also need some extra release time during the year and during the summer, to plan and update curriculum and all the other aspects of the academy program. Among the major issues facing all-academy high schools are how to schedule shared planning time and pay for extra release time.

Principals should build agreement with the district for the support of academy implementation. At their sites they help academies find time for teacher collaboration and professional development, secure needed resources, and support academy partnerships with parents, business and the community. Vice principals take a leadership role in developing the master schedule, secure needed curriculum materials, help with assessment and data analysis, provide information about staff development, and assist with discipline problems.

The role of the department head varies in different schools, sometimes depending on the union contract. Generally, department heads in all-academy high schools still have an important role to play. They can model good teaching, lead in developing courses and writing curriculum, explain district curriculum requirements, provide guidance in textbook selection and help academies garner administrative support and guidance.

Counselors should provide guidance within the context of an academy and help students understand how linkages between academics and career goals relate to their future goals and aspirations. Career planning should be a partnership where counselors and academy teachers integrate career awareness activities into the academy curriculum. Effective academy counseling includes: informing all parents and students about academy offerings prior to their initial choice; preparation of individualized career/education plans for each student with ongoing reevaluation; providing college and career information; linking internships to coursework and providing appropriate credit.

In all-academy high schools, the allocation of certain responsibilities could become problematic. One is teacher evaluation. Members of the academy teacher team must all pull their own weight in order for the academy to operate effectively. The people in the best position to judge the performance of academy teachers are the other team members and the director. However, evaluation of teachers has traditionally been done by administrators, although peer evaluation is becoming more common. How best to involve the academy teacher team in the evaluation of each member is an issue in all-academy high schools. It could also be an issue in high schools that contain only one or two academies, but the issue takes on greater importance when all teachers are working in academies.

Another possible source of contention in all-academy high schools is control of professional development. Academy teams may want to control some of their own professional development time, to upgrade their capacity to teach in relation to their own academy themes. Schools may have to work out how academy teams can share control over professional development with administrators, departments, or schoolwide professional development committees.

B.2. How can academies effectively relate their career themes to rigorous, standards-based curriculum? Each career academy's curriculum and teaching should be guided by an intellectually rigorous set of content and performance standards (state and industry) that describe what students should know, understand, and be able to do. It is important to make sure that the standards are understood by all stakeholders: students, parents, business and the community. Employers and other community partners can be encouraged to offer students experiences that will help them attain the standards. Academy teachers should participate in professional development linked to the standards, and academies should use standards-based texts and other resource materials. Growth in the number of students who are meeting high standards should be monitored for each academy.

Departments provide support for the adoption and maintenance of standards, provide resources and enhance teachers' potential to become subject matter specialists. Departments review and monitor curriculum to ensure that it meets district and state curriculum standards. They also help new teachers by

giving them the opportunity to work with experienced peers who use a variety of teaching strategies and lead them through the uncertainties of the first few years.

C. Work-Based and Experiential Learning Connected to Classroom Studies

C.1. How to achieve economies of scale in work-based and experiential learning? Career academies operating from grades 10 through 12 typically recruit local employer representatives to speak to sophomore classes. They also take sophomores on field trips and arrange for job shadowing. These experiences continue in grade 11, and some academies also arrange for each junior to be paired with a mentor from the academy career field. During the summer after junior year, students who are in good standing are also eligible for paid internships. Seniors may continue to work part-time with the same employer or another employer in the same field. Many academies also expect seniors to produce graduation projects or portfolios that include analysis of their workplace experience.

All of this takes a substantial amount of teachers' time to plan, arrange, monitor, and evaluate. When academies are scaled up to the entire school, the amount of teachers' time required is multiplied by the number of academies. At this point it may become more efficient to create one or more specialized full-time positions to carry out these tasks. Even though each academy has a different career theme and is therefore connected to a different set of employers and community partners, the procedures are the same. For example, arranging for mentors or summer internships involves more or less the same tasks in each academy. Centralization of these tasks at the school level may result in some economies of scale, which would mean less total teacher time required than if each academy did the work separately. How to achieve such scale economies is one of the new issues facing all-academy high schools.