
**CHALLENGES FOR DESIGN TEAMS SEEKING
SELF-SUFFICIENCY**

The lasting contribution of NAS to the reform of American schools requires its Design Teams to achieve self-sufficiency so that they can continue to help schools to implement their designs. As we noted in earlier chapters, NAS has done this by assisting the teams to move from dependence on grants¹ to a level of independent operations where fees for services and products will be sufficient to cover their costs. Several of the teams that existed prior to their affiliation with NAS have achieved a level of self-sufficiency; for most, the future remains uncertain, if promising.²

The importance of the teams becoming self-sufficient means NAS has taken on qualities of a venture capitalist, investing in the development of new products and services and new organizations. However, it did not begin with this perspective. In choosing the organizations in which to invest, it gave very little attention to their underlying financial and management capabilities. Instead, NAS concentrated on choosing groups with design concepts with the most potential for improving schools and student achievement. It invested in the development of a product but, until the past two years, paid little attention to other capabilities of the enterprise necessary to its success.

¹The support was actually provided through contracts, but NAS managed them in ways similar to foundation grants.

²The two whose futures seem most assured at this writing are Roots and Wings and the National Alliance. Both expect to cover most of their costs for services through fees but look to grants and contracts to cover the costs of developing new products.

During the past two years, NAS has urged the teams to develop these capabilities and provided them with assistance to do so. At the same time, NAS itself moved in ways already described to help create markets for the teams. This chapter begins with a broad description of the evolution of NAS policies governing the Design teams and then moves to describe the challenges that the Design Teams faced in making progress toward self-sustaining operations.

EVOLUTION OF NEW AMERICAN SCHOOLS STRATEGY FOR SUPPORTING DESIGN TEAMS

At its inception, NAS adopted what might be termed a product-development strategy. Developers were selected on the basis of proposals responding to a request that emphasized the qualities of the product and the capabilities of the group making the proposal to carry out the development of the product. Had NAS recognized from the beginning that the product was going to be a service—design-based assistance—and that the organizational capability to deliver that service would be crucial to its success, it might have framed the request for proposals somewhat differently. In particular, it might have emphasized organizational capabilities to manage operations, market services, and provide quality control. It might also have viewed its activities as those of a venture capitalist or venture developer.

In the policy environment that existed at the time that NAS was founded, this would have been difficult. The educational community was, and is, deeply suspicious of business concepts and approaches. The New American Schools Development Corporation was part of an overall initiative that was proposed to be challenging to the educational establishment, but not so challenging that its products would not be used. For example, it was not anxious to be confused with another venture that appeared at the same time, The Edison Project, which proposed to build a national system of private schools with high-performance designs to compete with public schools. Perhaps most important, it is not at all clear that there were many organizations that could have effectively assembled and managed these talents.

However, as development proceeded and it became clear that strategies for providing assistance were important to the successful

implementation of designs, NAS began to emphasize the concept of design-based assistance. With this emphasis came two new challenges. First, the Design Teams had to develop the capability to market and deliver assistance on a significant scale while charging fees for their services. Second, NAS needed to develop strategies to help the teams make the transition to self-sufficiency. To a limited extent, it took on some of the oversight and assistance functions often performed by venture capitalists.

In our interviews with Design Team staff, the move to a fee-for-service approach was universally applauded. Design Team members felt that the nature of the relationships that they had with schools and districts was much better under a fee-for-service arrangement than when the schools and districts were getting services at little or no cost. Schools' and districts' expectations concerning services and commitments to change were more clearly defined when those schools and districts consciously made decisions to join with the Design Team. As a consequence, the Design Teams indicate that they have been forced to develop new products and forms of service that are demanded by these customers. The teams have also become far more conscious of the need to demonstrate that what they are selling is effective and to be more specific concerning the services that they will offer.

The jurisdictions found these fees difficult to deal with. While purchasing services and materials is commonplace, purchasing sizable, multiyear, comprehensive assistance packages focused on whole-school reform is not.³ They have normally sought grants to support changes of the level sought by NAS and its teams. The services they do buy are purchased in smaller lots and often serve many schools simultaneously. For example, they may contract with a vendor to assist in training teachers across the district when they buy a new curriculum and instruction package. Consultants may be hired to provide training to principals and site councils on site-based management. While the total expenditures for these activities may be

³Most of the Design Teams charge about \$40,000 to 50,000 a year for a typical school. RAND's analysis of resources associated with implementing the designs suggests that this is perhaps a quarter of the total costs of the reform when the time of teachers and school personnel dedicated to design implementation are accounted for. RAND's analysis of resources for design-based assistance will be published in early 1998.

sizable, decisions in most districts are fragmented and distributed across many parts of the organization.

The penetration of NAS designs in the initial jurisdiction is shown in Table 4.1.⁴ With the penetrations shown, the resources required to pay for implementation appear to have been modest relative to district funding for other services and materials. Thus, in many cases, such expenditures could be met without large displacements of other purchases. Several of the jurisdictions relied upon outside grants to defray the Design Teams' fees. Still, districts talked of the difficulties they faced finding the funds needed.

However, as the proportion of schools in a district implementing NAS designs rises to 30 percent or more, a district will be forced to reallocate funds from other, traditional activities unless it can increase its external funding. Table 4.2, describing the level of NAS activities in the fall of 1997, indicates that such penetration rates are reaching these levels in several jurisdictions. To deal with the demands for funds in additional, newly implementing schools, one

Table 4.1
Number of Schools Implementing NAS Designs, 1995–96
(by jurisdiction)

Jurisdiction	New American Schools	Total Schools	Penetration (%)
Cincinnati	13	79	16
Dade County	25	286	9
Kentucky	35	304	12
Maryland	26	632	4
Memphis	28	160	18
Pittsburgh	10	86	12
San Diego	22	160	14
Washington Alliance	24	200	12
TOTAL	183	1,907	12

NOTES: Data provided by New American Schools. Last column is average penetration percentage.

⁴The data in Table 4.1 do not include total schools in the states of Maryland and Kentucky. In these states, NAS is working in a limited number of districts, and the 30-percent critical-mass commitment applies to those districts rather than the state as a whole.

Table 4.2
Number of Schools Implementing NAS Designs, Fall 1997
(by jurisdiction)

Jurisdiction	New American Schools	Total Schools	Penetration (%)
Broward County	16	200	8
Cincinnati	20	80	25
Dade County	68	315	22
Kentucky	56	304	18
Maryland	53	190	28
Memphis	58	152	38
Philadelphia	36	258	14
Pittsburgh	18	84	21
San Antonio	56	94	60
San Diego	25	157	16
Washington Alliance	69	210	33
TOTAL	475	2,044	26

SOURCE: New American Schools.

NOTE: Last column is average penetration percentage.

of the districts has tried to transfer responsibility for covering some of the Design Team costs to the schools themselves in the later stages of design implementation, reserving district funds to start new school transformation efforts. Other districts are considering the same policy. This has angered school staff members who do not feel that they can afford to pay for Design Team services on their own and who felt the district had made a commitment to them.

Obviously, when districts contemplate making expenditures of the level NAS's Design Teams require, they are concerned about evidence of the effectiveness of such assistance. The Design Teams have not had sufficient time to produce a strong record of effectiveness. Each is able to cite examples of schools that have done well with their designs and thus make a case that their designs and associated assistance can lead to effective schools.⁵ As we have noted, demonstration sites at which the designs are already implemented have also provided important sources of information that districts and schools need to decide whether or not to contract

⁵With the help of the Design Teams, NAS has compiled a report on evidence of effectiveness that is updated from time to time. See New American Schools (1997).

with a Design Team. For the districts associated with NAS so far, such evidence and the attractiveness of being associated with a prominent reform initiative have been sufficient to go forward. However, the future success of the teams will surely depend on there being more extensive evidence of effectiveness.

Because of the sizable cost per school and given the existing policies and attitudes of most school jurisdictions, NAS and its teams can be said to have developed a product for which there is no existing, regularized, large-scale market. For the whole-school, design-based assistance to sell, the customer will have to decide that design-based assistance is sufficiently valuable to warrant changing its purchasing practices. Alternatively, the Design Teams will have to modify their products. Most likely, there will be a little of both.⁶

The mismatch between the jurisdictions' traditional purchasing practices and the Design Team's products has produced continuing tensions. In interviews, representatives from the jurisdictions regularly say that the Design Teams need to pay greater attention to the wishes and practices of the jurisdiction. In many cases, districts would like to buy parts of a design or to have the Design Team train district trainers. On the other hand, the Design Teams, having been charged to "break the mold," continually have to decide where they should draw the line and refuse to compromise their design and implementation strategy in order to satisfy the customer. They are also skeptical that local trainers will be able to maintain the distinctive features of their designs. Moreover, they have financial incentives to retain as much of the assistance responsibility as possible.

As a consequence of these tensions, NAS increasingly came to see one of its important Phase 3 roles as helping to "make markets" for design-based assistance through identifying jurisdictions interested in the scale-up effort and advocating the interests of the teams within them. It has begun to publicize and advocate the type of reform services and strategies provided by the Design Teams nation-

⁶After this chapter was written, the Congress appropriated \$150 million for "comprehensive school reform," primarily for schools serving disadvantaged students. The funds are intended to allow individual schools to buy services such as those the NAS Design Teams provide. See U.S. Congress (1997), pp. 96-99.

ally. The NAS staff has also worked with the U.S. Department of Education to increase the clarity of policies allowing federal funds to be used for whole-school reform. Each of these actions was intended to increase the demand for design-based assistance.

At the same time, NAS took a number of actions to help the Design Teams improve the supply of such assistance. Each team was provided about \$1 million a year for two years to help them make the transition to independence of NAS. Consultants on marketing, public engagement, and business planning were hired and made available to the teams. As they gained experience, all teams found they faced important and common challenges.

CHALLENGES THE DESIGN TEAMS FACED IN PHASE 3

To meet NAS's goals, the Design Teams all needed to develop into reasonably independent organizations that wanted and were able to work with many schools.⁷ In particular, the teams needed to develop capabilities to

- Market their products and services
- Price their products in services in a manner that promises to be acceptable to customers and ultimately cover their costs
- Build and manage a staff that can effectively deliver design-based assistance
- Continue to develop and refine their products.

They had to develop these capabilities with designs that the teams themselves felt were not fully completed and at a time when their staffs were working hard to complete the work owed to NAS under existing contracts.

Marketing and Sales

The initial efforts at marketing were briefly described in the last chapter, where the matching process was discussed. With the

⁷This section is based on RAND's implementation analyses for Phase 3 and on phone interviews with each team conducted in spring 1997.

exception of Roots and Wings, which had been marketing its Success for All program for a number of years, and the National Alliance, which was continuing its work in jurisdictions with which it already had ongoing relations, none of the teams had experience with marketing their designs. They had not been required to explain what they offered or to make a case for the importance of their services. They had only two years of development experience in a limited number of sites on which to base their case. While NAS, with the Design Teams' advice, had chosen districts that were supposed to understand what the teams offered and have the resources to support them, it turned out that the jurisdictions had only a limited conception and attachment to the concept of design-based assistance.

In the first year of Phase 3, the timing and pace of marketing was largely set by NAS and its agreements with the districts. The Design Teams were asked to show up for fairs and make presentations. With the help of NAS and the Education Commission of the States, they prepared materials that described their programs. They usually followed up with visits to individual schools or groups of schools that expressed interest on the basis of the materials and initial presentations.

As the discussion of the matching process in the previous chapter suggested, the teachers and administrators in many of the schools felt that they did not have a good initial understanding of the designs they had chosen. Part of the reason for this was simply the short time available for making the initial sales that was imposed by the lateness of NAS's agreements with the jurisdictions; part was due to the lack of Design Team experience; and part was due to the lack of understanding by most jurisdictions of the full nature of the agreement they had entered into with NAS. Of course, all of this reflected NAS's ambitious schedule and goals.

On the basis of their experiences, the Design Teams have reached a number of conclusions concerning marketing strategies. Almost all feel that NAS has a central importance to its marketing efforts. The teams most frequently talk of the need to reach national policy and practitioner audiences to make the case for design-based assistance. NAS can do this; the Design Team cannot. They also feel that NAS's work with the U.S. Department of Education has been important because federal programs are a source of funding for their work.

Most appear to value the opportunity to work as collaborators, although they recognize that they are also competitors.

At the same time, most have reservations concerning NAS's strategy of seeking a significant penetration into a limited number of jurisdictions. In part, they feel NAS chose particularly challenging districts, several of which some of the teams feel do not constitute promising markets for their services. They also doubt that changes required in jurisdiction policies to support multiple designs in a significant number of schools can be made quickly. As a consequence, they must face uncertainties about the path of change in the districts needed to accommodate the designs.

All believe strongly that a longer engagement with schools is required before a deal can be closed. This belief is based on hard experience. Most have found that many of the schools they work with did not have an adequate initial understanding of and commitment to their design. The organization and mode of operations of most schools do not support quick but informed decisions about affiliating with a Design Team. Schools also need time to assess the support that their parent jurisdictions will provide.

The requirement for a longer engagement poses a significant dilemma for the Design Teams. A prolonged engagement with schools and districts is an expensive marketing strategy, particularly if the outcomes are quite uncertain. Working in a small number of jurisdictions or compact regions can reduce the marketing costs, but they will still be sizable and are likely to require the time of senior staff.⁸

Setting Prices for Services and Materials

One of the most frustrating experiences for NAS, jurisdictions, and the Design Teams has been setting the prices for design-based assistance. NAS originally thought that each team should have a simple price sheet that could be handed to a school or district. The districts,

⁸The marketing costs should decrease if a team develops multiple sites in a geographic area. Roots and Wings, which has many Success for All sites, suggests that schools and districts interested in their design visit existing sites to learn about both the design and the assistance services. The Design Team thus largely avoids the cost of direct engagement with schools while they are considering the design.

used to purchasing services and materials where prices were provided for a training session, a book or set of materials, or a consulting hour or day, wanted Design Team services priced in the same way. The Design Teams had no experience with charging for their services, were initially not entirely certain about what services and materials were essential, and in some instances, did not really know what the services they provided actually cost. Not surprisingly, there was considerable confusion at the start.

Design Team inexperience in selling technical assistance on a larger scale was a significant problem. However, the most important problem may have been the nature of design-based assistance itself. The problem was summed up in the answer one Design Team leader gave to a question in an early presentation to districts about what the Design Teams services cost: “Well, it all depends”

The actual costs of services and materials a Design Team provides to a school depend on many factors:

- The cost per student or school depends on the total volume of a team’s activity in a district. The cost per school is significantly less when a team provides services to a cluster of schools rather than to a single school, because all the schools can receive training during a single visit by a trainer to a jurisdiction.
- Costs of some components of Design Team services do not vary significantly with the size of a school. For example, it does not cost a lot more to train 35 teachers than 25. However, other costs do vary with the size of a school. The costs of coaching are more likely be a function of the number of teachers, and the costs of curricular materials will be proportional to the size of the student body. Stating costs without reference to the size of the school is not possible.
- Costs depend upon the level of customization of design implementation. For example, if schools can choose the length of time over which implementation will take place, the annual cost of services should vary inversely with the implementation time but not in a strictly linear manner.
- Costs should reflect the level of school readiness. Some schools have already implemented some design components (e.g., coop-

erative learning or heterogeneous grouping of students) and thus require less training in these areas than other schools.

- Because of transportation needs, costs will vary with the geographic location of schools relative to the location of the trainers. Sites near trainers may be served with day trips in a car. Those that are distant require both more expensive transportation and the cost of the time required for travel.
- Costs include both the time that is needed to deliver services and the time the team needs to analyze a school's situation and prepare to provide the services.

The pricing of services is not simply a matter of determining their costs, however. Pricing will involve decisions about how to package the services. In the long term, prices should cover the overhead of the Design Team itself and the costs of further development of its products and services. The latter costs could not be covered by fees charged for services in the near term, so teams had to decide how much of a loss they could finance during initial start-up. And of course, prices also depend on what the market is willing to pay, a great unknown at the beginning of Phase 3 and still uncertain at this time.

As with much else in the scale-up effort, many of these problems are being addressed. NAS has identified and funded experts to help the teams develop pricing structures and marketing strategies. Teams now understand the issues of importance to the jurisdictions and have begun improving their description of products and services. Most teams now tend to quote a general price for a year of design-based assistance to a school and indicate that the actual cost to a district and school will need to be negotiated. At the same time, the jurisdictions that initially joined with NAS have no doubt become better consumers, and New American Schools has learned to present the costs of a reform strategy in a district in more realistic ways.

Building a Staff to Provide Assistance

All the teams have given serious consideration to how they will build staff to serve significant numbers of additional sites. During the 1995–96 school year, most teams relied heavily on staff housed at their own home organizations. Several also used part-time staff that

live in areas close to jurisdictions. In 1996–97, a number of the teams moved to hire local trainer-facilitators that were charged with providing services at four to five schools.

Roots and Wings extended a working relationship it had with the University of Memphis. The university provides some of the staff serving Memphis. The Design Team also created a field group in South Florida. Roots and Wings has also signed an agreement with Education Partners, a private firm, to provide design-based assistance in the Pacific Northwest.

Roots and Wings' evolving staffing strategy was an exception, however. For most teams, the uncertainty about the level of future demand for their services, together with the time that their leaders had to spend on marketing, slowed planning for future growth. Staff that had been involved with the development of designs continued to provide many of the training services. According to our interviews, many of these staff were well received at the sites, but some lacked the credibility and skills that the schools wanted. Most of the teams also made use of teaching and administrative staff from existing Phase 2 sites both for marketing and training, particularly in summer sessions. There is general agreement among the Design Teams that teachers and principals with actual experience implementing a design have more credibility and effectiveness with school staffs.

At the time that this was written (fall 1997), most teams plan to develop a regional training structure but remain uncertain as to its exact form. The uncertainty reflects their inability to predict accurately how many schools they will add in the coming years. They do not know the size of the market the jurisdictions currently partnered with NAS or that may partner with NAS in the future will provide. They (and NAS) are also uncertain about how federal initiatives to focus Title 1 funds on whole-school reform and fund comprehensive school reform will affect them.

Further Development of Products and Services

In the near term, the Design Teams do not feel that they can charge fees sufficient to cover the cost of continuing development of products and services. Several have moved to seek funds from founda-

tions or venture capitalists to support such further development. NAS itself has told the teams it will provide limited funding for product development when such development seems needed and likely to result in significant improvements in the Design Team's capability.

However, most teams report that product development and packaging have lagged behind the levels they desire and think are needed. An important reason is that the leaders' time, perhaps each team's scarcest resource, has been devoted largely to the problems of marketing, developing staff, and putting their operations on a businesslike footing. The lack of funds has also been an important problem, and the leaders have not had a great deal of time to develop strategies to obtain such funds. In this situation, product development has been limited to completing existing developments and refining and extending existing products to reflect experiences in the field.

New American Schools' Assistance to Teams for Business Planning

At several points, we have described NAS's activities to help Design Teams market their services, but its major focus involving direct contact with the teams was business planning. NAS required each team to develop a business plan and provided funding to many of the teams to seek assistance in building these plans. Several experts in business planning, product development, and marketing, together with NAS staff, reviewed and critiqued the initial plans.

The teams reported that the effort was helpful because it forced them to set goals for the number of schools they would serve, consider alternative ways to develop staff capability to serve those sites, and move beyond a pricing policy based largely on covering the direct costs of service. From the comments of the team members, we think the effort had another major value as well. When the Design Team efforts were housed in larger organizations (e.g., Co-NECT in Bolt, Beranek & Newman and Modern Red Schoolhouse in the Hudson Institute), the business plan helped focus discussions with these parent organizations about the Design Teams' future position in the organization.

The initial plans required considerable refinement. Nonetheless, the 1996 plans provided important insights concerning the teams' operations:

- In the first year of Phase 3, several of the teams failed to break with the grant-supported traditions and priced their services to schools at levels that did not even cover their direct costs, much less contribute to overhead and product development.
- To survive, all the teams projected a need to expand the number of schools they serve. The growth rates they projected appeared reasonable and were comparable to those achieved by other organizations with similar products (e.g., Accelerated Schools and Success for All).
- All of the teams foresaw continued need for capitalization over the next four years as they add staff and refine their services and products. Only two teams' business plans projected surpluses of revenues over expenses by 2000.
- Several of the teams faced important issues concerning their relationships with parent organizations, including the level and cost of support services and possible capital contributions to be provided by those organizations.
- Most of the teams considered some unbundling of their design-based assistance services. For example, the National Alliance markets assistance related to individual components of its design; Co-NECT planned to provide planning and support services related to educational technology; and Roots and Wings planned to continue to market individual components of its design. Obviously, the goal is to build a revenue base, but in most cases, the Design Teams also see such initial services as a way of entering a market.⁹
- Most teams concluded that they could not afford to work in jurisdictions with only one or two schools. Several have declined

⁹NAS's staff has mixed feelings concerning these moves. On the one hand, they are glad to see that the teams are actively seeking products to provide revenues that will aid their development. On the other, they are concerned because the moves may lessen the commitment to the whole-school, design-based assistance NAS sees as central to achieving its goals.

to participate in smaller NAS jurisdictions in which the probability of gaining a sufficient volume of business is low. Similarly, most emphasized deepening their penetration in existing NAS jurisdictions to reduce their unit costs.

- Most teams felt that they would need to seek support for continued product development from traditional government and foundation sources. They did (and do) not believe the market will bear prices that permit them to cover such development.

NAS again required business plans in spring 1997. These had improved substantially in quality but still suggested that most teams would need capital for several more years. As a result of the review of these plans, NAS has told the Design Teams that it is willing to help them raise needed capital. It has also met with most of the teams' parent organizations to clarify their commitments and support. Finally, it has set aside modest levels of funding for loans to teams for working capital and modest investments in new products.