NoChild LeftBehind

U.S. DEPARTMENT OF EDUCATION

Creating and Sustaining Successful K–8 Magnet Schools

INNOVATIONS IN EDUCATION

Creating and Sustaining Successful K–8 Magnet Schools

INNOVATIONS IN EDUCATION

Prepared by WestEd

For

U.S. Department of Education
Office of Innovation and Improvement

2008

This report was produced under U.S. Department of Education Contract No. ED-01-CO-0012, Task Order D010, with WestEd. Sharon Kinney Horn served as the contracting officer's representative. The content of this report does not necessarily reflect the views or policies of the U.S. Department of Education, nor does the mention of trade names, commercial products, curricula and curricula materials and approaches, or organizations imply endorsements by the U.S. government. This publication also contains Internet Uniform Resource Locators (URLs) for information created and maintained by private organizations. This information is provided for the reader's convenience. The U.S. Department of Education is not responsible for controlling or guaranteeing the accuracy, relevance, timeliness, or completeness of the outside information mentioned in this report. Further, the inclusion of information or a URL does not reflect the importance of the organization, nor is it intended to endorse any views expressed, or products or services offered.

U.S. Department of Education
Margaret Spellings
Secretary

Office of Innovation and Improvement
Douglas B. Mesecar
Assistant Deputy Secretary

Office of Parental Options and Information
Dean Kern
Director

September 2008

Cover photo credit: Christian Holden.

To order copies of the report *Creating and Sustaining Successful K–8 Magnet Schools* (order number ED004210P),

write to: ED Pubs, Education Publications Center, U.S. Department of Education, P.O. Box 1398, Jessup, MD 20794-1398;

or **fax** your request to: 301-470-1244;

or **e-mail** your request to: edpubs@inet.ed.gov;

or **call** in your request toll-free: 1-877-433-7827 (1-877-4-ED-PUBS). Those who use a telecommunications device for the deaf (TDD) or a teletypewriter (TTY), should call 1-877-576-7734. If 877 service is not yet available in your area, call 1-800-872-5327 (1-800-USA-LEARN; TTY: 1-800-437-0833);

or **order online** at: http://www.edpubs.ed.gov.

This report is also available on the Department's Web site at:
http://www.ed.gov/admins/comm/choice/magnet-k8

On request, this publication is available in alternate formats, such as Braille, large print, or computer diskette. For more information, please contact the Department's Alternate Format Center at 202-260-0852 or 202-260-0818.

Contents

Figures and Tables

FIGURES

TABLES

Foreword

Since the passage of the *No Child Left Behind Act of 2001* (*NCLB*), families have more freedom than ever before to make decisions about how their children are educated. Thanks to a wide array of public school choice options, including charter and magnet schools, families can customize their children's learning, which is translating into improved academic achievement throughout the nation. In the classroom itself, individualized instruction can yield tremendous results for students.

Magnet schools in particular are excellent examples of how specialized programs can spark enthusiasm for learning and catalyze academic growth in students whose interests and aptitudes may not be fulfilled by their neighborhood schools. Magnets like the six elementary and middle schools profiled in this guide use themed instruction in such subjects as fine arts, leadership, and engineering to meet the needs of students from diverse backgrounds and interests.

For many years, magnet schools offered families the dominant form of public school choice in America, first appearing in the 1960s as a tool to increase racial desegregation and resolve educational inequities. It may not seem fitting to deem these schools "innovative" since they have been around for nearly 40 years. However, magnet schools have a new and expanded role under *NCLB*, and their power for systemic reform has yet to be fully realized.

In addition to maintaining diverse student populations and advancing school choice, magnet schools are reversing declining district enrollments, turning around low student performance, and serving as laboratories for promising education practices. The schools highlighted in the following pages have achieved these goals despite such obstacles as budgetary constraints, the demoralizing effects of poverty, and children entering with skills far below grade level.

Uniting these schools is the belief that education can empower families and revitalize communities and that every student—regardless of race, income, or zip code—deserves to be challenged and can achieve. As one administrator at a profiled school asserts, "If you can dream it, you can build it."

This guide provides examples of promising strategies and case studies for district leaders and school staff interested in building and growing their own magnet schools. The schools profiled here have adopted continuous improvement plans based on data. As a result, their students' achievement has improved significantly.

This guide is one in a series of *Innovations in Education* publications produced by the U.S. Department of Education. I congratulate the schools highlighted here, and hope that educators and others can learn from their experiences.

Margaret Spellings, Secretary
U.S. Department of Education

Acknowledgments

This guide was developed under the auspices of the U.S. Department of Education's Office of Innovation and Improvement. Sharon Horn was project director.

An external advisory panel provided feedback to refine the study scope and prioritize issues to investigate. Members included Robert Brooks, Executive Director, Magnet Schools of America; Brita Lindsey, Magnet Specialist, Houston Independent School District, Magnet Department; Billie Moore, Director, Magnet and Gifted Education Programs, Indianapolis Public Schools; Anthony Perrone, Principal, Rampello Downtown Partnership School, Tampa; Gina Rigsby, Principal, Reed Academy, Aldine Independent School District, Tampa; Claire Smrekar, Assistant Professor of Public Policy and Education, Vanderbilt University; and Kenneth Wong, Professor of Education, Brown University.

Staff in the U.S. Department of Education who provided input and reviewed drafts include Sue Betka, Steve Brockhouse, Tom Corwin, Kate Devine, Meredith Farace, Lorenzo Esters, Richard Foster, Virginia Gentles, Holly Kuzmich, Meghan Lerch, Greg March, Richard Smith, Tiffany Taber, Linda Wilson, and James Woodsome.

The six schools participating in the development of this guide and the case studies on which it is based were generous with both their time and attention to the project. We would like to thank those who were instrumental in coordinating and participating in the site visits that inform the case studies and this guide.

A.B. Combs Leadership Magnet Elementary School
2001 Lorimer Road
Raleigh, NC 27606
http://combses.wcpss.net
Muriel Summers, Principal

FAIR (Fine Arts Interdisciplinary Resource School)
3915 Adair Ave. N.
Crystal, MN 55442
http://www.wmep.k12.mn.us/fair
Kevin Bennett, Principal

Mabel Hoggard Math and Science Magnet School
950 North Tonopah Drive
Las Vegas, NV 89106
http://www.ccsd.net/schools/hoggard
Celese Rayford, Principal

Normal Park Museum Magnet School
1009 Mississippi Avenue
Chattanooga, TN 37405
http://www.normalparkmuseummagnet.com
Jill Levine, Principal

Raymond Academy for Engineering
1605 Connorvale Road
Houston, TX 77039
http://www1.aldine.k12.tx.us/schools/websites/raymond/index.html
Linda L. Miller, Principal

River Glen Elementary & Middle School
1088 Broadway St.
San Jose, CA 95125
http://www.sjusd.org/school/river_glen
Mildred Colon-Arellano, Principal

Introduction

Magnet schools have developed strong national and local constituencies among parents and educators, who see them as vehicles for bringing equity and academic excellence to all students. Typically, these schools offer innovative programs through a specialized focus or theme. They may emphasize subjects like science or the arts, or they may adopt distinct instructional models, like those of Montessori or International Baccalaureate programs. Magnet schools provide appealing choices for families and students whose neighborhood school may not serve a student's interests, talents, and aptitudes. By offering a specialized curriculum, they attract students from varied backgrounds, creating diversity within learning communities and providing opportunities for beneficial education outcomes.

An Evolving Multipurpose Tool

Historically, districts used magnet schools as a mechanism for achieving voluntary desegregation in their public school systems, whether proactively or under court order. From 1972 to 1981, districts were eligible for funding under the *Emergency School Aid Act* to implement magnet schools, federal support that continued with the authorization of the Magnet Schools Assistance program (MSAP) in 1985. Today, magnet schools are seen to have multiple, overlapping purposes. Under the aegis of the U.S. Department of Education's Office of Innovation and Improvement, MSAP grants are given to projects that are expected to assist in the desegregation of public schools by addressing minority group isolation in schools with substantial numbers of minority group students. At the same time, these projects are expected to help achieve systemic education reforms and to give all of their students the opportunity to meet challenging academic content and achievement standards. Not least, those receiving funds are also expected to develop innovative education methods and practices that promote diversity and increase public school choice.[1]

Changing demographics across the country underscore the urgency for new approaches to avoiding minority group isolation in schools and to raising achievement for students of all backgrounds, as mandated in the federal *No Child Left Behind Act of 2001* (*NCLB*). Today, public school educators face rapidly expanding nonwhite populations, with racial and ethnic diversity accelerating in suburban areas even as a growing de facto residential segregation isolates many urban school communities with largely low-income, minority students.[2] At the same time, concerns about entrenched achievement gaps among students in different socioeconomic and ethnic or racial subgroups also have put the spotlight on excellence and equity. A body of research highlights the education benefits of student diversity.[3] Studies also show that magnets, like other schools of choice, can increase students' motivation and parent satisfaction and involvement, as well as teacher engagement and morale.[4]

The continuing appeal of magnet schools is evidenced in their growing ranks. By one estimate, the number of magnet schools tripled between 1981 and 2002.[5] Successful magnet schools are now seen as vehicles for accomplishing a range of overlapping goals for a host district: promoting voluntary desegregation, turning around low-performing schools, reversing declining enrollment, incubating innovative educational practices, catalyzing urban renewal, expanding a district's program of school choice, and, underlying everything else, closing achievement gaps. Yet, simply adopting or maintaining a thematic program for a magnet school is no formula for success—and sustaining success beyond initial improvements in enrollment and performance can be elusive: School leadership changes, new staff replace those with the initial vision and commitment that helped launch the magnet school, and competition for resources needed to sustain a program stiffens. Consider the experience of A.B. Combs Leadership Magnet Elementary School, one of six successful magnet schools featured in this guide.

Meeting the Challenge: One School's Story

Among its many distinctions, the A.B. Combs Leadership Magnet Elementary School (Combs) in Raleigh, N.C., claims to be the nation's first elementary school to focus on leadership development in children. How the school has transformed itself over the last decade illustrates some of the challenges magnet schools face when it comes to sustaining success. Using an extended day program as its initial "magnet" to attract diverse families, Combs had raised proficiency rates through school reform efforts that, in the late 1990s, earned it a National Blue Ribbon award from the U.S. Department of Education program conceived to honor schools making significant gains in achievement. But by 1999, the school's success appeared to be waning: Combs was underenrolled and faced a plateau in achievement scores.

Combs is part of the Wake County Public School System (WCPSS), whose magnet initiatives date back to 1981 when they were developed along with a student assignment process to ensure high-performing, desegregated schools across the district. Combs had been one of a number of extended-day magnet schools operating since 1982 when the WCPSS adopted the Schools of Choice program to provide equity in education opportunity for students. But in the mid-1990s, when enrollment patterns revealed that this theme was no longer compelling enough to attract a diverse population of families, WCPSS decided to phase out the extended-day magnets entirely.

To retain Combs' status as a magnet, principal Muriel Summers was asked by the district superintendent to come up with a new theme, described, she says, as being "like none other in the state … preferably like none other in the country." Summers faced the added hurdle of receiving no new funds for implementing a new theme. "We faced many challenges to make this model happen," she recalls, "but we looked at the challenge as an opportunity for change."

Without blueprints or start-up funds, Summers and her staff took the plunge. They began by reaching out to a loyal community of college professors, business people, and parents

of diverse ethnicities, asking them to describe the characteristics of the ideal school for their children. Responses were consistent, she recalls: "Academics were assumed, but never mentioned. It was always, 'We want our children to be caring, hard working, and compassionate, to make good choices, and to grow up and give back.' It really was all about character." The idea for a magnet school focused on leadership and character development began to take shape. Its new mission was "to develop leaders one child at a time." And at Combs, character education meant increasing students' individual accountability, building a school culture of continuous improvement for all, and raising academic performance levels.

Since its conversion to a leadership model, Combs has avoided stagnation in both performance and enrollment: It has raised its proficiency rates from 84 percent to 95 percent, as measured by the state's end-of-grade achievement goals, while more than doubling its original 1982 enrollment of 360. Not content to rest on their laurels, Combs' principal and staff say they are determined to reach 100 percent proficiency as part of their commitment to serving their diverse student body. With a total of 809 students in grades K–5, Combs has one of the largest English language learner and special education populations in WCPSS, with its free or reduced-price lunch population closely mirroring the county's demographics as well. It has no majority race, enrolling large numbers of African-American, white, Hispanic, and Asian American (chiefly, Southeast Asian, and Chinese) students. Over 50 countries are represented in the school as first- or second-generation immigrants. Combs receives numerous requests for site visits from educators around the country and has a leadership training partnership with a private school in Japan.

Models of Success

This guide focuses on developing and sustaining successful magnet schools. It tells the stories of Combs and five other elementary and middle school magnets and the distinct challenges each has faced. It also analyzes the strategies they used in the planning and implementation phases of their development and identifies some potential factors that allow them to keep the school doors open as magnet schools that are built to last. Finally, the guide addresses a core question for educators at these schools: how to sustain the integrity of their vision and mission as they face challenges common to many districts and schools in our nation today.

The schools profiled in this guide were selected with input from a group of advisors that included researchers, district-level practitioners, principals, and the executive director of Magnet Schools of America (MSA), a national association that helps schools, districts, and states to implement magnet programs. The selection criteria focused on identifying schools that have demonstrated strong achievement results; reduced minority group isolation; and sustained success over time.

Suggestions were culled from districts with large numbers of magnet schools, specifically those with well-established magnet programs. The advisory group and regional boards of MSA also nominated schools with the aim of finding a range of locations and conditions, reflecting the diverse contexts and challenges facing

magnets (for a detailed description of the site selection process, see appendix A).

Each school faced distinct challenges and drew from a variety of resources to sustain its growth and success (see table 1 on p. 6). Combs, the K–5 magnet, had the problem of needing to quickly choose and implement a new theme that could attract a broader enrollment base. FAIR (Fine Arts Interdisciplinary Resource School), a grades 4–8 magnet school in suburban Crystal, Minn., operates through an interdistrict consortium, with 45 percent of its student population coming from Minneapolis. Although it benefited from a new school building, it needed to develop an effective interdistrict infrastructure. In Las Vegas, the Mabel Hoggard Math and Science Magnet had to develop theme-related expertise among its elementary teachers through training and ongoing support.

Facing different challenges in their planning and implementation phases, all the profiled magnets are models of sustained success. Normal Park Museum Magnet School in Chattanooga, Tenn., was created in a district with a history of low-performing schools and clusters of minority-isolated schools. By developing strong partnerships with local cultural institutions, it developed a museum theme and was able to reverse the district's declining trends and patterns of segregation. Normal Park educators also successfully tackled the achievement gap, particularly for its economically disadvantaged and African-American student subgroups, as evidenced by comparing 2003 to 2007 results on the Tennessee Comprehensive Assessment Program (TCAP). For economically disadvantaged students, proficiency rates in reading rose from 64 percent to 93 percent; and, in math, from 62 percent to 98 percent. For African-American students, proficiency rates in reading rose from 60 percent to 96 percent; and, in math, from 53 percent to 96 percent.

Raymond Academy for Engineering in Houston is a K–4 Title I[6] magnet school with the largest student population (846) among the six profiled schools. The school's innovative curriculum, infused with real-world, project-based learning experiences, was instrumental in earning Raymond's "Exemplary School" status from the Texas Education Agency. Since the implementation of *NCLB*, student performance at Raymond has increased each year and now surpasses district and state levels; Raymond's test scores for 2006–07 indicate almost universal proficiency in reading and math among all subgroups, including Hispanic, low income, English as a second language (ESL), and special education (see table 2 on p. 35).

In San Jose, Calif., the River Glen Elementary & Middle School is a K–8 dual language immersion school that has celebrated its 20th anniversary. What began in 1986 as an alternative strand in a local K–5 elementary school, eventually expanded to its own dedicated magnet school. Years later, due to parental demand, River Glen grew to include grades 6–8. Its academic success earned it a California Distinguished School award in 2000, and, in a district that is not making adequate yearly progress (AYP), River Glen has done so five years in a row. Today, River Glen's success reaches beyond the school walls, and the school serves as a pioneer and model for dual immersion programs across the district, state, and country since receiving the National Title VII Academic Excellence Award[7] in 1995. Its track record for developing bilingual and

1. Planning: Before the Doors Open	2. Implementing: After the Doors Open	3. Sustaining Success: Keeping the Doors Open
Develop a Viable Theme & Mission Successful magnets choose a theme based on existing resources, local needs, and interests. The theme is linked to a clearly defined mission that attracts and energizes all stakeholders.	**Maintain the Theme With Integrity** Successful magnets align their theme with district and state standards while articulating their innovative approach to curriculum.	**Adopt a Continuous Improvement Model** Successful magnets focus on progress, using data-based decision-making to make change and monitor results.
Establish a Rigorous & Relevant Curriculum They design curriculum that promotes high intellectual performance and requires students to master and apply critical thinking, communication, and life skills needed in real-world contexts.	**Establish Equitable Practices for a Diverse Student Body** They ensure all students meet academic success and promote positive intercultural contact in heterogeneous environments.	**Build Win-Win Partnerships** They develop mutually beneficial relationships with organizations and community members to establish a broad base of supporters.
Attract Quality Leaders & Staff They recruit a critical mass of quality educators and staff committed to collaborative leadership and realizing the mission of a specialized program.	**Develop a Culture of Empowerment** They cultivate a no-excuses attitude that fosters a respect for individual capacity, and develops a collective sense of efficacy.	**Develop Community Outreach** They promote their value by educating the public about the school's mission, achievements, and needs.
	Provide Ongoing Professional Development They commit resources to support staff in mastering effective instructional strategies and developing theme-based curriculum.	**Align With a District Vision** They lead school reform efforts, incubate best practices, and contribute to the health of the district by collaborating with other schools.
	Build Leadership Capacity They create formal and informal structures to broaden the school's leadership base.	

biliterate students from white, native English speakers as well as Hispanic, native Spanish speakers spans more than two decades. (For selected characteristics of each featured school, see table 1 on p. 6.)

This guide describes the challenges faced by each of these schools and the various strategies used to address them. It is intended for district-level leaders and school staff interested in applying or adapting promising practices for developing and sustaining magnet schools. It defines and explores strategies through two frames. In Part I, a cross-site analysis provides examples of common practices in three phases of a magnet school's general development: before the doors open, after the doors open, and keeping the doors open (see above). In Part II, each school is profiled in a narrative that highlights its specific contexts and challenges. The profiles are structured to describe the founding and early challenges of each school; how each went about implementing its

Table 1. Selected Characteristics of Profiled K–8 Magnet School Sites[a]

School and Location	Year Founded as Magnet and Host District	Theme	Grades	Enrollment[b]	Student Population Ethnicity	English Language Learners
A.B. Combs Leadership Magnet Elementary School Raleigh, N.C.	1999 Wake County	Leader-ship	K–5	809 80% from residential zone	49% White 22% African-American 15% Hispanic 10% Asian 4% Multiracial	13%
FAIR (Fine Arts Interdisciplinary Resource School) Crystal, Minn.	2000 West Metro Education Program (WMEP)[e]	Fine Arts	4–8	508[c] Interdistrict 45% of seats designated for Minneapolis students	68% White[c] 23% African-American 5% Asian 3% Hispanic 1% Native American	0%[c]
Mabel Hoggard Math and Science Magnet School Las Vegas	1993 Clark County	Math and Science	K–5	412 25% from residential zone starting in grade 1	35% Hispanic 34% African-American 20% White 10% Asian 2% Native American	23%
Normal Park Museum Magnet School Chattanooga, Tenn.	2001 Hamilton County	Museum	PreK–5	337 55% from residential zone	73% White 22% African-American 2% Hispanic 1% Asian 1% Native American	N/A
Raymond Academy for Engineering Houston	1998 Aldine Independent School District	Engineer-ing	K–4	846 76% from residential zone	69% Hispanic 18% African-American 8% White 5% Asian	31%
River Glen Elementary & Middle School San Jose, Calif.	1986 San Jose Unified School District	Spanish Dual Immer-sion	K–8	538 no zone	67% Hispanic 29% White 2% African-American 2% Asian	28%

[a] Unless otherwise indicated, these data are reported by the school and are for the school year 2006–07.

[b] These data are drawn from school report cards for 2006–07 posted on state education agencies' Web sites.

[c] All profiled schools are dedicated magnets, which means that all students have chosen to attend and all students participate in the magnet program. One exception, Hoggard, is a dedicated magnet for grades 1–5, but serves 100 percent neighborhood zone students for kindergarten. Percentages for residential zones indicate the number of seats allotted to neighborhood students. Other priorities for selection—sibling attending, socioeconomic status, etc.—may be involved and are not indicated in this table.

[d] A school may not have received Magnet Schools Assistance program grant funding directly, but may have benefited from services provided by the host district and central magnet office that were funded by this program.

[e] FAIR is operated by WMEP, an interdistrict consortium. The school building is located in Crystal, Minn., a suburb served by Robbinsdale Area Schools.

Special Education	Free or Reduced-Price Lunch	Primary Challenge(s) Addressed	Key Resource(s) for Sustainability	Magnet Schools Assistance Program (MSAP) Funding and Years	
				School	District [d]
15%	39%	Choosing and implementing unique theme without model	Strong, stable leadership; History of district support & collaboration	No	Yes 1987–89 1993–2004
10%[c]	18%[c]	Developing inter-district infrastructure; Leadership transitions	Brand-new, award-winning facility; Partnerships for professional development	No	No
11%	44%	Unsuitable facility; Developing theme expertise among staff	Effective succession plans for leadership	Yes 1993–95	Yes 1993–98 2001–07
10%	36%	History of low performance, declining enrollment; Unsuitable facility	Parent Education Fund; Community partnerships; District support	Yes 2001–04	Yes 1998–2007
8%	79%	Choosing viable theme; Developing theme expertise among staff	Staff recruitment and retention; Collaboration with district as part of K–12 strand	No	Yes 1995–98 2001–04
N/A	52%	Evolving strand into dedicated magnet and expanding to 6–8 program; Leadership transitions	Community outreach; Success and contributions as national model	No	Yes 1987–89 1991–98 2001–07

magnet program; and how each school established systems for sustaining success.

From the beginning, these magnet schools were planned and created—or, in the case of Combs, re-created—with sustainability in mind. Their founders have attended to the practical demands of the start-up phase, as well as to the forward-thinking design of supports and infrastructure. And following their early years, these schools have demonstrated adaptability in the face of new challenges. In the text box on p. 5, each column identifies a particular phase in a school's development and describes, in general, the common approaches shared by the featured schools. Part I of the guide follows the same outline.

The guide is based on case study research, which involved a visit by researchers to each site, interviews with district and school staff, focus groups with members of the school community, and a review of school- and district-related documents. Thus, the guide is based, in part, on documented information about a school and its outcomes, in part, on researcher observation, and, in part, on the perceptions of those interviewed, including staff, parents, and students. Because it is not based on experimental research that can yield valid causal claims about what works, readers should judge for themselves the merits of these practices, based on their understanding of why they should work, how they fit the local context, and what happens when they actually try them. Also, readers should understand that these descriptions do not constitute an endorsement of specific practices or products.

PART I

Lessons From the School Sites

Before the Doors Open: Planning

After the Doors Open: Implementing

Keeping the Doors Open: Sustaining Success

Before the Doors Open: Planning

For district leaders, setting clear goals for magnet programs and defining how they can improve the overall health of the school system are crucial first steps for sustaining long-term success. According to the experiences of the schools featured in this guide, drawing from the big picture (e.g., analyzing enrollment patterns, achievement, and neighborhood-specific issues) can help to determine priorities and important design elements for a particular magnet school. Once a vision and goals have been established, next steps commonly include considering community interests, gauging the commitment of key players within the district, and taking stock of potential opportunities and resources that may influence the planning process.

In Hamilton County, Tenn., for example, district officials were struggling to reverse declining enrollment in Chattanooga's urban schools at the same time they were trying to stop the steady exodus of middle- and upper-class families to suburban, private, or parochial schools. Strategic planning led to the creation of four downtown work site magnets, including Normal Park Museum Magnet. The hope was that with lottery priority given to downtown workers, the schools would appeal to suburban commuters who would be attracted by the opportunity to spend travel time and possibly even workday hours with their children at school. Noting that the success of the city's recent revitalization efforts were largely driven by the establishment of the new museums and aquarium, district leaders gave Normal Park a museum theme, linking the school to widely cherished institutions that could boost public outreach and provide access to untapped financial and curricular resources.

In Clark County, Nev., magnets also were designed to attract middle-class families to inner-city Las Vegas schools. Additionally, they arose in response to demands from the African-American community to create elementary schools in their neighborhoods. Mabel Hoggard Elementary was originally a sixth-grade center, part of the district's earliest attempt at desegregation that involved busing white children into African-American neighborhoods for sixth grade while busing African-American children into the suburbs for grades 1–5. The conversion of sixth-grade centers into magnet schools, like Hoggard Math and Science, was a strategic shift to focus on voluntary desegregation and the expansion of public school choice. In this context, district staff saw magnets as a way to maximize the availability of Magnet Schools Assistance program (MSAP) funding and Prime Six funding (state funds allocated by district for desegregation) for the inner city, and community momentum for establishing elementary schools in African-American neighborhoods.

In Minnesota, the West Metro Education Program (WMEP), a consortium consisting of one urban (Minneapolis) and 10 suburban districts, established a plan for interdistrict magnet schools as a "proactive" measure, drawing upon a collective sense of "good will" and a commitment to move "ahead of the curve" in terms of voluntary desegregation, according to WMEP Superintendent Daniel Jett. Anticipating that future demographic shifts might result in court action mandating desegregation, WMEP leaders created two schools, including FAIR (Fine Arts Interdisciplinary Resource School), with the explicit goal of populating them with a diverse mix of students from Minneapolis and the surrounding suburbs. Leveraging a culture

District-level Support for Magnet Programs

All profiled sites benefit from magnet-specific services that host districts coordinate. While a school's administrative team, including a magnet coordinator, is involved in many of the following processes, district-level staff manage these efforts across the system to support start-up efforts and maximize available resources.

- Evaluation and Research
- Student Enrollment and Assignment
- Facilities
- Transportation
- Recruitment, Marketing, and Outreach to Families
- Staff Recruitment and Hiring
- Curriculum Development
- Grant Writing (state, local & federal funding)

In many districts, a centralized magnet office or school choice office handles the planning process for opening new magnets as a way to create options for parents within the public school system.

This guide focuses on sustaining successful magnet programs from the school-level perspective. For more specific information about setting up district-level infrastructure to support magnet school programs, refer to the 2004 Innovations in Education publication, *Creating Successful Magnet School Programs,* available at http://www.ed.gov/admins/comm/choice/magnet/index.html.

of cooperation and shared interest in diversity, leaders from all member districts saw the opportunity to invest in an innovative magnet model, locating a school in one host suburban district that would have direct benefits for all participating systems.

While the specific goals and circumstances for starting a magnet program may vary across districts, moving from a district vision to developing an individual magnet school always requires site-specific strategic planning. Even though a magnet school must be designed to fit into the district's master plan—for example, goals for reversing declining enrollment or rebuilding a low-performing program—this mandate does not inherently produce the necessary blueprints for creating a successful K–8 magnet school. Choosing an appealing theme that has the potential to attract target families and talented staff appears critical for generating initial buy-in. At the building level, the theme must then be integrated into a clear purpose and common mission in order to drive the development of a strong academic program. As this framework is created, district leaders must ensure that quality staff and supporting infrastructure are in place and capable of executing the plan with integrity.

Develop a Viable Theme and Mission

If a magnet school is the means, or the vehicle, by which a district reaches its goals, the specialized theme of a magnet school is what attracts people to get on board in the first place. In choosing an attractive theme, research on model programs in other parts of the country may help to generate or narrow down options, but final decisions should be shaped by an assessment of the local context.

District leaders may select magnet themes based on their existing knowledge of resources and interest. Sometimes, available community resources are so compelling that they offer an obvious local option. For example, Normal Park's proximity to popular institutions like the Regional History Museum, the African-American Museum, and Tennessee Aquarium, made a museum theme a natural choice. It also paved the way for the school to leverage partnerships with well-established public institutions already focused on outreach and education.

In other cases, the research on community interests and needs drives theme selection so that resources are specifically garnered to make it work. When federal MSAP funds were awarded to Nevada's Clark County, then-associate superintendent Kay Carl suspected that a mathematics and science theme would be attractive to both suburban and urban constituents. The curriculum content implied rigorous academics as well as preparation for prestigious careers. The theme was also concrete enough to explain to the general public. District staff used the appeal of the theme to drive Hoggard's magnet program and sought partnerships with local colleges and science-related institutions to support its teacher professional development.

Starting with the right magnet theme is important because it serves as the primary attraction for students and families. In some districts, the process of choosing a viable theme requires being flexible and adjusting research plans based on community feedback. Raymond Academy, part of the Aldine system in northeast Houston, was originally conceived to be a physical education magnet that would draw African-American families to a primarily white and Hispanic neighborhood. But when district staff conducted a survey, parent responses revealed overwhelming support for mathematics and science programs, fields that would provide children with an edge in the local oil-driven economy. Aldine staff used this information to launch Raymond Academy as an engineering magnet, and they designed it as part of a K–12 vertical strand to capture family interest throughout a student's entire career in the system.

While a theme is intended to unify diverse stakeholders through a common interest, communicating a clear mission can help increase engagement, motivation, and coherence. Diverse contexts influence how district leaders choose a school's magnet theme, but the real work lies in fashioning a compelling program that clearly connects the theme to student success. Developing a school mission that integrates the theme with the goal of universal academic achievement can provide staff with the rationale for carrying out the school's approach to educating its diverse student population. As one teacher noted, "We all know why we're here."

Staff at A.B. Combs believe in their mission to develop leaders, one child at a time, says principal Muriel Summers. It provides them with what she calls the "constancy of purpose" needed for translating their leadership and character development theme into a cohesive program that now boasts 95 percent proficiency rates. As noted earlier, prior to its theme conversion, Combs had been an extended-day magnet whose reform efforts had resulted in rising test scores that earned it national recognition from the U.S. Department of Education's National Blue Ribbon School program. But, as

Summers recalls, there had been no focus on the reform efforts, and, she says, the gains in student performance merely reflected a series of "expensive programs" and "random acts of improvement" that she believed would eventually stagnate. Today, Summers reports, the Combs community embraces a shared mission that drives its leadership magnet theme, providing staff with what she refers to as a "compass" for "who we want to be and how we are going to get there." Along the school's inside walls, a diagram details the integration of each component of the school program into its leadership model. Next to it, a Core Values chart articulates the school's approach to implementing the mission and vision.

A. B. Combs staff have used a lotus diagram (see fig. 1 on p. 14) to chart the school's core values as they relate both to Combs' mission statement and to the seven habits of highly effective people.* Serving as the foundation of the school's leadership model, the habits and the mission are at the center of the diagram. Around the center, or heart, of the lotus, in this figure, are excerpted some of the school's value statements.

In some magnet schools, a focused mission naturally emerges from the theme's original impetus and rationale. In San Jose, Calif., teachers dissatisfied with the traditional bilingual program came together to help the school district pilot an innovative dual immersion magnet program at River Glen. Founding principal Rosa Molina says she speaks for her staff as well when she says, "I truly believe in the ability of children to master two languages and that you don't have to lose one language to learn the other." This conviction underlies the school's creation and informs its mission to produce bilingual, biliterate students who become comfortable with diverse cultures and people as they learn to celebrate their own distinctive qualities (see fig. 2 on p. 15).

In each of the profiled schools, the mission seems to serve as a positive, energizing force that engages a school community. It also provides purpose, direction, and clarity to program development. Whether stated formally in a handbook or simply echoed around the school building with posters and exhibits, the mission aims to unify students, families, and staff, and it serves as a foundation for building a cohesive, academic program.

Establish a Rigorous and Relevant Curriculum

Curriculum makes a magnet school's theme and mission come alive. It articulates how the school will keep its promise to provide a compelling program that ensures academic success for all students. Planning a successful magnet school focuses school staff on leveraging a theme to develop a rich, challenging curriculum that can engage students from diverse backgrounds. At all the profiled schools, teachers are expected and supported to use principles of rigor and relevance to involve students in applying knowledge in real-world settings.[8] While working backwards from state and district standards to develop curriculum, they set a bar that goes beyond these minimum requirements, demanding that students master critical thinking, communication, and life skills needed for future success. There is a natural link between the problem-solving, exploratory

* As identified by Stephen Covey in *The 7 Habits of Highly Effective People.*

Figure 1. Statement of Core Values for A.B. Combs Leadership Magnet Elementary School (Adapted)

VISIONARY LEADERSHIP » We believe leadership is a choice, not a position. » We believe in empowering through win-win agreements.	**VALUING RELATIONSHIPS** » We believe in valuing relationships by seeking first to understand. » We believe that valuing and caring for each other is the heart of our school culture. » We believe every member of our community collaborates with us in our quest for excellence.	**CITIZENSHIP** » We believe in promoting good citizenship through community involvement. » We believe in teaching children to think globally and act locally.
CONTINUOUS IMPROVEMENT/ SYSTEMS PERSPECTIVE » We believe in continuous improvement for staff and students. » We are committed to aligning our system with local, state, and national standards. » We believe in the importance of renewal or "sharpening the saw."	**CORE VALUES AND MISSION** **1. Be Proactive** **2. Begin With the End in Mind** **3. Put First Things First** **4. Think Win-Win** **5. Seek First to Understand, Then to Be Understood** **6. Synergize** **7. Sharpen the Saw** ***Mission Statement: To develop leaders, one child at a time.***	**DATA-DRIVEN DECISION MAKING** » We begin with the end in mind in making decisions. » We believe that all decisions should first be based on what is best for children. » We believe management decisions should be based on reliable and relevant data.
LEARNING-CENTERED EDUCATION » We believe in providing students with the tools and authentic tasks that allow them to take responsibility for their own learning. » We believe Wake County Public School System's character traits and Covey's *7 Habits** are embedded in the curriculum.	**AGILITY** » We believe in putting first things first to ensure a timely response to internal and external stakeholders. » We believe in having systems and resources in place to respond to the changing cultural, social, and academic needs of children.	**FOCUS ON THE FUTURE AND INNOVATIVE LEADERSHIP** » We believe in working synergistically to challenge the status quo. » We believe through modeling academic excellence and personal leadership, we will leave a legacy for others to follow.

*As identified by Stephen Covey in *The 7 Habits of Highly Effective People*.

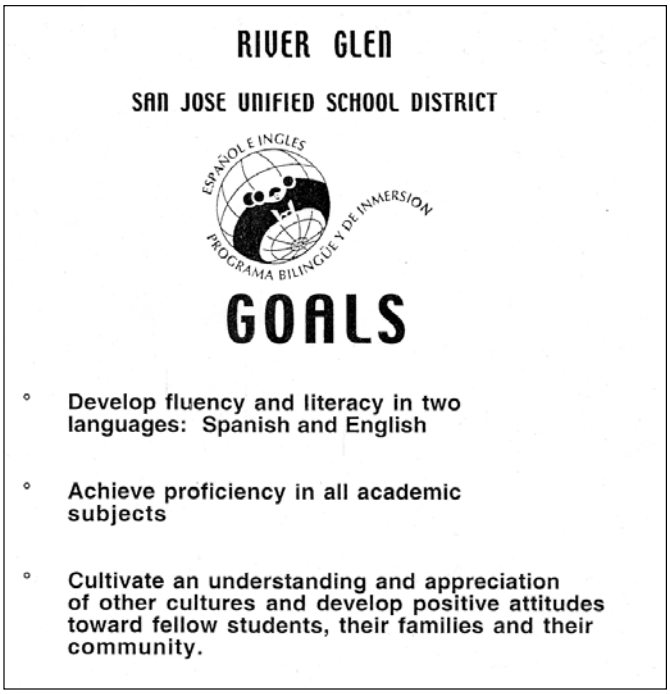
Source: A. B. Combs Leadership Magnet Elementary School. Used by permission.

The U.S. Department of Education does not mandate or prescribe particular curricula or lesson plans. The information in the figure above was provided by the identified site or program and is included here as an illustration of only one of many resources that educators may find helpful and use at their option. The Department cannot ensure its accuracy. Furthermore, the inclusion of information in this figure does not reflect the relevance, timeliness, or completeness of this information; nor is it intended to endorse any views, approaches, products, or services mentioned in the figure.

nature of the magnet curriculum and the focus on student mastery of high standards. Inquiry-driven, project-based learning is fun and engaging, but at these schools it also places a premium on serious, rigorous academic development for all students.

How do these schools infuse curriculum with authentic, challenging learning experiences? Hoggard teachers expose students to what they call "hands-on, minds-on" labs. These projects are modeled after the real-world work of mathematicians and scientists. For example, fifth-

Figure 2. Goals of River Glen Elementary & Middle School



The U.S. Department of Education does not mandate or prescribe particular curricula or lesson plans. The information in the figure to the left was provided by the identified site or program and is included here as an illustration of only one of many resources that educators may find helpful and use at their option. The Department cannot ensure its accuracy. Furthermore, the inclusion of information in this figure does not reflect the relevance, timeliness, or completeness of this information; nor is it intended to endorse any views, approaches, products, or services mentioned in the figure.

Source: River Glen Elementary & Middle School. Used by permission.

graders conduct water-testing fieldwork with the local water district, dissect sheep eyeballs, and apply knowledge of computer programming to build robots. Similarly, at Raymond Academy, teachers use instructional strategies that require students to build their own knowledge through concrete engineering experiences. Instead of just reading books about designing bridges or listening to teachers talk about famous buildings, students are actively creating models.

At Normal Park, weekly expeditions to museums introduce students to field specialists and advanced material not traditionally provided to young children. A third-grade class engaged in a nine-week unit on Tennessee ecology gets to do a "fish mapping" project at the local aquarium. In this activity, students observe different fish species and follow their movements in 10-second intervals using colored stickers on a cellophane overlay. Back in the classroom, students connect the dots on the cellophane to identify fish locations and analyze patterns. Based on their firsthand observation and data collection, students draw conclusions and ask questions about why certain fish stay in particular parts of the water. The museum-based curriculum provides Normal Park students with access to rich learning experiences. Through its modules, they are given the opportunity to cultivate levels of understanding about the world that a traditional textbook reading could not reproduce (see fig. 3 on p. 17).

In designing rigorous curriculum, these profiled magnet schools strive to meet exit standards

Rigor and Relevance at Raymond Academy: What Does It Look Like?

Project-based Learning: Students engage in projects that mirror real-world tasks. Through advanced engineering labs and teamwork, students learn that different strategies can be used to solve problems like building a paper bridge to hold a certain amount of weight. Students gain deeper knowledge of subject matter while increasing self-direction and motivation to learn.

Integrated Engineering Curriculum: Teachers embed engineering concepts in all content areas, including mathematics, language arts, social studies, fine arts, and physical education. Instruction mirrors real-world applications.

Design Technology: Students engage in a problem-solving process used by engineers. They learn to identify a problem; write a design brief; investigate solutions; construct, test, and evaluate a product; and make adjustments. Students apply skills in real-world contexts involving use of architecture, science labs, and field experiences.

Presentation Station Productions: Students have technology-based opportunities to summarize and verbalize what they learn. They use digital cameras, create graphics, and give oral presentations.

beyond the minimum. In addition to pushing for high test scores, staff focus on helping students develop higher-order thinking and communication skills that will carry over into future success in colleges or careers. In these classrooms, "elementary" does not translate to low-level or rudimentary instruction. In K–1 science labs, Hoggard students learn about the dynamics of force and motion by creating objects that spin; related vocabulary, such as "gravity," axis," and "rotation," is introduced and will be revisited as increasingly sophisticated concepts in upper elementary years.

Creating rigorous and relevant curriculum is an intellectually demanding task, profiting from significant attention from school leadership during the design period. To establish a curricular framework that integrates the school's theme and mission with district and state standards, founding administrators can benefit from having access to current, science-based research in education, as well as from having a planning period that allows for thoughtful application of relevant ideas to classroom practice. In each of the profiled schools, staff leaders had opportunities to work closely with experts in relevant fields, participate in theme-related training, or visit model sites as part of the curriculum design process.

Ideally, district staff move quickly to identify school leaders and then grant them time to research and design the unique curriculum. At Normal Park, MSAP funds were used to provide the principal and magnet coordinator with a planning period that included time for researching best practices, visiting other museum schools, and establishing key partnerships with the city's museums. Other featured schools were converted at the end of the school year, allowing only one summer to pull together a new magnet curriculum before doors re-opened to students in the fall. In the case of Combs, this challenge was minimized by having strong leaders and staff in

Figure 3. Normal Park Museum Magnet School Newsletter Notice: Summary of "Worlds of Wonder" Modules

NPMM MODULES

All grades have begun to use "Travel Journals" to record their questions and discoveries throughout each module. Ask your children what they wrote in their journal today.!

PreK Exploring our Senses - What are our five senses? How are they the same or different from animals? How are our senses fooled? What would it be like if you lacked one of your senses? PK will visit the Nature Center to learn about Owls, the Hunter Museum to discuss "art that fools the eye," the Aquarium to learn about Macaws and Octopi, and Creative Discovery Museum to experience the Barsamian Sculpture.

Kindergarten Cycles, Seasons, Weather, and the Solar System. K will visit the Aquarium to learn about diurnal and nocturnal animals and the Nature Center to study winter survival. Look for their "extreme weather" boxes, solar system books, and a 3D seasonal tree on Exhibit Night, our school's quarterly art exhibition.

1st grade Walk Like an Egyptian. 1st grade will explore Egyptian art and artifacts at the Chatt. African American Museum, compare alligators and crocodiles and the Nile vs. the TN rivers at the Aquarium, and learn about the life of an Egyptian child at Creative Discovery Museum. On Exhibit Night don't miss the beautiful sarcophagus covers, papyrus paintings, and the class "I Wonder" books that were sent to a school in Egypt.

2nd grade Oceans. We will be going on a learning expedition almost every week! Some of our work on Exhibit will include: 3D ocean animals, a kelp forest, examples of ocean food chains and the effect of pollution, and our "abyss" boxes which feature our mythical creatures from the bottom of the ocean.

3rd grade Australia. 3rd grade will explore the political, physical, cultural and topographical aspects of the land "Down Under." We will compare Aboriginal culture with Native Americans, create didgeridoos, and learn about the ocean animals of the Great Barrier Reef.

4th grade Inventors & Inventions How did the Industrial Revolution influence inventions? We will visit the TN Valley Railroad to compare coal and steam engines and the Regional History Museum to learn about the rural electrification of the TN Valley. Dr. Shock will visit (always a favorite!) as well as local inventors. Students will be challenged to develop their own invention to solve an environmental problem.

5th grade Solar System. 5th grade will conduct an in-depth exploration of our solar system and will produce a to-scale replica for Exhibit Night. We will visit the Science Theatre and the Challenger Center to learn more about outer space and astronomy.

The U.S. Department of Education does not mandate or prescribe particular curricula or lesson plans. The information in the figure to the left was provided by the identified site or program and is included here as an illustration of only one of many resources that educators may find helpful and use at their option. The Department cannot ensure its accuracy. Furthermore, the inclusion of information in this figure does not reflect the relevance, timeliness, or completeness of this information; nor is it intended to endorse any views, approaches, products, or services mentioned in the figure.

Source: Normal Park Museum Magnet School. Used by permission.

place before the conversion. In many instances, these educators already had been exposed to district training in principles of management, quality performance, and effective leadership—principles that became the essential components of the school's innovative leadership model.

Certain themes have preexisting philosophies or principles that provide clear curricular frameworks for staff to build on. For the founding teachers who created River Glen's dual immersion program, that framework took the form of a subgrant made by the California Department of Education, which had received a Title VII[9] grant from the U.S. Department of Education. Founding staff point to the grant requirements as the school's touchstone for everything from its dual immersion model, in which students receive some instruction in Spanish and some in English, to effective teaching strategies (gestures,

visual cues, and cooperative learning). River Glen's research-based model for dual immersion education came from Quebec, Canada, where both French and English are spoken in the classroom.

Sometimes collaboration with experts provides the necessary inspiration and perspective for designing rigorous, innovative curriculum. At Raymond, founding magnet staff were aided by Rice University and University of Texas professors in the development of an engineering curriculum. Staff at FAIR, a fine arts school focused on cross-cultural education, conceived the school's theater and dance residency program with help from local artists. They also collaborated with the National Urban Alliance for Effective Education, an organization focused on teaching, learning, and professional development in schools, to design a curriculum that promotes "high intellectual performance through students' culture, language, and cognition." In all the schools, professional experts provided valuable support for teachers to gain expertise in theme-related content and skills.

Attract Quality Leaders and Staff

If the featured schools are any indication, magnet schools with a strong curricular theme and clear mission naturally attract passionate educators who share a common interest. At the same time, district staff must be proactive about selecting principals and magnet coordinators with the necessary credibility and knowledge. Strong magnet school administrators foster trust within a diverse community. Their expertise includes implementing specialized curriculum and serving as an effective, motivating instructional leader. Having the right school leaders in place also attracts a critical mass of high-quality staff, which itself serves as a draw for those seeking a collaborative and positive work environment.

At River Glen, conversations with teachers reveal that they see the school both as the ideal model for a language immersion education program and as an oasis of like-minded, similarly driven colleagues. "Everyone has chosen to be here," says one veteran teacher, "and this is like the top of the mountain for us." "Here, you're at the table with the legends," adds a teacher new to River Glen, explaining the professional appeal of working with dual immersion pioneers. Across the board, district staff interviewed for this guide agree that bringing in quality leaders and teachers to implement a magnet school is a critical element for success.

Why would a strong veteran teacher take a chance on a fledgling program that has no proven track record? Like many founding families at magnet schools, staff report being drawn to a strong school administrator, a leader who can speak to the visionary promise of a magnet school as well as attend to the brass tacks of starting a new school. Hoggard's first magnet principal was handpicked by then-associate superintendent Kay Carl at a time when Clark County was launching Las Vegas' magnet elementary program, partly in response to the needs of the African-American community. Listening to the concerns of local activists, she recruited a well-respected African-American principal, who succeeded in drawing a diverse set of families and staff to the new school. Sometimes, a strong reputation as an educator is a more influential factor in motivating people to follow an instructional leader than a track record as a principal. At River Glen, a cadre of

bilingual teachers advocated for a fellow educator to lead the district's new magnet strand. They believed that someone with strong bilingual experience and a deep commitment to the innovative model could rally support from like-minded colleagues. Normal Park's founding principal had made her mark as a teacher and assistant principal within Hamilton County. Although relatively young, she had a core group of colleagues willing to follow her to the new museum magnet. She was immediately paired with a magnet coordinator, a veteran well known for her experience with curriculum development, who had her own following.

Founding staff of magnet schools also report feeling compelled by the chance to be a part of a creative and dynamic process. Some speak of finding inspiration in forging a new community, designing new curriculum, and developing a new program, even while such tasks demand longer workdays and extra responsibilities. Many of them speak of having felt like a "square peg in a round hole" in more traditional schools. They sought an environment that would grant them the autonomy to work in ways more aligned with their vision for excellence in teaching and learning. The additional commitments, shared among colleagues with the same passion and purpose, appear to be viewed as necessary and acceptable components for realizing the school's mission and innovative theme.

At some of the featured schools, principals were given the autonomy to hire a completely new staff that is committed to the specialized curriculum as opposed to inheriting and automatically retaining existing staff. As part of a districtwide initiative to transform its low-performing schools, Normal Park was reconstituted during its conversion to a museum magnet, something the principal says was critical to changing the culture of low expectations that had plagued the school in its earlier incarnation. Reconstitution meant that teachers who wanted to stay at the school needed to reapply for their position. During that period, the principal acknowledged to the staff that the new environment was not going to be a perfect fit for everyone; she encouraged teachers who had opposed the magnet conversion to find a better match for their personal teaching goals and style. At Combs, where the adoption of the leadership theme happened over the course of only one summer, the staff was not reconstituted, but teachers essentially self-selected themselves to another school the following year if they did not agree with the new curriculum requirements.

With the help of their host districts, the profiled magnet schools have found incentives to draw leaders and staff to the school. While none of the districts offer salary bonuses or stipends for the additional hours of work often needed, they create appealing professional environments that differentiate the school from other sites. Normal Park's principal, mother of a 6-month-old, was promised an on-site day care center at the new magnet school, an incentive she, in turn, used to recruit strong staff who had young children as well. Many founding staff report wanting to create a school good enough for their own children, a personal motivation that gives their work additional urgency. In each of the profiled sites, a significant number of staff members have children who either attend or have attended the school. Hamilton County's district policy guarantees a child's placement at an employee's magnet school, for everyone from the custodian to the principal. Other districts give

children of school staff a priority in the lottery. Potential collaboration with partner organizations that provide after-school programs, opportunities for additional professional development, and unique classroom experiences also can draw teachers looking for innovative model schools to join.

After the Doors Open: Implementing

Where magnet schools are a vehicle for achieving a district goal, early development steps involve determining a direction through a chosen theme, mission, and specialized curriculum and then pulling together the people needed for successful implementation. Then comes the reality of translating mission and vision into practice. During this period, as the program evolves and faces its early challenges, it is important to build capacity and remain focused. Among the questions that can loom large are: How do we ensure equitable outcomes for all students while committing to innovative curriculum? How do we empower all stakeholders to take responsibility for our fledgling program?

Some researchers believe that teachers are the most important influence on what students learn.[10] In the successful magnet schools featured here, school leaders moved quickly to minimize the impact of start-up issues and stayed focused on ensuring the quality of teaching and learning in the classroom. Reports from the profiled schools reveal that, in each case, staff tried to approach major challenges by implementing pragmatic solutions to meet immediate needs without compromising a vision for sustaining success.

Maintain the Theme With Integrity

An effective magnet school theme is evident throughout the curriculum and as a visible element through the entire building. As one district staff member explains, themes that are successfully implemented are those that are easily seen, easily understood, and easily articulated. They do not leave prospective parents asking such questions as: "So can you explain that again? What is the theme exactly?" Some schools communicate the theme, in part, by physically transforming the school building. The giant outdoor sculptures and exhibit-like hallways at Normal Park suggest a children's museum more than a school; the zoo-like life science lab and planetarium signal what Hoggard staff call their "hands-on, minds-on" math and science theme; walls of musical instruments, a black box theater, and the ample studio space immediately indicate FAIR's arts theme. At FAIR, the robust and vibrant performing arts theme goes far beyond a smattering of arts activities where students are simply handed scissors, construction paper, and glue. In a media arts lab, seventh-graders work independently, editing self-directed films, writing artist's statements, creating animation video, and developing black-and-white prints.

At some schools, cohesiveness of the themed curriculum is furthered by something as seemingly simple as the use of common terminology and concepts across content areas and grade levels. At Raymond, for example, teachers across the grades speak to their students about creativity, design, suppositions, and imagination, identifying them as the school's core strands of critical thinking used in scientific problem solving. Throughout the grade levels, students are asked to apply these skills

in age-appropriate curriculum units that build on previous years' lessons. A first-grade teacher introduces civil engineering concepts by discussing "wolf-proofing" homes in a read-aloud of *The Three Little Pigs*, while second-graders deepen their understanding of structural design through a study of historical landmarks that are engineering marvels. By fourth grade, students are demonstrating Raymond's core strands of critical thinking by drawing proportionately scaled homes, building replicas of monuments, and designing bridges. By using a common framework for teaching math and science and aligning their use of core terms and concepts, teachers at Raymond have created a cohesive and compelling curriculum.

As a curriculum moves from design to implementation, it often evolves, with staff adapting it to community needs and improving it based on lessons learned. To integrate a theme across all grade levels, some of the profiled schools take a "think big, start small" approach, as Normal Park's magnet coordinator calls it. For example, whenever possible—whether with a new strand (River Glen) or the creation of a brand new school building (FAIR)—the profiled schools were intentionally stair-stepped: They opened their doors with only the earliest grade levels in place, gradually adding higher grades in subsequent years. Starting on a smaller scale means fewer people share the burden of start-up tasks, but it is also an effective way to ensure fidelity in the execution of the theme. With fewer families to attract initially, there is less pressure to adjust the theme to appeal to a broader public. Stair-stepping also means having to find fewer numbers of adequately trained staff or interested families for the program in the first year.

For example, in 1986, when River Glen offered a two-way immersion alongside an English-only and transitional bilingual strand at neighboring Washington Elementary School in San Jose, magnet coordinator Linda Luporini-Hakmi had to interview each parent—English-speaking and Spanish-speaking—to explain the different program options. The first kindergarten families were painstakingly recruited and educated about the benefits of dual immersion. But as the magnet strand showed success in developing bilingual and biliterate students, families throughout the community took notice. Today, River Glen operates as a dedicated magnet school serving grades K–8 and is able to recruit both teachers and students by word of mouth.

Piloting and assessing programs on a small scale first is one way to increase staff buy-in for a plan they ultimately must execute. School leaders at Normal Park took this approach when they wanted to eliminate their two-week curriculum units, which involved museum field trips at a superficial "walk-through" level, and replace them with quarter-long modules that would incorporate weekly museum expeditions as an integral component. Wanting to try out the idea on a small scale before taking it schoolwide, leaders asked teachers to volunteer to develop and implement a new module. The second-grade teaching team stepped up, collaborating with staff at the Tennessee Aquarium to create a nine-week oceans module, which subsequently generated impressive student engagement and quality student work that demonstrated mastery of skills. Based on this success, other grade-level teams reportedly embraced the new curriculum approach with enthusiasm, setting out to develop their own modules with the integrity needed for whole-school implementation.

Even with a clear blueprint for an innovative curriculum, implementing a quality theme-based program over time presents ongoing challenges. Research shows that innovations often fail because long-standing practices or firmly held beliefs about schooling persist and are difficult to overturn.[11] More recently, districts and states have also faced the challenge of meeting annual adequate yearly progress (AYP) standards as part of *No Child Left Behind (NCLB)*. And however much they diverge from traditional, textbook-centered approaches to educating students, magnet schools, too, must ensure that their innovative curricula comply with externally imposed standards, priorities, or mandates, whether from the district, state, or federal government. These profiled schools demonstrate that a skillful, thoughtful, and committed staff can meet this challenge with success and integrity.

All of these schools revisit their curriculum maps yearly to improve alignment with state and district standards. In 2005, Raymond staff rearranged the four engineering quarters to synchronize more closely with the scope and sequence for the Aldine Independent School District common assessments used across the district. By switching the mechanical and chemical engineering units, the curriculum is now in line with the quarterly testing without much compromise in the classroom. Similarly, teachers at Normal Park mapped their museum-based curriculum across grade-level strands, grouping lessons and units to match state science and social studies standards.

At a time when it can be tempting for schools to respond to the need to raise proficiency rates by replacing arts, social studies, and science instruction with additional hours of mathematics and English, these profiled magnet schools are providing a rigorous, theme-based curriculum without apology and are making AYP in the process. As principal Jill Levine explains, "I was determined that we're not going to be a school that obsessed over test scores. … Our model works because the depth and rigor of the curriculum transfers over. The kids know how to think, and they know how to read, and they know how to comprehend. They do well on the tests because they're engaged in learning."

Establish Equitable Practices for a Diverse Student Body

Merely serving a diverse student population does not guarantee positive student interactions. Nor does it ensure equitable achievement outcomes. To reach these goals takes deliberate thought, professional expertise, and serious commitment to ensuring that all students benefit both academically and socially. Staff in these profiled magnet schools appear to accept this charge with an awareness of the challenges before them and the benefits that can follow, guided by a common goal, that all children will achieve academic success regardless of race, socioeconomic background, or home language. Additionally, school leaders report that staff take responsibility for creating learning environments in which intercultural contact occurs frequently and meaningfully, contributing to cognitive development and social attitudes in positive ways.

In their commitment to diversity and closing the achievement gap, the profiled schools provide rigorous academics to students based on their interest, no matter what their background,

previous performance, or prior schooling experience. As Magnet Schools of America founder Donald Waldrip explains, "Magnet schools are based on the premise that all students do not learn in the same ways, and that if we find a unifying theme or a different organizational structure for students of similar interest, those students will learn more in all areas."[12] At Normal Park, where curriculum projects culminate with a public exhibition of student work, staff report that all children strive to develop strong writing skills and master content knowledge to create a museum-quality display. "The Exhibit Nights provide motivation for students," says principal Levine. "They know there's a standard for their work and there's an audience. That makes a huge difference for kids."

Research confirms what many in the business community recognize: Diversified learning settings can provide educational benefits for *all* participants if they are appropriately cultivated.[13] A review of the curriculum at these featured schools reveals that staff see value in engaging students in authentic problem solving and introducing them to a wide range of perspectives. The expectation is that as students are introduced to diverse and distinct ways of seeing the world, they adopt and acquire more sophisticated cognitive tools. An evaluation of the 1998 MSAP grantees conducted by the American Institutes for Research concludes that teachers in MSAP schools emphasized higher-order thinking skills more often than their non-MSAP counterparts.[14]

In the profiled schools, the use of *complex instruction*—an approach that focuses on development of critical-thinking skills and the use of small-group problem solving—helps teachers meet the challenge of heterogeneous classrooms. In complex instruction, students are encouraged to see each other as resources, and teachers focus on ensuring that each individual student makes important intellectual contributions.[15] For example, FAIR students learn about government and economics in a simulation project called "City," which requires fourth-grade classes to work in teams to hold elections, form companies, and sell goods as part of the process of creating a model city. Students can learn to handle real-world tasks and see how results vary across the different classrooms. As eighth-graders, FAIR students conduct research on a cultural conflict of their choice. In addition to writing a 10-page report, each student performs in the culminating "Finding Your Voice" exhibition that showcases each research project in a collaborative arts-based form. Throughout the school, curriculum is designed to tap into individual interests and talents and to ensure that students are exposed to multiple perspectives.

Staff at these featured schools try to maximize the intercultural contact necessary to generate diverse learning opportunities, designing curriculum that relies on cooperative learning and peer tutoring. River Glen's dual immersion model depends heavily on using peer support to help students with comprehension (via translation) and language acquisition (through social interactions). Native-Spanish-speaking students model and support English-speaking students in developing communication skills in authentic social and academic situations. In later grades, this peer support is reciprocated as Spanish speakers learn formal English with support from their native-English-speaking peers. At Raymond Academy, lab activities involve explicit instruction in the roles and skills in effective cooperative

learning, a teaching strategy in which students of different ability levels are grouped together to complete assigned tasks. For example, one lab facilitator starts each year being very explicit about student roles and how to take turns with various responsibilities during experiments and presentations: One student is designated to record the results; another pours the liquid; and a third stirs. With constant reinforcement and opportunities to practice effective group work, students are given the opportunity to internalize the habits of collaboration. Staff report that students learn to value and utilize multiple perspectives to develop better end products and support each other's learning.

In the profiled schools, differentiated instruction is a common strategy used to reach students of all backgrounds and abilities without funneling students into tracks that influence their future access to college preparatory classes. At Raymond Academy, classroom teachers use the resource specialist and ESL teacher to break students into smaller groups and provide more individualized instruction. In the heterogeneous classrooms that are common to the featured schools, staff focus on creating a learning environment intended to challenge and support all students to meet high standards. At FAIR, as part of whole-school staff development, teachers are evaluated against a 25-point instructional framework that highlights best practices for achieving such equitable outcomes (see fig. 4 on p. 25). The list articulates common values and behaviors shared by effective educators of diverse populations, and it cues administrators to seek evidence of these practices when observing classrooms.

This commitment to mixed-ability classrooms means there must be academic safety nets to support struggling students, whether or not they are identified as having a learning disability, being English language learners, or anything else. At Raymond Academy, a low score or grade automatically mandates an intervention, like after-school tutoring. Many of the profiled sites have partnered with community nonprofit organizations, like the YMCA, to develop effective after-school programs that are closely aligned with classroom instruction; or with projects supported by the Department of Education's 21st Century Community Learning Centers program, which provide academic enrichment opportunities for students during nonschool hours. Teachers may be paid for their tutoring services before or after school hours, and a coordinator communicates with school staff to maximize the tutoring time to help with specific skills or assignments.

Given the long distances that some students travel to attend FAIR, school staff there provide academic support during the school day because travel-time constraints prevent some students from attending FAIR's regular after-school offerings. In addition to the twice-a-week after-school tutorial sessions offered by teachers, FAIR students get targeted intervention during exploratory periods at the end of the academic day. Struggling readers at Hoggard get intensive remedial services through the Learning Lab, with teachers pulling students for the lab during a targeted classroom period. This intervention is reportedly proving successful for many below-grade-level readers, with a large majority exiting the Learning Lab program within three years.

In these schools, students from diverse backgrounds and educational experiences receive

Figure 4. West Metro Education Program* Instructional Framework for Equitable Practices: Handout Used by FAIR Staff

West Metro Education Program Instructional Framework

Raise the achievement of all students.
Eliminate achievement gap and racial predictability in achievement results.

Relationships and Respect

How does the teacher create a learning community in which all students feel accepted and supported?

- o Affirms cultural similarities and differences
- o Respects individual differences
- o Builds a personal relationship with each student that maximizes learning
- o Designs instruction and school work so students have opportunities to work with others
- o Provides opportunities for school work to be shared with persons important to the student
- o Creates an environment in which students are protected from adverse consequences for initial failure
- o Ensures students have access to time and other resources needed for optimum opportunities for success
- o Maximizes the participation of students with diverse learning and physical needs

Meaningful and Relevant Learning

How does the teacher engage all students in learning?

- o Chooses content, instructional strategies, and materials that are significant to the discipline and meaningful to students
- o Communicates purpose and relevance of content, learning experiences, and school work
- o Selects and connects content, materials, and school work to students' interests, learning styles, and their racial and cultural experiences
- o Designs quality school work that students value
- o Provides opportunities that cause students to assume responsibility and become engaged in their learning
- o Causes students to analyze problems and use critical and creative thinking skills
- o Incorporates novelty, variety, and choice in instruction and school work
- o Differentiates instruction by choosing varied content, products, and processes

High Expectations and Excellence

How does the teacher maximize the academic achievement for all students?

- o Aligns instruction to district curriculum
- o Sets clear and high expectations, including academic integrity, for all students
- o Establishes school work standards that are clear and important to students
- o Organizes instruction to ensure students have the skills needed to be successful
- o Provides sufficient rehearsal for students to gain content mastery
- o Promotes understanding of abstract ideas through application
- o Uses appropriate assessment strategies to plan and adjust for the academic growth for all students
- o Differentiates instruction to respond to students' prior knowledge, skills, and levels of learning
- o Collaborates with other staff members to identify and employ best practices for varied learners

The U.S. Department of Education does not mandate or prescribe particular curricula or lesson plans. The information in the figure to the left was provided by the identified site or program and is included here as an illustration of only one of many resources that educators may find helpful and use at their option. The Department cannot ensure its accuracy. Furthermore, the inclusion of information in this figure does not reflect the relevance, timeliness, or completeness of this information; nor is it intended to endorse any views, approaches, products, or services mentioned in the figure.

*West Metro Education Program (WMEP) is an interdistrict consortium of ten suburban school districts and Minneapolis Public Schools. WMEP operates two magnet schools, including FAIR.

Source: FAIR (Fine Arts Interdisciplinary Resource School). Used by permission.

adequate remediation and acceleration support to succeed in the inclusive classroom. Staff at Hoggard have made a small exception to their overall policy of heterogeneous grouping by offering advanced math classes at the fourth- and fifth-grade levels. Underlying this decision, one staff member explains, is the belief that the addition of an honors-type math class gives those who take it an advantage in magnet middle schools without compromising access to rigorous curriculum for the school's most academically needy students. Commenting on her belief that all math courses at Hoggard are rigorous, one parent puts it this way: "Basically, you're either taking advanced math or advanced *advanced* math."

In managing daily operations, magnet school staff need to monitor the special demands and needs of a diverse student body and consider various approaches for effectively addressing them. That may mean, for example, creating a busing schedule that enables students to remain on-site for after-school activities and tutoring. Or it may mean creating a policy that allows students with parental permission to go home with a friend on Friday, building support for diverse friendships to grow across the school community.

By addressing such challenges as they emerge, staff at the featured magnet schools have demonstrated that equity does not preclude excellence. For example, when Normal Park staff realized that their project-based curriculum favored students who had access to computers, expensive materials, and support at home, they created a policy requiring all major project displays to be completed by students at school, thus leveling the playing field for students. In fact, Normal Park has been particularly successful in closing the achievement gap between different socioeconomic groups. Between academic years 2003 and 2007, proficiency rates rose from 64 percent to 93 percent in reading and 62 percent to 98 percent in math for the subgroup of economically disadvantaged students.

Seeking to identify unintentionally inequitable practices is an additional challenge in a diverse school. At FAIR, a volunteer staff committee called the Equity Team meets regularly to check policies and practices against the goal of creating an environment where all students feel welcomed and successful. Believing that the manner in which the arts are presented influences how students view themselves, each other, and their potential for achievement, when principal Bennett first served as the school's artistic director, he set out to promote a broader, more inclusive understanding of the arts and those who contribute to them. To that end, Bennett recruited an African-American jazz musician, Bruce Henry, to work with the school and teach students about the legacy of African-American music. Breaking down stereotypes and making multicultural connections to art is considered a critical practice for FAIR staff, who require all students to demonstrate mastery of multiple art forms. The presence of the Equity Team ensures ongoing discussion about these issues and helps school staff maintain policies that support school goals, such as subsidizing the cost of musical instruments for students who need financial assistance.

Develop a Culture of Empowerment

Interviews with teachers in profiled schools consistently demonstrated that individual staff

members feel deeply committed and personally responsible for ensuring academic achievement for all students, but at the same time they attribute the school's success to the efforts of the whole community. High expectations and a no-excuses mind-set are demanded with urgency but without anxiety. Supports and resources, rather than threats, are provided to help staff meet high standards.

These magnet schools face an array of challenges: the devastating effects of poverty, under-resourced budgets, and children entering with below-grade-level skills. But staff appear to approach their work with a can-do attitude that reflects a deep respect for their students' capabilities and an underlying confidence in their own ability, individually and collectively, to educate them well. Combating the same forces that create toxic environments of helplessness and hopelessness in some schools—places where families, students, and neighborhoods are blamed for their own failures and deficiencies—these magnet school staff exude a sense of efficaciousness. Across the board at these schools, staff have a history of working together to deal with any obstacle, setting a tone that helps motivate students to achieve.

What *isn't* said reveals a lot about a school's culture. In these profiled schools, a visitor gets the impression that failure is not considered an option for any student—not for someone with a disability, not for someone who is homeless, not for someone who comes to school without speaking a word of English. The counselor at Raymond says that when a child is not performing well, teachers do not cast blame, saying, "It's not my fault, it's the third-grade teacher's fault" or "It's the mom and dad's fault." At Combs, the principal's message about her staff's responsibility for student achievement is crystal clear: "We make no excuses for children." These expectations are paired with a shared sense of pride in the school's progress toward meeting their mission.

How do leaders imbue their schools with this culture of empowerment? At the district level, firm adherence to a set of high expectations—what one superintendent calls "nonnegotiable principles"—seems to be paired with autonomy or, as he puts it, "giving people a lot of flexibility and ownership in what they do." This can mean granting school staff control of their budgets, curriculum, staffing, and general practices. At Normal Park, a previously low-performing school, when principal Levine was allowed to reconstitute the faculty, she saw it as the key to transforming a community with low morale and a self-fulfilling prophecy for failure into a collaborative team built on the concept of collective efficacy. Reconstituting the staff helped to turn around the culture, to focus on teacher responsibility for supporting student achievement rather than "sitting around and complaining" about all the factors that make it harder for students to learn, she says.

Along with autonomy comes a high performance bar that teachers at these schools appear to take seriously and find motivating. Providing teachers with professional respect, giving them the freedom and time, as FAIR principal Bennett says, "to try things they think will work," often translates into greater ownership for the school's collective goals around student achievement. Reflecting on the school culture at FAIR, one fourth-grade teacher remarks, "Here, the expectation is 'We are success' and that 'You're going to do it, and you're going to do it well.'"

Some curricula are inherently designed to promote positive school culture, replacing deficit models with the premise that all students can meet high expectations if you build on their existing strengths. As the Combs principal says about the school's leadership model, "The moment we started focusing on what children could do, rather than what they struggled with, great things began to happen." Through a process of individualized goal setting and data documentation, each student learns to draw on existing talents to overcome obstacles. One boy who had to be coaxed to talk one-on-one with people was eventually giving speeches to the Raleigh Chamber of Commerce. A teacher had discovered his gift for memorization and helped him use that skill to gain confidence in public speaking.

The dual immersion approach at River Glen is driven by the belief that native-Spanish-speaking children are not deficient or "limited English proficient," as they are designated in many school districts, but, in fact, are "English language learners." Through their practice, these educators have shown that knowledge of the Spanish language is not an obstacle for their students, but, rather, an asset that can help children master two languages and navigate distinct cultures.

In all of the profiled schools, the school leaders see themselves as playing a critical role in promoting and cultivating the culture of efficacy. Visits across the sites and interviews with staff confirm that these principals lead by example, communicating an urgency about the need to meet the school's goals for student achievement without producing the fear or anxiety that so often can hinder performance. For example, Combs principal Summers is known to challenge staff, reminding them, as one teacher recalls, that "every single child deserves to leave every grade level prepared to go on to the next grade level, otherwise we have failed him." But rather than seeing Summers as exerting pressure or stress, teachers describe her as "motivational" and "inspirational."

Provide Ongoing Professional Development

K–8 magnet school educators face particular challenges related to teaching highly diverse student populations and needing to master a specialized curriculum. Other pedagogic challenges include effective execution of cooperative learning, differentiated instruction, and age-appropriate units on rigorous subject matter. Doing so successfully demands a high level of expertise and, in many cases, ongoing professional development. At all of the featured schools, leaders see professional development as a necessary investment for developing a versatile staff steeped in relevant theme-based knowledge and in a wide range of instructional strategies. The continuing efforts to refine curriculum, align it with district standards, raise achievement, and narrow achievement gaps calls for regular opportunities to share and learn among colleagues. As one Combs staff member explains, "Transformation doesn't begin with a program, it begins with a change of habit." And changing habits, according to these school leaders, requires consistent support and opportunities for growth.

In all of the profiled schools, professional development for teachers is seen as critical to improved student learning. One common strand of professional learning across these schools is their frequent practice of analyzing student data—test scores, student work, classroom

observations—as a key means for continually monitoring strengths, weaknesses, and gaps in classroom instruction. The ongoing data analysis goes beyond reporting end-of-the-year test scores. Another common professional development focus is learning and adapting teaching strategies for diverse student populations with the aim of producing more equitable student outcomes. In using research-based best practices that lead to above-average student performance, these magnet schools have much in common with other high-achieving schools.[16]

A third area of professional development concerns curriculum planning, deepening content knowledge related to the school's theme, and designing effective units that are integral to it. At FAIR, faculty members grapple together with both philosophical and practical questions (e.g., What does interdisciplinary really mean? What is appropriate arts-integration for each grade level?) as they seek to maintain a unified approach to their interdisciplinary, arts-based instruction. In these successful magnet schools, their leaders say that every teacher is expected to be a curriculum developer who has some level of expertise in the theme; consequently, signing on as a teacher reflects an inherent commitment to spending additional hours for unit planning and ongoing training, whether it happens during after-school meetings, Saturday workshops, or summer institutes. Combs teachers, for example, learn how to incorporate business and leadership effectiveness concepts and principles of management and quality performance into age-appropriate classroom material. Staff devote extra hours to training in these areas, training that is intended to provide crucial support for implementing the school's unique leadership model.

Echoing a widespread refrain heard at all the profiled sites, one Raymond teacher emphasizes that she and her colleagues are always "*really* talking about lessons and students." This level of focus does not occur accidentally. School leaders play an important role in prioritizing time for professional development and meaningful discussion. Principals in these successful magnet schools are extremely protective of teachers' time, reserving it for those activities each principal considers to be most relevant to instruction and student learning.

When Jimmie Chapman came on board as Hoggard's second principal, he used the school accreditation process—a task that requires teachers to collaborate across the curriculum and across grade levels—as an authentic way to unify staff under a common set of goals and establish a culture of teamwork. He created a new master schedule that gave teams opportunities to meet during the school day, a practice that continues at Hoggard today.

At the featured schools, collaborative work during the standard school day is frequently supplemented with work during summer sessions, winter retreats, early release days, or even full-day planning workshops, with school staff establishing norms and traditions for when they will engage in whole-school professional development. Although they are unable to pay staff for the additional time commitment related to professional learning, the principals at these schools clearly recognize the value of professional growth. To a one, they speak of the importance of securing adequate funding to execute an effective professional development plan, one that involves more than just a couple of stand-alone workshops as may be the case

in more standard professional growth programs. In these schools, too, professional development plans tend to incorporate a mix of strategies for supporting staff learning, among them, the practices of individualized coaching, co-teaching, observing model lessons, visiting other classrooms, using protocols to reflect on student work, and participating on curriculum committees. Magnet coordinators, lead teachers, and instructional coaches can support professional growth for staff, helping to ensure that the staff learning process itself is differentiated and that new staff knowledge and skills are applied at the classroom level. Magnet coordinators, like Belinda Duncan at Hoggard or Joyce Tatum at Normal Park, often step in to provide a model lesson for a targeted content standard or to help a grade-level team develop a curriculum, lending key resources or expertise. Such efforts—and staff positions—can be invaluable in implementing a strong professional development program that supports both new and veteran staff.

According to site leaders, the profiled schools tend to rely on in-house expertise or district-funded opportunities for the bulk of professional development activities. But they do sometimes supplement them with investments in expert consultants if school leaders see the need. At Normal Park, for example, the staff chose to hire a consultant to help them implement guided reading (i.e., teacher-led, small-group instruction of targeted reading strategies) training at every grade level, and the principal also provided funds to fill classroom libraries with appropriately leveled books to execute the practice. A reading consultant is a relatively expensive approach, but one that, in this case, complemented the school's commitment to differentiated learning and resulted in improved reading scores, as well as crossovers into differentiated instruction for spelling and math.

In Minnesota, West Metro Education Program, the district consortium that operates FAIR, provides Cultural Collaborative courses focused on equity and closing the achievement gap. FAIR staff supplement these with "diversity" training from an education consultant and cognition strategies from the National Urban Alliance for Effective Education. The portfolio of professional development opportunities provided by each profiled school recognizes staff needs and prioritizes how practices can be most effectively implemented to support student learning.

Build Leadership Capacity

While much effort can go into finding just the right leader to start a magnet school, other such factors as retirement, promotion, or life circumstances requiring relocation can change things on a dime. With their pioneering spirit and ability to connect a school plan to a district vision, magnet school leaders are natural candidates for district-level positions. The founding principal at River Glen, for example, now serves as associate superintendent. It is not uncommon for magnet school teachers to become coordinators, assistant principals, or even founding members of new magnets trying to execute the same theme. Thus, magnet schools can profit from implementing a system of distributed leadership, in which leadership extends beyond the administrative offices or traditional titles. Such is the case at all of these featured schools; while each currently has a strong administrator leader at the helm, each has strong teacher leaders as well. Cultivating this broader base of empowered staff means that a school's performance

does not rest solely on either the shoulders of a tiny group of upper-level personnel or on the presence of one charismatic leader, only to flounder when these people leave.

Today, two of the six featured schools still have their founding principal (Normal Park and Combs) while the other four have successfully changed leaders at least once. Staff report that having distributive models of leadership has been a critical component for these successful transitions.

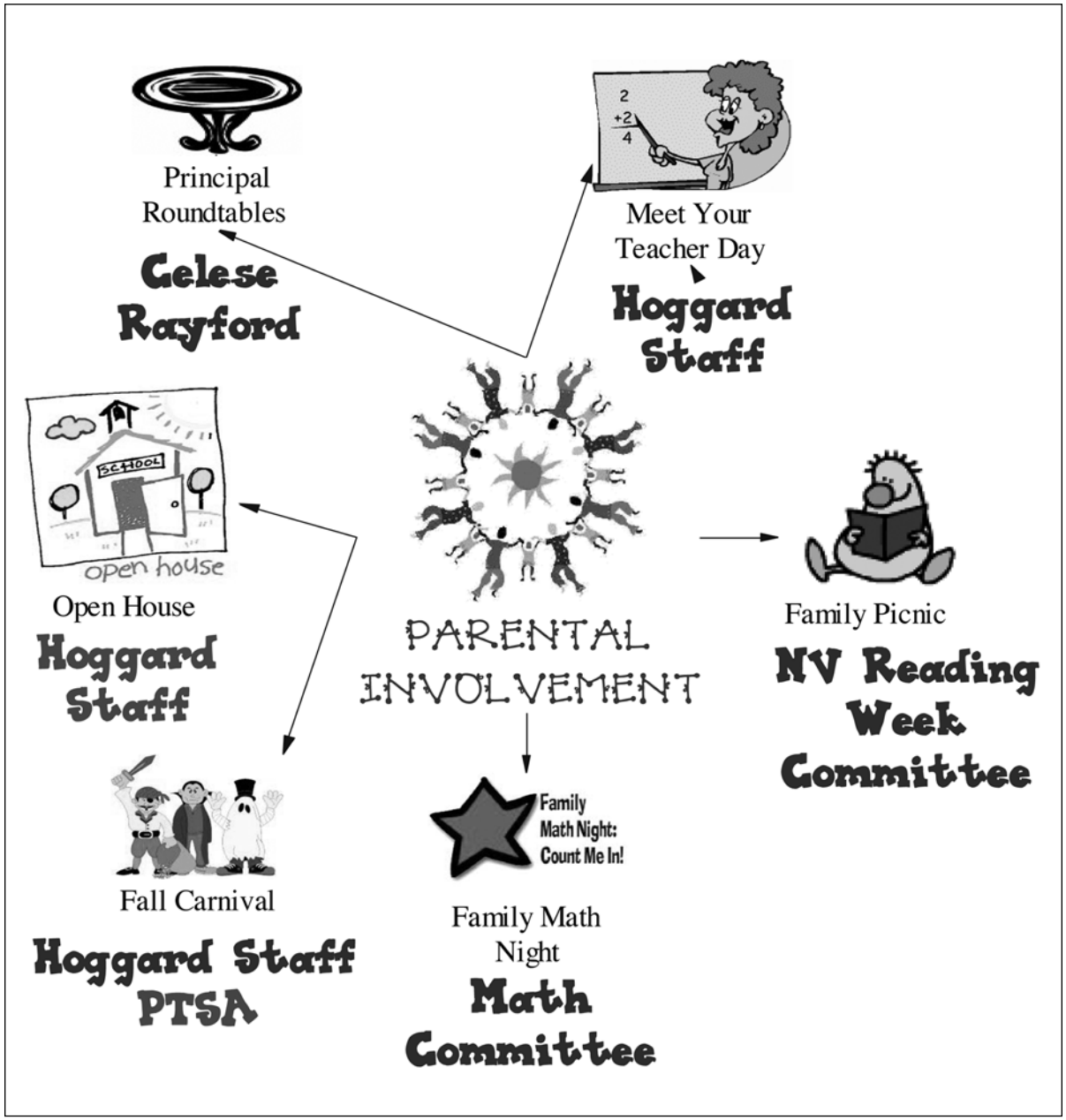
Ray Swoffard, associate superintendent of Hamilton County, uses the term having a "strong bench" to describe the need for ongoing leadership development among staff. At each of the school sites, selected classroom teachers receive training or experience to ready them for a principalship or other administrative role. There is a clear expectation that every faculty member will be a decision-maker who serves as an agent of change to raise student achievement. There are plenty of opportunities to lead a committee, a project, or a personal charge. Taking initiative is encouraged and expected no matter what role one holds at these schools. As one Combs' belief statement puts it: "Leadership is a choice, not a position."

So, while longevity of tenure and seamless transitions can never be guaranteed, at each of the featured magnets, there appears to be a core of committed staff who can step up to take the reins if needed. For example, at FAIR, administrative leadership transitions were carefully supported by the steady presence of a group of founding classroom teachers and art instructors. New principals at Hoggard and River Glen report that they relied on the leadership of the magnet coordinators and key staff to help the school maintain its successful programs and practices as they moved into their new role.

Even without a principal succession to manage, a shared leadership model is a pragmatic policy, particularly for magnet schools, given the additional tasks involved in their implementation (e.g., recruitment, enrollment, public relations, creating and improving the facilities, developing innovative curriculum). In all the profiled schools, the magnet coordinator is reported to play a vital role, which in some cases is folded into an assistant principal position that manages many aspects of curriculum and program development. Parent liaisons, after-school coordinators, and district staff are also key players in managing projects and maintaining critical partnerships with families. In some schools, classroom teachers collaborate with grade-level team leaders and instructional support teams for co-teaching opportunities, handling discipline, and developing appropriate student interventions. In this circumstance, the school leader's primary role becomes empowering others by "modeling the way through hard work, high expectations, and the belief that everyone is important," says principal Summers of Combs. With this dynamic in play, schools can develop the strong bench from which leaders are homegrown throughout the building.

Take, for example, the number of staff involved in leading various programs at Hoggard. A document charts the many roles and responsibilities shared among faculty, including their leadership in academic life and parent activities (see fig. 5 on p. 32). The chart details staff roles in the area of parental involvement. One Hoggard teacher comments, "You can never complain about decisions after they are made because you will

Figure 5. Excerpt of Chart Showing Leadership Roles Across Mabel Hoggard Math and Science Magnet School Staff



Source: Mabel Hoggard Math and Science Magnet School. Used by permission.

The U.S. Department of Education does not mandate or prescribe particular curricula or lesson plans. The information in the figure above was provided by the identified site or program and is included here as an illustration of only one of many resources that educators may find helpful and use at their option. The Department cannot ensure its accuracy. Furthermore, the inclusion of information in this figure does not reflect the relevance, timeliness, or completeness of this information; nor is it intended to endorse any views, approaches, products, or services mentioned in the figure.

have always had a chance to have input." Staff committees are empowered to do research and bring in resources to help them make decisions, focusing on such areas as the school budget; safety and discipline; course work in mathematics, science, and technology; multicultural issues; and the library and the media.

Even with distributed leadership in place, however, a new principal cannot always be found within existing staff, and, in that case, a careful transition process needs to be developed. Hoggard has a track record of choosing and supporting strong leaders, a legacy that helped sustain the school's success even after founder Bill Evans retired. Upon finishing their tenures as principals, Evans and his successor Jimmie Chapman have remained active in school life, serving as mentors for the current leader, Celese Rayford. Rayford was carefully selected and deliberately brought on in March 2005 before the end of the school year, with the intent of allowing time for relationship building and giving her early access to the teacher transfer-and-hiring process in case any staff decided to leave (although none did). Not every exiting principal can give up income to ease a leadership transition, as Chapman did, but all schools can benefit from establishing a well-thought-out leadership plan.

Keeping the Doors Open: Sustaining Success

Blueprints for programmatic change are rarely implemented in a formulaic way. The stakeholders in each of these profiled schools are anchored by a shared mission, but they remain flexible enough to adapt to altered circumstances, whether loss of start-up funds, changes in district demographics, turnover of leadership, or anything else that might shake up a school.

The flow of funding for public schools in general can be uncertain, a common threat to sustaining innovative reform. Grants run out, state budgets can be cut, enrollment trends may force district leadership to reorder fiscal priorities. Beyond its start-up costs, a successful magnet school requires money for ongoing professional development, new theme-based materials, and updated technology to remain cutting-edge and attractive to constituents.

The experiences of these profiled sites illustrate Einstein's observation that "in the middle of difficulty lies opportunity." In the face of adversity, the staff at these schools have developed stronger systems, processes, and networks. Sustainability involves more than program maintenance. These schools have staying power because of their adaptability and capacity for meeting challenges without diluting the integrity of their mission.

Adopt a Continuous Improvement Model

The cautionary adage not to rest on your laurels resonates with many magnet school teachers and administrators. At these featured schools leadership and staff alike appear to anticipate change and focus, invariably, on making additional progress. "We're good, but we could be even better," is a stated mantra at Normal Park.

Continuous improvement is a process of making change and monitoring results with the aim of getting better. In these schools, staff are expected to use reflection and data-based

decision-making for continuous improvement. Long before *NCLB* brought attention to subgroup performance, Raymond Academy established a system for disaggregating data to ensure that all students reached proficiency and advanced levels. Professional development and leadership team meetings focus on analyzing student scores to identify patterns or gaps. An assessment specialist and a testing coordinator organize and track data over time, so that useful information gets into the hands of teachers quickly enough to translate into effective intervention. A student below 75 percent on a report card automatically enters an extended-day tutorial program. Grade-level teams also can decide to switch a student's class placement or request additional support for a teacher struggling with teaching a particular standard. Today, Raymond's test scores indicate almost universal proficiency among all subgroups, including Hispanic, low income, ESL, and special education, and the numbers of students meeting advanced standards are rising (see table 2 on p. 35).

Every week, Normal Park teachers update bar graphs indicating the current reading level of each child in their class. These charts visually convey information on class patterns and individual progress towards grade-level benchmarks. Staff do not wait for an end-of-grade test score to tell them a child is struggling academically. They can take action the moment a student is not performing. A teacher plans individual reading lessons for each child based on the most current assessment, teasing out specific words or strategies that need attention. The principal scans all the class lists and reading lesson plans every Monday, taking notice of students and teachers who need extra support from a reading specialist or tutor. This consistent use of reading data is one way that Normal Park staff work toward the goal of having all students reading on grade level by the time they leave fifth grade.

At Combs, every school member—teacher and student alike—is expected to engage in continuous self-evaluation. Students are expected to monitor and document their progress on meeting academic and personal goals in data notebooks, charting, for example, the number of math facts they have mastered. Reflecting on what her data notebook teaches her about the process of learning, one student says, "I always have goals to reach."

Each year, staff formally evaluate the principal and provide the full administrative team with feedback on the school's leadership. Parents interviewed for this guide credit the staff for incorporating feedback in meaningful ways and not just going through the motions of gathering information. Family survey results are quickly analyzed and published for the community, along with grade-level team responses that communicate next steps. In the excerpted survey (see fig. 6 on p. 36), a four-point scale is used to rate the school's performance in several areas. A point average for each area is calculated by multiplying the number of parents with similar responses (e.g., those who "strongly agree") by the point value it holds (4) and then dividing by the total number of respondents. At the end of school events, parents complete a plus-delta chart to identify pluses (i.e., what they liked) and deltas (i.e., what they think should be changed); that information, parents report, often translates into modifications for subsequent family events. "Complacency is not

Table 2. Reading, Math, and Writing Achievement Data for Raymond Academy, by Selected Subgroups, 2006–07 School Year

Percentage of Third- and Fourth-grade Students Scoring Proficient on TAKS Test*

Selected Subgroups	Reading	Math	Writing
Total	97	99	99
African-American	99	98	99
Hispanic	95	98	99
Economically Disadvantaged	96	99	99

*Texas Assessment of Knowledge and Skills

Source: Texas Education Agency School Report Card.

an option," explains the principal in reference to the school's model of continuous improvement, which pushes the community to always reach for a higher bar.

Build Win-Win Partnerships

Forging strong community partnerships with businesses, nonprofits, universities, and city institutions has helped these magnet schools access additional resources to use in addressing their critical needs. Developing mutually beneficial relationships with local, well-established organizations is one way for schools to drum up fiscally creative solutions and establish a more diverse and stable base of supporters for public education. A distinct feature of each of these profiled schools is the reciprocal nature of its relationships with other organizations. Rather than simply depending on a spirit of altruism or good will, school staff work to generate and maintain partnerships by identifying clear benefits for all participants involved. Thus, many collaborations endure over time, providing low-cost (or even no-cost) professional development, technical assistance, and new grant opportunities that are critical for sustaining magnet school success.

An individual magnet school can help to rebuild a declining neighborhood. Once an underenrolled, low-performing school, Normal Park in its new incarnation as a magnet has transformed its standing in the community and, with its success, has drawn back a number of residents to the surrounding urban area. Realtors who had struggled to sell neglected properties now proudly advertise houses that are "Zoned for Normal Park," using this designation as a selling point. In 2006, parents collaborated with local architects and corporate sponsors to build an intergenerational community park, Discovery Playground, on school property. Conceived of as a fully accessible playground, the park is another tangible symbol of the school's contributions to improving its immediate neighborhood.

Staff at these schools have tapped the potential of community supporters who are eager to collaborate in solving problems or creating new

Figure 6. Parent Survey Results With Sample Teacher Response From A.B. Combs Leadership Magnet Elementary School

Parent Survey

As part of our Quality and Baldridge initiatives at Combs, we are continually seeking ways to improve our services to our stakeholders. Feedback from you, our stakeholders, is a valuable resource in this process.

400 Responses Collected	Strongly Agree (4)	Agree (3)	Disagree (2)	Strongly Disagree (1)	Point Total	Average
1. My child's classroom is a safe and comfortable place to learn.	302 (1208)	92 (276)	5 (10)	1	1495	3.74
2. My child's classroom is neat and appealing.	268 (1152)	107 (321)	5 (10)		1483	3.71
3. My child's classroom teacher sets high expectations for my child.	295 (1180)	92 (276)	12 (24)	1	1481	3.70
4. My child is challenged by his/her classroom teacher.	284 (1136)	100 (300)	16 (32)	2	1470	3.68
5. When I have a concern about my child, I can count on my child's teacher.	325 (1300)	68 (204)	6 (12)		1517	3.79
6. I feel welcome in my child's classroom.	325 (1300)	73 (219)	2 (4)		1523	3.81
7. I feel comfortable visiting or volunteering in my child's classroom.	302 (1208)	89 (267)	4 (8)		1483	3.71
8. My child's classroom provides opportunities for parental involvement.	292 (1168)	103 (309)	4 (8)	1	1486	3.72
9. I am well informed of my child's progress and growth.	283 (1132)	104 (312)	12 (24)	1	1469	3.67
10. My child's classroom teacher responds to concerns in a timely manner.	311 (1244)	81 (243)	7 (14)	1	1502	3.76
11. Discipline matters have been handled effectively.	289 (1156)	104 (312)	5 (10)	2	1480	3.70

I have visited my child's classroom 168 0-3 times 123 4-8 times 2 more than 8 times

Most of my volunteer time is spent 148 inside the classroom 60 outside the classroom 119 N/A

A.B. Combs staff analyze the results from the survey and provide comments to address areas of concern. For example, the third-grade team's letter to families included the following response to survey statement #9, which scored low across all grade levels.

Sample Teacher Response To Parent Survey

#9. I am well informed of my child's progress and growth.

At the beginning of the year, we provided parents with magnetized business cards with the school phone number and our individual email address. Currently we send home Friday Folders, Classroom Newsletters, School Newsletters, and make ourselves available for conferences. We send home interim progress reports as well as quarterly report cards, hold "Celebrate Success" assemblies each quarter and hold one Student Led Conference sharing data notebooks each year. We held a Curriculum Night at the beginning of the year and provided an information packet detailing the year's curriculum to all parents. Additionally, a Curriculum Update was added (morning and evening sessions) and an information packet was provided to those parents who attended.

The U.S. Department of Education does not mandate or prescribe particular curricula or lesson plans. The information in the figure to the right was provided by the identified site or program and is included here as an illustration of only one of many resources that educators may find helpful and use at their option. The Department cannot ensure its accuracy. Furthermore, the inclusion of information in this figure does not reflect the relevance, timeliness, or completeness of this information; nor is it intended to endorse any views, approaches, products, or services mentioned in the figure.

Source: A.B. Combs Leadership Magnet Elementary School. Used by permission.

programs. After-school organizations looking to become an integral part of a school's academic intervention and enrichment program seek stable environments with staff who are willing to coordinate support. For example, the after-school program at Combs is now a YMCA program. Combs had created the program with a one-year grant and now needed someone to take it over. The local YMCA was eager to become involved at the site, in part, because of Comb's established success and, in part, because the program was serving English language learners in particular, a group the YMCA also had targeted as needing extra support. Today, the Combs' Achievers is one of the local YMCA's flagship programs. Four of the profiled sites were selected to receive local, state, or federal grants to establish an after-school center, in part, because of their track records as schools. Along similar lines, each of the magnet schools has a history of ongoing partnerships with universities and colleges. Those higher education institutions with teacher education programs leverage the partnership to place their student teachers in high-functioning classrooms and collegial environments that mirror the philosophical approaches of the teacher preparation course work. In return, the schools receive well-trained and well-supported student teachers who, in some cases (e.g., River Glen, Normal Park, and Raymond), are hired directly upon completion of their programs.

Once a magnet school has successfully implemented its program, a principal is in a better position to ask for support. Particularly in the area of technology—where public education often lags behind the advances used and demanded by the workforce—a number of these schools have been able to convince businesses to help them meet their goals of producing innovative, technologically savvy learners. The principals at Combs and Normal Park persuaded some local companies to purchase interactive whiteboards for their classrooms, discovering that people were eager to support a program that has demonstrated measurable success. As Normal Park principal Levine explains, "I find that when people are asked, they want to give to a public school, and they want to be a part of something great." In some cases, a magnet school with an established reputation does not need even to request support. As a well-known magnet committed to fine arts, FAIR benefits from a dynamic where by professional arts organizations—even those without a youth or education focus—now approach the school on their own accord, to pursue special projects and grant opportunities in collaboration with the school. A school brochure highlights the diversity of arts-based partnerships that make FAIR a compelling choice for many families, teachers, and local artists (see fig. 7 on p. 38).

Having community partners involved in the initial planning for a magnet school increases the likelihood that these associations can be tightened in the future. Attracted by the theme and the chance to contribute to a worthy project, early investors—whether of time or money—lay the groundwork for developing a broad base of committed stakeholders who recognize the value of public education and their participation in its efforts. In Clark County, an advisory committee of local organizations, colleges, universities, and businesses was formed to help develop objectives and determine a timeline for implementation of Hoggard's math and science theme. The early involvement of these partners as advisors enabled the school to further cultivate those relationships in building the program.

Figure 7. FAIR (Fine Arts Interdisciplinary Resource School) Brochure Listing Arts Partnerships

Learning at FAIR

FAIR students study reading, writing, math, science, and other core subjects in an interdisciplinary, arts-infused curriculum. In addition, all students have the opportunity to take courses in the Fine Arts areas of:

- Movement
  Dance
  Physical Education
- Theater
- Media Arts
- Visual Arts
- Literary Arts
- Vocal Music
- Instrumental Music
  Band
  Orchestra

Artistic Connections

Sharing in the richness of the arts community of the Twin Cities and our region, FAIR School has established growing relationships with professional arts organizations, artists and schools.

Stages Theatre, our resident theatre company, provides classroom instruction, artistic residencies, mainstage play production, and interdisciplinary resources. Other partnerships include:

- Perpich Center for the Arts
- Walker Arts Center
- Stuart Pimsler Dance and Theater
- Artists: Bruce Henry, Larry Long & Sowah Mensah
- Northern Clay Center/Kevin Caufield
- Japanese Taiko Drumming/Theater Mu
- Twin Cities Youth Jazz Camp/
  Bernie Edstrom
- Indonesian Gamelon Orchestra/
  Joko Sutrisno

The U.S. Department of Education does not mandate or prescribe particular curricula or lesson plans. The information in the figure to the right was provided by the identified site or program and is included here as an illustration of only one of many resources that educators may find helpful and use at their option. The Department cannot ensure its accuracy. Furthermore, the inclusion of information in this figure does not reflect the relevance, timeliness, or completeness of this information; nor is it intended to endorse any views, approaches, products, or services mentioned in the figure.

Source: FAIR (Fine Arts Interdisciplinary Resource School). Used by permission.

For example, the local water district in Las Vegas currently provides all fifth-graders with the opportunity to do water quality testing of Lake Mead and vegetation planting in the Las Vegas Wash region as part of environmental science. A long-standing collaboration with the Community Bank of Nevada has led to the recent development of a schoolwide finance program designed to educate students about savings, money management, and economic concepts.

Parents are key resources for jump-starting local community involvement. They know firsthand what a school provides for their children. In addition to contributing thousands of volunteer hours (which some of the featured schools require) and organizing fund-raising events, parents often work alongside staff to develop relationships with businesses and nonprofits, networking with friends, accessing employer resources, and pursuing new grants. Normal Park's Parent Education Fund was established by parents to help the school "provide a full curriculum, a professional staff, targeted intervention for at-risk students, and an innovative and equitable approach to education for all."[17] This fund covers the cost of critical academic supports, like the guided reading consultant mentioned earlier or the cost of lab supplies. At River Glen, parents are part of HABLA, a nonprofit advocacy group that also raises funds to pay for critical school needs. In addition, HABLA members meet to discuss community issues, like how to educate the public about the benefits of dual immersion. Even at sites without a significant neighborhood population, in large counties, or at an interdistrict school where transportation issues limit the PTA from meeting frequently, families are still likely to be the most vocal and articulate supporters of

their children's schools. Through their word-of-mouth advertising and networking, they can also help make critical connections with local businesses, individual donors, and foundations that help secure additional dollars.

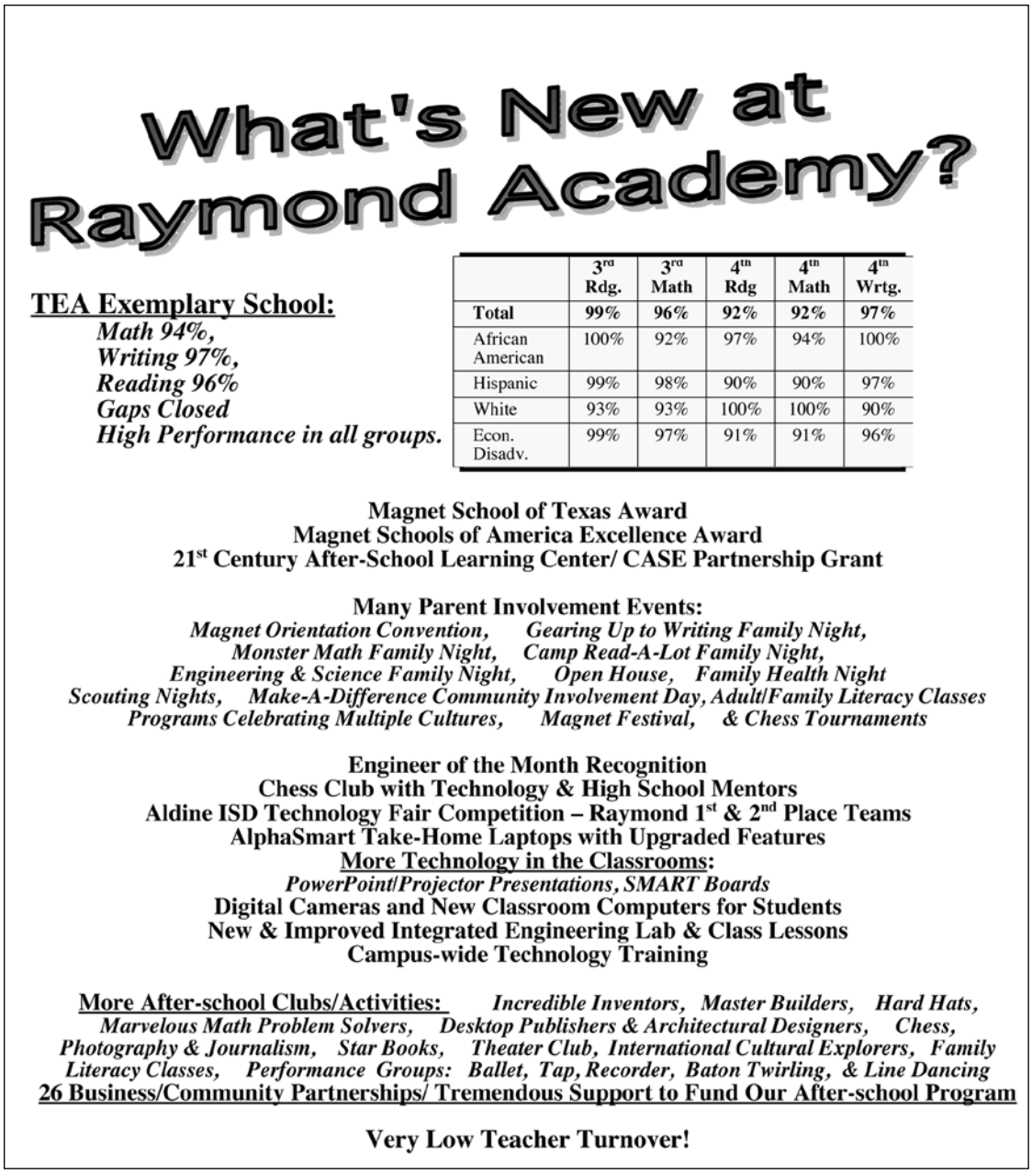
Develop Community Outreach

In any community where there is widespread disillusionment with public education—justifiably or not—it can be difficult to rally community members to invest time, energy, or resources in schools. But a magnet school with a compelling theme, clear mission, and promise of innovation can help recapture community support. It can give people something to celebrate while engaging their sense of civic responsibility to aid in the school's ongoing efforts. Once the public identifies with the school, its mission, and value, a sense of pride and good will galvanize people to support its efforts and contribute to creative solutions. As one parent explains about her neighborhood magnet, featured in this guide, "The community is invested in this school." As a result, she says, the community serves as a valuable network and resource when school-related challenges emerge. While magnet school staff must first "scream their theme" to recruit families and maintain enrollment, ongoing public relations becomes an integral component for sustaining a healthy, successful magnet school, says one administrator. Each year, Raymond staff make the public aware of the continued growth and success of their students through a flyer that highlights awards, activities, and the most recent state test scores (see fig. 8 on p. 40). It includes the percentage of students scoring proficient for the 2005–06 school year, which helped Raymond earn an "exemplary school" designation by the Texas Education Agency. A table in the flyer shows scores by grade level and subgroups.

Magnet school staff can promote the value added of having their school in the community by making its practices transparent and educating the public about its mission and achievements. The principal of Normal Park has established working relationships with the local media, who keep the public informed of upcoming school events, like Exhibit Nights, which have grown so popular that sometimes over 500 visitors line up to view the celebration of student learning. These magnet schools also keep their doors open to neighborhood organizations as part of their outreach. When the NBA All-Star Game and Cares program came to Las Vegas, a local council member immediately thought of Hoggard. The council member knew that Hoggard's principal was always willing to open the school doors after hours to host local events and made a point of keeping him updated on school news. With the councilman's help, Hoggard then received NBA Cares funds to renovate the school library, purchase a set of laptops, and build its sensory garden. It also received positive publicity—and its students received great pleasure—when basketball stars and media showed up on campus to celebrate the library's renovation.

Principals serve as ambassadors for their magnet schools. Calling TV and newspaper reporters when there is an event, speaking in public forums, hosting visitor days, or holding an open house for realtors who promote the school to potential home buyers are all strategies used variously by principals at the featured schools to catch the eye of the general public and promote the school's value in the community. Accolades,

Figure 8. Raymond Academy for Engineering Promotional and Recruitment Flyer



What's New at Raymond Academy?

TEA Exemplary School:
Math 94%,
Writing 97%,
Reading 96%
Gaps Closed
High Performance in all groups.

	3rd Rdg.	3rd Math	4th Rdg	4th Math	4th Wrtg.
Total	**99%**	**96%**	**92%**	**92%**	**97%**
African American	100%	92%	97%	94%	100%
Hispanic	99%	98%	90%	90%	97%
White	93%	93%	100%	100%	90%
Econ. Disadv.	99%	97%	91%	91%	96%

Magnet School of Texas Award
Magnet Schools of America Excellence Award
21st Century After-School Learning Center/ CASE Partnership Grant

Many Parent Involvement Events:
Magnet Orientation Convention, Gearing Up to Writing Family Night,
Monster Math Family Night, Camp Read-A-Lot Family Night,
Engineering & Science Family Night, Open House, Family Health Night
Scouting Nights, Make-A-Difference Community Involvement Day, Adult/Family Literacy Classes
Programs Celebrating Multiple Cultures, Magnet Festival, & Chess Tournaments

Engineer of the Month Recognition
Chess Club with Technology & High School Mentors
Aldine ISD Technology Fair Competition – Raymond 1st & 2nd Place Teams
AlphaSmart Take-Home Laptops with Upgraded Features
More Technology in the Classrooms:
PowerPoint/Projector Presentations, SMART Boards
Digital Cameras and New Classroom Computers for Students
New & Improved Integrated Engineering Lab & Class Lessons
Campus-wide Technology Training

More After-school Clubs/Activities: ***Incredible Inventors, Master Builders, Hard Hats, Marvelous Math Problem Solvers, Desktop Publishers & Architectural Designers, Chess, Photography & Journalism, Star Books, Theater Club, International Cultural Explorers, Family Literacy Classes, Performance Groups: Ballet, Tap, Recorder, Baton Twirling, & Line Dancing***
26 Business/Community Partnerships/ Tremendous Support to Fund Our After-school Program

Very Low Teacher Turnover!

Source: Raymond Academy for Engineering. Used by permission.

The U.S. Department of Education does not mandate or prescribe particular curricula or lesson plans. The information in the figure above was provided by the identified site or program and is included here as an illustration of only one of many resources that educators may find helpful and use at their option. The Department cannot ensure its accuracy. Furthermore, the inclusion of information in this figure does not reflect the relevance, timeliness, or completeness of this information; nor is it intended to endorse any views, approaches, products, or services mentioned in the figure.

honors, and praise letters are collected from the community to generate positive press, provide documentation for grants, and establish continued district support.

In Wake County, district magnet office staff take seriously the need to continually educate the general public and the school board about magnet schools. Kenneth Branch, senior director of the program, explains, "This year has been about recommitting our elected leadership to magnet programs' objectives and having people … affirm their belief in and support of those objectives." With elected officials at the head of the school system and a wave of new families coming into the system each year, there is a continual need to educate people about the history and legacy of magnet schools as a tool for desegregation and improving student achievement.

Part of the education process involves recasting the ways a community assesses the value of a magnet program. Instead of comparing the performance of magnet schools to non-magnet schools, it may be more relevant to measure the effect that magnet schools have on creating a healthy district system with a racially diverse student body. This can be done by asking broader questions: What would happen to desegregation and achievement results in the absence of magnet schools? How does the district compare to similar districts without magnet programs? According to Wake County superintendent Del Burns, the district has one of the highest graduation rates in the nation when compared with the country's largest 50 systems[18] and has some of the most racially diverse schools in the region.

Align With a District Vision

The most important partnership for sustaining a successful magnet school is that with its host district. This means that, in the planning phase, school developers benefit from creating a clear and indispensable role for the magnet school to help meet identified district needs. Sustainability in this context involves the need for a magnet school to develop without compromising the other schools in the system, now and in the future. As Hamilton County's director of urban education puts it, "The district can't have just a few good magnet schools while the rest of the schools are going to pot." Thus, part of the definition of a successful magnet school is that it contributes to the district's growth—it serves as an incubator of best practices that can be used elsewhere in the district, it is a leader in school reform, and it is part of a portfolio of school choice.

For fiscal sustainability, a district needs a vision and strategic plan in which its magnet school program plays an integral role in school improvement and general enrollment management. Without a district commitment to continued funding after an MSAP grant has expired, it is difficult for magnet schools and district offices to retain the key personnel needed for magnet schools' continued success. All profiled schools, except for FAIR, have either received MSAP start-up funding or else reside in a district that has used this funding to develop new magnet programs and solidify district infrastructure, including on-site magnet coordinator positions and central office support for enrollment and marketing. A successful pioneer school can prompt the growth of a district magnet program. By serving as an example

of a successful district school, that first school demonstrates district capacity to operate effective schools, thus enabling district staff to take advantage of available federal or state funding; reciprocally, an individual magnet school can be the beneficiary of district-level efforts to secure such grants.

Magnet school educators can serve as innovators who bring about change throughout the district. River Glen is a "school that we use to train other two-way programs," says founding principal Rosa Molina, explaining the frequent visitors who come from all over the district and state. In its 20-plus years of existence, River Glen has evolved into a national model and groundbreaking school reform leader within San Jose Unified School District (see fig. 9 on p. 43). Former River Glen staff now hold key central office positions to support school reform efforts on a more systemic level. For example, in 2005, former principal Cecelia Barrie was asked to lead a new two-way immersion program in another district school.

Each of the sites featured in this guide disseminate their practices to other elementary and middle schools in support of district goals. Combs, for example, has been a leader in district-level professional development and has volunteered to pilot new district programs, like a positive behavior management initiative. The school's improvement plan closely mirrors the goals of the district and the superintendent's Strategic Directives, which cover school management with a focus on recruiting and training high-quality staff. Combs' extensive curriculum and orientation binders have been used as exemplary models throughout Wake County schools for inducting new staff. In the Aldine District, magnet schools are part of a system-wide peer review process: Teams of school staff visit each other and conduct extensive performance-based reviews. The process also serves as a way to share best practices.

As an interdistrict consortium, West Metro Education Program brings together suburban and urban systems under the common goal of eliminating the achievement gap, using FAIR as an exemplar for success. Known locally as "the best game in town" for professional development, the consortium serves as a valuable resource for teachers seeking to build cultural competence and learn strategies to close the achievement gap. It offers three pathways for professional development: Courses given through the Cultural Collaborative, which offers professional development in best practices for meeting the needs of a diverse student population and promoting cultural understanding; the formation of Equity Teams, developed in partnership with the Pacific Educational Group to help such schools as FAIR address systemic issues of equity; and workshops and coaching through the National Urban Alliance of Effective Education. The collaborative serves as a powerful regional network for educators committed to equity. It supports FAIR staff while also connecting them to teachers from other schools. In this relationship, FAIR gets highlighted as a model demonstration school whose influence on improving teaching and learning reaches classrooms far beyond its own.

Leaders in the featured magnet schools work closely with district staff to address issues beyond those faced in the school building. In Aldine and Clark County, for example, the elementary school magnets are incorporated

Figure 9. "Then and Now" Chart Showing Growth and Change at River Glen Elementary & Middle School

River Glen Elementary & Middle School

Then – 1986	Now – 2006
2 Kinder & 1 First Grade 88 Students	K – 8 520 students
Strand within a school	Schoolwide Magnet
70% Spanish-speakers 30% English speakers	40% Spanish-speakers 60% English-speakers (primary)
90% Title I	49% Title I
Thematic Teaching using teacher made materials	Design curriculum using district mandated texts
Grade level planning	Grade level and cross-grade level articulation
Teacher experts in instructional strategies	Schoolwide training by district mandates and site-selected topics
Evaluation study (10 years) English and Spanish assessment	State mandated assessments/ Spanish language assessments
Parents educated with model, program advocates	Parent participation in school
Recruitment, time consuming, difficult to attract diverse students	Long wait list, program sells itself, known programs; district support
PROGRAM COLLABORATION	SCHOOLWIDE COLLABORATION

River Glen SJUSD
2006

Source: River Glen Elementary & Middle School. Used by permission.

The U.S. Department of Education does not mandate or prescribe particular curricula or lesson plans. The information in the figure above was provided by the identified site or program and is included here as an illustration of only one of many resources that educators may find helpful and use at their option. The Department cannot ensure its accuracy. Furthermore, the inclusion of information in this figure does not reflect the relevance, timeliness, or completeness of this information; nor is it intended to endorse any views, approaches, products, or services mentioned in the figure.

Table 3. Various Funding Sources for Profiled Schools and Affiliated Partnerships Promoting Sustainability

School	Funding Sources	Partnerships
A.B. Combs	Title I *(based on census poverty data)* District funding *(magnet programs, assessment, professional development)* Various grants *(outdoor classroom, technology, etc.)*	FranklinCovey company *(professional development)* North Carolina State University, College of Engineering *(tutoring and mentoring programs)* Marshall Brain's Web site *HowStuffWorks (science consultant)* YMCA *(after-school program)*
FAIR	State Integration Revenue District and West Metro Education Program funding *(magnet programs, assessment, professional development)*	Stages Theater *(theater residency)* Various local artists and arts organizations *(arts instruction, programs)* National Urban Alliance for Effective Education *(literacy)*
Hoggard	Magnet Schools Assistance Program* Prime Six *(state funds allocated by district for desegregation)* Parents as Learning Supports (PALS) grant *(parent involvement in math education)* State Senate Bill 404 grant *(math, computer specialists)* National Science Foundation grant *(professional development)* District funding *(magnet programs, assessment, professional development)* NBA Cares Program *(2007)*	Community Bank of Nevada *(economics program)* Local water district *(classroom instruction)* Scott Foresman publishers *(professional development)*
Normal Park	Magnet Schools Assistance Program* Normal Park Education Fund *(professional development and staffing)* District funding *(magnet facilitator, transportation to museums)* Institute of Museum and Library Sciences grant *(museum-based instruction)* Allied Arts grant *(artists-in-residence)* Chattem, Inc. *(Activboard technology)*	Partner museums *(professional development, instruction)* University of Tennessee at Chattanooga *(professional development school program)* Community artists and architects *(school building renovation, playground)*
Raymond	Title I *(based on census poverty data)* Title III *(for English language instruction)* District funding *(magnet programs, assessment, professional development)* Grant from Governor's Educator Excellence Award Program	Cooperative After-school Enrichment Partnership Grant *(after-school program)* Rice University and University of Texas *(professional development)*
River Glen	Title I *(based on census poverty data)* Title VII *(state grant for bilingual programs)* State block grants *(formerly state desegregation funds)* HABLA parent group	San Jose State University *(professional development and student teachers)* 2-Way CABE *(professional development, start-up assistance)*

* Magnet Schools Assistance program (MSAP) grants are federal funds awarded through district magnet programs for new magnet schools' start-up costs during the first three years of planning and implementation.

Note: All legislative titles refer to the *Elementary and Secondary Education Act.*

into a larger K–12 feeder system that allows students to continue their theme-based course of study through high school. This magnet feeder system (which Aldine district staff describe as vertical strands for engineering, visual arts, and performing arts) creates opportunities for theme-based professional development and the alignment of standards across grade levels and schools. One aim of having districtwide coordination of magnet programs is for students to experience smoother transitions as they move up through the grades and change schools and avoid dipping in terms of performance levels. Aldine staff also have collected data that shows the K–12 feeders are working to maintain high enrollment, retaining families throughout upper grade levels. Even if students decide to switch themes, once they have experienced choice through an elementary magnet, they are likely to graduate from the district through one of the magnet strands.

In all of the profiled schools, magnets are viewed as a critical component of school choice, providing families with multiple options and increasing the likelihood that they will be satisfied with the quality of education their children receive. In some districts where a feeder path is not currently offered for a magnet theme, school staff work closely with the district leadership to create viable options and retain families. River Glen, originally designed as a K–5 model, was expanded to include grades 6 through 8 after getting feedback on the difficulties of continuing the dual immersion theme at a separate middle school site. At Normal Park, a proposal to split and grow the current K–5 model into two separate sites (K–3 and 4–8) is being developed. It aims to stem the flight of families from the public school system in middle school.

In these ways (e.g., serving as models and incubators of innovative practice, contributing to school choice), the profiled magnet schools forgo a competitive, elitist approach to school improvement and base their continued success on supporting a network of high-performing schools throughout the district.

Part II

Profiles of Magnet Schools Highlighted In Part I

A.B. Combs Leadership Magnet Elementary School

FAIR (Fine Arts Interdisciplinary Resource School)

Mabel Hoggard Math and Science Magnet School

Normal Park Museum Magnet School

Raymond Academy for Engineering

River Glen Elementary & Middle School

A.B. Combs Leadership Magnet Elementary School

Raleigh, N.C.

Selected Characteristics of Magnet School and Host District [a]			
Magnet School: A.B. Combs		Host District: Wake County	
Year Established as Magnet	1999	Population Type[b]	Large City
Theme	Leadership	Size	832 square miles
Grades	K–5	MSAP[c] Funded	FY 1987–88; 1991–97; 2001–06
Enrollment	809 students	Enrollment	29,273 magnet students out of 128,070 total
Student Ethnicity	49% White 22% African-American 15% Hispanic 10% Asian 4% Multiracial	Student Ethnicity (grades K–5)	52% White 25% African-American 13% Hispanic 5% Asian 5% Multiracial
Special Education	15%	Special Education	13%
Free or Reduced-price Lunch	39%	Free or Reduced-price Lunch	32%
English Language Learners	13%	English Language Learners	8%

[a] All data self-reported by school or district for school year 2006–07.

[b] From National Center for Education Statistics Common Core of Data for the school year 2005–06, http://nces.ed.gov/ccd/districtsearch

[c] Magnet Schools Assistance program

Every morning, students at A.B. Combs Leadership Magnet Elementary School repeat the school's vision statement: "To live, to love, to learn, to leave a legacy." Combining a commitment to academic excellence with developing character—responsibility, respect, integrity, compassion—Combs staff work to help students become leaders who strive to do their personal best. This dual concept of leadership and character development has helped make Combs an award-winning magnet school boasting state proficiency rates as high as 95 percent and a waiting list in the hundreds.

Located in Raleigh, near North Carolina State University, Combs is a county-draw magnet that serves and reflects the diversity of the Wake County Public School System (WCPSS). The school's focus has proved compelling to families of all backgrounds. And its student diversity is a selling point: Combs has no majority race, enrolling large numbers of African-American, white, Hispanic, Indian, and Chinese students, in addition to smaller numbers of Middle Eastern, Korean, and Southeast Asian students. For founding principal Muriel Summers the appeal is clear: "What served Martin Luther King? Mother Theresa? Nelson Mandela? It really boiled down to character, the core of a person."

Founding and Early Challenges

A perfect storm of events led to Combs' establishment as a magnet school. Prior to 1999, Combs was an extended-day magnet whose success in raising proficiency rates—from 67 percent to 84 percent in a single year—had helped the school earn a National Blue Ribbon award from the U.S. Department of Education. But the school lacked a clear vision for sustaining that success. In 1999, an opportunity came in the

form of a crisis: The district ordered the school to reinvent its theme—which was no longer attractive enough to maintain enrollment—or forfeit its magnet status. School leaders had a week to come up with a unique theme with no additional funds for implementation.

Stakeholders from the community—college professors, businesspeople, and parents—offered a consistent response when asked what they would like to see in a reinvented school. Recalls Summers, "It was always, 'We want our children to be caring, hard working, compassionate, make good choices, to grow up and give back.' It really was all about character." By the end of the week, the school had its new theme. As the first elementary school in the country to focus on helping children from all backgrounds become leaders, Combs evolved dramatically from an underenrolled, stagnating school at risk of losing its magnet status to an exemplary, nationally recognized school.

Implementing a Successful Program

Daily classroom life incorporates ideas from Stephen Covey's *The 7 Habits of Highly Effective People* (e.g., being proactive, putting first things first, and thinking win-win) as students learn to take responsibility for tasks, organize their time, and solve group conflicts. Students also use the late Secretary of Commerce Malcolm Baldrige's quality performance principles—including a "Plan, Do, Study, Act" process for managing continuous improvement—for data-based problem-solving and effective collaboration. The focus is on developing habits so that students internalize the strategies and can apply these ideas to complex problems and real-life situations at school, at home, or later in college and on the job.

A central component of the leadership model involves setting personal and academic goals. Each student is expected to track her or his performance in data notebooks and on charts. As one student says, "The data notebook helps me keep on stride. When I make mistakes, I know that I still have goals to reach." Students struggling with the regular curriculum join the Combs Achievers, an after-school program that targets over 100 students considered to be at academic risk.

The redesign of the Combs magnet theme forced staff to think about equity in a different way, which principal Summers calls "a huge paradigm shift." She recalls how the staff initially thought it would be "wonderful" to get 90 percent of the students scoring at or above grade level. "Then," she says, "we got to 95 percent. There was a pivotal point when we said that was no longer acceptable, not until we are at 100 percent."

In selecting new teachers, interviews probe beyond teaching experience to get at what Summers calls "a teacher's character." As she explains, "We didn't hire anybody that we wouldn't want our own children to have as their teacher." An administrative team meets on a regular basis to share responsibilities and use the team's collective expertise to address school needs. "We try not to fix things for people," Summers says. "We feel that growth occurs when people come up with their own solutions."

Establishing Systems for Sustainability

The school's unique focus is designed with the future in mind; with an innovative and timeless theme, the leadership model is sustainable no matter what curricular demands or state mandates come along. Summers has found that businesspeople, government officials, and parents of all backgrounds find the mission and vision compelling.

From the beginning, the business community has been involved in shaping the school theme, and members of the outside community have readily helped with school projects. A diverse range of artists, gardeners, and business leaders donate resources and services. The school also partners with North Carolina State University's College of Engineering through a program called RAMP-UP (Recognizing Accelerated Mathematics Potential in Underrepresented People). Laura Bottomley, a professor at the university and a former Combs parent, helped forge the collaboration when she began volunteering in fifth-grade classrooms as a science lab teacher. RAMP-UP places engineering graduate and undergraduate students in Combs classrooms three times a week to run hands-on, inquiry-based mathematics activities intended to cultivate an excitement for learning mathematics.

Combs attracts entrepreneurial parents to support the school. Parent Marshall Brain, the creator of the Web site HowStuffWorks, offers his services as a science consultant by filming experiments and posting the video clips on YouTube for students to access and replicate at home. Principal Summers promotes communication among families and values their contributions. Every month, she hosts an in-person Parent Chat to get input, share information, and have an open forum for parent concerns and questions. There is a 24-hour return call policy for all staff members receiving parent phone calls, and all grade-level teams are expected to respond promptly to family survey data with a letter summarizing the results and outlining next steps for improvement.

The goal of 100-percent proficiency energizes staff to continuously monitor their progress with students and to target interventions. Teachers enter assessment data weekly into eMARC, a Web-based data collection tool supported by WCPSS to record student achievement. Disaggregated end-of-grade results reflect the school's progress toward closing the achievement gap. This additional district support for creating, scoring, and disaggregating frequent assessments is expected to provide timely data for teachers who currently devote a large amount of time and resources to such assessments.

Combs has garnered positive recognition both locally and nationally. In 2003, it was designated a National School of Character by the Character Education Partnership in Washington, D.C., for its program in social, ethical, and academic development. In 2006, Magnet Schools of America recognized Combs as the top magnet school in the country with its Dr. Ronald P. Simpson Distinguished Merit Award. The North Carolina Department of Public Instruction has repeatedly given Combs a North Carolina School of Excellence Award as part of the state's accountability initiative to improve student achievement and reward excellence. And in 2007, the school was honored by the National Association of State Title I Directors' Distinguished School Program for narrowing the achievement gap.

Sustaining Success at A.B. Combs Leadership Magnet Elementary School: Milestones

A.B. Combs staff revamped their extended-day magnet school in the face of declining enrollment. Drawing from district resources and input from community stakeholders, they pioneered an innovative leadership model that continues to receive national and international recognition.

1999–2000	A.B. Combs staff told to reinvent extended-day magnet with unique theme. No additional funding provided for conversion. Principal and assistant principal consult community members and draw upon existing professional development to determine new leadership theme. Summer training for teachers on Stephen Covey's *The 7 Habits of Highly Effective People* through school district. Grade-level team leaders pilot use of former Secretary of Commerce Malcolm Baldrige's quality performance principles in classrooms. School opens in fall as nation's first elementary leadership school.
2000–01	Partnership with Stephen Covey to get professional development training for all Combs staff.
2001–02	Begins to host Leadership Days to showcase school program to outside visitors. Staff synthesize Covey and Baldrige principles to structure students' use of data notebooks that chart their academic progress.
2002–03	Kids' Club after-school program established. Designed to serve non-English-speaking families and students.
2003–04	Funding for Kids' Club ends. YMCA partnership developed to continue after-school program.
2004–05	Partnership with University of North Carolina for RAMP-UP,* a math and science education program that places engineering graduate and undergraduate students in classrooms as mentors.
2005–06	Staff provide technical support to develop the leadership theme at three other Wake County public schools. A.B. Combs recognized as the top magnet school by the Magnet Schools of America.
2006–07	A.B. Combs recognized as a National Title I Distinguished School. Staff establish an International Leadership Exchange Program with schools in Japan.

* Recognizing Accelerated Mathematics Potential in Underrepresented People

FAIR (Fine Arts Interdisciplinary Resource School)

Crystal, Minn.

Selected Characteristics of Magnet School and Host District [a]			
Magnet School: FAIR		Host District: West Metro Education Program (includes Minneapolis and 10 suburbs)[b]	
Year Established as Magnet	2000	Population Type [c]	Interdistrict; Large City & Suburbs
Theme	Leadership	Size	832 square miles
Grades	4–8	MSAP[d] Funded	Not applicable
Enrollment	508 students	Enrollment	996 magnet students out of 996 total
Student Ethnicity	68% White 23% African-American 5% Asian 3% Hispanic 1% Native American	Student Ethnicity (grades K–12)	50% White 42% African-American 4% Asian 3% Hispanic 1% Native American
Special Education	10%	Special Education	9%
Free or Reduced-price Lunch	18%	Free or Reduced-price Lunch	33%
English Language Learners	0%	English Language Learners	0%

[a] All data drawn from State Report Card for school year 2006–07.

[b] Each member district is allotted a proportional amount of seats at FAIR, based on a total enrollment figure of the participating WMEP districts. For example, a district with 10,000 students—10% of the total population of 100,000—would get 10% of the available spots at FAIR, or 56 seats. These seats must be divided evenly across 5 grade levels. Minneapolis provides the largest percentage of FAIR students: 45%.

[c] From National Center for Education Statistics Common Core of Data for the school year 2005–06, http://nces.ed.gov/ccd/districtsearch

[d] Magnet Schools Assistance program

Soon after entering FAIR (Fine Arts Interdisciplinary Resource School), you can see a range of fine arts in action. In one hallway, a group of girls rehearses a dance and spoken-word piece, while the instructor coaches another team inside a studio. Upstairs, seventh-grade students create watercolor images from Greek mythology as some of their classmates work at potter's wheels. The school's approach, says principal Kevin Bennett, does not simply offer "a smattering of arts activities," but emphasizes depth and rigor.

FAIR is an interdistrict elementary and middle school magnet serving the Minneapolis metropolitan area. Housed in a new building designed for fine arts instruction, it is operated by West Metro Education Program (WMEP), a voluntary consortium of 11 school districts formed in 1989 to promote desegregation. Attracting a diverse population through its unique curriculum, FAIR emphasizes intercultural learning for its diverse student body. Art, history, politics, and science go hand-in-hand, with teachers and students making connections between what's learned from one class to another.

Founding and Early Challenges

In 1998, WMEP opened its first school, the K–12 InterDistrict Downtown School (IDDS) in the heart of Minneapolis, intended to attract white suburban students into the city. A few years later, due to Minnesota's desegregation policies,

funds became available to create an interdistrict magnet school, and FAIR was born in suburban Crystal as an arts magnet serving grades 4 to 8. A new facility was built expressly for FAIR, and it includes ample rehearsal, creation, and performance space to accommodate the rigorous arts program that produces over 20 public performances each school year.

After overcoming some early organizational issues, WMEP has refocused its mission to include an explicit goal of increasing equity and eliminating the racial achievement gap. And in addition to operating two interdistrict magnet schools, WMEP manages a Choice Is Yours program that provides low-income families in Minneapolis the opportunity to send their children to a participating suburban school. Superintendent Dan Jett sees the WMEP schools as living examples of how high expectations and commitment can help educators increase equity and reduce achievement gaps.

Implementing a Successful Program

All of FAIR's students, regardless of prior experience, participate in the arts and are encouraged to take risks and explore new avenues for artistic expression. For example, students in theater class who do not enjoy stage acting can find a niche as technicians in charge of set design or lighting. All students get to delve deeply into arts areas that capture their interest as they progress through the grades. Fourth- and fifth-graders rotate through all six areas of the fine arts program, then in the sixth grade select four arts for more intensive study. Seventh- and eighth-graders choose one year-long and two semester-long fine arts courses.

Resident artists from the community provide professional-level arts instruction that helps students master fine arts standards. Three choirs and three bands engage students in sectional and full ensemble rehearsals in addition to their weekly small groups or individual lessons for specific instruments.

To help foster an intercultural learning environment, issues of race, diversity, and equity are intentionally included in the curriculum. Students discuss how racial issues affect daily life. By providing opportunities for students to talk about serious social issues, FAIR teachers aim to create an environment in which all members of the school learn about the intersection of race and achievement. "It helps to talk about racism," reflects one African-American student, "instead of pretending it's not there but still participating in it."

Teachers in every classroom are expected to tap into multiple learning modalities, drawing upon students' experiences with visual and auditory expression from their art courses. Teachers find diverse entry points for students to access subject matter. One fifth-grader, for example, demonstrates her mastery of the 50 states by singing a song that helped her memorize them. And a middle school student uses a comic book format to show his ability to summarize *The Odyssey*. Allowing students to demonstrate their knowledge in various ways also helps cultivate an inclusive environment in which students are not "pigeon-holed in one area and can continue to grow in the areas that they are strong in," one teacher explains. Taking this approach to the next level, beginning in the 2007–08 school year, the school will have an Individual Learning Plan for every student. The plan is modeled after the Individualized Education Plan (IEP) that outlines strengths, areas of need, and modifications required for students in special education. For students with academic, social, or emotional concerns, the school's Child Study Team brings classroom teachers together with a social worker, school psychologist, and nurse to support the

students. Classroom teachers are paid to provide after-school remedial support and homework assistance for students performing below grade level. Students scoring less than 40 percent on standardized tests attend the WMEP-sponsored Summer Scholar Institute three hours a day for six weeks. At FAIR, principal Bennett focuses on developing positive relationships with students and staff, by modeling the behaviors that he and FAIR staff want to be an integral part of the school culture. He welcomes students each morning, exchanging words of greeting or jokes as they start their day. During his first year at the school, the number of out-of-school suspensions—a total of 146, with a disproportionate amount given to African-American male students—was a major concern that needed to be addressed immediately. "When I hear a teacher say a student is being 'defiant,' I immediately think there's a breakdown in communication," Bennett says. With only 29 suspensions in the 2006–07 school year, the school's culture has shifted. "Teachers are reflecting on practice and have a willingness to grow, understand, and learn," he says.

Establishing Systems for Sustainability

Principal Bennett works together with the school's director of teaching, Datrica Chukwu, to provide ongoing support for teachers through classroom observations with feedback. A 25-point checklist of steps toward achieving equity in the school serves as a framework for these instructional walk-throughs, helping teachers reflect on their classroom practices (see fig. 4 on p. 25). The framework includes criteria related to student behavior, relevant curricula, and strategies for reaching standards. Chukwu disaggregates student achievement data and works with staff to analyze the information by student cohort, achievement gap data, areas of growth, and areas of need. She says her approach from day one has been to collect data, make it useful, and take action to improve it.

To monitor progress, students take the Minnesota Comprehensive Assessment—Series II (MCA-II), which is required by *NCLB* in reading, mathematics, and writing for grades 3–8. They also take a range of interim assessments. Chukwu reorganized the assessment schedule from having a major assessment only once every fall to including a spring test (with the option for a third assessment in the winter) to maximize the data's usefulness to staff. The assessment data are used to identify students struggling with particular strands and to help target skill-building needs. Data also are used to inform policy changes or professional development needs.

FAIR's strong commitment to the arts enables it to attract a wide range of arts organizations to serve as community partners, leveraging valuable resources and rich experiences for its students. Stages Theater serves as the school's resident theater company, providing theater residencies, classroom instruction, and theater production support unparalleled in traditional public school settings (see fig. 7 on p. 39). This collaboration has helped develop other relationships with the regional arts community. Musician Larry Long, for example, engages FAIR students in an intergenerational history and music curriculum, "Elders' Wisdom, Children's Song," which brings community mentors into the classroom to inspire a student-created song.

The school has seen increased student achievement. FAIR students in every racial, ethnic, and socioeconomic subgroup have consistently outperformed students at the district and state level in math and reading. Test scores also show a narrowing of the achievement gap between racial and ethnic groups within the school. From 2003–05, for example, the gap in fifth-grade reading scores fell from 30 to 7 percentage points.

Sustaining Success at FAIR (Fine Arts Interdisciplinary Resource School): Milestones

As part of a unique interdistrict collaborative, FAIR staff were charged with implementing a strong fine arts school at the same time as an effective interdistrict infrastructure was being developed. Today, FAIR serves as a model for executing a vision for integration as well as for closing the achievement gap.

2000–01	West Metro Education Program (WMEP), a voluntary interdistrict consortium, founds its second magnet, FAIR. WMEP hires FAIR teachers on loan from member districts to participate in its experimental school model. New building constructed for arts theme with studios, labs, and theaters. Design includes distinct wings and a common teacher workspace for grade-level teams. FAIR opens with 398 students in grades 4–7 under principal Mamie Merrifield and artistic director Dennis Jewett; grade 8 added the following year. Partnerships initiated with art organizations, including resident theater group.
2002–03	FAIR begins partnership with National Urban Alliance for Effective Education (NUA) on a literacy initiative that has been sustained for five years.
2003–04	Education research consultants conduct an evaluation of FAIR and its impact on student achievement and intercultural contact.
2004–05	WMEP becomes a fully operational district and superintendent Dan Jett is hired. One transition year given to FAIR teachers, who must resign from their original districts and sign on as WMEP employees. Enrollment peaks at almost 560 students in grades 4–8. Artistic director Mary Bussman named principal. Kevin Bennett hired as artistic director, and his role expanded to include assistant principal. FAIR honored with a Kennedy Center for the Performing Arts' Creative Ticket National School of Distinction Award.
2005–06	Artistic director Bennett becomes FAIR's third principal. FAIR hires nine new teachers due to departures after transition to a WMEP contract. Staff initiative on student discipline reduces out-of-school suspensions by 40 percent. FAIR establishes Equity Team to address achievement disparities.
2006–07	WMEP, in conjunction with FAIR, develops its Equity and Anti-Racism Plan to close the achievement gap. State testing data shows FAIR has nearly closed the gap in grades 5–7. Staff continue to reduce out-of-school suspensions, now down 66 percent from 2004. WMEP staff evaluate student assignment policies in light of declining interdistrict enrollments: some member districts have waiting lists, others have openings; all districts are in period of declining enrollment with schools competing for fewer students.

Mabel Hoggard Math and Science Magnet School

Las Vegas

Selected Characteristics of Magnet School and Host District [a]			
Magnet School: Mabel Hoggard		Host District: Clark County	
Year Established as Magnet	1993	Population Type[b]	Large Suburb
Theme	Math and Science	Size	7,910 square miles
Grades	K–5	MSAP[c] Funded	Funded: FY 1993–97; 2001–06
Enrollment	412 students	Enrollment	12,370 magnet students out of 291,510 total
Student Ethnicity	35% Hispanic 34% African-American 20% White 10% Asian 2% Native American	Student Ethnicity (grades 1–5)	40% Hispanic 14% African-American 37% White 8% Asian 1% Native American
Special Education	11%	Special Education	10%
Free or Reduced-price Lunch	44%	Free or Reduced-price Lunch	41%
English Language Learners	23%	English Language Learners	24%

[a] All data self-reported by school or district for school year 2006–07.

[b] From National Center for Education Statistics Common Core of Data for the school year 2005–06, http://nces.ed.gov/ccd/districtsearch

[c] Magnet Schools Assistance program

In a combined kindergarten and grade 1 science lab at Mabel Hoggard Math and Science Magnet School, students are abuzz during an activity on force, gravity, and rotation. Small teams make propellers from paper and straw, then experiment by dropping the propellers to see how they work. Some fall straight to the floor; others float and swirl. The teacher helps individual students, reminding the class that if the propeller doesn't work to "make a change and see what happens," and later leads a discussion about student observations and theories, making connections to other objects that rotate around an axis. Here and throughout the school, children learn higher-level mathematics and science concepts through hands-on, inquiry-based projects.

Hoggard's mission is to prepare its diverse student body for life in an increasingly information-based society by using a rigorous academic program that emphasizes mathematics, science, and technology. Students travel from all corners of expansive Clark County to attend the school. "We are preparing these students to go to college," a fifth-grade teacher observes, "and to take on careers and jobs that may not exist yet."

Founding and Early Challenges

Converting Hoggard into a K–5 magnet school was part of Clark County's efforts to desegregate its schools. The plan was to serve African-American neighborhoods, while also attracting affluent, white students to attend the inner-city schools. Founding principal Bill Evans had to recruit heavily the first year, convincing students in the affluent Green Valley to attend Hoggard on the promise of an advanced curriculum and additional resources via funding from the federal Magnet Schools Assistance program (MSAP). And as the local community saw buses of white,

middle class students driving up to Hoggard, they became curious about just what was happening inside. Today Hoggard is one of the few schools in the district that met adequate yearly progress (AYP) in 2006 under *No Child Left Behind*. The achievement gap is narrowing, and its third- and fifth-graders outperformed their district counterparts on statewide assessments in 2006–07.

Implementing a Successful Program

Hoggard maintains three science labs and includes live animal habitats and a planetarium. Teachers infuse the enhanced mathematics and science program into core classroom curricula, along with reading, writing, and spelling. The goal is to have students master higher-level mathematics and science concepts through an approach to instruction that is based, as one veteran teacher explains, on "getting kids to love and understand" what they are learning.

Typical classroom talk involves finding multiple solutions, defending a belief, and asking good questions to investigate. In an advanced mathematics class for fifth-graders, for example, a student uses the classroom's overhead projector to demonstrate his method of finding the volume of a prism. Complimenting the student's answer as he returns to his seat, the teacher adds, "He showed us one way to solve the problem. Can anyone else show a different way?" Another student goes to the projector to demonstrate an alternative solution, and soon the class is engaged in rich discussion.

Cooperative learning is built into lessons, and whether students are dissecting a sheep's eyeball, testing paper airplanes, or researching the discoveries of famous scientists, they are learning to work in groups, share ideas, and apply their learning. The curriculum spirals—as students progress through the grade levels, they take on more complex tasks in the same topical areas introduced in lower grades. For example, students in third grade learn about robotics by building a basic model robot. In fifth grade, they are challenged to use computer programming languages to add controls and functions to their machines.

Hoggard's program attracts a wide range of students, including some who are particularly gifted in mathematics and science, some with underdeveloped social skills, and others who have struggled in other schools. Given the range of academic abilities, backgrounds, and social experiences of Hoggard students, staff must focus on meeting the needs of a diverse population.

Conversations with community members reveal a deep sense of family at Hoggard. The opportunity for students of all socioeconomic and ethnic backgrounds to interact is a selling point for parents, convincing many to make a long commute to the school. The inclusive culture appeals to teachers, too. One of them remembers walking up to the school for her interview and hearing Spanish-speaking moms next to English-speaking children: "And the whole campus looked like the world, and that felt really right to me."

The school consistently outperforms the district on state assessment proficiency rates for African-American and Hispanic subgroups. Staff members say performance is high because they use data to drive instruction. In 2005, the only year Hoggard did not make AYP, grade-level teams used school data to adjust mathematics instruction and create more support for struggling students. They received funding under state Senate Bill 404 for mathematics tutorial supplies, and, the following year, the percentage of African-American students scoring proficient in math rose from 26 percent to 53 percent.

Under current principal Celese Rayford's leadership, a culture of professionalism continues as teachers

develop individual expertise and skills to share within and across grade levels. As an instructional leader, Rayford does frequent walk-throughs—slipping into classrooms quietly. Her job, she says, requires her to stay close to the day-to-day realities. All teachers at Hoggard are required to submit their lesson plans to her for review and approval and to discuss their ideas and plans with her. Rayford's involvement in her teachers' work lays the groundwork for meaningful teacher evaluations that build teacher capacity. Teachers describe feeling both empowered and challenged by the principal.

Establishing Systems for Sustainability

While Hoggard's leaders have taken pains to ensure smooth successions from one principal to the next, the district's ongoing support has been crucial. In addition to providing Hoggard's start-up funds to become a magnet school, the district pays for professional development necessary to raise performance. The district has recently broadened its vision for magnet schools to include an explicit goal of leading students to college. To support this goal, the district has combined magnet, career and technology, and other empowerment initiatives into a single system that gives schools autonomy over their budgets and curriculum. The organizational structure is intended to help magnet schools collaborate with each other and identify resources they uniquely need. A volunteer Partnership Advisory Council supports the restructured district, enlisting experts, district staff, and community members to help with school choice policy issues, themes, and implementation challenges.

Evans' successor, principal Jimmie Chapman, also drew in outside resources and partners to provide or support professional development for teachers. Specifically, he made connections with researchers and expert practitioners in two key programs to bring National Science Foundation-sponsored professional development through the MASE (Math and Science Enhancement) program and updated reading training.

Current principal Rayford also believes in reaching out to forge relationships with outside groups. In particular, she makes an effort to stay connected to local council members in order to capitalize on opportunities for recognition, partnerships, and funding. She lets one councilman use the school for events and keeps in touch so that Hoggard is on top of his mind when opportunities for schools arise. This helped connect the school to the NBA Cares program during the NBA All-Star Game held in Las Vegas in 2007, which brought in over $140,000 in funds for the school's library, computer center, and other facilities.

Other outside help comes from scientists and mathematicians who volunteer at the school. In one case, a parent volunteer even joined staff. A biologist by training, she became interested in working at the school after observing her child's experiences. She went on to earn her teaching certificate and is now teaching second grade at Hoggard. She founded the popular life sciences lab, now run by her students, which houses a variety of animals in their simulated natural environments and provides Hoggard with real-world resources to teach biology and ecology.

Hoggard's staff would like to raise even greater public awareness of the school and its students by participating in more national science and mathematics competitions. Continuing to market and promote the school for its mathematics and science rigor will help solidify the program and make it more likely to receive continued support from the community and other partners. Principal Rayford says the school's long-term goal is to continually improve the rigor of its curriculum along with aligning with the Nevada state standards, so that test scores will stay on the rise.

Sustaining Success at Mabel Hoggard Math and Science Magnet School: Milestones

Building on the efforts of founder Bill Evans, Hoggard's leaders have contributed to the sustained success of the magnet. Attention to succession planning and leadership transitions have resulted in continuous improvement and achievements throughout three principals' tenures.

1993–99	Hoggard becomes Las Vegas' first magnet through federal Magnet Schools Assistance program (MSAP) funding and support from Kay Carl, the associate superintendent who recruits Bill Evans as principal. Mathematics and science theme selected. Evans plans with advisory committee and support of local organizations like the local water district. Theme implemented primarily through specialized lab period taught by magnet coordinator. Inner-city neighborhood remains skeptical about magnet conversion. Evans draws students from around the county to fill seats. Jimmie Chapman is recruited as part of succession plan following Evan's retirement.
1999–2005	Chapman leads staff through accreditation process to strengthen professional learning community. School schedule reorganized to create collaboration time for teachers. Focus on cross-grade-level alignment and curriculum mapping. Accreditation completed in 2004. Hoggard begins renovation construction under local bond measure. Chapman negotiates to direct funds to build science labs. Teachers receive training through a project funded by the National Science Foundation. Mathematics and science integrated into general curriculum and special labs. Chapman retires in March 2005 to bring on Celese Rayford. He plans for an early transition so that she can establish credibility and hire new staff if necessary.
2005–present	Professional development used to develop shared practices for math and science instruction. Staff work with the district to bring full-day kindergarten to Hoggard. Rayford secures additional funding through grants. A Parents as Learning Supports grant helps fund math education; a Nevada legislative grant funds math tutorial, full-time math and computer support positions with passage of Senate Bill 404; and NBA Cares brings $140K for library, computer center, and outdoor sensory garden. Hoggard receives Magnet School of Excellence Award from the Magnet Schools of America.

Normal Park Museum Magnet School

Chattanooga, Tenn.

Selected Characteristics of Magnet School and Host District [a]			
Magnet School: Normal Park		Host District: Hamilton County	
Year Established as Magnet	2001	Population Type[b]	Large Suburb
Theme	Museum	Size	542 square miles
Grades	K–5	MSAP[c] Funded	Funded: FY 1998–2006
Enrollment	318 students	Enrollment	8,570 magnet students out of 40,262 total
Student Ethnicity	73% White 22% African-American 2% Hispanic 1% Asian 1% Native American	Student Ethnicity (grades K–12)	62% White 33% African-American 3% Hispanic 1% Asian >1% Native American
Special Education	10%	Special Education	10%
Free or Reduced-price Lunch	36%	Free or Reduced-price Lunch	55%
English Language Learners	0%	English Language Learners	1%

[a] All data drawn from State Report Card for school year 2006–07.

[b] From National Center for Education Statistics Common Core of Data for the school year 2005–06, http://nces.ed.gov/ccd/districtsearch

[c] Magnet Schools Assistance program

Walking into Normal Park, you may believe you've entered a children's museum. In the main lobby, a rainforest archway, artist murals, and a 300-gallon aquarium provide a colorful, multisensory introduction to this K–5 school's museum theme. Multimedia projects—revealing students' knowledge on such topics as the solar system and weather—line the hallways. Artwork and essays are on display in glass showcases. All are tangible reflections of the school's mission to cultivate students' lifelong passion for learning through a rigorous museum-based curriculum that inspires days of exploration for years of discovery.

In 2001, this historic neighborhood school, just north of downtown Chattanooga, opened as a new magnet hoping to turn around student achievement and reverse declining enrollment. Normal Park has lived up to its promise. Each year since its founding, student scores on the state test have increased, now reflecting almost universal proficiency as well as steady gains in closing the achievement gap, particularly for economically disadvantaged students. Today, the school is enrolled at full capacity of over 300 students, 120 more than in its pre-magnet days, with another 300 on the waiting list.

Founding and Early Challenges

In its first year, families were skeptical that adding "Museum Magnet" to the school's name would change outcomes for its students. "This school was on the state list to be shut down," recalls founding principal Jill Levine, "and this neighborhood had totally abandoned the school." Then funding from the federal Magnet Schools Assistance program (MSAP) became available to convert low-performing Normal Park into one of four magnet schools designed to attract white, suburban parents who commuted into the downtown area.

Levine was paired with magnet coordinator, Joyce Tatum, and the two new leaders had a

six-month planning period to visit different museum-themed schools across the country and research best practices. Tatum helped forge partnerships with Chattanooga's cultural institutions and develop a curriculum framework. Meanwhile, Levine's biggest challenges included inheriting a staff culture of low expectations and defeatist attitudes; chronic student misbehavior; and a run-down, 100-year-old facility.

Levine worked hard to recruit educators who were passionate about the school's mission, encouraging unsupportive teachers to move on. She also implemented a zero-tolerance policy for student misbehavior and did not back down when local media criticized her for issuing dozens of suspensions for student fighting. Establishing a safe and orderly environment paralleled the work of creating physical conditions conducive to learning. Levine maximized available resources to restore the decrepit building: Community volunteers painted every classroom; staff wrote grants to obtain funds to refinish the floors; district facility and magnet funds paid for new lighting; and murals were created by local artists for the school's walls and an exhibit room. "All along," says Levine, "I wanted Normal Park to be the school my children go to, a school that everybody wants to go to." Within the year, she was sending out press releases and inviting the public to see all the changes taking place at Normal Park.

Implementing a Successful Program

Normal Park's academic program is built around four cross-curricular modules that incorporate weekly class expeditions to partner museums. Each quarterly module focuses on a schoolwide theme culminating in an Exhibit Night. Teachers use a backwards-planning method and work to engage students in a system of inquiry aimed at fostering intellectual curiosity and real-life discovery. One local museum director says that whenever his staff notice a particularly inquisitive, thoughtful student, "If we ask what school they go to, it's always Normal Park."

Grade-level teams work with museum staff to plan hands-on learning experiences. During the "A Day in the Life" module, for example, students study the city of Chattanooga to answer, "What makes people choose a place to live?" They learn about services, laws, and civic responsibilities within communities. Visits to the Chattanooga Choo-Choo, the Regional History, and the African American Museums bring to life the history of transportation and social aspects of community life. On Exhibit Night, students guide visitors through their cardboard cityscape of the town, explaining the importance of buildings and services in their created community.

"Our kids do well on the tests because they're engaged in learning," Levine says. Responsibility for this engagement rests squarely on the shoulders of teachers. "There are some children who won't necessarily get the support at home that they need to be successful," Levine reminds her staff, "but we can't just sit around and complain about that. It's our job to provide safety nets for them." Staff require that all student exhibits be completed at school, thus ensuring that access to expensive materials, computer time, and parent support are not factors limiting a child's ability to produce high-quality projects. "No one gives up on the hardest-to-reach child," one parent observes. "Everyone is valued, and the children and families know that."

Differentiated instruction meets the needs of each student. Teachers use guided reading methods to teach literacy, engaging small groups of students in tailored fluency and comprehension activities. A system of leveled texts geared to students' reading abilities and individualized lessons target specific needs so that

students advance to more difficult texts at their own pace. Struggling readers receive early intervention to accelerate growth. Based on the success of guided reading, teachers employ similarly differentiated instruction for mathematics and spelling to help them close the achievement gap.

Professional development at Normal Park parallels the school's approach to teaching: It is focused, supported, and differentiated. The administration supports teachers with material resources as well as expert coaching, so that new ideas can be realized in the classroom. Teachers attend a summer institute in June, collaborate with coaches each quarter, and work in small teams with a reading consultant who facilitates model lessons and peer observations. "In other schools," one teacher notes, "once the bell rings, teachers close their doors and that's it. Here, we talk to each other; we work together."

Establishing Systems for Sustainability

Since the school's turnaround, students have scored well above district averages, and the district has given Normal Park autonomy to innovate as long as test scores remain high. To continue to improve teaching and learning, staff members look at data from various assessments, including standardized test scores and reading-level scores. Each grade level has end-of-year targets for students' reading performance, for example, and weekly reports to the principal keep the goals at the forefront. During Exhibit Nights, when students show their projects in museum-like displays that include artifacts, labels, and student guided tours, teachers check for evidence of what they have learned. Feedback from the Exhibit Nights is useful for refining the curriculum each year. Tatum says that as soon as she comes home from an event, she has several e-mails from staff suggesting, "If we would just do this … it would be better."

From its beginning, Normal Park has been both a model and partner in a healthy network of schools within the county striving for continuous improvement. The district facilitates cross-school activities to discuss and exchange best practices. While Normal Park maintains its unique theme and approach to learning, some of its most promising strategies for raising student achievement are used at every other elementary school in the district.

To meet a financial crisis in 2003, one innovative response was to create the Normal Park Education Fund, a board of parents and community leaders that raises funds for the school. Currently, the Education Fund pays for a science lab, dance and reading consultant positions, and for quarterly family literacy nights in support of established school needs. As one teacher explains, "The Ed Fund listens to what our needs are, then they go out and raise the necessary funds to make those things happen."

In addition to its museum partnerships, the school has forged an alliance with professional development programs at the University of Tennessee. Every year Normal Park hosts a professor and graduate students from the university's Teacher Preparation Academy. These teachers-in-training work side-by-side with school staff and support individualized instruction, in addition to training and recruiting future teachers for the district. Similar to the school's relationships with the city's museums, these partnerships provide staff with much-needed resources—grants, materials, professional development—to support teaching and learning activities.

Sustaining Success at Normal Park Museum Magnet School: Milestones

Normal Park's conversion into a museum magnet was part of a turnaround process for an urban school once plagued by declining enrollment and low test scores. By attracting strong staff, cultivating museum and business partners, and engaging the community at large, Normal Park has proven to be a model for how magnet schools can play a significant role in districtwide school reform.

2001–02	Normal Park becomes one of four new downtown magnet schools created with a three-year federal Magnet Schools Assistance program (MSAP) grant. New principal and magnet coordinator hired; given six months to plan. Building renovations create children's museum atmosphere.
2002–03	Summer professional development (PD) to create vision, mission, and begin curriculum mapping. Ongoing PD for literacy training and guided reading. Code of Conduct and Expectations established for students and staff. School opens as a museum magnet with learning expeditions and student exhibitions.
2003–04	Parents establish the Education Fund just as MSAP funding runs out and Normal Park no longer qualifies for funding from Title I of the *Elementary and Secondary Education Act,* which supports schools with large numbers of students from low-income families. Staff use district planning days for museum collaboration and module development. Student displays during Exhibit Night reflect deepened curricular connections and museum-quality presentations.
2004–05	Museum partners receive $500,000 Institute of Museum and Library Sciences grant to enhance museum-school connection. Staff focus on differentiated instruction. Test scores increase dramatically—over 20% in core academic areas. Normal Park recognized as top magnet school by the Magnet Schools of America (MSA).
2005–06	Literacy grant from the Osborne Fund of the Community Foundation of Greater Chattanooga and the Warren Family Foundation provides for "academic safety nets" in reading and writing with additional reading specialist and quarterly family literacy nights. PTA gathers widespread community support for playground renovation that serves as an accessible community park and outdoor learning environment.
2006–07	Normal Park recognized with an MSA award for third consecutive year.
2007–08	The Board of Education approves a proposal to split and expand Normal Park from a K–5 site into two separate sites: a K–3 and a 4–8 school. This would increase the number of students accepted at the K–5 level, aiding efforts to maintain diversity as zone base gentrifies, and provide a museum theme track into the middle school grades.

Raymond Academy for Engineering

Houston

Selected Characteristics of Magnet School and Host District [a]			
Magnet School: Raymond Academy		Host District: Aldine Independent School District	
Year Established as Magnet	1998	Population Type[b]	Large Suburb
Theme	Engineering	Size	111 square miles
Grades	K–4	MSAP[c] Funded	Funded: FY 1995–97; 2001–03
Enrollment	846 students	Enrollment	16,748 magnet students out of 58,831 students
Student Ethnicity	69% Hispanic 18% African-American 8% White 5% Asian	Student Ethnicity (grades K–5)	65% Hispanic 30% African-American 4% White 2% Asian
Special Education	8%	Special Education	8%
Free or Reduced-price Lunch	79%	Free or Reduced-price Lunch	85%
English Language Learners	31%	English Language Learners	41%

[a] All data self-reported by school or district for school year 2006–07.

[b] From National Center for Education Statistics Common Core of Data for the school year 2005–06, http://nces.ed.gov/ccd/districtsearch

[c] Magnet Schools Assistance program

"If you can dream it, you can build it. Everything is engineered—from the ink we're using to the chairs we sit in," says Terri Clemmons, the magnet coordinator and assistant principal at Raymond Academy for Engineering. This perspective drives the school's entire curriculum, as teachers use an engineering focus to prepare each student for college and beyond.

The theme is evident in every classroom. A first-grade teacher uses a classic children's story to explore construction and civil engineering. "All of a sudden, *The Three Little Pigs* takes on a whole new meaning," says the teacher, whose students use Legos to learn the basics of creating a "wolf-proof" structure. During the mechanical engineering unit, students study simple machines and the relationship between force and motion through increasingly complex projects. For example, all students learn to create simple roller coasters, then in third and fourth grade are challenged to meet tougher requirements, such as adding hills and loops for their roller coasters.

Raymond Academy is rated an "Exemplary School" by the Texas Education Agency, an impressive achievement given the number of economically disadvantaged students enrolled. Increasing each year, student achievement now surpasses district and state performance levels. In most grades and subjects, more than 98 percent of the school's students pass the statewide assessments.

Founding and Early Challenges

Like many other magnet schools, the push to open Raymond Academy came from court-ordered desegregation efforts. The immediate purpose was to increase the number of African-American students in the then predominately Hispanic school. Today, the elementary school more accurately mirrors its district's demographics.

Even before Raymond Academy opened as a magnet, Houston families wanted their children to acquire skills marketable in the area's oil and gas industries. The school's engineering theme serves that purpose, providing an integrated curriculum centered on applied science, mathematics, and technology. To staff the school, district leaders employed all their science specialists and brought in outside consultants, including a Rice University professor who had implemented a science-themed school for a neighboring district.

One early challenge was transforming an old building into classrooms and laboratories appropriate to an engineering-focused facility. This required exploring different technology and lab activity. Raising funds was another major hurdle. Yet another obvious challenge was preparing the school's teachers, trained in elementary education, to become engineering specialists capable of developing and implementing a strong mathematics and science curriculum. The staff embraced this challenge, particularly by taking advantage of district-led professional development and Saturday workshops hosted by the University of Texas.

Support from Aldine Independent School District was key. District leaders had done their research and realized that an elementary school with an engineering theme would stand a better chance of thriving if it were part of a complete K–12 vertical strand. They began implementing a vertical engineering strand by gathering teachers from elementary, middle, and high schools together at the central office for discussions. Creating this continuity ensured that Raymond students would be able to follow their chosen course of study through high school within the Aldine system. It also has provided a collaborative network of district educators who support each other on theme-specific issues.

Implementing a Successful Program

Teachers implement the engineering theme primarily through project- and problem-based instruction. Students are encouraged to explain their process for coming up with a solution rather than simply computing an answer. This strong emphasis on critical thinking and communicating the process is tied to four areas: imagination, creativity, design, and supposition—asking "what if."

In a third-grade lab, students work in groups designing a bridge from cardboard and string to create a structure that will hold a number of golf balls. At the end of class, each team presents its design to the class and answers questions such as, "Why did you choose this design?" and "What are its particular strengths?" The ultimate assessment begins when students test the strength of their bridges by loading on golf balls.

Raymond Academy teachers strive to value each student's contributions and to help them see the possibilities in becoming successful engineers. During Black History month, for example, in a set of lessons about famous African-Americans and inventors, the teachers focus not only on original inventors but also challenge students to document people who later added value to the inventions. For example, African-American Alexander Miles did not invent the first elevator, but he did patent an electric elevator in 1887. His contribution was to create an automatic mechanism that closed access to the shaft so that people would not have to remember to close the door manually. His improvement resulted in fewer accidental falls down elevator shafts. Raymond Academy teachers use this and other examples to demonstrate how engineers are constantly applying critical thinking skills and engineering expertise to improve original designs.

Cooperative learning techniques encourage students to work together and go beyond the

textbook. The lab facilitator starts the year being very direct with students about each of their roles and taking turns: "Person number one is going to record the results, person number two is going to pour the liquid into the beaker," and so on. As the year progresses, students assume different roles in the lesson. With constant reinforcement and opportunities to practice good group work, students are internalizing habits of collaboration.

Ongoing professional development, both on and off campus, has been key to Raymond's success. One program called Balanced Literacy guides teachers in individualizing instruction through observing how each student behaves as a learner. Teachers plan and participate in summer science academies, practicing lab activities before integrating them into their curriculum. At Rice University and elsewhere, teachers gain hands-on approaches for teaching higher-level problem solving, algebraic thinking, and analytical reasoning. Raymond uses a "teach the teachers" approach in which attendees come back to share learning with the rest of the faculty. Teachers then collaboratively work to plan engineering-related lessons based on what they have learned, aligning those lessons with national, state, and local standards.

Staff meetings take place frequently under principal Linda Miller's leadership. A shared leadership model permeates the school culture and helps peers hold each other accountable. Learning specialists meet once a week, and grade-level teams have at least 50 minutes of common planning time daily. In addition, the faculty (80–90 staff members in all) gathers every other Thursday. Each grade-level team builds on its list of needs throughout the year, and a leadership committee meets regularly to determine how to fund what the teachers need. Continuing to align lab activities and classroom science instruction to state standards, faculty members say, is the key to maintaining the engineering theme.

Establishing Systems for Sustainability

Principal Miller has created systems and provided support that encourage all teachers to be data driven. She works closely with the school's magnet coordinator and specialists to get data into teachers' hands in a timely manner. The district has helped by providing an online curriculum and data management system. The school does provide remedial support, but teachers also look for areas of weakness in teaching, then work to improve instruction through professional development and coaching from their team.

As a result of a district partnership grant, Raymond's after-school hallways are buzzing with activity. For example, AmeriCorps volunteers lead students through a science experiment, dance classes start in the cafeteria, and tutoring takes place in several classrooms. Students in the after-school program also can work with local architects and volunteers from NASA.

Both teachers and parents say they experience a real sense of family at Raymond. During at least two family nights per month, teachers conduct engineering lessons for parents and students to use at home. Parents also can take courses on English as a second language through Raymond Academy's after-school program. Parents receive progress reports from each teacher every three weeks, and they have access to ParentCONNECT, which provides online access to lesson summaries and homework throughout the district.

To date, the school has shown tremendous student achievement results and has closed the achievement gap. "There is no reason our kids can't leave here performing three or four grade levels above [their current levels]," principal Miller says.

Sustaining Success at Raymond Academy for Engineering: Milestones

Raymond Academy was carefully designed to meet desegregation goals. The theme was chosen based on community feedback and developed as part of a districtwide K–12 vertical strand for engineering. Raymond has sustained its success by "homegrowing" leaders, continually refining its curriculum, and integrating technology in the classroom.

1996–97	Raymond selected as magnet site to attract African-American students to the predominantly Hispanic school. Aldine staff survey families to determine theme. Raymond Academy is converted into an engineering magnet elementary school as part of a K–12 vertical strand. District commits to funding a full-time science specialist at each of the seven participating schools. Curriculum planning and start-up support coordinated by district staff. Raymond faculty attend Saturday workshops at the University of Texas.
1998	Raymond begins first year as engineering magnet with existing principal David Brenek in place. Staff meet more frequently to address the challenge of learning engineering curriculum. Pilot inclusion model for special education students.
1999	Brenek leaves and Jennifer Marcoux is selected as new principal for her magnet school leadership experience. Staff align curriculum with standards and across grade levels. School is renovated to showcase its engineering theme more vividly.
2001	Linda Miller becomes principal when Marcoux accepts principal position in another district. Miller has worked with engineering magnets, including Raymond, in her role as director of math. Miller introduces motto to focus staff on common priorities tied to the mission. Harris County Department of Education funds Cooperative for After-school Enrichment (CASE) at Raymond through a U.S. Department of Education 21st Century Community Learning Centers grant. Program includes after-school tutorial for struggling students and enrichment activities.
2002	Aldine is declared a unitary status district, releasing it from a court-ordered desegregation plan. Random lottery process for student enrollment adopted. Staff target recruitment at African-American schools and neighborhoods to maintain integrated student body at Raymond.
2003	Students learn to use media technologies, such as video cameras and PowerPoint slide shows as part of lab curriculum.
2005	Staff reorganize curricular scope and sequence to align with state science assessments. Test scores improve.
2006	After-school program at Raymond is chosen as AmeriCorps project site. Raymond wins third Magnet Schools of America excellence award. Bilingual program added to serve increasing English language learner population.
2007	Two staff are "homegrown" into leadership positions: assistant principal and director of intervention and community relations. Raymond awarded Title I Distinguished Performance Award (a program instituted under the *No Child Left Behind Act of 2001*).

River Glen Elementary & Middle School

San Jose, Calif.

Selected Characteristics of Magnet School and Host District [a]			
Magnet School: River Glen Elementary & Middle School		Host District: San Jose Unified School District	
Year Established as Magnet	1986	Population Type[b]	Central City
Theme	Spanish Dual Immersion	Size	72 square miles
Grades	K–8	MSAP[c] Funded	Funded: FY 1987–88; 1991–97; 2001–06
Enrollment	538 students	Enrollment	11,406 magnet students out of 31,032 total
Student Ethnicity	67% Hispanic 29% White 2% African-American 2% Asian	Student Ethnicity (grades K–12)	51% Hispanic 28% White 4% African-American 13% Asian
Special Education	0%	Special Education	11%
Free or Reduced-price Lunch	52%	Free or Reduced-price Lunch	46%
English Language Learners	28%	English Language Learners	26%

[a] All data self-reported by school or district for school year 2006–07.

[b] From National Center for Education Statistics Common Core of Data for the school year 2005–06, http://nces.ed.gov/ccd/districtsearch

[c] Magnet Schools Assistance program

At River Glen Elementary & Middle School, halls and classrooms resonate with a lively but unusual sound mix: young voices speaking both Spanish and English. Even on the playground, neither language dominates the other. Hallway posters for school events are in both Spanish and English. In a third-grade classroom where students are giving presentations about their heroes, a native-English-speaking student, dressed in full baseball uniform, speaks about Jackie Robinson in fluent Spanish, fielding questions from his classmates—also in Spanish.

The school's mission is to prepare students for a future in a global society through a two-way immersion program that produces bilingual, biliterate students who appreciate different cultures and communities. All River Glen students learn a second language without compromising their first—equal value is placed on both. The unique curriculum requires continuity through the grades, so River Glen parents are asked for a five-year commitment to the school.

Today, after celebrating 20 years as one of the district's first magnets, the school's dual immersion philosophy—instilling in all students the value of speaking more than one language and honoring each other—is increasingly popular and River Glen's waiting list is lengthy. "It's a chosen community," one teacher observes. "Everybody gravitated together out of a common vision."

Founding and Early Challenges

River Glen began in 1986 as a strand-within-a-school program to recruit white, African-American, and Asian families into a local elementary school that was over 90 percent Hispanic. Starting with just three classes—two kindergarten and one first-grade—the program gradually expanded, growing so popular that within six years it had developed into a dedicated elementary magnet school at its current facility, and within 12 years, it spanned K–8.

San Jose is diverse but ethnically segregated. When state law required the city to replace older school buildings with new earthquake-proof retrofitted facilities, local Hispanic families, fearing that replacing schools in their original locations would maintain segregation, filed a desegregation lawsuit, causing the district to rethink its enrollment process. River Glen was one of the first magnets created as a result. Nestled along the border of both a middle-class white community and a working-class Hispanic neighborhood, its new location is ideal for recruiting a mix of native English and Spanish speakers.

Implementing a Successful Program

River Glen's commitment to dual immersion is evident in every classroom. In one kindergarten class, students are actively learning at multiple centers. When a student asks the teacher in English, "Do you have a pencil?" the teacher repeats the student's question in Spanish and answers it as well, never once using English. While all activities and instruction in this classroom are in Spanish, students are encouraged to talk informally and help one another in English. In this way, all students learn formal Spanish language and conversational English.

In their first year at River Glen, students receive most instruction in Spanish and a small amount in English. Those proportions shift each subsequent year so that by the fifth grade, half the instruction is in English and half in Spanish. Instructional delivery is monolingual at all times—teachers never use translations for comprehension. And in early grades, children switch teachers for different language instruction, so the students don't even realize that their primary teacher knows how to speak English.

Students are expected to learn to read and write fluently in both languages and are required to pass rigorous standardized tests in English as well as in Spanish. River Glen's rigor and capable staff have helped students achieve at high levels on such tests and, on average, outperform the district.

"A fundamental principle of the dual immersion model," one teacher explains, "is that teachers must build on what kids already know." Teachers employ a variety of strategies to tailor their instruction to the needs of students, using facial expressions and body language to clarify a point. Student groups are linguistically mixed in River Glen's classrooms. The teacher speaks to students in one of the two languages and often uses small-group instruction in order to pull out a few children at a time for personalized reading instruction. In addition, each grade-level team has developed yearly curriculum outlines that assist with student instruction and cross-grade-level articulation.

Professional development is critical to sustaining River Glen's theme. While many staff members have had extensive backgrounds in bilingual education, they need to develop a very specific set of skills to implement a language immersion education program. In-house and preservice trainings help staff learn to team-teach, presenting the same lessons as their counterparts. Teachers must be innovative, using nonverbal forms of communication to explain challenging concepts. Each Tuesday, early dismissal of students gives staff the second half of the day to meet in grade-level teams and plan lessons.

Establishing Systems for Sustainability

While River Glen has a proven record of academic success established by early principals Rosa Molina and Cecilia Barrie, the current principal Mildred Colon-Arellano and her staff are focused on continuing to improve dual

language mastery, closing the achievement gap, increasing the rigor of professional development, and meeting requirements of the *No Child Left Behind Act of 2001*. While student subgroups are performing at the same level or exceeding their counterparts throughout the district, an achievement gap between white and Hispanic students persists. To address this, staff analyze benchmark assessments from the previous year to help identify areas of need and then make adjustments across the curriculum. Teachers assess and then revise their lesson plans to teach for student mastery.

Along with ongoing support from the district, several key community partnerships have contributed to River Glen's success. An affiliate of the California Association for Bilingual Education, 2-Way CABE, helps staff plan and implement two-way immersion programs. Through this partnership, River Glen staff members receive professional development and curriculum training and often are asked to help mentor other school leaders who want to put a similar program in place. An important resource for instructional assistance, San Jose State University (SJSU) sends its student teachers to River Glen, with many eventually joining the teaching staff. SJSU professors showcase the school as a real-world model of a successful two-way language immersion program, and in exchange provide River Glen staff with teacher resources related to the program model.

Even local businesses have helped with the program's outreach to create awareness about the benefits of dual immersion. Partnerships in the past have included Hewlett-Packard, through the district's Adopt a School program; the local public library branch, Biblioteca Latinoamerica; and Hicklebee's children's bookstore. Prior to River Glen's arrival, Hicklebee's did not carry books in Spanish. As parents kept visiting in search of these books, the store saw the demand. "Now there's a wall of Spanish books," says founding principal Molina.

Passionate about the school's dual immersion program and inclusive culture, parents are part of the school community in many meaningful ways. The middle school program, in fact, was developed chiefly out of parents' desire to extend their children's bilingual learning experience. The school's success with parents is notable, given that the two-way language immersion program asks parents to make a leap of faith, accepting that spending a lot of classroom time in kindergarten learning Spanish will lead to being literate in English down the road.

Most of River Glen's marketing and public outreach efforts took place around the school's inception—more than 20 years ago. To create a dual immersion program, the school needed more native-English-speaking students to achieve a linguistic balance in each classroom. Recruitment was one family at a time in those early years. "We had to get it right from the beginning," Molina recalls, and luckily, "the community embraced it."

The school, unlike the district as a whole, has achieved adequate yearly progress for the last six consecutive school years. Due to the success of River Glen, the district has expanded the two-way immersion model to a neighboring school and is considering plans to add two more sites.

Sustaining Success at River Glen Elementary & Middle School: Milestones

River Glen began as an experimental magnet strand within a neighborhood school. As the dual immersion theme proved to be successful, it became a dedicated elementary magnet with its own site, and eventually grew into a K–8 school. Today, River Glen hosts university students as well as district, state, and national visitors who want to learn from an established model about the dual immersion approach.

1986–89	Two-way bilingual program developed as a magnet strand within the Washington Elementary School to promote voluntary integration efforts. Staff, including principal Rosa Molina, recruited from a pool of professional development trainers and interested Washington teachers. Recruitment targeted English-speaking families to meet district integration goals as well as create classroom composition balance. All kindergarten parents are contacted about two-way immersion as an enrichment program. Staff attend dual immersion training at summer institutes hosted by the University of California (first at Los Angeles, then at Santa Barbara). The magnet strand at Washington begins with two kindergarten classrooms and one first-grade classroom.
1989–91	Strand moves to new site, as a satellite program called Washington at River Glen. Partnership with San Jose State University begins for training new teachers. Program is completed with first class of fifth-graders.
1992	River Glen becomes its own dedicated elementary school, with no ties to Washington and without other strands on-site. Staff become partners and participants in 2-Way CABE, an affiliate of the California Association for Bilingual Education.
1995–97	Title VII Academic Excellence funding provides principal Molina with a three-year position as principal on special assignment to disseminate River Glen model across the state. Cecelia Barrie becomes River Glen's second principal based on Molina's recommendation.
1997–98	In response to parent dissatisfaction with off-site two-way bilingual middle school program, River Glen expands to K–8 school. Seventh grade added in the first year.
2000–01	River Glen moves to its permanent location, taking the school's name to the site.
2005–06	Mildred Colon-Arellano becomes River Glen's third principal after Barrie leaves to lead district's new two-way bilingual program. Recognized as a trailblazer in bilingual education in California, founding principal Molina becomes associate superintendent of San Jose Unified School District.
2006–07	River Glen recognized with a California Title I Academic Achievement Award (a program instituted under the *No Child Left Behind Act of 2001*) for closing the achievement gap.

APPENDIX A

Research Methodology

The research approach used to develop this guide is a combination of case study methodology and benchmarking of "best practices." Used in businesses worldwide as they seek to continuously improve their operations, benchmarking has more recently been applied to education. Benchmarking is a structured, efficient process that targets key operations and identifies the following: promising practices in relationship to traditional practice, previous practice at the selected sites (lessons learned), and local outcome data. The methodology used here is further explained in a background document,[19] which lays out the justification for identifying promising practices based on four sources of rigor in the approach:

- Theory and research base;
- Expert review;
- Site evidence of effectiveness; and
- Systematic field research and cross-site analysis.

The steps of the research process were: defining a study scope, seeking input from experts to refine the scope and inform site selection criteria, screening potential sites, selecting sites to study, conducting site visits, collecting and analyzing data to write case reports, and writing a user-friendly guide.

Study Framework and Data Collection

A conceptual framework was developed to guide the study of the selected sites. While there is a lot of daily activity at any school site, each case study needed to focus on those practices most likely to contribute to a school's success and sustainability. The framework for this study was an adaptation of that used in a previous guide on districtwide magnet schools in an earlier Innovations in Education series, incorporating additional research literature on magnet schools, organizational effectiveness, and sustainability of school reform. Whereas a previous guide, *Creating Successful Magnet School Programs,* focused on magnet program implementation from a district perspective, the research for this guide focused on the schools themselves. The dimensions of the conceptual framework for this guide were academic excellence through an innovative theme, cohesive and effective school operations, strategic partnerships, and adaptability to challenges. A site visit was conducted at each school to gather the information for this guide, each visit lasting for two days and including informal observations throughout the school, attendance at events, and interviews. The primary source of data was interviews with a variety of key groups, including parents, teachers, administrators, district leaders, and school partners. An interview protocol

was developed based on the study framework and adapted to each role group. Key interviews were digitally recorded and later transcribed.

Documents from each school served as an additional source of information. Collected during the site visit, these documents included such items as school schedules, sample assessments, curriculum plans, newsletters, application forms, brochures, and report cards. Principals and district magnet office staff also completed a standard form designed for this project to facilitate consistent compiling of school demographic and outcome information.

Site Selection Process and Criteria

A cross-section of schools were selected to highlight K–8 magnet schools successfully meeting the desegregation and achievement needs of their particular districts. Considerations included districts with a high number of traditionally underserved populations (e.g., low income, special education, African-American and Hispanic students), variation in academic programming and magnet themes, a range of grade configurations (e.g., K–4, K–8, 4–8), and a range of geographic locations.

For this guide, a school had to be a dedicated magnet, not a school-within-a-school program, and could not use selective admission criteria (e.g., minimum grade point average, test scores, or audition) to enroll students. Each school had to show evidence of strong academic achievement as well as success in reducing minority group isolation for at least four consecutive years.

Based on state standardized test data, strong academic achievement meant that students of certain subgroups—including African-American and Hispanic students, those receiving special education services, English language learners, and students eligible for free or reduced-price lunch (an indicator of relatively low family income)—were outperforming local district public schools that served a similar population of students in math and reading. Schools considered for this guide also had to have met adequate yearly progress (AYP) for the most recent year for which data was available, with priority given to schools that met AYP for the last four consecutive years.

For interdistrict schools, which operate in extremely minority-group-isolated settings, success with desegregation meant that schools did not have any subgroup representing more than 80 percent of the student population. Within a given district, researchers defined for each subgroup a percentage that would be considered racial isolation in the context of the district based on demographics, and success with desegregation meant that a school had avoided isolation for any subgroup.

Because sustainability was the focus of the guide, one first step in selecting potential magnet school sites was to identify host districts with well-established magnet programs. A review of 198 school districts that had received federal Magnet Schools Assistance program (MSAP) funding at some point from 1985 to present, taking into account MSAP's changing criteria in that time period, narrowed the selection to 52 districts after eliminating those with emerging programs (less than four years old), declining programs (reduction in num-

bers of magnets, total magnet enrollment), underperforming programs (with regards to achievement or student enrollment data), or those districts that were undergoing reorganization. In each of the remaining 52 school districts, the SchoolMatters.com Web site was used as a standard reference to compare magnet schools within a district for achievement and success with desegregation.

Additionally, individual schools also were nominated by the magnet school researchers, practitioners, and board members of the Magnet Schools of America (MSA), who served as the guide's external advisory group. As a national organization, MSA identifies successful magnet schools through a rigorous application process that includes achievement, desegregation, and sustainability criteria; the award lists from the most recent five years were used to determine candidates.

Based on recommendations from the advisory group and a screening of schools based on achievement and student enrollment data (see below), the initial list was narrowed down to 22 schools. Additional information about specific program features and updated data were collected using phone interviews with school administrators to fill gaps in information.

From this group of 22 schools, six schools were ultimately chosen as case study sites, based on the compiled information and criteria ratings on a screening matrix. Demographic variation, a range of promising practices, geographic location, and achievement data were all considered in the final site selection in order to present a range of contexts for those considering magnet programs.

Achievement Criteria

Schools selected met AYP targets for at least two consecutive years, including the most recent year for which data were available for each school. Researchers looked for schools that scored at least at the 50th percentile in math or reading on state standardized tests with demonstrated evidence of continued improvement for at least three years, or for schools that were consistently high achieving in the 90th percentile range annually. Data from Web sites of state departments of education and the Web site SchoolMatters.com provided achievement information. Researchers compared subgroup scores at the selected schools with a similar population of students in its local district public schools.

Student Enrollment Criteria

The profiled schools demonstrated success in maintaining stable patterns of enrollment over time. Compared to district demographics or interdistrict targets, these schools are maintaining diverse student populations with respect to race, ethnicity, and socioeconomic background.

Sustainability Criteria

Schools needed to demonstrate success with achievement and the ability to attract substantial numbers of students of different racial backgrounds for at least five years. Success was sustained over time at each of the selected schools regardless of MSAP status (two of the six schools were recipients of MSAP grant funding) or leadership transitions. In addition, these schools all serve as models of exemplary magnet programs at the district, state, or national level.

Analysis and Reporting

A case report was written about each site, and reviewed by site administrators for accuracy. From these case reports, artifacts, and transcripts of interviews, the project team identified common themes that contributed to success across the sites. This cross-site analysis consisted of using both the research literature as reflected in the study scope as well as emerging patterns in the data.

This descriptive research process suggests promising practices, including ways to do things that other educators have found helpful and lessons they have learned, as well as practical "how-to" guidance. This is not the kind of experimental research that can yield valid causal claims about what works. Readers should judge for themselves the merits of these practices, based on their understanding of why they should work, how they fit the local context, and what happens when they actually try them. Also, readers should understand that these descriptions do not constitute an endorsement of specific practices or products.

Using the Guide

Ultimately, readers of this guide will need to select, adapt, and implement practices that meet their individual needs and contexts. Schools and districts coming together in learning communities may continue to study, using the ideas and practices from these sites as a springboard for their own action research. In this way, a pool of promising practices will grow, and educators can support each other in implementation and learning.

APPENDIX B

Resources

The resources listed below are intended to provide readers with ready access to further information about K–8 magnet schools. This is not a complete list, and there may be other useful resources on the topic. Selection was based on the criteria that resources be relevant to the topic and themes of this guide, current and up-to-date, from nationally recognized organizations, including but not limited to federal or federally funded sources, and that they offer materials free of charge. This listing offers a range of research, practical tools, policy information, and other resources.

Building Choice

The U.S. Department of Education disseminates practices and tools from successful school choice programs, which create options for parents within the public school system across the country through its Building Choice Web site. The site offers resources drawn from diverse programs that have been identified as having promising practices related to choice.

http://www.buildingchoice.org

Policy and Program Studies Service

This program, run by the U.S. Department of Education, contracted the American Institutes for Research to conduct an evaluation of the Magnet Schools Assistance program 1998 grantees. Their final report published in 2003 includes both a cross-site comparative analysis and case studies of eight districts.

http://www.ed.gov/about/offices/list/opepd/ppss/reports.html

Magnet Schools Assistance Program

The Office of Innovation and Improvement in the U.S. Department of Education runs the Magnet Schools Assistance program (MSAP) to support the implementation of magnet schools under court-ordered or federally approved voluntary desegregation plans. The MSAP Web site provides details of the grant competition, including eligibility criteria, as well as abstracts of sample programs and a detailed "Frequently Asked Questions" section.

http://www.ed.gov/programs/magnet/index.html

National Center for Education Statistics

As part of the U.S Department of Education's Institute of Education Sciences, this program collects and analyzes data related to education. The Web site provides reports on recent trends on districts' use of school choice as a means of giving parents options within the public school system.

http://nces.ed.gov

The above information is provided for the reader's convenience. The U.S. Department of Education is not responsible for controlling or guaranteeing the accuracy, relevance, timeliness, or completeness of this outside information. Further, the inclusion of these resources does not reflect their importance, nor is it intended to endorse any views expressed, or products or services offered.

Notes

[1] U.S. Department of Education, *Magnet School Assistance: Purpose*, http://www.ed.gov/programs/magnet/index.html (last accessed on March 3, 2008).

[2] Gary Orfield and Chungmei Lee, *Racial Transformation and the Changing Nature of Segregation* (Cambridge, Mass.: The Civil Rights Project at Harvard University, 2006), http://www.civilrightsproject.ucla.edu/research/deseg/deseg06.php (last accessed on Jan. 16, 2008).

[3] Willis D. Hawley, "Designing Schools That Use Student Diversity to Enhance Learning of All Students," in *Lessons in Integration: Realizing the Promise of Racial Diversity in American Schools*, ed. Erica Frankenberg and Gary Orfield (Charlottesville: University of Virginia Press, 2007). See also Richard Kahlenberg, *All Together Now: Creating Middle-Class Schools through Public School Choice* (Washington, D.C.: Brookings Institution Press, 2001).

[4] Paul Hill, Lawrence C. Pierce, and James W. Guthrie, *Reinventing Public Education: How Contracting Can Transform America's Schools* (Chicago: University of Chicago Press, 1997). See also U.S. Department of Education, National Center for Education Statistics, *Trends in the Use of School Choice 1993 to 2003: Statistical Analysis Report* (Washington, D.C.: National Center for Education Statistics, 2006).

[5] Christine Rossell, "Whatever Happened to Magnet Schools," *Education Next* 4, no. 2 (Spring, 2005), http://www.hoover.org/publications/ednext/3220691.html (last accessed on March 10, 2008).

[6] Title I of the *Elementary and Secondary Education Act of 1965,* as amended, provides financial assistance to schools serving large numbers of children from low-income families.

[7] Under Title VII of the *Elementary and Secondary Education Act* (ESEA), National Academic Excellence Awards were given to schools to disseminate successful bilingual practices and programs. The 2002 reauthorization of ESEA replaced the Title VII grant with Title III, a formula grant program providing funding to states.

[8] Willard R. Daggett, *Achieving Academic Excellence through Rigor and Relevance* (Rexford, N.Y.: International Center for Leadership in Education, 2005), http://www.leadered.com/pdf/Academic_Excellence.pdf (last accessed on Jan. 16, 2008).

[9] As part of the *Elementary and Secondary Education Act*, Title VII, also known as the *Bilingual Education Act of 1968*, provided supplemental funding for school districts to support programs designed to meet the educational needs of children with limited English-speaking ability. (Title VII is no longer authorized; see note 7.)

[10] Linda Darling-Hammond, *Doing What Matters Most: Investing in Quality Teaching* (Kutztown, Pa.: National Commission on Teaching and America's Future, 1997), http://www.nctaf.org/documents/DoingWhatMattersMost.pdf (last accessed on Jan. 16, 2008).

[11] David Tyack and William Tobin, "The Grammar of Schooling: Why Has It Been So Hard to Change?" *American Educational Research Journal* 31, no. 6 (1994).

[12] Donald Waldrip, "A Brief History of Magnet Schools" (Washington, D.C.: Magnet Schools of America, 2000), http://www.magnet.edu/modules/content/index.php?id=36 (last accessed on Jan. 16, 2008).

[13] Hawley, 2007.

[14] U.S. Department of Education, *Evaluation of Magnet Schools Assistance Program, 1998 Grantees, Final Report* (Washington, D.C.: American Institutes for Research, 2003).

[15] The concept of "complex instruction" was developed by Elizabeth Cohen to address the different levels of abilities and social skills found in many classrooms such as those that emerge in

racially and ethnically heterogeneous groups of students. Teachers using this method present students with complex tasks that demand multiple abilities, foster interaction, and problem solving. See Elizabeth Cohen and Rachel Lotan, "Producing Equal-Status Interaction in the Heterogeneous Classroom," *American Educational Research Journal* 31, no. 1 (1995).

[16] Patricia Kannapel and Stephen Clements, *Inside the Black Box of High-Performing High Poverty Schools: A Report from the Prichard Committee for Academic Excellence* (Lexington, Ky.: Prichard Committee for Academic Excellence, 2005).

[17] Normal Park Museum Magnet Web site, Parent Education Fund, http://www.normalparkmuseummagnet.com/fund.aspx (last accessed on Jan. 16, 2008).

[18] Statistics indicate that 82.6 percent of Wake County Public School System (WCPSS) ninth-grade students graduated high school after four years compared with 68 percent statewide and 69 percent nationwide. Glenda Haynie and Brad McMillen, *High School Graduation Rates: 2005–06* (Raleigh, N.C.: Wake County Evaluation and Research Department, 2007), http://www.wcpss.net/evaluation-research/reports/2006/0616hs_grad_2005_06.pdf (last accessed on Jan. 16, 2008).

[19] Nikola Filby, "Approach to Methodological Rigor in the Innovation Guides," working paper, WestEd, San Francisco, Calif., 2006.

The Department of Education's mission is to promote student achievement and preparation for global competitiveness by fostering educational excellence and ensuring equal access.

www.ed.gov