



FIRST THINGS FIRST
The right system for bright futures



Arizona Early Childhood Task Force

PUBLIC NOTICE OF MEETING OF THE Arizona Early Childhood Development & Health Board

Pursuant to A.R.S. §8-1194(A) and A.R.S. §38-431.02, notice is hereby given to the members of the First Things First Arizona Early Childhood Development & Health Board – Arizona Early Childhood Task Force and to the general public that the Task Force will hold a *meeting that will be open to the public on Tuesday, February 9, 2010 from 9:30 a.m. – 12:30 p.m. The meeting will be located at the Hilton Garden Inn, 4000 N. Central, Phoenix, Arizona 85012.* Some members of the Task Force may elect to attend telephonically.

The Task Force may hear items on the agenda out of order. The Task Force may elect to solicit public comment on any of the agenda items. The meeting agenda is as follows:

AGENDA

- | | | |
|----|---|--|
| 1. | Welcome and Introductions | Nadine Mathis Basha,
Task Force Chair |
| 2. | Historical Review of Early Childhood in Arizona

Purpose, Roles, and Responsibilities of the Task Force | Nadine Mathis Basha,
Task Force Chair |
| 3. | Review of the Process | B. J. Tatro, Facilitator |
| 4. | Vision for Early Childhood Systems in Arizona | Full Group |
| 5. | Presentation: Systems Building Models | Karen Ponder, Consultant |
| 6. | The Arizona Systems Model | Full Group |
| 7. | Next Steps/Information Needed for the Next Meeting/Meeting
Evaluation and Reflection | B. J. Tatro, Facilitator |
| 8. | Adjourn | Nadine Mathis Basha,
Task Force Chair |

Dated this 8th day of February 2010

ARIZONA EARLY CHILDHOOD DEVELOPMENT & HEALTH BOARD

J. Elliott Hibbs, Executive Director

Posted this 8th day of February 2010, by 5:00 p.m.

A person with a disability may request a reasonable accommodation such as a sign language interpreter by contacting Kim Syra, Board Administrator, Arizona Early Childhood Development Board, 4000 N. Central, Ste. 800, Phoenix, Arizona 85012, telephone (602) 771-5026. Requests should be made as early as possible to allow time to arrange the accommodation.



Arizona Early Childhood Task Force

The Arizona Early Childhood Task Force will **establish the vision** for the state's **early childhood development and health system** and **guide the role of First Things First** in the implementation of this comprehensive system for Arizona children.

Meetings of the Arizona Early Childhood Task Force are open to all Regional Council members, FTF staff, members of the early childhood community, and the general public.



Dates: February 9, 2010
March 9, 2010
April 19, 2010
May 11, 2010
June 3, 2010

Time: 9:30 a.m. — 12:30 p.m.

Venue: **Hilton Garden Inn**
4000 N. Central Avenue
Phoenix, AZ 85012

Attend Task Force meetings by phone:

Call toll-free **1.888.617.3400** and when prompted enter
Passcode #499163

(Kindly mute your phone during the meeting and please do not place your phone on hold as the music will be heard by all participants.)

Follow the Arizona Early Childhood Task Force beginning February 9th at:

www.azftf.gov

Or email at:

AZECTF@azftf.gov



FIRST THINGS FIRST



Arizona Early Childhood Task Force

Meeting Dates and Agenda Items

Meeting Dates	Agenda Items
February 9, 2010 9:30 a.m.-12:30 p.m. Hilton Garden Inn 4000 North Central Avenue Phoenix, Arizona 85012	• Vision for early childhood system • Overview of what we know about early childhood system models • Desired content of the Arizona system
March 9, 2010 9:30 a.m.-12:30 p.m.	• Finalize vision for early childhood system • Review draft of Arizona system model • Early childhood system outcomes – what will success look like • Discuss FTF role in system
April 19, 2010 9:30 a.m.-12:30 p.m.	• Agree on Arizona system model and outcomes • Draft FTF role related to Arizona early childhood system • Discussion of outcomes and benchmarks for FTF - how will FTF know it has been successful
May 11, 2010 9:30 a.m.-12:30 p.m.	• Finalize FTF role • Agree on benchmarks for FTF • Agree on FTF priorities • Discuss use of Task Force recommendations
June 3, 2010 9:30 a.m.-12:30 p.m. (If necessary)	• Agreement on recommendations to FTF Board and stakeholders



Arizona Early Childhood Task Force

Examples of Visions for Early Childhood Systems

All children in Arizona enter first grade safe, healthy and ready to succeed.

Arizona's School Readiness Action Plan (2005)
Arizona State Board on School Readiness

All Arizona children birth through age five are afforded opportunities to achieve their maximum potential to succeed in school and life.

First Things First Strategic Plan Roadmap (2008)

In Washington, we work together so that all children start life with a solid foundation for success, based on strong families and a world-class early learning system for all children prenatal through third grade. Accessible, accountable, and developmentally and culturally appropriate, our system partners with families to insure that every child is healthy, capable and confident in school and in life.

Plan for the Washington Early Learning System (Draft December 2009)
Washington State Departments of Early Learning and Public Instruction, and Thrive by Five WA

Every child, beginning at birth, will be healthy and successful.

Iowa Empowerment Board Strategic Plan (2009 – 2011)

Creating an Early Childhood System

Karen Ponder

February 9, 2010

Arizona Early Childhood Task Force



**An organized, inter-related
network of elements,
programs and services for
all children.**



Purpose of System Planning in Arizona

To get measureable results
for Arizona's young children
and their families



Why is a System Important?

- Affecting school readiness requires comprehensive approaches and involvement from all sectors: health, mental health, family support, early care and education, parents, higher education, faith communities, business, the media and many others



Why is a System Important?

- To maximize resources including multiple funding streams with their own regulations and requirements
- To improve the performance of multiple systems impacting young children and their families



Why is a System Important?

- There are individual variations in the circumstances and needs of children and their families
- There is duplication of services and a lack of coordination and many children are not being served



Why is a System Important?

- There are inefficiencies in service delivery and varied quality in programs
- Current services are both market based and government financed and both public and private issues must be addressed



Why is a System Important?

- To reduce turf issues through a shared vision and agreed-upon goals and objectives
- Helps to secure needed policy changes and improvements
- Better communication among partners



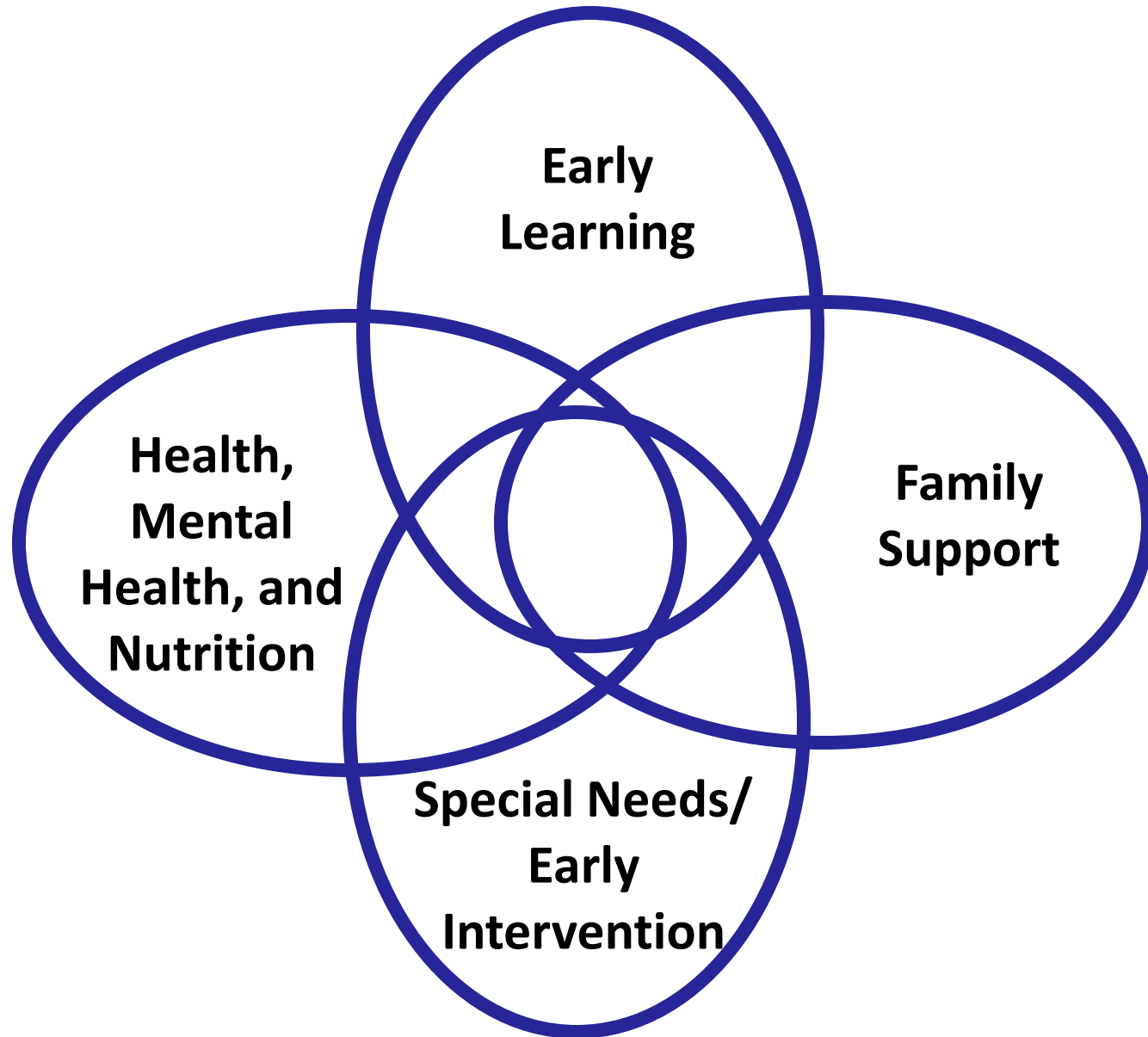
Characteristics of an Effective System

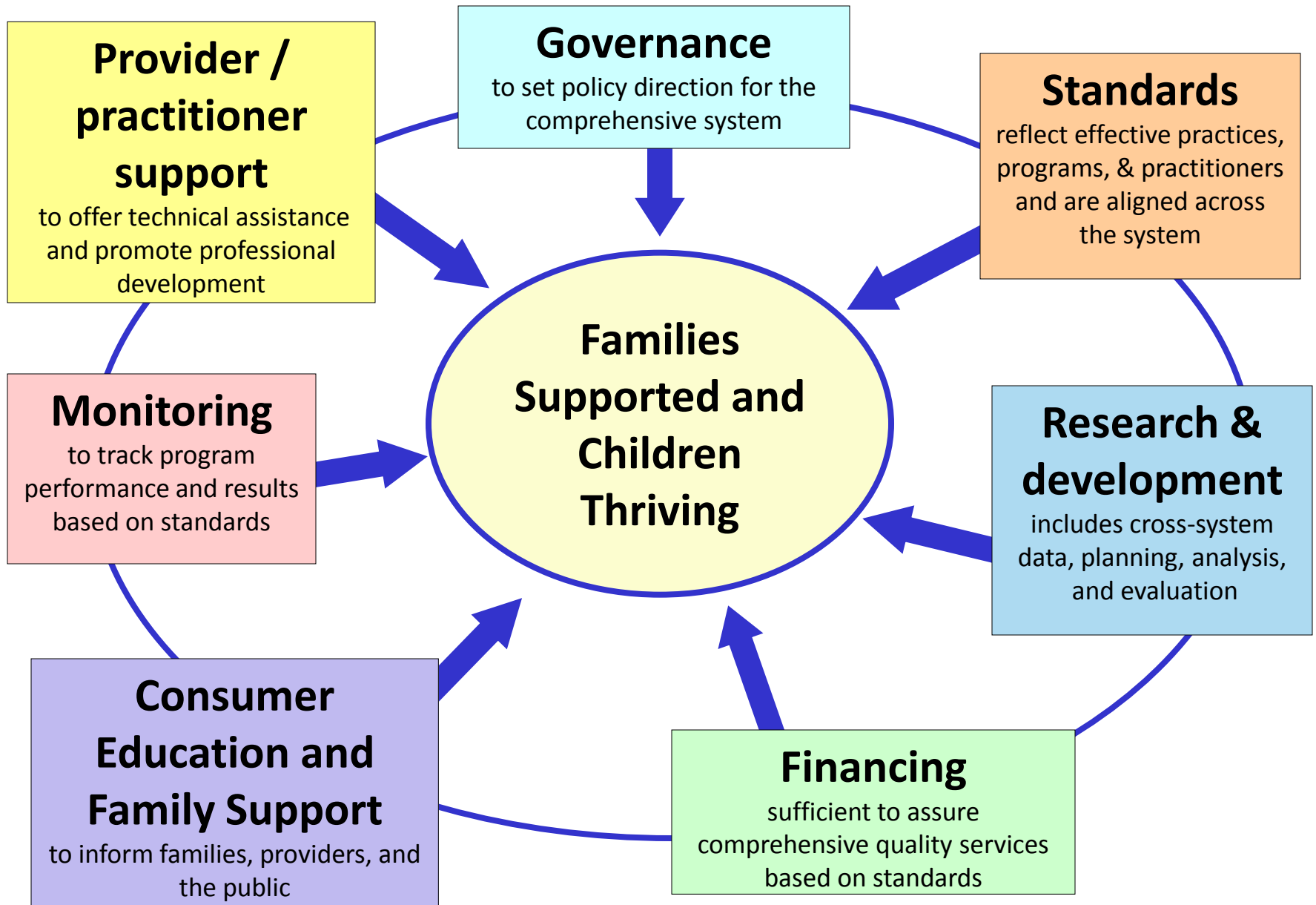
- Comprehensive
- Accessible for children and families
- Scalable
- Outcome focused
- Accountable



Components to Consider







KIDS MATTER FRAMEWORK

INFRASTRUCTURE

Research and Resources:
Infrastructure In WA State;
Projects and Initiatives:

COMMUNICATION

Children's Web Hub
211 Information and
Referral Line

FUNDING

Leverage public/private resources to
move the early care and education
agenda

KEY RESOURCES

STRATEGIES

ACCESS TO HEALTH INSURANCE & MEDICAL HOMES

- Increase awareness among all who care for young children about the importance of comprehensive health care
- Enroll more eligible children in public health insurance programs (Medicaid, SCHIP/Basic Health, SSI)
- Facilitate access to a Medical Home for all children (including medical, dental, mental health & vision services)
- Make developmental assessment & referral to Early Intervention (EI) accessible

SOCIAL, EMOTIONAL & MENTAL HEALTH

- Ensure that communications with all who work with young children emphasizing the importance of social, emotional & mental health
- Promote existing program's awareness & implementation of models of services & supports for young families that are effective, culturally competent & community-based
- Promote existing programs' awareness & implementation of practices that provide opportunities for social connectedness for families
- Promote caregivers' knowledge of social, emotional & mental health of young children
- Promote collaboration among policymakers, providers & other stakeholders

EARLY CARE AND EDUCATION/CHILD CARE

- Use Washington State Early Learning & Development Benchmarks as a tool to enhance the quality of early care & learning
- Improve the ability to evaluate & reward high-quality programs through development of Quality Rating system (QRS) & Tiered Reimbursement
- Promote children's health in early care & education programs (ongoing statewide collaborative effort: Healthy Children Care Washington - HCCW)
- Support high quality professional development services for caregivers
- Develop capacity within the early care & education systems to engage in family support
- Voluntary Universal Pre-K

PARENTING INFORMATION AND SUPPORT

- Provide information to parents & facilitate connection to needed services & supports
- Provide professional development programs, services & supports for professionals providing information & support to parents
- Strengthen & sustain the Washington Parenting Education Network (WAPEN)

SYSTEM CHANGES

- Increased number and percentage of children who have medical insurance

- Increased availability of appropriate and coordinated mental health services for children

- Increased number and percentage of child care & preschool programs that are quality rated
- Increased wages for quality child care providers
- Increased systems' recognition of families' role as the primary nurturer of their children
- The public sees early childhood education, health & school readiness as a major contributor of economic growth
- Increased ability for parents and caregivers to access community resources and support networks

- Increased availability of parent education resources & services

PARENT & CARE-GIVER CHANGES

- Increased understanding of the importance of comprehensive health care (including medical, dental, mental health & vision)
- Increased ability to recognize an emerging issue with their child's health or development and connect with appropriate services

- Improved understanding and practice of nurturing behaviors to promote children's optimal social-emotional development and mental health

- Increased understanding of what children need for optimal health & development (physical, social-emotional, cognitive & language)

- Increased stress-reduction skills
- Increased knowledge & skills to support children's health & development

CHILD CHANGES

- Increased number and percentage of children that receive recommended preventive care (e.g., well-child, immunizations)
- Increased number and percentage of children who have access to comprehensive health care (including medical, dental, mental health, vision)

- Increased number and percentage of children entering kindergarten with social-emotional skills

- Increased number and percentage of children entering kindergarten healthy & ready for school, including: 1) physical well-being, health & motor development; 2) social & emotional development; 3) approaches toward learning; 4) cognition & general knowledge; and 5) language, communication & literacy

- Increased number and percentage of children who live in safe, stable & supportive families

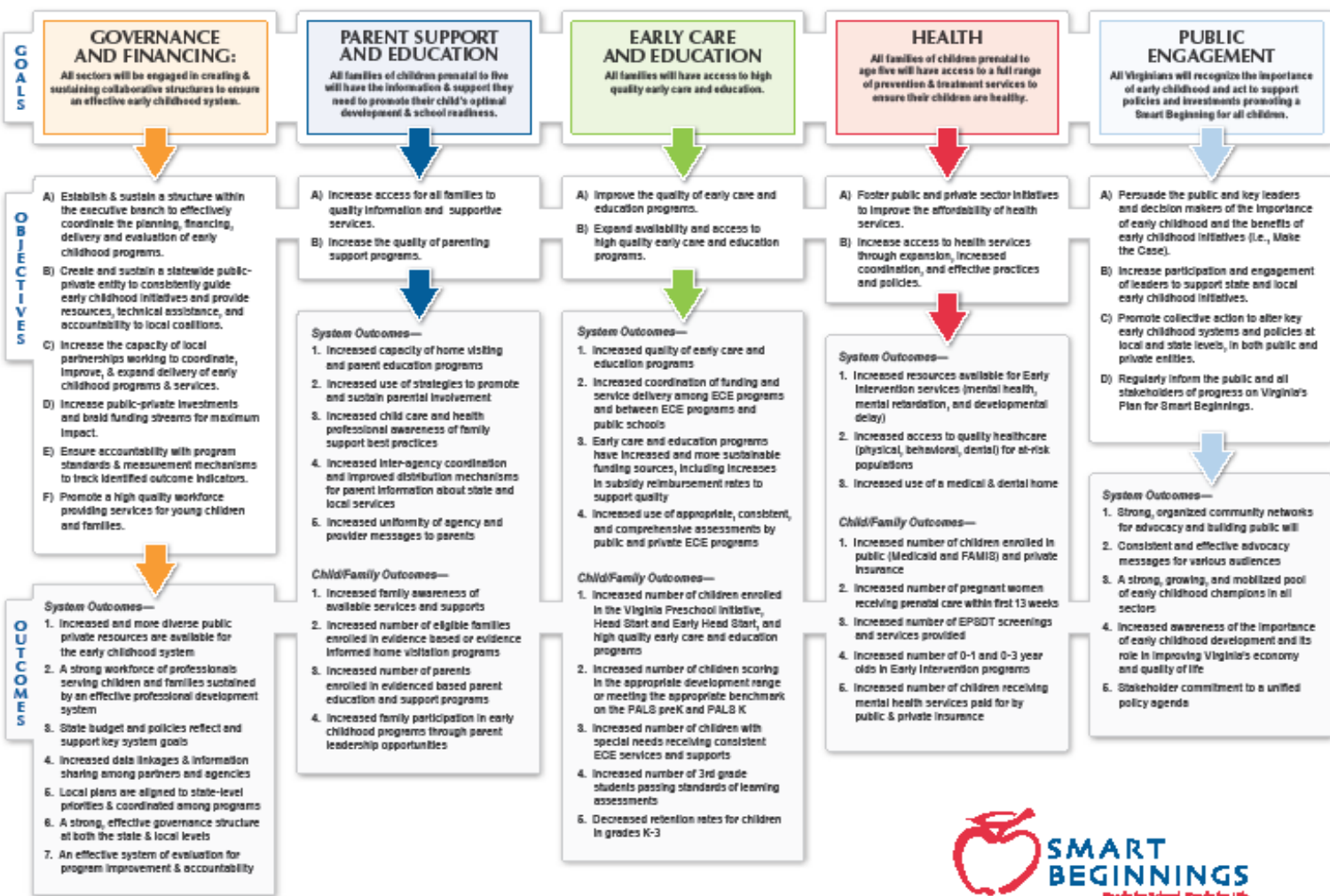
GOAL

CHILDREN ARE HEALTHY AND READY FOR SCHOOL



Family Support approach, strategy, or outcome

VIRGINIA'S PLAN FOR SMART BEGINNINGS



Infrastructure Elements to Consider

- Assessment and planning
- Governance
- Advocacy
- Funding
- Accountability
- Workforce
- Data



Components to Consider

- Early Care and Education
- Family Support and Education
- Health, Mental Health and Nutrition
- Special Needs and Early Intervention



Challenges for the Task Force

- Breadth and depth of system
- Are components equally weighted or some areas emphasized?



Scope of System

Universe
Or
Focused Areas?



Areas to Consider

- Context
- Components
- Connections
- Infrastructure
- Scope and Scale



Lessons Learned

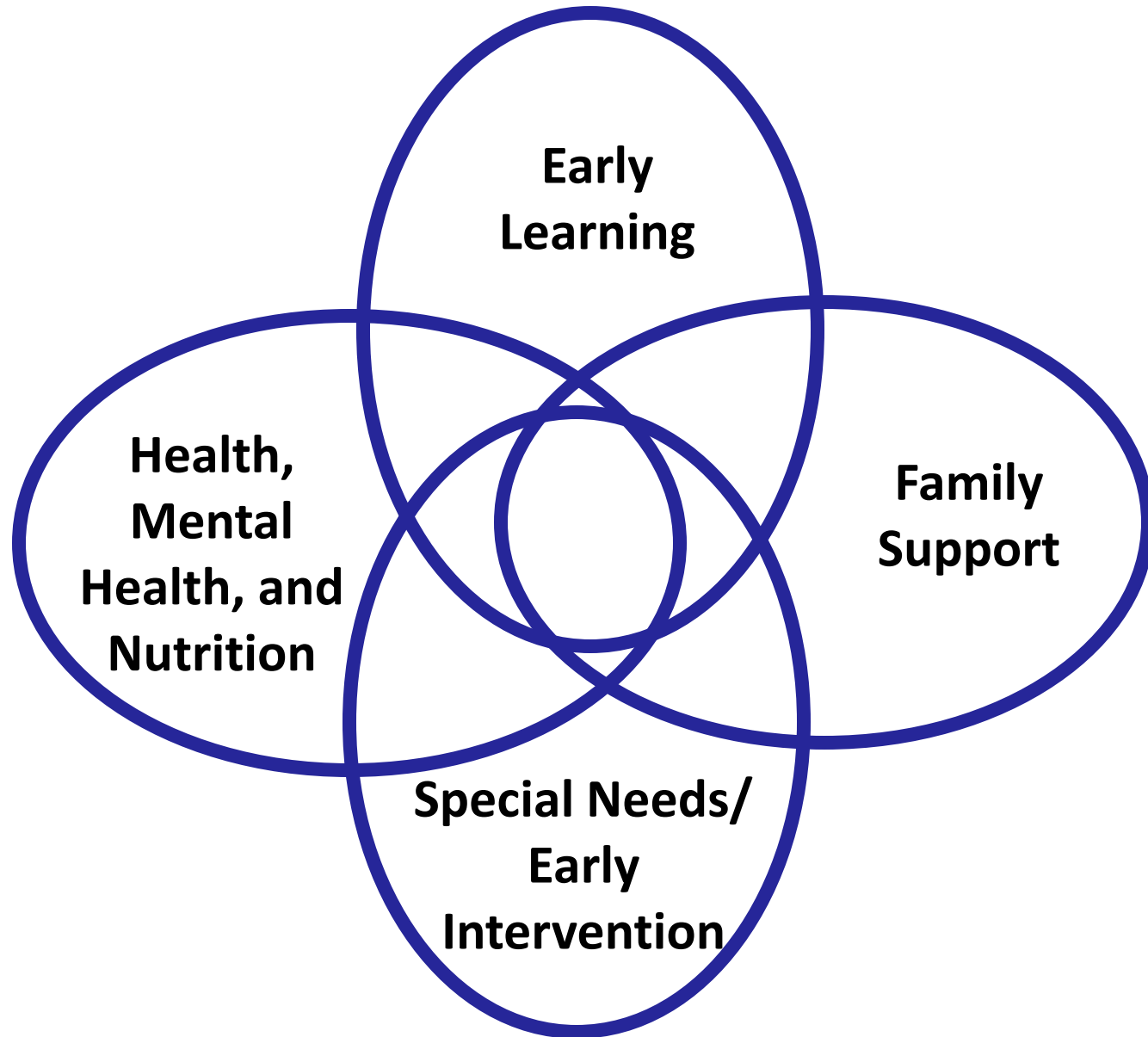
- An open, visible process is needed
- A diverse group of thinkers is important
- Choose strategic areas of focus for an actionable agenda

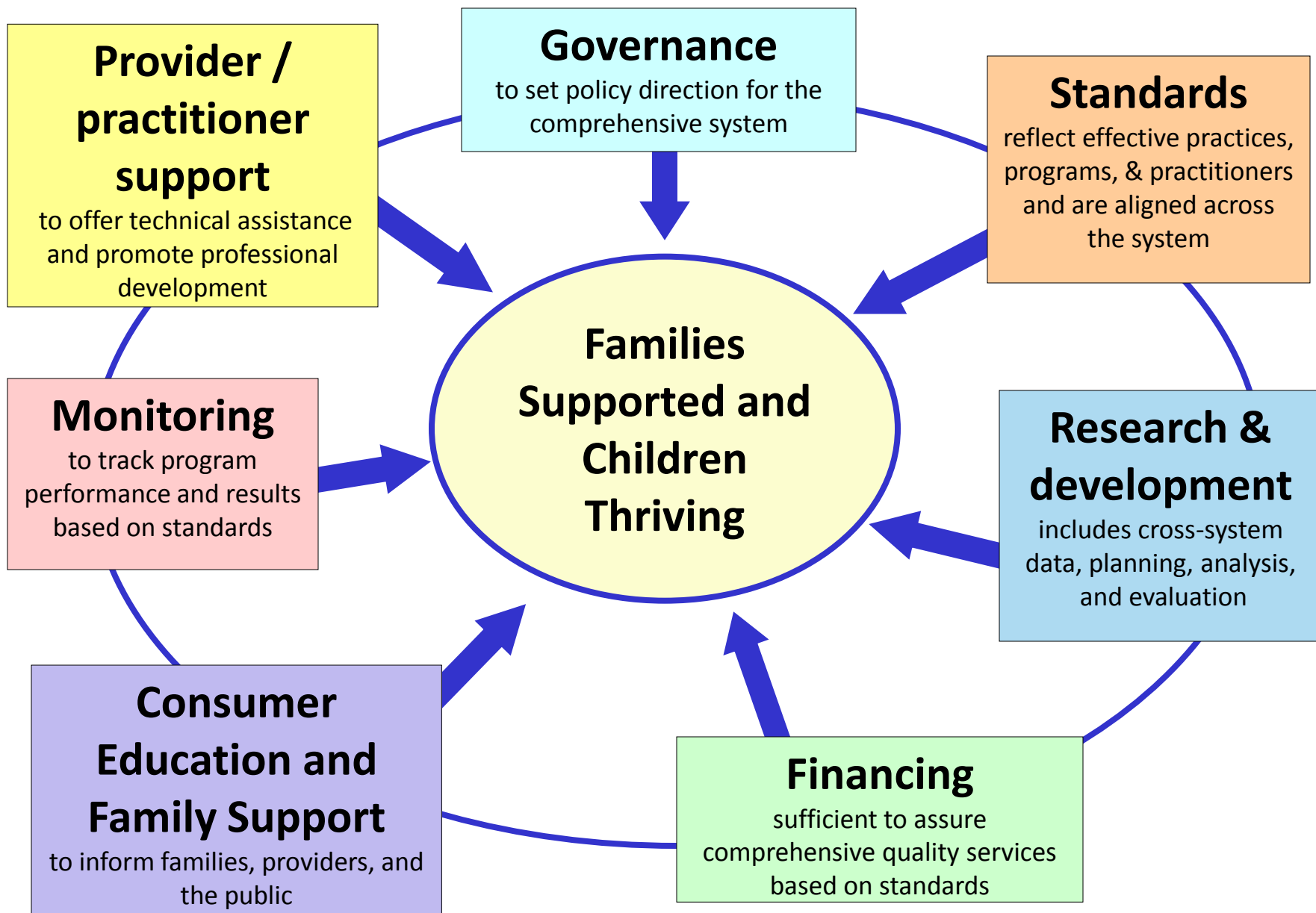


Lessons Learned

- Strategic decisions are required: Slicing the pie doesn't work because of too many needs and not enough money
- Draw from knowledge base that already exists







KIDS MATTER FRAMEWORK

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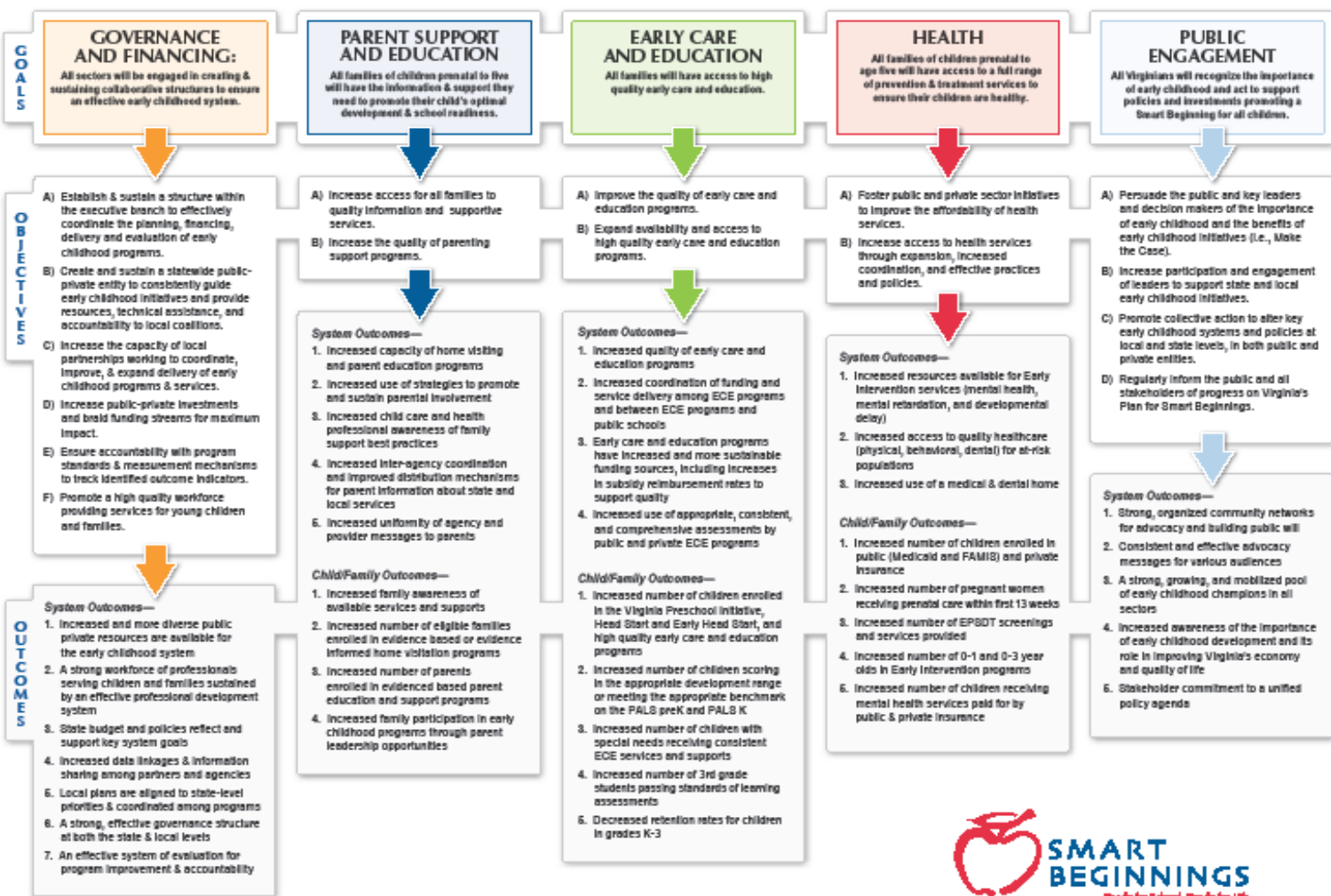
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VIRGINIA'S PLAN FOR SMART BEGINNINGS



Karen W. Ponder
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Title: Early Childhood Consultant

Karen W. Ponder is an early childhood consultant whose work focus is assisting states in developing comprehensive early childhood systems with state and local components. She is the former President of Smart Start, which she helped to create and implemented for almost 15 years. During her presidency, Smart Start's National Technical Assistance Center was created to assist other states in developing comprehensive early childhood efforts.

Karen has been involved in all aspects of early care and education, as a teacher, preschool director, board member, teacher trainer and policy maker. Formerly she worked for the NC Division of Child Development overseeing programs for children with special needs and was also a partner in Childhood Enrichment Associates where she trained teachers throughout the southeast. She has delivered numerous seminars and workshops, has made presentations to seven state legislatures and the National Governors Association), has testified before three US Congressional Committees and the National Summit on America's Children. She was joined the Emerging Issues Scholars' Council at NC State University and is providing content for a public interactive policy space in the new James B. Hunt, Jr. Library.

Karen graduated Summa Cum Laude from North Carolina State University and completed studies at the University of North Carolina-Chapel Hill. She was selected as a fellow in the inaugural class of the national Early Childhood Policy Forum. She is currently a member of the Advisory Board of the McCormick-Tribune Center for Early Childhood Leadership, the Frank Porter Graham Executive Leadership Board and serves on the National Advisory Panel for the FirstSchool Initiative. Karen has formerly served on the Governing Boards of the United Way of North Carolina and the National Association for the Education of Young Children (NAEYC).

She is a recipient of the James and Carolyn Hunt Early Childhood Award for her leadership, commitment and actions on behalf of the young children of North Carolina. Governor Mike Easley conferred upon her the Order of the Longleaf Pine, the highest civilian honor in North Carolina. Upon her retirement from Smart Start, the Karen W. Ponder Leadership Award was created and will be given annually to a community early childhood leader.

Karen and her husband have two children and five grandchildren.

Dr. B.J. Tatro

Dr. Tatro is the owner of B.J. Tatro Consulting, a firm specializing in planning, policy research, program evaluation, and group process for early childhood, education, health, and human services organizations. Clients include a variety of state and local government entities, foundations, and numerous community based organizations, as well as the Association of State and Territorial Dental Directors and the National Oral Health Policy Center. The hallmark of B.J. Tatro Consulting is consumer/stakeholder participation in all aspects of planning and evaluation.

Prior to founding her business in 1987, Dr. Tatro's professional experiences included: Deputy Assistant Director, Division of Aging, Family and Children Services, Arizona Department of Economic Security; Chief, Office of Evaluation, Division of Management Review, Arizona Department of Economic Security; Planning and Evaluation Manager, Division of Developmental Disabilities, Arizona Department of Economic Security.

Dr. Tatro received a Bachelor of Arts degree in psychology and a Master of Science in social work degree from the University of Louisville and a doctor of philosophy degree in public administration from Arizona State University.

She is currently an instructor in the Arizona State University (ASU) Nonprofit Management Institute.

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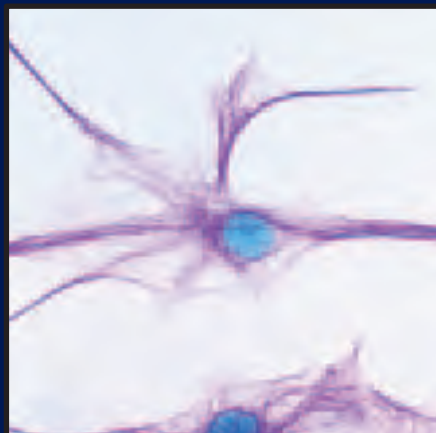
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The Science of Early Childhood Development

Closing the Gap Between
What We Know and What We Do



NATIONAL SCIENTIFIC COUNCIL ON THE DEVELOPING CHILD
Center on the Developing Child  HARVARD UNIVERSITY

Council Members

Jack P. Shonkoff, M.D., Chair

Julius B. Richmond FAMRI Professor
of Child Health and Development
Director, Center on the Developing Child,
Harvard University

W. Thomas Boyce, M.D.

Sunny Hill Health Centre/BC Leadership
Chair in Child Development
Professor, Graduate Studies and Medicine,
University of British Columbia, Vancouver

Judy Cameron, Ph.D.

Professor of Psychiatry, University of Pittsburgh
Senior Scientist, Oregon National
Primate Research Center
Professor of Behavioral Neuroscience
and Obstetrics & Gynecology,
Oregon Health and Science University

Greg Duncan, Ph.D.

Edwina S. Tarry Professor of Human
Development and Social Policy
Faculty Fellow, Institute for Policy Research,
Northwestern University

Nathan A. Fox, Ph.D.

Professor of Human Development,
University of Maryland College Park

William Greenough, Ph.D.

Swanlund Professor of Psychology, Psychiatry,
and Cell and Developmental Biology
Director, Center for Advanced Study at
University of Illinois, Urbana-Champaign

Megan Gunnar, Ph.D.

Regents Professor and Distinguished
McKnight University Professor,
Institute of Child Development,
University of Minnesota

Eric Knudsen, Ph.D.

Edward C. and Amy H. Sewall
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Executive Summary

The future of any society depends on its ability to foster the health and well-being of the next generation. Stated simply, today's children will become tomorrow's citizens, workers, and parents. When we invest wisely in children and families, the next generation will pay that back through a lifetime of productivity and responsible citizenship. When we fail to provide children with what they need to build a strong foundation for healthy and productive lives, we put our future prosperity and security at risk.

Two recent developments have stimulated growing public discussion about the right balance between individual and shared responsibility for that strong foundation. The first is the explosion of research in neurobiology that clarifies the extent to which the interaction between genetics and early experience literally shapes brain architecture. The second is the increasingly recognized need for a highly skilled workforce and healthy adult population to confront the growing challenges of global economic competition and the rising costs of Social Security, Medicare, and Medicaid for the aging baby boomers.

In an effort to identify those aspects of development that are accepted broadly by the scientific community, the National Scientific Council, based at the Center on the Developing Child at Harvard University, brought together several of the nation's leading neuroscientists, developmental psychologists, pediatricians, and economists. This document presents their critical review of the existing literatures in their fields and a consensus about what we now know about development in the early childhood years. The objective of the Council is to move beyond the public's fascination with "the latest study" and focus on the cumulative knowledge of decades of research that has been subjected to rigorous and continuous peer review. The goal of this document is to help the public and its policy makers understand the core principles of that body of work that are now sufficiently accepted across the scientific community to warrant public action.

It is our hope and belief that better public understanding of the rapidly growing science of early childhood and early brain development can provide a powerful impetus for the design and implementation of policies and programs that could make a significant difference in the lives of all children. Without that understanding, investments that could generate significant returns for all of society stand the risk of being rejected or undermined. Thus, there is a compelling need for scientists to share with the public and its representatives an objective basis for choosing wisely among competing demands on limited resources.

This paper is designed to provide a framework within which this complex challenge can be addressed most effectively. Its goal is to promote an understanding of the basic science of early childhood development, including its underlying neurobiology, to inform both public and private sector investment in young children and their families. To this end, the paper presents a set of core developmental concepts that have emerged from decades of rigorous research in neurobiology, developmental psychology, and the economics of human capital formation, and considers their implications for a range of issues in policy and practice.

Core Concepts of Development

- Child development is a foundation for community development and economic development, as capable children become the foundation of a prosperous and sustainable society.
- Brains are built over time.
- The interactive influences of genes and experience literally shape the architecture of the developing brain, and the active ingredient is the "serve and return" nature of children's engagement in relationships with their parents and other caregivers in their family or community.



- Both brain architecture and developing abilities are built “from the bottom up,” with simple circuits and skills providing the scaffolding for more advanced circuits and skills over time.
- Toxic stress in early childhood is associated with persistent effects on the nervous system and stress hormone systems that can damage developing brain architecture and lead to lifelong problems in learning, behavior, and both physical and mental health.
- Creating the right conditions for early childhood development is likely to be more effective and less costly than addressing problems at a later age.



Implications for Policy and Practice

- Policy initiatives that promote supportive relationships and rich learning opportunities for young children create a strong foundation for higher school achievement followed by greater productivity in the workplace and solid citizenship in the community.
- Substantial progress toward this goal can be achieved by assuring growth-promoting experiences both at home and in community-based settings, through a range of parent education, family support, early care and education, preschool, and intervention services.
- When parents, informal community programs, and professionally staffed early childhood services pay attention to young children’s emotional and social needs, as well as to their mastery of literacy and cognitive skills, they have maximum impact on the development of sturdy brain architecture and preparation for success in school.
- When basic health and early childhood programs monitor the development of all children, problems that require attention can be identified in a timely fashion and intervention can be provided.
- The basic principles of neuroscience and the technology of human skill formation indicate that later remediation for highly vulnerable children will produce less favorable outcomes and cost more than appropriate intervention at a younger age.
- The essence of quality in early childhood services is embodied in the expertise and skills of the staff and in their capacity to build positive relationships with young children. The striking shortage of well-trained personnel in the field today indicates that substantial investments in training, recruiting, compensating, and retaining a high quality workforce must be a top priority.
- Responsible investments in services for young children and their families focus on benefits relative to cost. Inexpensive services that do not meet quality standards are a waste of money. Stated simply, sound policies seek maximum value rather than minimal cost.

The need to address significant inequalities in opportunity, beginning in the earliest years of life, is both a fundamental moral responsibility and a critical investment in our nation’s social and economic future. Thus, the time has come to close the gap between what we know (from systematic scientific inquiry across a broad range of disciplines) and what we do (through both public and private sector policies and practices) to promote the healthy development of all young children. The science of early childhood development can provide a powerful framework for informing sound choices among alternative priorities and for building consensus around a shared plan of action. The well-being of our nation’s children and the security of its future would be well-served by such wise choices and concerted commitment.

The Science of Early Childhood Development

The future of any society depends on its ability to foster the health and well-being of the next generation. Stated simply, today's children will become tomorrow's citizens, workers, and parents. When we fail to provide children with what they need to build a strong foundation for healthy and productive lives, we put our future prosperity and security at risk.

Science has a lot to offer about how we as a community can use our collective resources most effectively and efficiently to build that strong foundation. When we invest wisely in children and families, the next generation will pay that back through a lifetime of productivity and responsible citizenship. When we do not make wise investments in the earliest years, we will all pay the considerable costs of greater numbers of school-aged children who need special education and more adults who are under-employable, unemployable, or incarcerated.

Two recent developments have stimulated growing public discussion about the right balance between individual and shared responsibility for child well-being. The first is the explosion of research in neuroscience and other developmental sciences that highlights the extent to which the interaction between genetics and early experience creates either a sturdy or weak foundation for all the learning, behavior, and health that follow. The second is the increasingly recognized need for a highly skilled workforce and healthy adult population to confront the growing challenges of global economic competition and the rising costs of Social Security, Medicare, and Medicaid for the aging baby boomers.

Most policy makers who face decisions among competing actions lack both the time and means to secure sound scientific advice about which investments offer the greatest potential value and what program elements are critical to their effectiveness. Those same policy makers must explain their decisions to business executives and civic leaders who hold a wide range of beliefs about child-rearing and developmental influences. Without better public understanding of the science of early childhood and brain development, policies and programs that could make a significant difference in the lives of children and all of society stand the risk of being rejected or undermined. Thus, there is a compelling need to educate the public and its representatives about how to choose wisely among competing demands.

For some, the most important decisions focus on the allocation of resources among alternative approaches defined by need (e.g., universal versus targeted investments) or age (e.g., pre-K for four-year-olds versus parent support programs beginning at birth). Others move quickly to questions about the relative merits of different program models. Some are interested primarily in the results of benefit-cost analyses. Others view the reduction of inequalities in opportunity



When we invest wisely in children and families, the next generation will pay that back through a lifetime of productivity and responsible citizenship.



as a moral imperative. All are united in the responsibility to assure that limited resources are invested wisely.

Regardless of the questions, it is essential that the answers be grounded in accurate scientific knowledge where it is available and sound professional judgment when it is needed. This is particularly important in the face of inevitable debates over alternative interpretations of the mountains of program evaluation data generated in a policy environment characterized by ideological differences about the means and ends of raising young children.

In October 2000, the Institute of Medicine and National Research Council of the National Academy of Sciences released a report entitled *From Neurons to Neighborhoods: The Science of Early Childhood Development*. The final paragraph of that 588-page report presented a compelling challenge:

The charge to this committee was to blend the knowledge and insights of a broad range of disciplines to generate an integrated science of early childhood development. The charge to society is to blend the skepticism of a scientist, the passion of an advocate, the pragmatism of a policy maker, the creativity of a practitioner, and the devotion of a parent—and to use existing knowledge to ensure both a decent quality of life for all of our children and a promising future for the nation.

This paper is designed to provide a framework within which this complex charge can be addressed most effectively. Its goal is to promote an understanding of the basic science of early childhood development, including its underlying neurobiology, to inform both public and private sector investment in young children and their families. To this end, the paper presents a set of core developmental concepts that have emerged from decades of rigorous research in neuroscience, developmental psychology, and the economics of human capital formation—and that have survived a rigorous process of debate among the members of the National Scientific Council on the Developing Child about what science can tell us about brain architecture and the foundations of learning, behavior, and health.

Core Concepts of Development

Concept 1: Child development is a foundation for community development and economic development, as capable children become the foundation of a prosperous and sustainable society.

The early development of cognitive skills, emotional well-being, social competence, and sound physical and mental health builds a strong foundation for success well into the adult years. Beyond their short-term importance for positive school achievement, these abilities are critical prerequisites for economic productivity and responsible citizenship throughout life. All aspects of adult human capital, from work force skills to cooperative and lawful behavior, build on capacities that are developed during childhood, beginning at birth.

Implications for Policy and Practice

- Policy initiatives that promote supportive relationships and rich learning opportunities for young children create a strong foundation for higher school achievement followed by greater productivity in the workplace and solid citizenship in the community throughout the adult years. Thus, current calls for greater emphasis on early literacy must not diminish the importance of attention to other essential capacities,

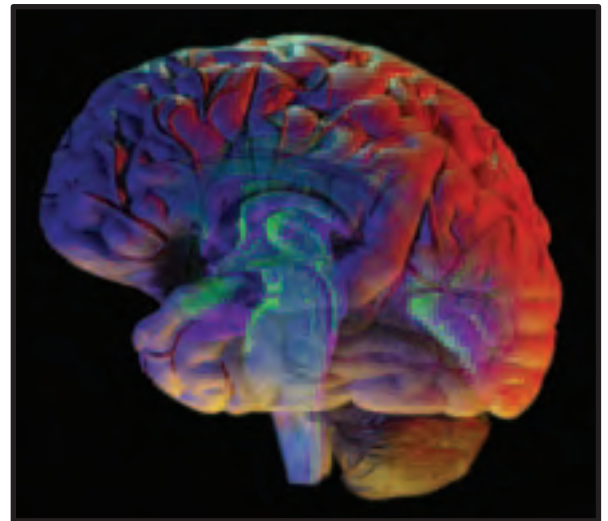
such as initiative, self-confidence, and persistence in learning, as well as the ability to work cooperatively and resolve conflict with peers—all of which are core characteristics of students in a successful school, citizens in a healthy community, and the workforce of a prosperous nation.

- All of society would benefit from a coordinated effort to reduce significant inequalities in the skills of young children at school entry. Substantial progress toward this goal can be achieved by assuring high quality early learning experiences both at home and in community-based settings, through a range of parent education, family support, early care and education, preschool, and intervention services.
- This calls for a long-term investment by all segments of society—including the business community, private philanthropy, both faith-based and secular voluntary organizations, professional associations, and government at all levels—to work together to strengthen families, educate mothers and fathers, and provide professional assistance for those young children and their parents who need help. In fact, the future vitality of the institutions that each these sectors represent will depend on the wisdom of their investment, as today's children either take up society's important work and roles as adults or are ill-prepared and unable to do so.
- Effective early childhood policies and practices will not eliminate all social and economic inequalities. However, when successful interventions are followed by continuing investments throughout the childhood years, they increase the odds that many more children will grow up to be adults who contribute positively to their communities and raise healthy and competent children themselves, while many fewer will end up on public assistance or in jail.

All aspects of adult human capital, from work force skills to cooperative and lawful behavior, build on capacities that are developed during childhood, beginning at birth.

Concept 2: Brains are built over time.

The basic architecture of the brain is constructed through an ongoing process that begins before birth and continues into adulthood. Like the construction of a home, the building process begins with laying the foundation, framing the rooms, and wiring the electrical system in a predictable sequence, and it continues with the incorporation of distinctive features that reflect increasing individuality over time. Brain architecture is built over a succession of “sensitive periods,” each of which is associated with the formation of specific circuits that are associated with specific abilities. The development of increasingly complex skills and their underlying circuits builds on the circuits and skills that were formed earlier. Through this process, early experiences create a foundation for lifelong learning, behavior, and both physical and mental health. A strong foundation in the early years increases the probability of positive outcomes and a weak foundation increases the odds of later difficulties.



Implications for Policy and Practice

- When systems are put in place to monitor the development of all children continuously over time, problems that require attention can be identified early and appropriate responses can be made. This can be accomplished by appropriately trained physicians, nurse practitioners, or developmental specialists within the context of regular health care, as well as through the ongoing observations of skilled providers of early care and education. Fully meeting this goal requires prenatal care for all pregnant women and sustained access to a consistent source of primary health care for all children.



- Environmental protection policies need continuous updating and enforcement if they are to succeed in reducing prenatal and early childhood exposures to substances that have clearly documented toxic effects on the immature brain. These include mercury in fish, lead in soil, and organophosphates in insecticides, among many others.
- The fact that fetal exposure to alcohol is the leading preventable cause of mental retardation in the United States directs our attention to the need for new and creative efforts to reduce alcohol consumption during pregnancy.

Concept 3: The interactive influences of genes and experience literally shape the architecture of the developing brain, and the active ingredient is the “serve and return” nature of children’s engagement in relationships with their parents and other caregivers in their family or community.

The architecture of the brain is composed of highly integrated sets of neural circuits (i.e., connections among brain cells) that are “wired” under the continuous and mutual influences of both genetics and environment. Genes determine when specific brain circuits are formed and individual experiences then shape how that formation unfolds. This developmental process is fueled by a self-initiated, inborn drive toward competence that is an essential characteristic of human nature. Appropriate sensory input (e.g., through hearing and vision) and stable, responsive relationships build healthy brain architecture that provides a strong foundation for lifelong learning, behavior, and health. The most important relationships begin in the family but often also involve other adults who play important roles in the lives of young children, including providers of early care and education.

What scientists refer to as interaction, mutuality, and reciprocity can be understood as comparable to the process of “serve and return” in games such as tennis and volleyball. In early childhood development, serve and return happens when young children naturally reach out for interaction through babbling, facial expressions, words, gestures, and cries, and adults respond by getting in sync and doing the same kind of vocalizing and gesturing back at them, and the process continues back and forth. Another important aspect of the serve and return notion of interaction is that it works best when it is embedded in an ongoing relationship between a child and an adult who is responsive to the child’s own unique individuality. Decades of research tell us that mutually rewarding interactions are essential prerequisites for the development of healthy brain circuits and increasingly complex skills.

Implications for Policy and Practice

- Healthy communities foster the development of healthy children through the informal support that families provide for each other. When parents are inexperienced in child-rearing or overwhelmed by economic insecurity or threatening community conditions, effective parent education and family support programs can help them sustain the kinds of growth-promoting experiences that build child competence and shape healthy brain architecture. When informal supports and community programs are not sufficient, professional assistance can make an important difference in preventing the formation of faulty brain circuits and the developmental problems that follow. However, professionals with appropriate expertise are relatively limited in number, and their availability will require significant investment in specialized training,

particularly in the domains of maternal and early childhood mental health.

- Business executives, civic leaders, and government officials at all levels should work together to develop better private sector and public policies to provide parents with more viable choices about how to balance their work and parenting responsibilities after the birth of a baby or adoption of a child. During early infancy, when parent-child bonding and emerging attachments are so important, there is a pressing need to strike a better balance between options that support parents to care for their babies at home and those that provide affordable, quality child care for parents who return to work or attend school. This also calls our attention to the need for a more child-oriented perspective on the implications of mandated employment for mothers of very young children who receive welfare support.
- The important influence of positive relationships in shaping the architecture of the developing brain indicates that all of society would benefit from better trained personnel in early child care settings, as well as reduced staff turnover rates which currently undermine the relationships that young children have with the adults who provide much of their daily care. Policy makers should examine the potential impact of alternative strategies for increasing the retention of qualified staff, such as competitive salaries and benefits, opportunities for career advancement linked to additional education, and greater respect for their work as a valued profession. Promising initiatives can be modeled after the successful investments made by the U.S. Department of Defense, which has a very high quality system of early care and education.

Increasingly complex skills build on the more basic, foundational capabilities that precede them.

Concept 4: Both brain architecture and developing abilities are built “from the bottom up,” with simple circuits and skills providing the scaffolding for more advanced circuits and skills over time.

Brain circuits that process basic information are wired earlier than those that process more complex information. Higher level circuits build on lower level circuits, and adaptation at higher levels is more difficult if lower level circuits were not wired properly. Parallel to the construction of brain circuits, increasingly complex skills build on the more basic, foundational capabilities that precede them. For example, the ability to understand and then say the names of objects depends upon earlier development of the capacity to differentiate and reproduce the sounds of one’s native language. And the circuits that underlie the ability to put words together to speak in phrases form a foundation for the subsequent mastery of reading a written sentence in a book. Stated in simple terms, circuits build on circuits and skill begets skill.



Implications for Policy and Practice

- Policy makers should consider increasing the availability of parent education and family support programs that have been demonstrated to be effective. These services should begin soon after birth for mothers and fathers with limited education to help them create a home environment that provides the kind of rich language exposure, positive social interactions, and early literacy experiences that increase the probability

that their child will enter school with the skills needed to succeed. When children are born under significantly adverse circumstances, immediate intervention is warranted, including prenatal support services where feasible. Effective programs can be provided through voluntary associations, community-based organizations, and employer-sponsored initiatives, as well as through government-funded services. Evidence-based supports that are provided earlier rather than later will have the greatest impact, as they help establish healthy brain architecture during the period when lower-level circuits are being constructed (even before birth), thereby creating a strong foundation on which higher-level skills can be built.

Emotional well-being, social competence, and cognitive abilities together are the bricks and mortar that comprise the foundation of human development.

- To help children with developmental impairments master the adaptive skills needed to realize their full potential, outreach efforts should be increased to enroll all eligible children in early intervention programs. When positive changes in development are promoted through interventions at a young age, they help build a sturdier foundation for the later achievement of higher level abilities. This underscores the urgent need to identify sensory impairments as soon after birth as possible, so that corrective devices (e.g., hearing aids and eyeglasses) as well as appropriate habilitative services can be provided during the time that basic brain architecture is being established.



Concept 5: Cognitive, emotional, and social capabilities are inextricably intertwined throughout the life course.

The brain is a highly integrated organ and its multiple functions operate in a richly coordinated fashion. Emotional well-being and social competence provide a strong foundation for emerging cognitive abilities, and together they are the bricks and mortar that comprise the foundation of human development. Thus, oral language acquisition depends not only on adequate hearing, the ability to differentiate sounds, and the capacity to link meaning to specific words, but also on the ability to concentrate, pay attention, and engage in meaningful social interaction. Furthermore, the emotional health, social skills, and cognitive-linguistic capacities that emerge in the early years are all important prerequisites for success in school and later in the workplace and community. Brain architecture and the immune system also interact as they mature, which influences all domains of development and health.

Implications for Policy and Practice

- When parents, informal community supports, and professionally staffed early childhood care and education programs all pay attention to young children's emotional and social needs as well as to their mastery of literacy and cognitive skills, they have maximum impact on the development of sturdy brain architecture.

Conversely, preschool policies and programs that place disproportionate emphasis on didactic approaches to academic skills are less likely to prepare young children to succeed in school than experiences that embed the promotion of literacy and numeracy in a rich environment of age-appropriate social interaction. The science of early childhood and early brain development clearly indicates that state and local officials should support the implementation of both child care standards and preschool curricula that promote a balanced and developmentally appropriate approach to the “whole child.”

- Parents, child care providers, and early educators who are seeking help to manage problematic behavior in young children warrant serious attention. With increasing numbers of children being expelled from preschool programs and/or treated with drugs, greater investments are needed to confront the serious shortage of professionals who are qualified to address the behavioral and mental health needs of infants, toddlers, and preschoolers. Expanded opportunities for professional training, stronger incentives for clinicians to work with young children and their parents, and the promotion of consulting relationships among early childhood mental health experts, child care providers, and preschool teachers would provide important first steps toward closing the gap between what we know and what we do to deal with difficult behavior and prevent more serious mental health problems in the earliest years of life.



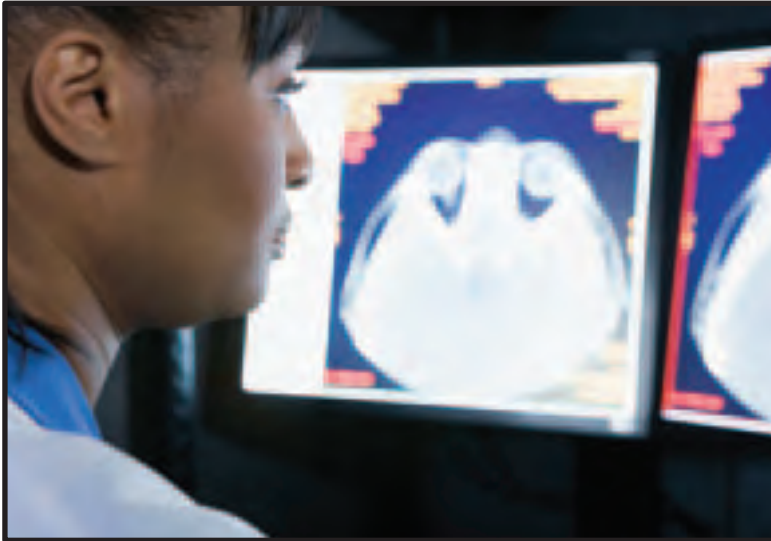
Concept 6: Toxic stress in early childhood is associated with persistent effects on the nervous system and stress hormone systems that can damage developing brain architecture and lead to lifelong problems in learning, behavior, and both physical and mental health.

Activation of the body’s stress management systems produces a variety of physiological reactions. These include an increase in heart rate, rise in blood pressure, and elevated levels of stress hormones (e.g., cortisol) and proteins associated with inflammation (e.g., cytokines). Such responses prepare the body to deal with threat (i.e., “fight or flight”) and are essential to survival. Healthy development depends on the capacity of these systems to ramp up rapidly in the face of stress as well as their ability to return to baseline when the threat has been mastered. When these physiological responses remain activated at high levels over a significant period of time, they can have adverse effects. Most prominent among these are the consequences of persistently elevated cortisol levels, which can literally be toxic to developing brain architecture.

The experience of stress in early childhood can be either growth-promoting or seriously damaging, depending on the intensity and duration of the experience, individual differences in children’s physiological responsiveness to stress, and the extent to which a supportive adult is available to provide individualized support to help the child deal with adversity. This can be understood within the context of three different kinds of stress, which lead to different outcomes.

- The first, called **positive stress**, is associated with moderate, short-lived physiological responses, such as brief increases in heart rate and blood pressure or mild elevations in cortisol or cytokine levels. Precipitants include a wide variety of normal early childhood experiences, such as the challenges of meeting new people, dealing with frustration, mastering separation, getting an immunization, and coping with adult limit-setting or discipline. Positive stress is an important and necessary aspect of healthy

development that occurs in the context of stable and supportive relationships, which help to bring levels of cortisol and other stress hormones back within a normal range and assist the child to develop a sense of mastery and self control.



- The second kind of stress experience, called **tolerable stress**, is associated with physiological responses that could disrupt brain architecture, but are relieved by supportive relationships that facilitate adaptive coping and thereby restore heart rate and stress hormone levels to their baseline. Precipitants include significant threats, such as the death or serious illness of a loved one, a frightening injury, parent divorce, a natural disaster (such as Hurricane Katrina), or an act of terrorism (such as 9-11). These kinds of experiences could have long term consequences but they are tolerable when they occur in a time-limited period in which supportive adults protect the child by reducing the stressful experience, thereby giving the brain an opportunity to recover from the potentially damaging effects of an overactive stress management system.

- The third and most threatening kind of stress experience, called **toxic stress**, is associated with strong and prolonged activation of the body's stress management systems in the absence of the buffering protection of adult support. Precipitants include extreme poverty in conjunction with continuous family chaos, recurrent physical or emotional abuse, chronic neglect, severe and enduring maternal depression, persistent parental substance abuse, or repeated exposure to violence in the community or within the family. The essential feature of toxic stress is the absence of consistent, supportive relationships to help the child cope and thereby bring the physiological response to threat back to baseline. In such circumstances, persistent elevations of stress hormones and altered levels of key brain chemicals produce an internal physiological state that disrupts the architecture of the developing brain and can lead to difficulties in learning, memory, and self-regulation. Continuous stimulation of the stress response system also can affect the immune system and other metabolic regulatory mechanisms, leading to a permanently lower threshold for their activation throughout life. As a result, children who experience toxic stress in early

Stress in early childhood can be either growth-promoting or seriously damaging.

childhood may develop a lifetime of greater susceptibility to stress-related physical illnesses (such as cardiovascular disease, hypertension, and diabetes) as well as mental health problems (such as depression, anxiety disorders, and substance abuse). They also are more likely to exhibit health-damaging behaviors and adult lifestyles that undermine well-being.

Implications for Policy and Practice

- Policy makers who administer early intervention programs should update their eligibility criteria, based on new brain research, and actively enroll infants and toddlers who are experiencing toxic stress for either preventive or therapeutic services, as needed. Two groups of children and families already known to public agencies are prime candidates for assessment. The first (which is currently mandated for referral by new federal legislation) includes all young children referred to the child welfare department for evaluation of suspected abuse or neglect. When circumstances require removal of a child from his or her home, it is especially critical that policies be in place and implemented consistently to make sure that the

establishment of a nurturing relationship with a new primary caregiver is given the highest priority. The second group that warrants closer attention is young children of mothers supported by welfare who have reached their time limits for public assistance and are unable to secure stable employment. Effective developmental intervention for both groups will require expanded access to child and adult mental health services, which are already burdened by demands that far exceed their capacity.

- Greater attention should be directed toward maternal depression, not only because it is a common adult mental health problem but also because it is a threat to the health and well-being of a young child. The prevention of developmental impairments in children of depressed mothers requires prompt diagnosis and specialized treatment of both the mother and the mother-child relationship. These findings direct our attention to the need for early detection of maternal depression in pediatric offices and in all programs that serve very young children, as well as the need for expanded clinical services that focus on the mother and child together.
- When accessible and affordable mental health services are available, they put a preventive system in place that catches children before they fall. Programs that target vulnerable young children within a family-centered model can be particularly effective, but the current gap between the supply and demand for skilled personnel requires a major investment in professional development. The costs of increased training and expanded services in early childhood mental health are substantial, but the money “saved” by not treating emotional problems in early childhood is likely to be modest in comparison to the greater long-term costs of serious adult mental illness and/or criminal behavior.
- Generally speaking, policies that focus on the delivery of evidence-based services for the most vulnerable young children will achieve greater financial return than services for children at lesser risk. To this end, issues of quality and cost must be viewed in the context of what a program is expected to do. Programs for families coping with severe depression, substance abuse, or violence must be staffed by skilled clinicians who require higher compensation and smaller case loads than basic supportive services for inexperienced mothers. When program resources match the needs of the children and families they are set up to serve, they can be very effective. When services are asked to address needs that are beyond their capacity to meet, they are likely to have little impact and are therefore too expensive, despite their low cost.

The essential feature of toxic stress is the absence of consistent, supportive relationships to help the child cope.



Concept 7: Creating the right conditions for early childhood development is likely to be more effective and less costly than addressing problems at a later age.



As the maturing brain becomes more specialized to assume more complex functions, it is less capable of reorganizing and adapting to new or unexpected challenges. Once a circuit is “wired,” it stabilizes with age, making it increasingly difficult to alter. Scientists use the term “plasticity” to refer to the capacity of the brain to change. Plasticity is maximal in early childhood and decreases with age. Although “windows of opportunity” for skill development and behavioral adaptation remain open for many years, trying to change behavior or build new skills on a foundation of brain circuits that were not wired properly when they were first formed requires more work and is more “expensive.” For the brain, this means that greater amounts of physiological energy are needed to compensate for circuits that do not perform in an expected fashion. For society, this means that remedial education, clinical treatment, and other professional interventions are more costly than the provision of nurturing, protective relationships and appropriate learning experiences earlier in life. Stated simply, getting things right the first time is more efficient and ultimately more effective than trying to fix them later.

Implications for Policy and Practice

- These findings direct our attention to the importance of informal family support and formal preventive services (when needed) for vulnerable children before they exhibit significant problems in behavior or development. When policy makers assure that all young children who are at high risk for poor outcomes are enrolled in high quality programs whose effectiveness has been documented, the returns are far greater than those achieved when only a subgroup of eligible children are served. At the same time, the extent to which some early concerns may be self-correcting maturational delays underscores the need to avoid premature labelling of vulnerable children and families who could benefit from early assistance.
- The basic principles of neuroscience and the process of human skill formation indicate that early intervention for the most vulnerable children will generate the greatest payoff. Although the large number of children and families who could benefit from additional assistance will require significant

Getting things right the first time is more efficient and ultimately more effective than trying to fix them later.

increases in funding, extensive research indicates that investment in high quality interventions will generate substantial future returns through increased taxes paid by more productive adults and significant reductions in public expenditures for special education, grade retention, welfare assistance, and incarceration. Stated simply, the largest returns will be realized from effective services for the neediest children and families well before they enter school.

- Research indicates that policy makers can achieve greater return on investments in early childhood education for children from families with low incomes and limited parent education than from remedial programs for adults with limited workforce skills. In fact, long-term studies show that model programs for three- and four-year-olds living in poverty can produce benefit-cost ratios as high as 17:1 and annualized internal rates of return of 18% over 35 years, with most of the benefits from these investments accruing to

the general public. While it is not realistic to assume that all scaled-up early childhood programs will provide such handsome returns, it is likely that benefit-cost ratios still will be considerably greater than 1:1.

- The essence of quality in early childhood services is embodied in the expertise, skills, and relationship-building capacities of their staff. The striking imbalance between the supply and demand for well-trained personnel in the field today indicates that substantial investments in training, recruiting, compensating, and retaining a high quality workforce must be a top priority for society.

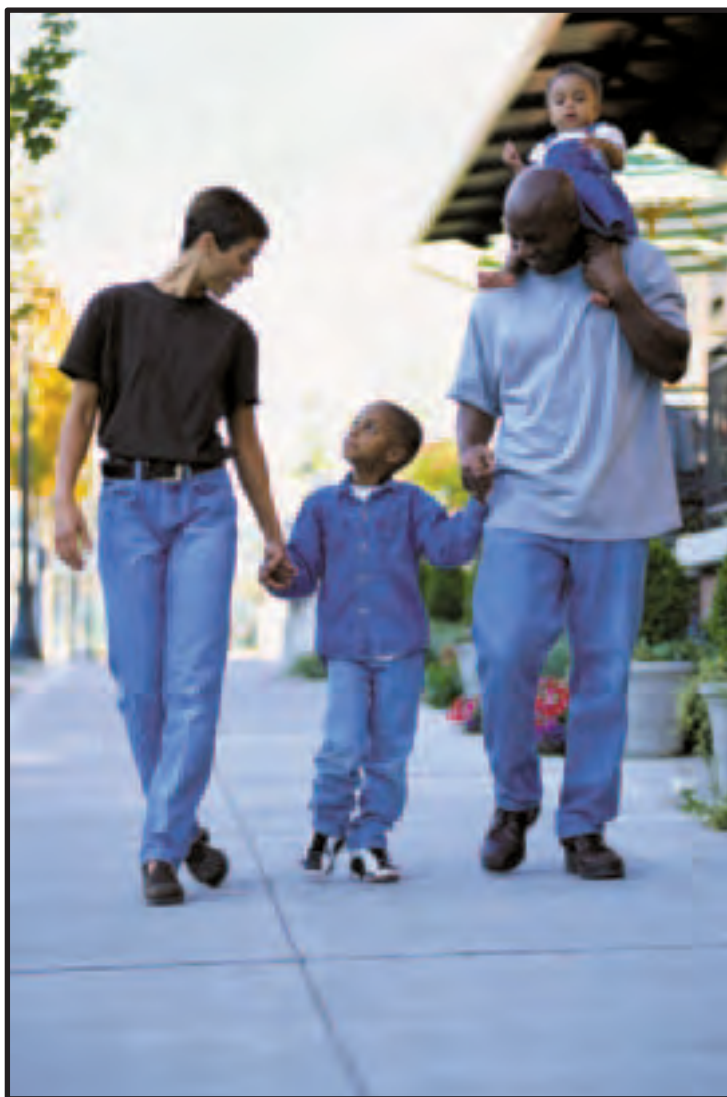
Responsible investments in services for young children and their families focus on benefits relative to cost. Inexpensive services that do not meet quality standards are a waste of money. Stated simply, sound policies seek maximum value rather than minimal cost.

Concluding Thoughts

Decades of rigorous science and centuries of common sense all converge on the core principles articulated in this paper. Within this context, the time has come to begin to close the gap between what we know (from systematic scientific inquiry across a broad range of disciplines) and what we do (through both public and private sector policies and practices) to promote the healthy development of all young children.

The need to address significant inequalities in opportunity, beginning in the earliest years of life, is both a fundamental moral responsibility and a critical investment in our nation's social and economic future. As such, it is a compelling task that calls for broad, bipartisan collaboration. And yet, debate in the policy arena often highlights ideological differences and value conflicts more than it seeks common interest. In this context, the science of early childhood development can provide a values-neutral framework for informing choices among alternative priorities and for building consensus around a shared plan of action. The well-being of our nation's children and the security of our collective future would be well-served by such wise choices and concerted commitment.

It is in this spirit that we, as scientists, offer this paper as a way to share what we know about how brain architecture is constructed and competence is built over time, beginning in the earliest years of life. We trust that the content of this document will inform the important work of citizens and policy makers to support families and communities in promoting the healthy development of young children, just as it will serve as a foundation on which the next generation of scientific knowledge will be built. •



Selected Background Readings

From the National Academy of Sciences

National Research Council and Institute of Medicine: *From Neurons to Neighborhoods: The Science of Early Childhood Development*. Committee on Integrating the Science of Early Childhood Development, Shonkoff J., Phillips D. (eds.). Board on Children, Youth, and Families, Commission on Behavioral and Social Sciences and Education. Washington, DC, National Academy Press. 2000.

From the National Scientific Council on the Developing Child

Knudsen, E., Heckman, J., Cameron, J., Shonkoff, J.: "Economic, Neurobiological and Behavioral Perspectives on Building America's Future Workforce." *Proceedings of the National Academy of Sciences* 2006; 103: 10155-10162.

Young Children Develop in an Environment of Relationships. (2004)

National Scientific Council on the Developing Child, Working Paper No.1
<http://developingchild.net/pubs/wp-abstracts/wp1.html>

Children's Emotional Development is Built into the Architecture of their Brain. (2004)

National Scientific Council on the Developing Child, Working Paper No. 2
<http://developingchild.net/pubs/wp-abstracts/wp2.html>

Excessive Stress Disrupts the Architecture of the Developing Brain. (2005)

National Scientific Council on the Developing Child, Working Paper No. 3
<http://developingchild.net/pubs/wp-abstracts/wp3.html>

Early Exposure to Toxic Substances Damages Brain Architecture. (2006)

National Scientific Council on the Developing Child, Working Paper No. 4
<http://developingchild.net/pubs/wp-abstracts/wp4.html>



The Build Initiative's Theory of Change

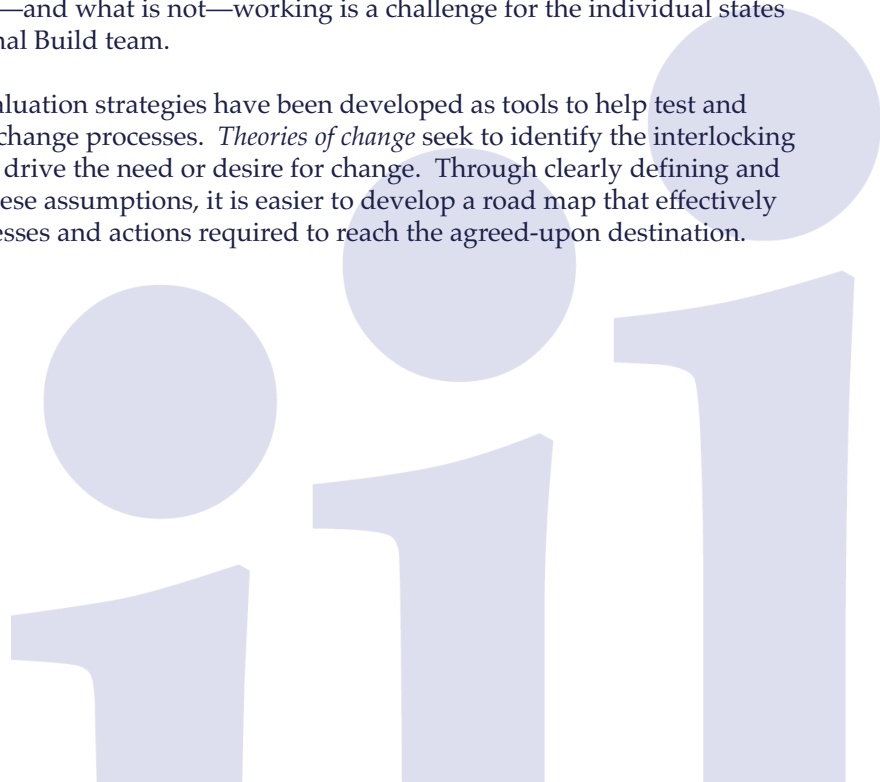
*The following is a summary of a paper written by Charles Bruner entitled
Toward a Theory of Change for the Build Initiative: A Discussion Paper.*

The Build Initiative is a multi-state, multi-foundation effort focused on young children and their development. The mission of the Build Initiative is to help participating states build a coordinated system of programs, policies and services—an early learning system—that is responsive to the needs of families, careful in the use of private and public resources and effective in preparing our youngest children for a successful future.

The initiative is working with nine states to build early learning systems, providing both financial support and technical assistance to a group of state and community early childhood leaders, including individuals from the public and private sectors. This is a complex undertaking. Tracking progress, identifying best next steps, and assessing what is—and what is not—working is a challenge for the individual states and for the national Build team.

Theory-based evaluation strategies have been developed as tools to help test and explain complex change processes. *Theories of change* seek to identify the interlocking assumptions that drive the need or desire for change. Through clearly defining and understanding these assumptions, it is easier to develop a road map that effectively lays out the processes and actions required to reach the agreed-upon destination.

***Through defining
the theory of
change, we develop
a road map that lays
out the processes
and actions required
to reach the agreed-
upon destination.***



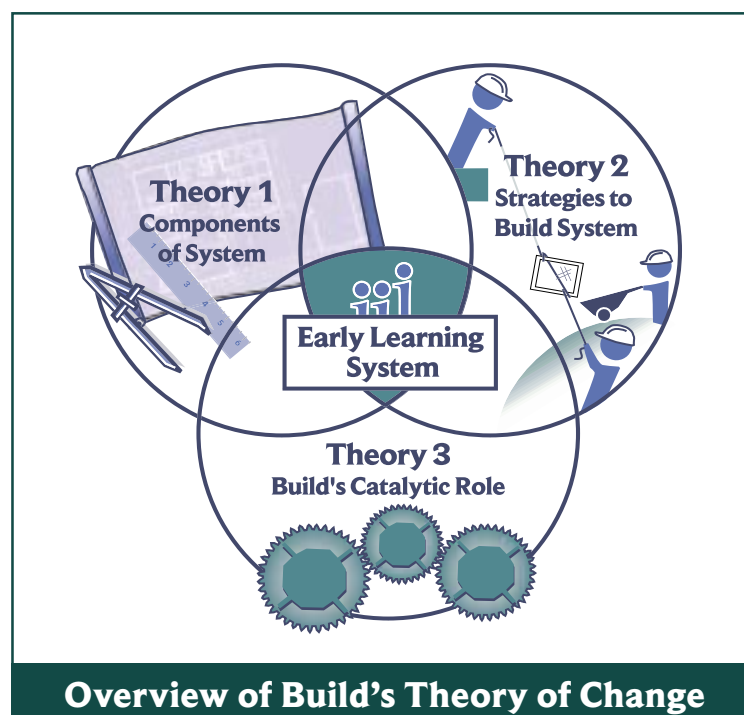
There are at least three distinct “theories of change” that are emerging within the work of the Build Initiative. These may be more easily understood by comparing the creation of an early learning system to the analogy of a complex building project, like the renovation and expansion of a community’s historic district.

Theory One: A wide array of core components is necessary for the development of an effective early learning system. Before a system can be built, these components must be identified, a ‘system’ must be defined, and there must be agreement on what an early learning system is designed to achieve. In the building-project analogy, this would be similar to creating the overall construction and renovation plan, together with blueprints for each building and details on mixed usage and overall landscaping. This is the master plan, which may be refined as the project moves forward, but which provides the unifying vision, based on the project’s unique opportunities and requirements.

Theory Two: Planning, mobilization and action strategies must be developed and implemented. This includes efforts directed toward building and developing political leadership, public support, knowledge, programmatic and infrastructure bases, and adequate financing. In the building-project analogy, this would involve obtaining financing, ensuring that users and inhabitants support the project plans, and coordinating and managing the work of developers, architects and myriad construction and utilities crews.

Theory Three: Build Initiative resources serve as a catalyst for constructing the early learning system, making strategic financial and technical investments to help each state move forward in its own individual way. In the historic building project analogy, this would be similar to obtaining dispensations from government to treat the historic district in a unique way, consulting with historic preservationists, or adapting specialized techniques developed at another site. It also could be graphically represented by a grouping of gears, with the Build Initiative gear both propelling and supporting the other gears’ movements.

Each of these three theories is supported by underlying assumptions, which are explained below. (There are, of course, alternative or competing theories, which are discussed in the lengthier *Toward a Theory of Change for the Build Initiative: A Discussion Paper*, upon which this brief is based. See www.buildinitiative.org/docs/TowardTheoryofChange.doc.)

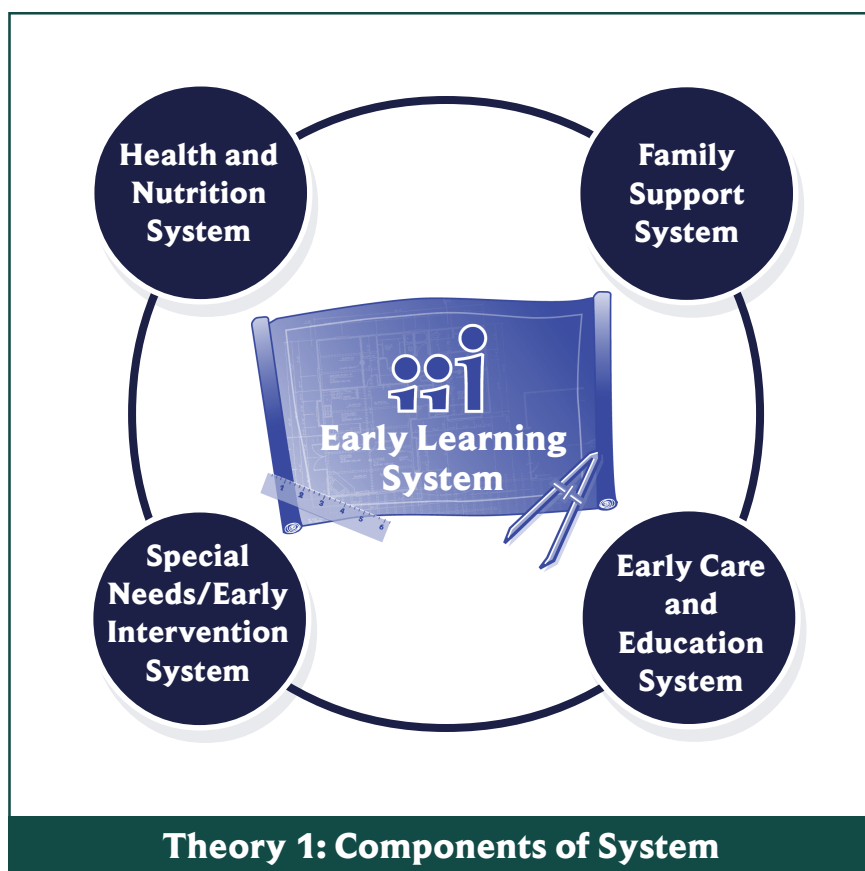




Theory of Change One: The Core Components of an Early Learning System

The first theory of change defines an early learning system and its component parts. The system includes programs and strategies to ensure that young children's developmental needs are addressed, including health and nutrition, parenting, supervision and guidance and nurturing needs. This theory is based on the following assumptions:

- Significant numbers of children are not being prepared for a successful future. They start school substantially behind their peers and they remain behind, with their future jeopardized as a result. An early learning system, with effective and coordinated programs and policies, could help these children to succeed in school and in life.
- Building an early learning system requires public effort and will not be fully developed through private actions and the marketplace. The public sector will have to finance and oversee much of the system building and maintenance, as it does in the public education system.
- Developing an early learning *system*, rather than simply expanding an array of program options, is key to achieving success. A system incorporates more than a set of independently operating programs and services. It requires an effective and seamless set of referrals and follow-ups across many fields — health, nutrition, family support, early care and education, early intervention and preschool services. It also implies referrals and follow-ups to child welfare, housing, and adult/child mental health and substance abuse services, when needed. Although there is a need to better coordinate services, the primary emphasis should be placed on ensuring a sufficient supply of high quality, affordable services.

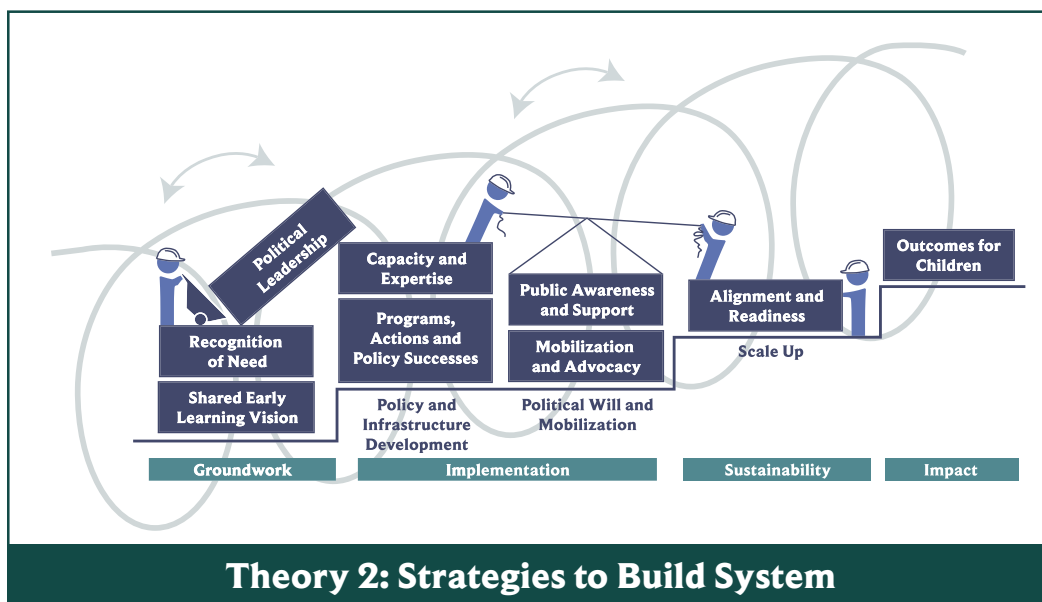




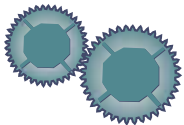
Theory of Change Two: The Critical Strategies Needed to Build an Early Learning System

The second theory of change describes how the system will be built and what strategies are required to build it. System building requires specific elements that together will produce systems change in a political environment. This theory is based on eight critical elements:

- **Recognition of need:** Gaps in the current system (or non-system)—and the consequences of those gaps on child outcomes—must be recognized before change will happen. Good data can build this awareness, illustrate the magnitude of the issues that need to be addressed, and track progress toward correcting them.
- **Shared early learning vision:** The establishment of a broadly shared vision for the early learning system is needed to make sure there is alignment and collaboration in system development and that attention is not deflected or co-opted by narrow or tangential agendas. This process also helps to establish a group identity and build trust and understanding. The vision needs to be concrete enough to avoid ambiguity and different interpretations.
- **Political leadership:** Leadership is needed at multiple levels, with the Governor's support key to making policy and financing changes. As chief executive officer, the Governor can keep the system building agenda moving and use executive authority to overcome cross-agency obstacles. Legislative leadership also is important to support a Governor's actions and proposals, or provide pressure and direction if gubernatorial leadership is lacking.
- **Capacity and expertise:** To increase effectiveness, build credibility and avoid costly mistakes, capacity and expertise must be developed. Mid-level managers within state systems should be engaged throughout the effort, so that when opportunities arise, action can be taken quickly.
- **Programs, actions and policy successes:** It is important to take actions when opportunities present themselves, and early successes are important for maintaining momentum. As long as the actions play a role in overall system building, they do not necessarily have to be undertaken in a particular sequence.
- **Public awareness and support:** Public awareness and broad support are needed, both to initiate and sustain system building, and to create the impetus for supportive policy. Framing early childhood issues in ways that resonate with the public is essential to gaining the broad public buy-in that will move agendas forward.



- Mobilization and advocacy: Gaining political support for early learning system building requires political mobilization and advocacy, with leadership coming from outside government. Pressure groups must be mobilized to support change, using lobbying and legislative strategies. Different political spheres of influence must be drawn into the effort, including the business community, corporate leaders, the faith community, law enforcement and others.
- Alignment and readiness: Major leaps forward in system building usually result from an alignment of multiple factors. Most state advancement is made through major new initiatives or emphases with focused attention from many constituencies within a short timeframe. In most states, there are one or two major policy pushes in a year, where there is concentrated energy and attention on obtaining a particular action. This is most likely to occur if the elements above have been developed and put into place.

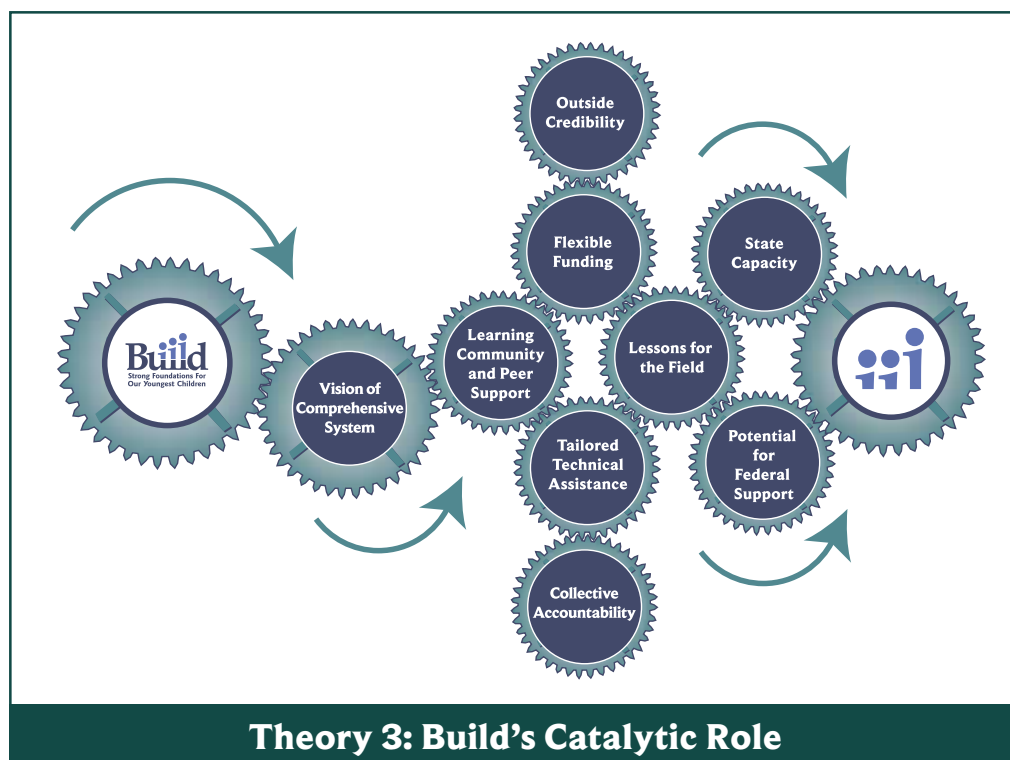


Theory of Change Three: Build's Catalytic Role in Supporting States in System Building

The third theory of change addresses the role that Build plays in supporting system building in the states. The funding provided to the states each year by Build leverages much larger public investments in early learning system building. This theory is based on seven assumptions:

- States that have advanced far enough in developing and aligning the elements described in Theory Two assumptions have reached a stage of “readiness” to move forward substantially. One of Build’s major roles has been to identify those states most ready to move forward and where Build’s resources are most likely to be an inertia-breaking final investment. In states that have not quite reached this point, Build’s investment can contribute to advances and to identifying important lessons for other states.
- A team of committed leaders, from inside and outside government, can be a driving force for system building. Build can play a unique and catalytic role by creating the space and opportunity for this team to work together.

(continued on back)



- The state teams can effectively use technical assistance, peer-to-peer learning and support, and access to flexible funds. Rather than imposing a specific structure, Build relies on the state leaders to develop the core components of an early learning system and strategies necessary to build it. The cross-site exchanges and learning opportunities provided by Build will produce greater gains than if the states worked separately.
- Feedback is essential to continuous improvement and development. Incorporating a state evaluation partner and a national evaluation structure will facilitate learning and improvement. An interactive evaluation approach helps each state learn through doing.
- Being designated as a Build state provides credibility and legitimacy to a state's early learning system building work. On a national level, Build can serve as an effective voice to help bring early learning issues to the attention of national policymakers.
- No state currently has fully established an early learning system that is an effective, well-developed public system of support. Even if none of the Build states creates a fully-realized early learning system any time soon, Build's work makes a critical contribution. Build brings together leading thinkers and doers within the most active or "ready" states and provides them with resources to foster innovations. Build is essentially investing in innovation, charting new territory and moving the field forward.
- As work progresses, a "tipping point" is reached, when actions accelerate and become sustainable without ongoing and additional outside support. As that point comes closer, the roles of federal, state, community and the private sector in system building and sustainability will become clearer. If this does not happen, then the current approach to early learning system building needs to end, and new approaches need to be developed and implemented.

Conclusion

Theories of change help to sort out when actions are—or are not—contributing to meeting overall goals. They also help to identify which actions are essential to moving forward. Articulating a theory of change encourages asking the "so what?" questions and increases focus and productivity. It also helps to highlight mistakes and lessons learned, which can lead to improvement and be shared with others.

The assumptions enumerated in this paper, which are the underpinning for Build's three theories of change, may need to be adjusted or modified along the way, but they still can lead to significant progress in early learning system building.

The full paper, *Toward a Theory of Change for the Build Initiative: A Discussion Paper*, is available online at www.buildinitiative.org/docs/TowardaTheoryofChange.doc.

A project of the Early Childhood Funders' Collaborative supporting state efforts to prepare our youngest children for a successful future.

First Things First - Arizona



Purpose: To increase the quality of, and access to, the early childhood development and health system that ensures a child entering school comes healthy and ready to succeed.

Background: In November 2006, Arizona voters passed Proposition 203, a citizen's initiative to enhance early childhood development and health services for children from birth through age five. The initiative included a dedicated funding source – an 80-cent tax increase on tobacco products – to ensure that the future of this long-term early childhood investment was not subject to the annual state budget process and so funds would not have to be diverted from other state programs.



Proposition 203 was designed to create an early childhood development and health system with the following principles: local representatives come together to plan and administer what works best in their respective community; is flexible enough to accommodate the unique demographics of our state; and, it must be transparent and accountable for outcomes.

With its passage, the Proposition created a new state-level board known as the Arizona Early Childhood Development & Health Board. The Board subsequently adopted the name “First Things First” to reflect the importance of early childhood experiences as the foundation for future success.



Structure: The statewide First Things First Board is made up of nine members appointed by the Governor and confirmed by the state Senate. The Board has three non-voting *ex officio* members: the Director of the Department of Economic Security, the Director of the Department of Health Services and the Superintendent of Public Instruction, or their chosen designees. The Board's central focus is set policies, identify system priorities, and approve funding to add to, build on or improve the programs, services and resources already available to support young children and their families.

First Things First's 31 Regional Partnership Councils represent the richly diverse communities across Arizona. Members of each Regional Council are appointed by the Board and have direct responsibility to: collect information on the strengths and desires of their community; prioritize the specific needs of children from birth through age five; plan how to address those needs; choose who to partner and collaborate with to ensure success for the children in their area; and, allocate the funding necessary to carry out their plan.

Each Regional Partnership Council is comprised of 11 local volunteers and includes: a parent of a child five years or under; a child care provider; an early education provider; a health representative; a school administrator; a member of the faith-based community; a business representative; and, someone involved in philanthropy. There are three at-large seats with no specific background required, although if a tribal nation is part of a region, a public official or employee of the tribe will fill one of the Council seats.

Funding: State law sets aside 81 cents of every dollar collected from the initiative's tobacco revenues to fund local programs and services for children from birth through age 5 as identified by the 31 FTF Regional Partnership Councils. An additional 9 cents of each dollar is set aside to fund statewide early childhood development and health initiatives, as determined by the statewide Board. The remaining 10 percent of funding is set aside to fund operations, including staff to support the Regional Councils and statewide Board.

The nation's on-going economic crisis and several marketing campaigns aimed at reducing smoking have affected First Things First revenues. In FY 2010, FTF expects to receive \$131.2 million from tobacco taxes – that's 11% less than the amount received in FY2009 and 20.4% less than the amount received in FY 2008.

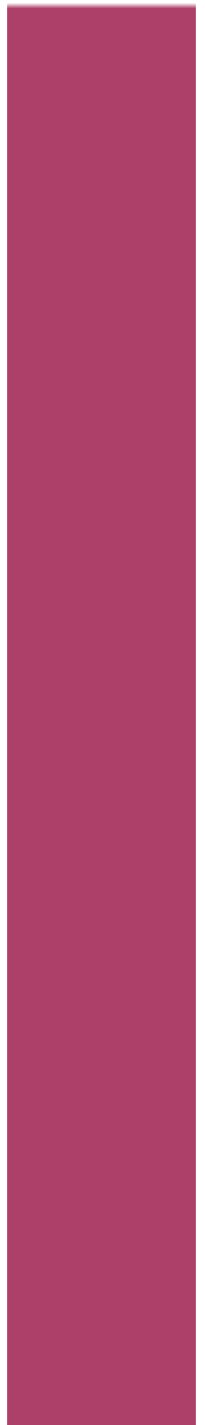
Funding Priorities

In Fiscal Year 2010, the distribution of designated program funding is as follows:

- **\$27.9 million - Supported Parents and Families:** First Things First supports parents and families by providing families with a free Arizona Parent Kit when they take their newborn baby home from the hospital. Arizona Parent Kits contain a Parent Guide, 6 DVDs/videos on child development, health and nutrition, safety, child care, early literacy and discipline, and a picture book for families to read to their baby. First Things First also supports parents and families in their local communities by providing education and resources on topics such as child development, early literacy, prenatal health, and parenting skills. Families may voluntarily access this information through home visiting programs (or home-based child development coaches), or through other organizations and venues in their area.
- **\$53.8 million – Quality Early Learning Opportunities:** First Things First supports quality early learning opportunities by helping early care and education providers obtain one-on-one coaching and financial resources to improve the quality in their early learning setting. This voluntary program, called Quality First, will also offer families information on quality early learning opportunities so they can make good choices for their children. Additionally, First Things First funds education and training for child care health consultants, who are experts in child health and are resources to child care providers to assure that children in their care are safe and healthy. First Things First also supports working parents and quality early learning for children in their local communities by providing early care and education scholarships for families, and by increasing enrollment capacity in quality programs.
- **\$12.4 million – Educated Teachers and Caregivers:** First Things First supports educated teachers and caregivers by providing scholarships for specialized college coursework leading to certification and degrees in early childhood development and education. First Things First also supports quality early learning in local communities by rewarding teachers who obtain their certification or degree and stay in their position for longer periods of time. Additionally, First Things First funds high-quality training for child care providers, and supports recruitment efforts to increase the number of quality caregivers.
- **\$19.9 million – Healthy Children:** First Things First supports healthy children by providing physicians and families with information and resources about child development. First Things First also funds specialized education and training for mental health consultants who are experts in the social and emotional development of young children, and speech language therapists who help children who need some assistance with feeding and language development. First Things First also supports healthy children in their local communities by identifying health insurance options, connecting families to consistent health care, and promoting the screening of children for medical or developmental issues that affect their ability to grow or learn. Families are also provided with information and resources on nutrition, healthy weight, physical activity, and injury prevention.
- **\$3.8 million – Public Education and Awareness:** First Things First supports public education and awareness by providing accessible information and resources on early childhood development and health and the benefits of this investment for every citizen of Arizona.

Accountability

In order to gain support for continued investment in early childhood – by both the public and private sector – it is critical that we have documented evidence of the success of First Things First's efforts.





At the end of fiscal year 2008, First Things First established a partnership with a consortium of the state's three public universities to conduct a longitudinal study to answer the following questions:

- Are children healthy and ready for school?
- Do families have improved access to quality early childhood services?
- What impact have First Things First Investments had on children and families?



The consortium includes representatives of Arizona State University, Northern Arizona University and the University of Arizona in fields such as early childhood, educational psychology, medical and community health, and anthropology.



The consortium will be conducting two studies at the same time. The first project is a readiness study that will represent a "snapshot" of 1,200 kindergartners over the course of five years. Almost 90 schools will be randomly selected in each study year. The second project is a cohort study that will follow more than 8,500 children as they grow over a period of five years, with data collected at various intervals. Both projects will include developmental assessments of the children, health measures of the children and interviews with parents and teachers.

This endeavor represents a \$ 27 million grant from FTF over 5 years. And, it also represents the most significant early childhood longitudinal study being conducted in the United States today.

In addition to our work on statewide evaluation, every strategy proposed by our Regional Partnership Councils and approved by the statewide Board is required to include evidence that the strategy is effective and specific outcome measures by which we will gauge the success of that strategy in that community.

Systemic Collaboration and Coordination – Arizona Early Childhood Task Force

When Proposition 203 passed, Arizona, like many other states, had early childhood services scattered across several agencies. The quality of those services varied, and the models for service delivery were sometimes new and sometimes older. The services also varied in terms of how quickly they could respond to the needs of children and their families, because programs often operated independently in silos and were not coordinated in a systemic manner.

First Things First has convened the Arizona Early Childhood Task Force, charged with identifying what Arizona's desired early childhood system looks like, how the services in that system should be coordinated and identifying both the public policy and programmatic priorities we need to focus on in the next 3 to 5 years to move us toward the realization of that system. It is important to identify the role of First Things First in this framework, and where resources should be targeted to achieve desired outcomes. This framework will provide the basis for the work of First Things First over the next 3 to 5 years.



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Strategic Plan Roadmap

Overview

The Strategic Plan Roadmap illustrates the strategic direction for First Things First. This plan was approved by the First Things First Early Childhood Development and Health Board in March 2008.

Components of the Roadmap include:

What We Believe and How We Conduct Business - System Framework

The System Framework communicates the Vision, Mission and Principles that guide the work of First Things First, leading to desired long-term System Outcomes.

What We Want – System Outcomes

System Outcomes represent the outcomes desired from the entire early childhood system in Arizona. Contributors to system outcomes include state agencies, community partners, philanthropic and business organizations and the citizens of Arizona. System Outcomes indicate what we want the comprehensive early childhood system to look like in 10 years.

Measures of Success – System Measures

System Measures will determine if the comprehensive early childhood system outcomes have been achieved within 10 years and indicate if the comprehensive early childhood system is functioning effectively and as envisioned. These Measures will be a component of the long-term evaluation plan to be developed in the near future.

What We Will Do – Goals

Goals are aligned with the System Outcomes and indicate what FTF will do as part of the comprehensive early childhood system to make progress toward System Outcomes in the next three to five years. *Each Goal is a piece of a larger picture and is inextricably interrelated and linked with the other Goals.*

What We Want to Change - Key Measures

Key Measures align directly with Goals and indicate what we want to change. Many Key Measures listed will indicate whether regular progress toward First Things First Goals will be achieved within three to five years. Other Key Measures listed will provide important data to determine ongoing impact on and progress of the early childhood development and health system.

How We Will Do It - Statewide Strategic Directions

Strategic Directions are strategies which work together and indicate how we will implement the Goals. The Strategic Directions represent infrastructure elements of a coordinated, comprehensive early childhood system. The strategies listed **with an asterisk (*)** are receiving First Things First statewide program funds to support their development.

EARLY CHILDHOOD SYSTEMS FRAMEWORK

The First Things First ***Vision*** is that all Arizona children birth through age five are afforded opportunities to achieve their maximum potential to succeed in school and life.

The First Things First ***Mission*** is to increase the quality of, and access to, the early childhood development and health system that ensures a child entering school comes healthy and ready to succeed.

The First Things First Mission and Vision will be attained through a comprehensive early childhood system that values children as our greatest asset, and recognizes families and communities at the center of decision making.

First Things First programs, services and supports will be offered through a high quality, interconnected, comprehensive delivery system that is timely, culturally responsive, family driven, community based, and directed toward enhancing a child's overall development.

First Things First will partner with public and private sectors to ensure a seamless and coordinated system, advocate on behalf of children, and leverage and sustain investments necessary for success.

First Things First will be guided by the following strength-based principles:

- ***Decisions are Made***

By involving public and private partners and communities

By focusing on desired outcomes for all children

By emphasizing local planning and implementation

By utilizing ongoing and rigorous analysis of qualitative and quantitative data, proven best practices, and system and program outcomes

- ***Programs, Services and Supports are Offered***

Through an integrated, seamless and accessible system based on high quality standards and proven best practices

By focusing on the strengths of the whole child

- **Funding Decisions Are Made**

By careful planning and long range forecasting to ensure the level and quality of services are sustained over time

To leverage public and private resources that will enhance the ability to deliver high quality services and supports for children

By utilizing local decision making for resource allocation

- **Accountability is Achieved**

By establishing and tracking key measures of early childhood development and health system improvements

By ensuring a rigorous, independent evaluation of the service delivery system and its outcomes

- **We will know the Mission and Vision are realized if the following First Things First Outcomes are achieved:**

All children have access to high-quality early care and education.

All children have access to high-quality preventive and continuous health care.

All early childhood development and health professionals are well prepared and highly skilled.

All families actively engage in children's success.

The early childhood system is coordinated, integrated and comprehensive.

Arizonans substantially support early childhood development efforts both politically and financially.

VISION
Framework

All Arizona children birth through age five are afforded opportunities to achieve their maximum potential to succeed in school and life.

WHAT WE WANT
System Outcomes

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All early childhood development and health professionals are well prepared and highly skilled.

All families actively engage in children's success.

The early childhood system is coordinated, integrated, and comprehensive.

Arizonans substantially support early childhood efforts both politically & financially.

MEASURES OF SUCCESS
(System Measures)

These Measures will be a component of the long-term evaluation plan to be developed in the near future.

FIRST THINGS FIRST STRATEGIC PLAN ROADMAP

WHAT WE WILL DO TO BUILD THE ARIZONA EARLY CHILDHOOD DEVELOPMENT AND HEALTH SYSTEM Goal Areas and Goals

Quality and Access

1. FTF will improve access to quality early care and education programs and settings.
2. FTF will lead efforts to improve early care and education regulatory and monitoring standards as a foundation for quality in early care and education settings.
3. FTF will increase availability and affordability of early care and education settings.

Health

4. FTF will collaborate with existing Arizona early childhood health care systems to improve children's access to quality health care.
5. FTF will build on current efforts to increase the number of health care providers utilizing a medical and dental home model.
6. FTF will expand use of early screening in health care settings to identify children with developmental delay.
7. FTF will advocate for timely and adequate services for children identified through early screening.

Professional Development

8. FTF will build a skilled and well prepared early childhood development workforce.
9. FTF will increase retention of the early care and education workforce.
10. FTF will enhance specialized skills of the early childhood development and health workforce to promote the healthy social-emotional development of young children.

Family Support

11. FTF will coordinate and integrate with existing education and information systems to expand families' access to high quality, diverse and relevant information and resources to support their child's optimal development.
12. FTF will increase the availability, quality and diversity of relevant resources that support language and literacy development for young children and their families.

Coordination

13. FTF will lead cross-system coordination efforts among state, federal and tribal organizations to improve the coordination and integration of Arizona programs, services, and resources for young children and their families.
14. FTF will collect and disseminate accurate and relevant data related to early childhood development and health.

Communication

15. FTF will expand public awareness of, and financial and political support for, early childhood development and health efforts in Arizona.

FIRST THINGS FIRST STRATEGIC PLAN ROADMAP

WHAT WE WILL CHANGE

KEY MEASURES

Note: Key Measures may be aligned with the **Goal Area** as listed or with any other applicable **Goal Area**.

Quality and Access

- a. Total number of early care and education programs participating in the QIRS system
- b. Total number of children enrolled in early care and education programs participating in the QIRS system
- c. Total number and percentage of early care and education programs participating in the QIRS system with a high level of quality as measured by an environmental rating scale
- d. Total number and percentage of early care and education programs participating in the QIRS system improving their environmental rating score
- e. Total number of identified improvements in regulatory and monitoring standards
- f. Current cost of early care and education for families as a proportion of the median income for a family of four
- g. Total number of children enrolled and vacancies in regulated early care and education programs as a proportion of total population birth to age five
- h. Number and percentage of early care and education programs with access to a Child Care Health Consultant

Health

- a. Total number and percentage of children with health insurance
- b. Total number and percentage of children receiving appropriate and timely oral health visits
- c. Total number and percentage of children receiving appropriate and timely well-child visits
- d. Total number and percentage of health care providers utilizing a medical home model
- e. Total number and percentage of oral health care providers utilizing a dental home model
- f. Ratio of children referred and found eligible for early intervention

Professional Development

- a. Total number and percentage of professionals working in early childhood care and education settings with a credential, certificate, or degree in early childhood development
- b. Total number and percentage of professionals working in early childhood care and education who are pursuing a credential, certificate, or degree
- c. Total number and percentage of children expelled from early care and education services
- d. Retention rates of early childhood development and health professionals
- e. Total number and percentage of professionals who work with young children, outside of early care and education, who hold a credential, certificate, or degree in early childhood development or other appropriate specialty area
- f. Total number and percentage of professionals who work with young children, outside of early care and education, who are pursuing a credential, certificate, degree in early childhood development or other appropriate specialty area

FIRST THINGS FIRST STRATEGIC PLAN ROADMAP

WHAT WE WILL CHANGE KEY MEASURES

Note: Key Measures may be aligned with the **Goal Area** as listed or with any other applicable **Goal Area**.

Family Support

- a. Percentage of families with children birth through age five who report they are satisfied with the accessibility of information and resources on child development and health
- b. Percentage of families with children birth through age five who report they are competent and confident about their ability to support their child's safety, health, and well-being
- c. Percentage of families of children birth through age five who report they maintain language and literacy rich home environments (e.g. children hear language throughout the day, children have opportunities for listening and talking with family members, books and other literacy tools and materials are available and accessible to children)
- d. Percentage of families with children birth through age five who report reading to their children daily in their primary language

Coordination

- a. Percentage of families who report they are satisfied with the level of coordination and communication among agencies serving their children
- b. Percentage of families who report they are satisfied with the decision making and planning opportunities in the early childhood system
- c. Total number and percentage of public and private partners who report that FTF planning process and activities use family centered practices (e.g. builds on family strengths, connects families with community resources, facilitates family interaction with early care and education professionals, offers the possibility of family and community input at all levels of decision-making)
- d. Total number and percentage of public and private partners' who report they are satisfied with the extent and quality of coordination between public, private, and tribal systems
- e. Total number and percentage of public and private partnerships using the database who report the information to be accurate
- f. Total number and percentage of public and private partnerships using the database who report the information to be helpful in determining outcomes and promoting continuous improvement

Communication

- a. Percentage of Arizonans who report that early childhood development and health issues are important
- b. Percentage of Arizonans who identify themselves as strong supporters of early childhood and health matters
- c. Total funds generated from business, philanthropic, and other public and private sources to support early childhood development and health efforts

FIRST THINGS FIRST STRATEGIC PLAN ROADMAP

HOW WE WILL DO IT STATEWIDE STRATEGIC DIRECTIONS (* indicates strategies with statewide funding)

Quality and Access

- 1. FTF will improve access to quality early care and education programs and settings.**
 - a. Establish and implement a comprehensive quality improvement and rating system to improve quality across early childhood education and care settings utilizing public and private funding and resources to develop the statewide infrastructure.*
 - b. Increase child care health and mental health consultants to improve children's health, safety and quality of interactions with providers and increase early identification of health or developmental concerns.*
 - c. Increase use of screening activities across early care and education settings to improve early identification and receipt of appropriate services.
 - d. *Potential Regional strategies based on Regional Funding Plan.*
- 2. FTF will lead efforts to improve early care and education regulatory and monitoring standards as a foundation for quality in early care and education settings.**
 - a. Coordinate and advocate for the improvement and alignment of early care and education regulatory standards and monitoring activities.
 - b. Coordinate use of the Arizona Early Learning Standards across all early care and education to improve quality of curriculum and assessment.
 - c. *Potential Regional strategies based on Regional Funding Plan.*
- 3. FTF will increase availability and affordability of early care and education settings.**
 - a. Identify and seek financial incentives (private and public funding for scholarships, tax incentives, tuition stipends to quality settings, etc.) to programs so they can maintain affordable prices while improving quality.
 - b. Advocate for increasing availability of new early care and education settings or expanding existing settings.
 - c. *Potential Regional strategies based on Regional Funding Plan.*

Health

- 4. FTF will collaborate with existing Arizona early childhood health care systems to improve children's access to quality health care.**
 - a. Increase outreach and enrollment assistance for public health insurance to eligible but not yet enrolled families.
 - b. Identify and seek opportunities to increase the number of qualified infant mental health and early intervention specialists.
 - c. Advocate for and collaborate with Arizona Chapter of the American Academy of Pediatrics, American College of Obstetricians and Gynecologists, Arizona Medical and Dental Universities, AHCCCS and ADHS to increase the percent of children that have an oral health visit by age one.
 - d. Advocate for Increase rate of early and continuous prenatal care through collaboration and coordination with the various state and public health agencies.
 - e. Advocate for medical professional's use of recommended guidelines for preventive medical and oral health care.
 - f. *Potential Regional strategies based on Regional Funding Plan.*
- 5. FTF will build on current efforts to increase the number of health care providers utilizing a medical and dental home model.**
 - a. Collaborate with Arizona Chapter of the American Academy of Pediatrics, American Academy of Pediatric Dentistry, American Dental Association, Arizona Department of Health Services, and AHCCCS to increase the use of medical and dental homes.
 - b. *Potential Regional strategies based on Regional Funding Plan.*
- 6. FTF will expand use of early screening in health care settings to identify children with developmental delay.**
 - a. Advocate for the expansion of implementation of the Parents' Evaluation of Developmental Status (PEDS) screening for all children to promote the early identification and intervention of children with special needs.
 - b. *Potential Regional strategies based on Regional Funding Plan.*
- 7. FTF will advocate for timely and adequate services for children identified through early screening.**
 - a. Advocate for and coordinate with early intervention agencies to increase recruitment and retention of providers of specialized intervention services, such as, occupational and physical therapy, and speech language development therapy.
 - b. *Potential Regional strategies based on Regional Funding Plan.*

HOW WE WILL DO IT STATEWIDE STRATEGIC DIRECTIONS

(* indicates strategies with statewide funding)

Professional Development

- 8. FTF will build a skilled and well prepared early childhood development workforce.**
 - a. Establish and coordinate the implementation of a comprehensive statewide scholarship system to improve quality in the professional workforce. ***
 - b. Advocate and coordinate efforts to increase the number of colleges and universities with formal articulation agreements that share core competencies in early childhood education and health specialties to improve flexibility of educational pathways.
 - c. *Potential Regional strategies based on Regional Funding Plan.*
- 9. FTF will increase retention of the early care and education workforce.**
 - a. Design, develop and phase-in a salary incentive program in a sequential and timely manner.
 - b. *Potential Regional strategies based on Regional Funding Plan.*
- 10. FTF will enhance specialized skills of the early childhood development and health workforce to promote the healthy social-emotional development of young children.**
 - a. Advocate for coursework and training programs with enhanced focus in the area of social-emotional development of young children to increase qualifications of early childhood development and health professionals.
 - b. *Potential Regional strategies based on Regional Funding Plan.*

Family Support

- 11. FTF will coordinate and integrate with existing education and information systems to expand families' access to high quality, diverse and relevant information and resources to support their child's optimal development.**
 - a. Support statewide distribution of parent education kits to parents of newborns.**
 - b. Expand an existing statewide web-based information and education system to increase access to and coordination of statewide and regional information for families, professionals, and the general public related to early childhood development and health.
 - c. Increase information for families to identify and locate high-quality programs and settings.
 - d. Collaborate with family support and education programs to expand services to include the development, enhancement, or implementation of home visiting programs.
 - e. *Potential Regional strategies based on Regional Funding Plan.*
- 12. FTF will increase the availability, quality and diversity of relevant resources that support language and literacy development for young children and their families.**
 - a. Advocate for expanded availability and access to early literacy and adult language acquisition programs.
 - b. *Potential Regional strategies based on Regional Funding Plan.*

HOW WE WILL DO IT STATEWIDE STRATEGIC DIRECTIONS

(* indicates strategies with statewide funding)

Coordination

- 13. FTF will lead cross-system coordination efforts among state, federal and tribal organizations to improve the coordination and integration of Arizona programs, services, and resources for young children and their families.**
- a. Collaborate among all systems to coordinate and improve child find and early intervention efforts.
 - b. Collaborate with public and private organizations to identify and apply for grants that support the First Things First goals.
 - c. Involve families in the development of policies and cross system coordination activities by supporting family representation at all levels of First Things First governance.
 - d. Coordinate with other agencies to align standards that impact quality practices, program access and service delivery across early childhood systems.
 - e. *Potential Regional strategies based on Regional Funding Plan.*
- 14. FTF will collect and disseminating accurate and relevant data related to early childhood development and health.**
- a. Develop a statewide database for the collection, dissemination, reporting and accuracy to of data collection.
 - b. *Potential Regional strategies based on Regional Funding Plan.*

Communication

- 15. FTF will expand public awareness of and financial and political support for early childhood development and health efforts in Arizona.**
- a. **Develop an awareness campaign about early childhood development and health. ***
 - b. Leverage private funding to implement a campaign to build and sustain financial and political support for early childhood development and health.
 - c. Support legislative changes and organizations that positively impact early childhood development and health.
 - d. *Potential Regional strategies based on Regional Funding Plan.*

Educating Arizona

Assessing Our Education System (Birth–Grade 12)

Our challenges ... and opportunities

Arizona is a young, vibrant and diverse state with great potential. We enjoy a spirit of optimism, a beautiful physical environment and a dynamic population. More than most states — indeed more than most nations — Arizona is poised to thrive in the fast-paced 21st century. But to get there, we will need an education system that accomplishes what no other state has done: ensures that all of our children and youth succeed in school and are prepared to succeed in life.

A high school degree alone is no longer sufficient to assure a middle-class income. Nationally, more than two-thirds of *all* new jobs will require some level of postsecondary education — college, technical prep, apprenticeships or military training. In Arizona, about 85 percent of *high-growth, high-wage* jobs between now and 2013 will require at least a two-

year college degree. These of prosperity-creating jobs attract and retain. Fewer than 2 percent of these jobs will be open to applicants who do not have at least a high school diploma.

are the kinds the state wants to attract and retain. Fewer than 2 percent of these jobs will be open to applicants who do not have at least a high school diploma.

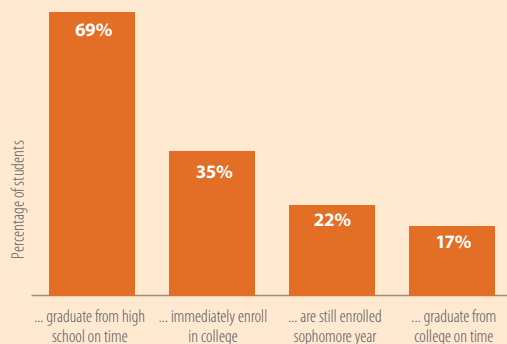
Compare these new economic realities with Arizona's educational reality. On too many academic measures, we are in the bottom tier of states, while the United States itself is falling behind many other nations. Just as significant, Arizona compares unfavorably on most system indicators that explain the conditions under which our children, especially low-income children, are being taught: inadequate early childhood learning opportunities; difficult conditions for teaching and leadership, especially in certain locales; standards that fall short of what business and university leaders say are required for success; and a funding system that spends less per student than 48 other states.

The good news is that we can fix these conditions, and there are promising signs that we are starting to do so. Arizona also has many advantages that other states and nations only dream about. While other states are losing jobs, closing schools and shutting factories, we are adding them. Other states and nations are just beginning to confront the demographic, social and cultural challenges that are commonplace to us. Our pioneering legacy should serve us well going forward.

Step one is to be clear about where we are ... and to recognize what it will take to prepare all children for a future of excellent choices and boundless opportunities.

Only 17 percent of Arizona's 9th-graders graduate from college on time

Of every 100 Arizona 9th-graders, the percentage who ...



Source: The National Center for Higher Education Management Systems
Information Center for State Higher Education Policy and Analysis, 2003–04



Arizona's Student Performance and System Conditions at a Glance

Student Performance

Elementary School — Reading	Based on the National Assessment of Educational Progress (NAEP), 24 percent of our 4th-graders are “proficient” in reading, which is in the bottom tier of states (46th). Although grade 4 Arizona Instrument to Measure Standards (AIMS) scores have moved in the right direction, only 67 percent of students meet or exceed reading standards, and our minority and English language learners (ELL) remain 20 to 30 percentage points behind the state averages. Nearly 6 in 10 low-income students are “below basic” on NAEP.	
Elementary School — Math	Thirty-one percent of our 4th grade students are “proficient” on the NAEP math test, placing us 43rd nationally. More than three quarters of our 4th-graders — 76 percent — meet or exceed standards based on the AIMS tests. Again, gaps among student groups are large on both tests. On NAEP, 4 in 10 low-income students score “below basic.”	
Middle School — Reading	Twenty-four percent of our 8th-graders are “proficient” in reading on NAEP (42nd nationally). On the grade 8 AIMS reading tests, 65 percent of all students meet state standards. As in elementary school, gaps among student groups often exceed 20 percentage points. Half or more of Hispanic, Native American and low-income students score “below basic” on the NAEP. More than 8 in 10 ELL students score “below basic.”	
Middle School — Math	Although 26 percent of our students are “proficient” on the NAEP math test in grade 8 (38th nationally), our students are closer to the national average (31 percent proficient) than in any other grade and subject. On the AIMS grade 8 math test, 62 percent of students meet state standards. As in other grades and subjects, gaps are large.	
High School	Only about 7 in 10 of Arizona's students graduate from high school in four years, and disproportionately fewer minority students do so, which is about average among U.S. states. Only 60–70 percent initially pass the AIMS tests required to graduate. Fewer than half of graduates are eligible for college admission, only about one-third go on to college, and high percentages of college freshmen must enroll in low-level courses — all similar to national averages. Although scores on college entrance and Advanced Placement tests are comparatively high, participation is much lower than national averages.	

System Conditions

Standards and Accountability	High expectations are at the heart of a quality state education system. Generally, we receive high grades for our academic content standards, but graduation requirements are low and not aligned to college or work standards. Passing scores on the state tests were lowered in 2005, so our accountability system is based on student expectations that are not particularly high compared to other states' tests. Working toward a P–20 system has potential.	
Teaching Quality	To help students achieve high standards, carefully constructed curricula must be taught by highly effective teachers. The National Center on Teaching Quality gives Arizona an “unsatisfactory” grade overall, with a mix of Cs and Ds and an F for preparing special education teachers. Arizona has comparatively high percentages of teachers on waivers and teachers teaching out of their field. Shortages are particularly acute in urban and rural areas and on or near reservations. Teacher preparation programs could be more rigorous and better reflect our changing population's learning needs. Professional development is inadequately supported, and we have low salaries and many novice teachers.	
Leadership and Governance	Research also shows that teachers cannot do a highly effective job unless they work with strong leadership, which requires outstanding principals and administrators. We need a better understanding of Arizona's conditions for school leadership. Currently there are projects under way but no strategic statewide plan. Our governing structures are complex and could affect leaders' ability to create excellent schooling conditions.	<i>Inadequate state and national data</i>
School Choice	While the standards are constant, a one-size-fits-all approach won't work for all students or families, so multiple choices are necessary to spur innovation within the system. Our choices are plentiful; we are a national leader in the percentage of students attending charter schools. However, there are persistent concerns about program quality and the adequacy of program oversight.	
Public School Finance	Funding — as long as it is spent efficiently — is critical to attracting and retaining great teachers and leaders, offering sufficient choices and providing the multiple instructional supports students need to reach the standards. Only two states spend less annually per pupil on school operations than Arizona — about \$2,500 less than the national average.	

The color of the circle describes Arizona's current performance, compared to other states.

-  Arizona is among the top 10 states.
-  Arizona is among the middle 30 states.
-  Arizona is among the bottom 10 states.

Recommendations

Although too many of Arizona's current performance indicators reflect significant room for improvement, a critical mass of forces are aligning to strengthen the state's schools. The work of the Governor's P-20 Council to promote lifelong learning and align all elements of our educational systems, and the Superintendent of Public Instruction's recent announcement to increase instructional time and create individual graduation plans, could pay significant dividends.

Building on this momentum, we recommend additional actions in seven primary areas. New public investments likely will be required, but when spent well, the returns will make the quality of life and the strength of Arizona's economy the envy of the world. Going forward, Arizona should:

1. Implement internationally competitive academic standards and comparably aligned curricula. Move from a system that advances students based on age and time spent to one in which demonstrated mastery of subject matter is the determining factor for promotion.
2. Refine and improve teacher preparation, and elevate the status and compensation of teachers. Link pay to performance, and provide relevant and effective professional development. Create pay differentials to attract teachers into high-needs districts and high-needs subjects.
3. Enhance the quality of training, and increase compensation for administrative leaders, from building principals to district superintendents.
4. Improve the quality of our state's charter schools through greater accountability and transparency.
5. Strengthen the school financing system by addressing demonstrated needs and insisting on measurable results. Creative approaches for allocating resources are needed, in particular, to ensure that students from low-income families receive greater support.
6. Create a needs-based tuition assistance program to dramatically increase the number of college students. Providing increased postsecondary opportunities is essential for the state to meet the increasing demands for a more highly educated workforce critical to the 21st century economy.
7. Develop common performance metrics from early childhood through postsecondary education to ensure that everyone is clear about expectations and held accountable for agreed-upon results. Such agreements are all the more important given the state's diffuse system of education governance.

Beginning with changes such as these, we can help our young people get the education that they deserve and that our state's well-being requires. We encourage Arizona's civic leaders, philanthropic community and general public to learn more about what is working well in education and also to ask questions about where we fall short and how we'll know when we're making progress.

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Educating Arizona

*Assessing Our Education
System (Birth–Grade 12)*

January 2008

Acknowledgments

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	Dr. Karen Nicodemus <i>Arizona State Board of Education</i>	



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Dear Reader:

Of every 10 students entering Arizona's high schools, only seven graduate. Of those seven graduates, only four continue to college. Of those four in college, only two earn a degree. That is not good enough — not for our children, not for Arizona.

In 2005, the John Ellis family funded the Ellis Center for Educational Excellence and provided an endowment to the Arizona Community Foundation with the goal of supporting public education improvement in Arizona. As a first step in our work, both governing boards have joined forces to produce this report.

A significant barrier we face in striving for improvement is the lack of agreement on how we're doing as a state. Some people will tell you that we're doing just fine. Others will say it's all bad. The truth lies somewhere in between, and what is needed is an objective, impartial reviewing of the state's education data so every citizen can decide.

Whether you look at our national test results, which place us firmly in the bottom 15 states, or our state test results, with passing rates of 60 to 75 percent, we have nothing to brag about. Also consider that our high school exit test measures 10th grade skills while the real world of work and higher education demand at least 12th grade capabilities. Other nations and some states are leapfrogging ahead in their educational achievements. Unless we change course, the real losers are our children, who will pay the price when they leave school and have to compete against not only other American children but, in our global society, also against children from Ireland to Singapore, Brazil and China.

Indeed, Arizona has its challenges. An exceptionally large proportion of our school-aged population is poor or learning to speak English. However, we can't blame this demographic reality for our low standing because even on the most important national tests, the scores of our more privileged students also land in the bottom tier of states. We're falling short across the board but especially with the students who need our support most and are the fastest growing segment of our population.

Closing these gaps will require improvements in many areas: quality early care and education; stronger standards and accountability; enhanced teaching and leadership; better choices; and increased funding.

The time for improvement is long overdue. We deserve to know where we stand and must learn from the pockets of excellence that demonstrate what's possible. Hopefully, this nonpartisan and comprehensive report, detailing for all citizens the stark reality, will be a match that helps ignite the demand for real change.

Thank you for your attention,

A handwritten signature in black ink, reading "Susan Budinger". The signature is fluid and cursive, with the first name "Susan" being more prominent than the last name "Budinger".

Susan Budinger

The Rodel Foundations



Introduction

Arizona is a young, vibrant and diverse state with great potential. We enjoy a spirit of optimism, a beautiful physical environment and a dynamic population. More than most states — indeed more than most nations — Arizona is poised to thrive in the fast-paced 21st century. But to get there, we will need an education system that accomplishes what no other state has done: ensures that all of our children and youth succeed in school and are prepared to succeed in life.

Arizona's opportunities

We began the development of this report by talking with state and local education leaders, and we were quickly drawn to their stirring vision for Arizona's future. Over and over, we heard a shared belief that our state's opportunities are substantial and that the quality of our public schools will shape our destiny. Our contribution to that vision is to clarify where our education system stands today compared to other states and to other nations.

When we consider how fundamentally the world has changed in the past decade, we see that changes are driven largely by advances in knowledge and technology. Google brings the world's storehouse of knowledge to anyone with access to the Internet. Ebay has transformed how people buy and sell goods. E-mail, Blackberries, instant messaging, iPods and Web portals, such as MySpace and YouTube, change how we work, play and stay in touch. Surgeries that used to take hours to perform and weeks to recover from are now routine outpatient treatments. Organ and limb transplants have become common. The Human Genome Project holds the promise of finding cures for everything from AIDS to the common cold. And more than 345,000 hybrid cars will be sold this year, signaling a huge shift in environmental awareness.

Arizona's leaders envision a high-wage economy built on innovation, science and technology, especially in the life sciences, aerospace, pharmaceuticals, nanotechnologies, optics, telecommunications and software development. Such an economy will be built on brainpower and creativity, not natural resources. *New York Times* columnist Thomas Friedman has written compellingly about the new "flat world," where global communications technologies make it possible for virtually anyone to compete from anywhere, putting a premium on knowledge, skills, flexibility, creativity and entrepreneurial problem-solving.

About This Report

How well are Arizona's schools preparing students to succeed in a society that will be more complex, diverse and globally competitive?

How do we compare to our neighbor states, to national averages and, of increasing importance, to other countries?

What are the key education system components with the most impact on student learning, and how do we compare on indicators ranging from the quality of our standards to the effectiveness of our finance system?

Given our strengths and weaknesses, what are the highest priorities for action? What changes do we recommend?

This report seeks to answer these questions. For organizations like ours and for the state as a whole, we offer an objective appraisal to help inform and guide our future education investments.

Our approach was to gather the most salient and credible data and analyses compiled by other organizations (see "Going forward," page 10) rather than to conduct original research. We did not find all the answers to our questions. Indeed, in several areas good data do not exist. In every area, the data we have raise important questions that we believe deserve a statewide conversation — a conversation we hope this report can help stimulate.

Our assessment is divided into two primary sections:

Student performance, which profiles our student demographics and focuses on common national and state-specific measures for elementary, middle and high schools.

System indicators, which examine five areas that have a significant impact on student performance:

- Standards and accountability — how well the systems involved in the education process reflect high standards and are aligned from preschool through post-secondary education;
- Teaching quality — the preparation, training, placement and pay of our teachers;
- Leadership — our governance structures, and the preparation, training, placement and pay of our principals, superintendents and other administrators;
- School choice — the availability and quality of school choices, such as charters; and
- Finance — an effective and efficient system for financing our schools.

These performance and system indicators share several criteria:

(a) The performance indicators matter to students, schools, districts or states, and many are measures required by law; (b) the system indicators are those with a demonstrated impact on student learning and are largely shaped by state policy; (c) analyses come from credible and publicly available sources; and (d) data can be compared over time, across states or internationally.

We could have added much on postsecondary education, parent and student engagement, or such disciplines as the arts and career and technical education. There is much more to say about the education of Native American students, the challenges of teaching and learning on an international border, and the impressive dedication and skills of so many Arizona teachers, principals and students. And there is more to be said about our school governance and management structures at the state, county and local levels. In the long run, our focus on state policy, ongoing work being done by others and a desire to keep this report as concise as possible helped us decide what to include and what, reluctantly, to leave on the cutting room floor.

We conclude with recommendations, which offer our suggested policy changes in the areas that are the focus of this report. Arizona's great potential can be realized if we expect more of our students, our schools and our state. To reach that potential, we will need to shatter stereotypes that suggest some children can't learn at high levels. We will need to be among the first states to close the gap between children in higher- and lower-income families. We will need to work together across political and regional divisions toward a system that has higher standards and accountability, employs the best teachers in the world, offers quality school choices for every student, features exceptional leadership and governance, and is supported by an effective, efficient system of financing. The challenges are great, but the benefits of raising Arizona to be the best education system in the world are far greater.

In this new flat world, Arizona has three choices. First and best, we can educate our own students to fill the increasingly high-skill jobs that the state hopes to attract and keep. Second, we can import managers and employees with the skills and know-how to fill these jobs, but this approach places heavy strains on our civic life and systems, including water supply, transportation systems, housing stock and environment. Or third and worst, we can watch Arizona employers with the best jobs leave the state in search of talent elsewhere.

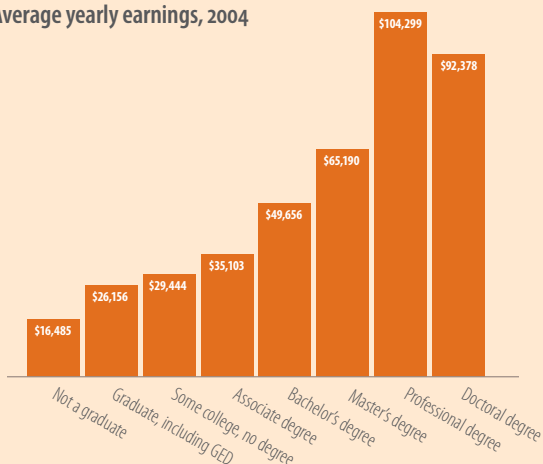
The individual and community benefits of education

For the individual, education pays. On average, high school graduates earn \$9,671 more per year than dropouts, while college graduates earn more than twice as much. (See charts below.) That's more than three-quarters of a million dollars more for the college graduate over the course of his or her working life.

Education provides more than just additional income. Well-educated individuals have significantly broader career opportunities and better jobs that come with greater levels of responsibility. Society as a whole benefits when employers have access to well-educated workers who can handle the challenging jobs of the future — jobs that contribute to the state's overall economic health. A recent study by Teachers College at Columbia University estimated that, after the costs of intervention (e.g., preschool, reducing class size, teacher salary increase, etc.), society would save up to \$127,000 for each new high school graduate through a combination of additional taxes paid; reduced Medicare and Medicaid costs; reduced crime costs; and cuts in welfare, housing assistance and food stamp payments.¹

College graduates earn an average \$23,500 more per year than high school graduates

Average yearly earnings, 2004



Source: U.S. Census Bureau, Current Population Survey, 2005 Annual Social and Economic Supplement, October 2006

The benefits of graduating from high school are large

The average lifetime dollar savings per expected high school graduate of ...

... additional taxes paid:	\$139,100
... public health savings (through reduction in Medicare and Medicaid costs):	\$40,500
... crime-related cost reduction:	\$26,600

The decreased probability per expected high school graduate of ...

... receiving Temporary Assistance for Needy Families (TANF):	40%
... receiving food stamps:	19%
... receiving housing assistance:	1%

Source: The Costs and Benefits of an Excellent Education for All of America's Children, Teachers College, Columbia University, January 2007

The advantages extend beyond the economic bottom line. We all benefit from having neighbors who can support their families and who are actively engaged in the civic life of their communities — as voters, volunteers, coaches, tutors, mentors and good neighbors.

A high school degree alone is no longer sufficient to ensure a middle-class life. Nationally, more than two-thirds of new jobs will require some level of postsecondary education — college, technical prep, apprenticeships or military training. In Arizona, as the table underscores, about 85 percent of *high-growth, high-wage jobs* between now and 2013 will require at least a two-year college degree, according to a recent report to Governor Janet Napolitano's P-20 Council.² These are the kinds of jobs the state wants to create and retain — the kinds of jobs that pay wages that are high enough to sustain a vibrant middle class. Fewer than 2 percent of these jobs will be open to applicants who do not have at least a high school diploma.

The majority of Arizona's best jobs will require some college

New high-growth, high-wage jobs, 2007–13

Education/training requirements	Projected number of jobs	Projected percentage of jobs
May require a high school diploma or GED	1,748	1.6%
Requires a high school diploma; may require vocational training or AA/BA degree; some work-related skill or experience helpful	38,140	14.2%
Most require vocational school, job experience or AA degree; some require BA degree; previous work-related knowledge or experience required	109,820	40%
Most require four-year BA degree; two to four years of work-related knowledge or experience required	89,812	33.1%
Requires a BA degree; may require grad school; extensive work-related knowledge and experience required (5+ years)	30,698	11%
Total	270,218	100%

Note: Percentages may not total 100 due to rounding.

Source: From Education to Work: Is Arizona Prepared? *Public Works*

There is growing recognition, at least among business, education and political leaders, that the skills and knowledge needed for college and work in the 21st century are one and the same.³ That is, students — even those who do not plan to go to college immediately — ought to take the kind of college-preparatory high school curriculum that used to be available only to the top tier of students. Thirty years ago, more than half of American manufacturing workers did not even have a high school diploma; now, the National Association of Manufacturers reports that nearly 40 percent of manufacturing jobs will require some higher education or training by 2012.⁴

Arizona's challenges

Compare these new economic realities with Arizona's educational reality. While most good new jobs will require some education beyond high school, only 7 in 10 Arizona 9th-graders earn a diploma, fewer than 4 in 10 enroll in college and fewer than 2 in 10 finish college in six years.⁵ (See pipeline chart below.) On too many academic measures, we are in the bottom tier of states. For example, Arizona is 43rd in 8th grade reading,⁶ 37th in math⁷ and 49th in science,⁸ according to the National Assessment of Educational Progress (NAEP), which is widely considered the most respected national benchmark of student learning. In each of these subjects, only about one in four Arizona students meets NAEP's recognized standards for achievement.

As in other states, some groups of Arizona's students fare less well than others. While there are exceptions, on average white and Asian students score anywhere from 20 to 40 percentage points higher than their African-American, Hispanic and Native American peers on the NAEP tests.⁹ Race and class remain potent predictors of success, and our success as a state requires that we close these achievement and opportunity gaps.

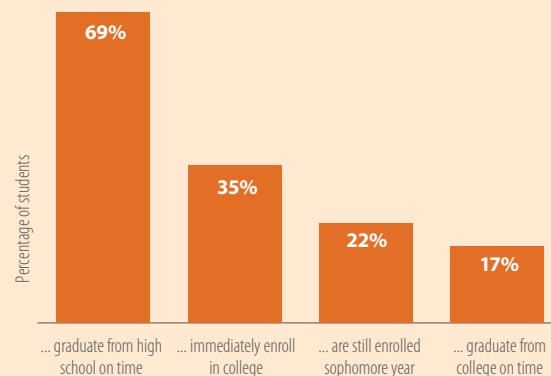
Arizonans increasingly are competing not just with students from California to Connecticut but with their peers from around the world. And there are troubling signs that America is falling behind — not because our scores have dropped, but because other nations are doing a better job. We used to rank first among industrialized nations in high school graduation; we now rank 16th. In the most recent international tests, American 8th-graders ranked 17th in reading, 26th in math and 20th in science among industrialized countries.¹⁰

A recent study comparing state and international academic standards found that Arizona ranked 13th in grade 8 math and 21st in science, behind such countries as Estonia and Malaysia.¹¹ (See "How Arizona compares to the world," next page.)

These findings do not bode well for students who will be competing for good jobs against students from countries around the globe. As Thomas Friedman has written: "Economic competition in the flat world will be more equal and more intense. We Americans will have to work harder, run faster and become smarter to make sure we get our share."¹²

Only 17 percent of Arizona's 9th-graders graduate from college on time

Of every 100 Arizona 9th-graders, the percentage who ...



Source: The National Center for Higher Education Management Systems
Information Center for State Higher Education Policy and Analysis, 2003–04

How Arizona compares to the world

Projecting 2005 NAEP achievement (percentage proficient and above) onto 2003 Trends in International Mathematics and Science Study data for participating countries, in descending order of proficiency

8th grade math

% proficient & above	Rank	% proficient & above	Rank (continued)
73	1. Singapore	18	24. Romania
66	2. Hong Kong, SAR	18	24. Armenia
65	3. Korea, Republic of	17	26. Italy
61	4. Chinese Taipei	17	26. Bulgaria
57	5. Japan	12	28. Moldova
40	6. Belgium (Flemish)	11	29. Cyprus
38	7. Netherlands	9	30. Norway
37	8. Hungary	8	31. Macedonia
36	9. Estonia	7	32. Jordan
28	10. Slovak Republic	5	33. Egypt
27	11. Australia	5	33. Indonesia
27	11. Russian Federation	4	35. Palestinian Nat'l Auth.
26	13. Malaysia	3	36. Lebanon
26	13. United States	2	37. Iran
26	Arizona	2	37. Chile
25	15. Latvia	2	37. Bahrain
24	16. Lithuania	2	37. Philippines
24	16. Israel	1	41. Tunisia
22	18. England	1	41. Morocco
22	18. Scotland	0	42. Botswana
21	20. New Zealand	0	42. Saudi Arabia
21	20. Sweden	0	42. Ghana
19	22. Serbia	0	42. South Africa
19	22. Slovenia		

8th grade science

% proficient & above	Rank	% proficient & above	Rank (continued)
55	1. Singapore	17	23. Italy
52	2. Chinese Taipei	15	25. Jordan
45	3. Korea	15	25. Norway
44	4. Hong Kong, SAR	14	27. Romania
42	5. Japan	12	28. Serbia
41	6. Estonia	10	29. Macedonia
38	7. England	10	29. Moldova
38	7. Hungary	10	29. Armenia
31	9. United States	8	32. Egypt
31	9. Netherlands	8	32. Palestinian Nat'l Auth.
30	11. Australia	6	34. Iran
28	12. Sweden	6	34. Cyprus
26	13. New Zealand	4	36. Bahrain
26	13. Slovak Republic	3	37. Chile
25	15. Lithuania	3	37. Indonesia
24	16. Slovenia	3	37. Philippines
24	16. Russian Federation	3	37. Lebanon
24	16. Scotland	1	41. Saudi Arabia
22	19. Belgium	1	41. Botswana
21	20. Latvia	1	41. South Africa
20	21. Malaysia	1	41. Morocco
20	Arizona	0	45. Ghana
18	22. Israel	0	45. Tunisia
17	23. Bulgaria		

Source: Gary W. Phillips, Expressing International Educational Achievement in Terms of U.S. Performance Standards: Linking NAEP Achievement Levels to TIMSS, American Institutes for Research: Washington, DC, 2007. Arizona 2005 NAEP results added from NAEP Data Explorer, accessed August 2, 2007, at <http://nces.ed.gov/nationsreportcard/nde/>.

We can do better

Our demographic challenges are evident: rapid growth, a large proportion of low-income students along with a sizeable population of non-English-speaking students, and high levels of mobility. Historically, these students have tended to lag in academic achievement. To raise Arizona's overall performance levels, we will need to meet the challenges created by this historical trend and ensure that all students receive a quality education, regardless of their backgrounds.

Just as significant, Arizona compares unfavorably on most system indicators that explain the conditions under which our children, especially low-income children, are being taught: inadequate early childhood learning opportunities; difficult conditions for teaching and leadership, especially in certain locales; academic standards that fall short of what business and university leaders say are required for success; and a funding system that spends less per student than 47 other states. Arizona compares favorably to other states in "choice" (educational options available to students), but there still is room for improvement of the quality of those choices.

Promising progress

The good news is that we can fix these system conditions, and there are promising signs that we are starting to do so. Many Arizona political, education and business leaders have made improved education and child services a high priority. While the state is committed to winning a larger share of the fast-growing, high-paying jobs in high-technology industries like biosciences, many have pointed out that we cannot attract and keep such jobs without a strong public education system, capable of preparing the workforce to undertake these new challenges.

Moreover, many positive initiatives are under way, notably the Governor's P-20 Council, which intends to better align our preschool, K-12 and postsecondary education systems and raise the requirements for student success. New programs will expand quality student choices through dual enrollment and other options. And passage of Proposition 203, First Things First, provides funding for quality early childhood education and will increase the chances that our youngest children will be prepared for elementary school. The "Progress" sections of the following chapters discuss these and other efforts in more detail. They offer important signs of hope, progress and momentum.

Going forward

The challenges are hardly new; they are well-documented by a series of studies by the Morrison Institute for Public Policy, the Rodel Foundation of Arizona, the Goldwater Institute and the Center for the Future of Arizona. Public attention to the challenges, recommendations for change and the emergence of such active public partners as the Arizona Business Education Coalition, Greater Phoenix Leadership, Southern Arizona Leadership Council and Flagstaff 40 suggest that it is possible to shape a real public agenda around school reform.

Beating the odds

Equally promising are the many schools that already are beating the odds — educating low-income and minority students to high levels of achievement, despite the kinds of impediments that we describe in our analysis of system conditions. Schools with high proportions of Hispanic students, such as Magnet Traditional in Phoenix, Gallego Basic in Tucson and Fairbanks in Morenci, are getting consistently high 3rd grade reading scores, while middle schools from Granada East in Phoenix to Wade Carpenter in Nogales are showing consistent gains in 8th grade math. At the high school level, Tucson's BASIS Charter is the nation's top-ranked charter and sixth-ranked high school overall, according to *Newsweek's* Top 1,200 High Schools in the U.S. If schools like these can succeed, there is no reason that many others cannot do so as well.

We find inspiring success stories not just within our own borders but all across the country and around the world. Entire nations, such as England, Ireland and Singapore, have redesigned their school systems from top to bottom and are now some of the highest-performing countries in the world. If they can do it, we can, too.

Our unique advantages

Finally, Arizona has many advantages that other states and nations only dream about. We benefit from a fast-growing economy that is creating jobs and attracting several hundred thousand newcomers to the state every year; while other states are closing schools and shutting factories, we are opening them. Other states and nations are just beginning to confront the demographic, social and cultural challenges that are commonplace to us; we have an important head start in grappling with the new realities of an increasingly diverse and complex world. As a nation, we are facing the biggest economic and demographic shifts in our history, and we Arizonans are in the forefront of this transformation; thankfully, our pioneering legacy should serve us well going forward.

Step one is to be clear about where we are ... and to recognize what it will take to prepare all children for a future of excellent choices and opportunities.

Who Are Our Students?

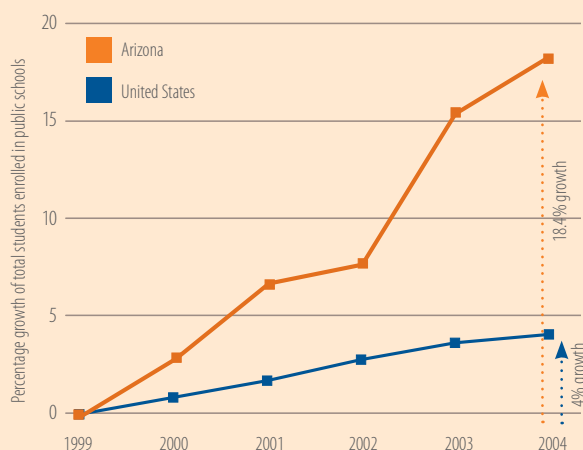
Arizona's schools are affected by the state's changing demographics, including (1) rapid population growth, (2) increased student diversity, (3) high levels of poverty, (4) high concentrations of English language learners, (5) high mobility and (6) growing demand for quality early childhood education programs. In addition, many newcomers fall into multiple categories of students who traditionally have been underserved by the public schools: low-income, non-English-speaking and ethnic minority.

We are growing rapidly

While the U.S. population has grown by 5.3 percent since 2000, Arizona's has grown by three times as much (15.8 percent) since then, and during the 1990s, our growth was close to 40 percent.¹ As the fastest-growing state in the nation, our 2010 population is projected at 6.2 million.² Our public school enrollment also is growing fast, up 18.4 percent since 1999 to nearly 1 million students in 2005.³

Rapid public school enrollment growth in Arizona

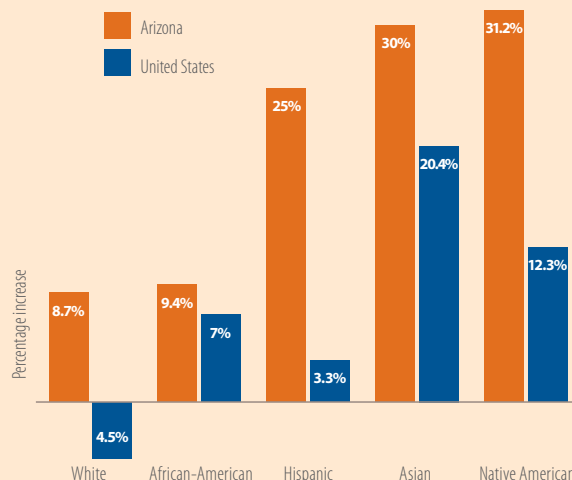
Enrollment growth in the United States and Arizona, 1999–2004



Source: National Center for Education Statistics

Arizona's student population is growing much faster than the national average

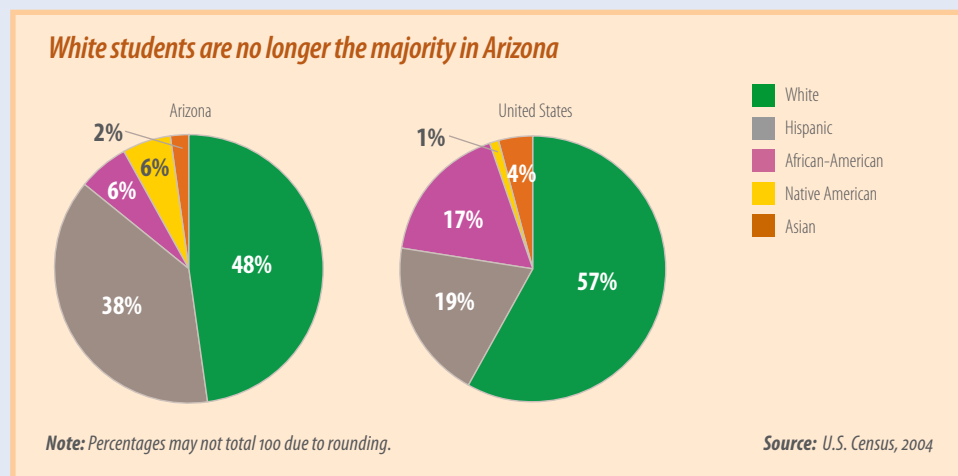
Enrollment growth rates by ethnicity, 1999–2004



Source: National Center for Education Statistics

We are increasingly diverse

Our public school students are predominantly white (48 percent) and Hispanic (38 percent).⁴ We are home to 20 Native American tribes, many living in isolated areas with limited income opportunities, which puts many below the poverty line.

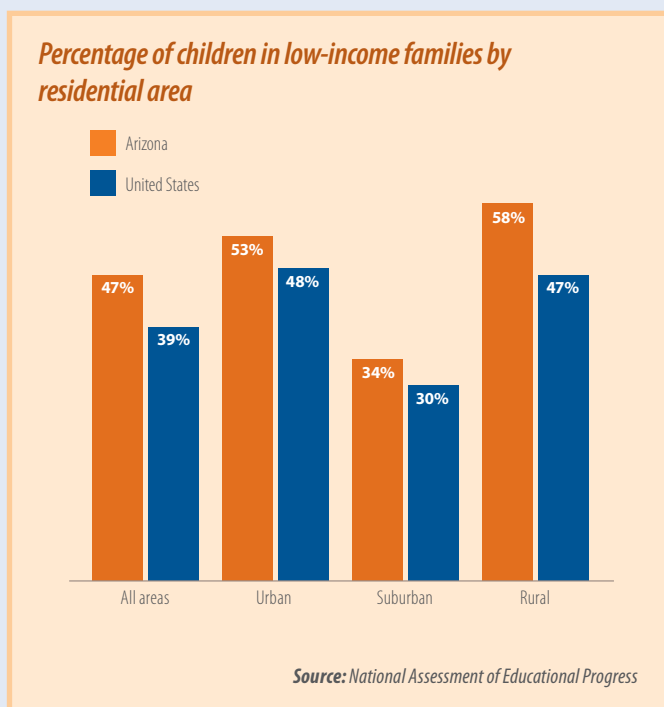


Our families and children are poorer

In 2005, 25 percent of Arizona children age 0–5 lived in poverty (roughly \$20,000 annual income for a family of four — two adults, two children), and child poverty in the state is

growing.⁵ On average, we have more families living in poverty (19 percent compared to 15 percent nationally) and more children living in low-income families with a household income of less than \$34,340 (43 percent compared to 36 percent nationally).⁶

More than half of our children living in urban and rural areas (53 percent and 58 percent, respectively) and one-third of the children living in Arizona suburbs come from low-income families. In each case, the percentage exceeds the national average.⁷



Many of our students do not speak English

Arizona schools served nearly 145,000 English language learners (ELL) in the 2003–04 school year.⁸ This represents tremendous growth, a 52 percent increase in the ELL population since 1993–94. But as the table at right shows, other states in our region are experiencing similar demographic shifts in their public schools.

The Arizona Department of Education (ADE) reports that 28 percent of Arizona students in public schools do not speak English as their first language. This compares to a national average of 11 percent. A report from the Arizona Center for Public Policy suggests that ELL students in Arizona are “nearly the poorest performing, second only to special education students” and that these students on average will have higher mobility rates than their peers who are fluent in English.⁹ It is much more challenging for schools to educate ELL students to high standards, given their limited English skills. Also, in many school communities, language barriers tend to limit the level of parent involvement.

States ranked by the number of enrolled English language learner students in 2003–04

	ELL enrollment 2003–04	Percentage change from 1993–94
50 states & DC	4,317,002	51.6
1. California	1,598,535	31.5
2. Texas	660,707	56.3
6. Arizona	144,145	51.7
7. Colorado	91,751	250.2

Source: “States Ranked by the Number of Enrolled ELL Students in the 2003–2004 School Year,” Migration Information Source, National Clearinghouse for English Language Acquisition and Language Instruction Educational Programs

Our population is highly mobile

Arizona has the fourth highest mobility rate (determined by the number of people flowing in and out of the state) in the country, with 186,151 coming in and 92,452 leaving between 2000 and 2004, mostly to and from California.¹⁰

Newcomers include foreign immigrants and baby boomers looking for job opportunities, along with young elderly who have flocked to Arizona to retire. Our younger newcomers tend to be poorer. Among the children who moved to Arizona in the past three years, an estimated 60 percent were from low-income families, which is slightly higher than the national average of 57 percent.¹¹

Our children are much more likely than those in other states to have moved during the past year. Among children under the age of 18 in Arizona, 23.5 percent have moved, compared to 16 percent in the United States.¹²

High student mobility poses several challenges: Teachers do not get to know their students and families; students are less likely to receive consistent, aligned instruction from school to school; and school districts have a harder time monitoring student progress and sharing that information with teachers and families.¹³

Challenges in educating our youngest children

Recent research makes a compelling case that quality early learning experiences from birth through age 5 are essential building blocks for future learning.¹⁴ Arizona's newborns face greater challenges than those in other states; we have more teen births, unmarried mothers and mothers with fewer than 12 years of schooling themselves.¹⁵ (See "Starting on the wrong foot," page 23.) Children who are born into poverty, who struggle with physical maladies related to low birth weight or preterm birth, or who grow up with teenage mothers who were not successful in school on average will need more academic, social and emotional support than their more-advantaged peers.

Although the state has more than 12,500 child care, preschool and pre-kindergarten programs (from family care and church-sponsored programs to federally funded Head Start), there are not enough quality programs to meet the growing demand. In 2006, only 18 percent of licensed child care facilities were accredited by one of the accrediting organizations accepted by ADE.¹⁶

In 2006, Arizona voters approved Proposition 203, which provided additional funding and a statewide board to oversee early care, education and health. Meanwhile, since 2003, the Arizona Early Education Funds have been supporting regional partnerships to strengthen early care and education at the local level. Specifically, local programs are supporting implementation of Governor Napolitano's 10-point School Readiness Action Plan, which focuses on improvements in such areas as family support, health screenings, child care and early education, including full-day kindergarten.



Fortunately, Arizona isn't starting from scratch. Since 1990, the state has taken steps to address all five key indicators.

	1990–99	2000–04	2005–07
Standards and Accountability	1996–97: Arizona begins development of the first state standards; health, foreign language and workplace skills standards still in use.	2000–06: Arizona Department of Education (ADE) convenes educator panels to develop grade-level standards in core subjects. 2002–03: Legislature creates the state accountability system, AZ LEARNS.	2006: Arizona joins 28 other states in the American Diploma Project Network. 2007: U.S. approves Arizona as one of eight states permitted to use a student academic growth model for No Child Left Behind compliance. 2007: ADE awarded \$6 million federal grant to accelerate efforts to combine state data in one place, including IDEAL system (below).
Teaching Quality	1990: Legislature gives Career Ladder Program, started in 1984, “permanent” legislative status as a result of increased student achievement in Career Ladder districts.	2000: Voters approve Proposition 301, in which qualified teachers are earning about \$2,500 more a year, based on performance. 2003: Three-year federal grant funds the Arizona Teacher’s Excellence Plan.	2005: The Governor’s Committee on Teacher Quality and Support is established by Executive Order No. 2005-11. 2007: ADE launches the Integrated Data to Enhance Arizona’s Learning (IDEAL) Web site to provide educators with student data and other information, including professional development resources.
Leadership and Governance	1999: School Facilities Board created.	2004: Wallace Foundation gives Arizona \$1.2 million per year for the State Action for Educational Leadership II Program to nurture state, district and school leaders.	2005: The Governor’s P–20 Council is established by Executive Order No. 2005-19. 2005–06: Wallace renews grant for the second and third years. 2006: Voters approve Proposition 203 to provide additional funding and statewide board to oversee early care, education and health. 2006: Arizona School District Redistricting Commission formed to recommend merging elementary and high school districts.
School Choice	1994: Legislature passes charter school law. 1997: Governor Fife Symington signs bill allowing residents to receive a tax credit for donations to charitable organizations that give scholarships to children to attend private or religious schools.	2003: Legislature amends charter school law.	2007: Arizona ranked as having fourth strongest charter law in nation, based on such factors as number and type of schools and level of autonomy.
Public School Finance	1992: <i>Flores v. Arizona</i> case begins, alleging that English language learners (ELL) are being shortchanged. 1994–98: Court rules that school facilities are unequal, and the state establishes School Facilities Board to equalize construction funding.	2000: Rodel Foundation created. 2000: Voters approve Proposition 301, a 0.6 cent sales tax increase for school improvement.	2006: Arizona increases funding for full-day kindergarten by \$118 million for 2006–07 and another \$80 million for 2007–08. Business community makes major philanthropic investments, and philanthropies focused on education reform (Helios Education Foundation, Ellis Center for Educational Excellence) are created.



Arizona's Student Performance and System Conditions at a Glance

Student Performance

Elementary School — Reading	Based on the National Assessment of Educational Progress (NAEP), 24 percent of our 4th-graders are “proficient” in reading, which is in the bottom tier of states (46th). Although grade 4 Arizona Instrument to Measure Standards (AIMS) scores have moved in the right direction, only 67 percent of students meet or exceed reading standards, and our minority and English language learners (ELL) remain 20 to 30 percentage points behind the state averages. Nearly 6 in 10 low-income students are “below basic” on NAEP.	
Elementary School — Math	Thirty-one percent of our 4th grade students are “proficient” on the NAEP math test, placing us 43rd nationally. More than three quarters of our 4th-graders — 76 percent — meet or exceed standards based on the AIMS tests. Again, gaps among student groups are large on both tests. On NAEP, 4 in 10 low-income students score “below basic.”	
Middle School — Reading	Twenty-four percent of our 8th-graders are “proficient” in reading on NAEP (42nd nationally). On the grade 8 AIMS reading tests, 65 percent of all students meet state standards. As in elementary school, gaps among student groups often exceed 20 percentage points. Half or more of Hispanic, Native American and low-income students score “below basic” on the NAEP. More than 8 in 10 ELL students score “below basic.”	
Middle School — Math	Although 26 percent of our students are “proficient” on the NAEP math test in grade 8 (38th nationally), our students are closer to the national average (31 percent proficient) than in any other grade and subject. On the AIMS grade 8 math test, 62 percent of students meet state standards. As in other grades and subjects, gaps are large.	
High School	Only about 7 in 10 of Arizona's students graduate from high school in four years, and disproportionately fewer minority students do so, which is about average among U.S. states. Only 60–70 percent initially pass the AIMS tests required to graduate. Fewer than half of graduates are eligible for college admission, only about one-third go on to college, and high percentages of college freshmen must enroll in low-level courses — all similar to national averages. Although scores on college entrance and Advanced Placement tests are comparatively high, participation is much lower than national averages.	

System Conditions

Standards and Accountability	High expectations are at the heart of a quality state education system. Generally, we receive high grades for our academic content standards, but graduation requirements are low and not aligned to college or work standards. Passing scores on the state tests were lowered in 2005, so our accountability system is based on student expectations that are not particularly high compared to other states' tests. Working toward a P–20 system has potential.	
Teaching Quality	To help students achieve high standards, carefully constructed curricula must be taught by highly effective teachers. The National Center on Teaching Quality gives Arizona an “unsatisfactory” grade overall, with a mix of Cs and Ds and an F for preparing special education teachers. Arizona has comparatively high percentages of teachers on waivers and teachers teaching out of their field. Shortages are particularly acute in urban and rural areas and on or near reservations. Teacher preparation programs could be more rigorous and better reflect our changing population's learning needs. Professional development is inadequately supported, and we have low salaries and many novice teachers.	
Leadership and Governance	Research also shows that teachers cannot do a highly effective job unless they work with strong leadership, which requires outstanding principals and administrators. We need a better understanding of Arizona's conditions for school leadership. Currently there are projects under way but no strategic statewide plan. Our governing structures are complex and could affect leaders' ability to create excellent schooling conditions.	<i>Inadequate state and national data</i>
School Choice	While the standards are constant, a one-size-fits-all approach won't work for all students or families, so multiple choices are necessary to spur innovation within the system. Our choices are plentiful; we are a national leader in the percentage of students attending charter schools. However, there are persistent concerns about program quality and the adequacy of program oversight.	
Public School Finance	Funding — as long as it is spent efficiently — is critical to attracting and retaining great teachers and leaders, offering sufficient choices and providing the multiple instructional supports students need to reach the standards. Only two states spend less annually per pupil on school operations than Arizona — about \$2,500 less than the national average.	

The color of the circle describes Arizona's current performance, compared to other states.

-  Arizona is among the top 10 states.
-  Arizona is among the middle 30 states.
-  Arizona is among the bottom 10 states.

Note: Starting here and throughout this report, the green, yellow and red rank the states' performance on various indicators. Exceptions occur for ties when more than one state has identical performance on the particular indicator.



Student Performance



How Arizona Measures Performance

To understand how well Arizona's students perform, one first needs to understand the state's complex, multifaceted system of standards, assessments and accountability.

The state's academic content standards describe what each student should know and be able to do at various grade levels in nine subjects, from reading to the arts. Various tests measure how well students master the standards, and each test comes with its own performance standards (sometimes called "cut scores"), which describe how well a student needs to do in order to meet the standard or be considered "proficient."

The best way to compare performance across states is the **National Assessment of Educational Progress (NAEP)**, an objective measure of reading, math and science performance based on a sample of 4th and 8th grade students in each state. It widely is considered to be the "gold standard" among the nation's assessments. The samples are carefully constructed to mirror the demographic diversity of each state, taking into account racial and ethnic factors as well as urban, rural and economic criteria. And the samples are sufficiently large to allow confidence in the results. Since passage of the federal No Child Left Behind (NCLB) law in 2001, all states are required to give the NAEP reading and math tests every two years in grades 4 and 8 as a benchmark to compare performance across states. NAEP proficiency standards are high, which is why, in part, NAEP results are increasingly used to compare states. They give us the only detailed and public data on how all states stack up against a common high standard.

Second, the state's own **Arizona's Instrument to Measure Standards (AIMS)** test measures performance in reading, math and writing in grades 3–8 and, starting in 2008, science in grades 4, 8 and 10. High school students must pass the AIMS test (which covers reading, math and writing) to graduate and can start taking the test as 10th-graders. AIMS is designed specifically to measure achievement against the state's own academic standards.

Third, Arizona students take the **Terra Nova**, a norm-referenced, standardized test used to compare our students' performance to a sample of U.S. students in reading, language arts and math. Versions of the test are given to students in a handful of states (at least 11) and in individual districts across the country. In Arizona, the full Terra Nova test is given to students in grades 2 and 9; a smaller pool of questions taken from the Terra Nova is added to the AIMS-Dual Purpose Assessment in grades 3–8. Unlike NAEP and AIMS, which report the percentages of students who meet a standard, Terra Nova reports how Arizona students compare to the average performance of a nationally representative sample of students who took the tests in 2000.

The accountability system, which includes both state and federal indicators, measures the annual performance of schools and school districts. The federal NCLB scorecard focuses on the extent to which schools and districts make “adequate yearly progress” (AYP) in reading, math, student attendance and graduation — both overall and for specific student groups (ethnic/racial, low-income, students with disabilities and English language learners). The state’s own scorecard (AZ LEARNS) takes into account AIMS test scores, year-to-year student gains on the AIMS tests or the graduation rate, and the federal NCLB rating.

The system is complex, confusing and, at times, contradictory. One can have challenging and clear content standards, but if the tests are not well-aligned to those standards, or the passing scores are set too low, the overall impact is to dilute the value of the test results to accurately measure what students actually know. Moreover, a school can do very well according to the state’s accountability measures but fail according to NCLB’s. This problem, however, is not unique to Arizona.

The best assessment of our school systems’ performance is achieved from sources outside the K–12 system. For those students who choose to go to college, are they adequately prepared to do freshman-level academic work? For those who go directly into the workforce, can they perform at levels acceptable to their employers? Although information is available to measure college performance, similar data do not exist for those entering the workforce. Because there are few or no publicly available or common tests administered by employers, their views on these issues are anecdotal and not very quantifiable.

Early Childhood

The demographic trends noted previously are even more evident for our youngest children: We have one of the youngest populations in the nation — with nearly half a million children (459,772) age 5 and under — and we will have close to 800,000 youngsters by 2020.¹ Hispanics are the fastest-growing ethnic group in Arizona's birth-to-5 age group² and make up 40 percent of the state's population in that age group.³

Twenty-one percent of Arizona children ages 0–5 are born into poverty (compared with 18 percent nationally) and child poverty in the state is growing (it was below 20 percent in 1999).⁴ Unlike other states where poverty is typically most concentrated in urban settings, isolated rural poverty also is common in Arizona, and access to services in those areas is more limited.

Arizona newborns face greater challenges than those in other states. Compared to the rest of the country, we have more teen births, unmarried moms and moms with fewer than 12 years of schooling themselves. These conditions increase the importance of early care and education for our state because children who are born into poverty, who struggle with physical maladies related to low birth weight or preterm birth, or who grow up with mothers who gave birth while they were teenagers or were not successful at school will on average need more academic, social and emotional help than their more advantaged peers.⁵

“Those most at risk will make the greatest gains from early childhood programs [and conversely the social costs will be the highest for a failure to intervene on their behalf].”

Ellen Galinsky, Family and Work Institute, 2004

Starting on the wrong foot

Indicator	U.S. average	Arizona	
		percentage	rank
Teen births	10.3%	12.7%	41st
Teen births (2+)*	19.8%	22.1%	47th
Unmarried mom	35.8%	42.2%	45th
Mom has <12 yrs schooling	22.2%	30.3%	40th
Late or no prenatal care	3.6%	7.5%	40th
Mom smoked	10.2%	5.9%	2nd
Low birth weight	8.1%	7.2%	16th
Preterm birth	12.5%	13.3%	38th

*Percentage of teen births to women who were already mothers.

Source: Annie E. Casey Foundation, Kids Count, 2004

The ACF and Ellis Center ask readers to read the companion report, which describes Arizona's early care and education environment in greater detail and compares it with other states and nations.

School readiness

The good news is that no matter what the family conditions, all children are born learners. The past 15 years of research tell us what good caregivers and most families know intuitively: Children naturally thrive on learning, and their brains develop most rapidly in the first three years. This flexibility in the developing brain emphasizes the importance of nurturing relationships, guidance and stimulation. When infants and toddlers develop the building blocks for language and literacy skills and are given the chance to build on that foundation in high-quality early childhood settings, they will be ready for school.

Middle-income families provide advantages to their children in many ways that low-income and poorly educated parents do not. By 4 years of age, a typical child in a professional family will have been exposed to 45 million words compared to only 13 million words for a child in a low-income family.⁶ Vocabulary is a preliteracy skill and foundation to later begin reading.

The environment for learning can support or hamper a young child's emotional, social and intellectual development. Even in a disadvantaged environment, a child born with normal intelligence who does not start out on a trajectory to develop to his or her potential can still catch up with quality early intervention.

Higher expectations

But at the same time, more is expected of all children at an earlier age. Many young children are expected to enter kindergarten able to count, recite the alphabet, and know colors and shapes. Teachers, under increasing pressure to improve their students' performance, expect preschool children to listen, follow directions and have other

social skills that today's adults learned when they were in kindergarten. Emotional and social development are intertwined with academic learning, and all are needed for successful schooling.⁷

To ask that children meet higher standards in school *without extra help* when they begin from such different starting points is unfair. The student achievement gaps that result from unequal opportunities are described later in this report, but they begin as school-readiness gaps.

"[S]ocial and emotional skills affect performance in school and in the workplace. We too often have a bias toward believing that only cognitive skills are of fundamental importance to success in life."

James J. Heckman, Ph.D. Nobel Laureate,
Economic Sciences, 2000⁸

High-quality early care and education

Child care and preschool in Arizona cover a wide variety of programs and funding streams.⁹ Children often start with infant (and toddler) care programs, move to preschools when they are ages 3 and 4, and enter the K–12 system as kindergartners at age 5 or 6. Despite more than 12,500 programs available statewide, there are not enough programs to meet the demand. Early care and education includes family care (kith and kin) as well as full-day, part-day, 24-hour for-profit and nonprofit, public and private child care centers, preschools, Head Start, religious sponsored, and corporate-supported programs serving children ages birth to 5.

Despite the variety, Arizona's challenge for early care and education is to improve the quality, affordability and access of all types of care programs so all our children will be ready to succeed in school. The challenge is to elevate basic child care to age-appropriate offerings that stimulate brain development and provide quality learning experiences. Most families need all-day, year-round care for their children, not just a part-day, part-year program; so, quality child care and preschool are both necessities and sound investments, especially for children in poverty. They are a necessity because, according to the 2000 U.S. census, 60 percent of children in Arizona live with a single, working parent or with two parents who both work. And they are a sound investment because children who participate in high-quality child care and preschool programs will be able to compete in a level playing field.

Early learning is a prerequisite to progress in K–12 education

A 2003 study showed that the annual rates of return on public investments in a high-quality early education program for children in poverty save 12 percent in public and government costs later on, and an additional 4 percent of the investment is saved by the participants, adding up to societal cost savings of 16 percent.¹⁰ Other studies indicate that children who receive high-quality early childhood programs are academically strong in school, are less likely to engage in criminal behavior and earn higher wages as adults than their nonparticipating peers. As these children mature, costs for remedial education, criminal justice and welfare benefits decline, yielding a significant long-term pay-off for taxpayers and governments.¹¹

Defining quality

An effective system of early care and education has been described as a three-legged stool resting firmly on quality, affordability and accessibility. The setting and details of care will vary, but research on three programs shown to be effective in delivering public and private benefits documented the following common features:

- An early start (from birth), with strong parental involvement;
- Well-educated, well-trained and well-compensated teachers — with resulting low staff turnover; and
- Small class sizes and high teacher-child ratios.

Beyond these basics, the programs also were intensive (lasted more than a year and/or transitioned into the early elementary years), had high levels of parent education and support, and had an emphasis on children's social, emotional and physical learning, not just academic achievement.¹²

Elementary School

Elementary school is the entryway to the public school system. For those children who do not attend preschool, it is the first formal education to which they will be exposed. The basics that students learn in elementary school help determine their success in secondary education and later in college and careers — making it essential that we provide them with the best start possible.

Between 18 and 31 percent meet NAEP proficiency standards

In 2007, on the 4th grade NAEP exam, 24 percent of Arizona students met or exceeded proficiency in reading, and 31 percent did so in math. Reading scores were unchanged since 2005; math scores were up 3 points. On the 2005 test, 18 percent were proficient or above in science.¹

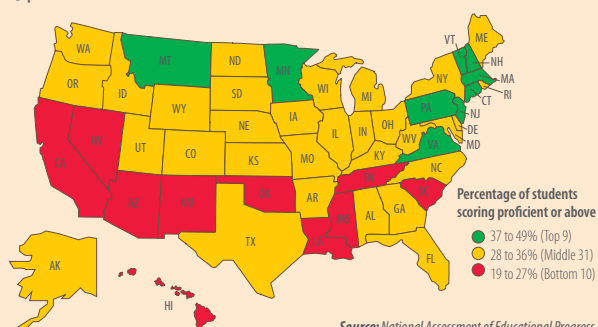
Results were different on the state AIMS test and Terra Nova test. On the AIMS reading test, 67 percent of our 4th-graders met or exceeded the standard, and 76 percent did so on the math test. On the Terra Nova, 4th grade students were between the 48th and 54th percentile in reading, math and language; the 50th percentile is the average.²

For all three tests, while there are youngsters in all racial and ethnic groups who perform well, on average the performance gaps between white and Asian students and African-American, Hispanic and Native American students are large, between 20 to 30 percentage points.

And low-income students' and English language learners' (ELL) performance is lower than average in all subjects.

Arizona is 46th nationally — NAEP grade 4 reading, 2007

To reach the national average of 32 percent, Arizona needs to gain 8 percentage points. To reach the top performing states, Arizona would need to gain at least 13 points.

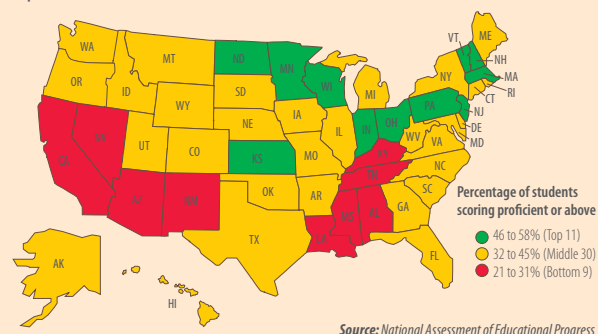


Voluntary full-day kindergarten is a priority

A quality kindergarten experience helps students succeed in elementary school. In 2004, 44 percent of Arizona's kindergarten students were in full-day programs.³ Since 2004, under the leadership of Governor Napolitano, Arizona has moved to bolster public full-day kindergarten with significant funding increases. A \$118 million increase was appropriated for 2006–07, with another \$80 million for 2007–08 targeted toward children attending schools with more than 90 percent low-income students. *(To find out more about the importance of early child care and education, see our companion report.)*

Arizona is 43rd nationally — NAEP grade 4 mathematics, 2007

To reach the national average of 39 percent, Arizona needs to gain 8 percentage points. To reach the top performing states, Arizona would need to gain at least 15 points.



Fewer than one-quarter of Arizona's students meet NAEP proficiency levels, large gaps

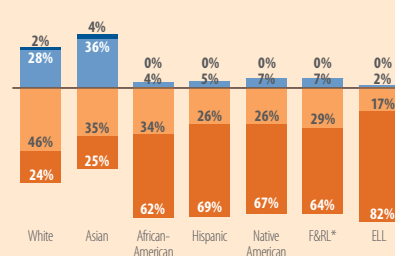
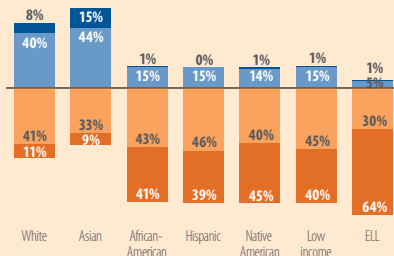
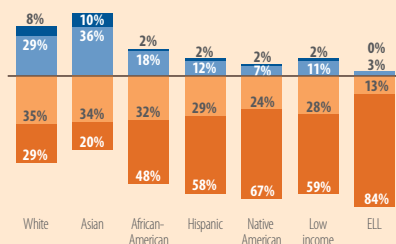
Arizona NAEP 4th grade proficiency levels

4th grade reading, 2007

4th grade math, 2007

4th grade science, 2005

Advanced
Proficient
Basic
Below basic



Source: National Assessment of Educational Progress

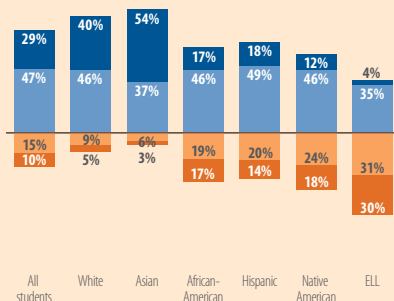
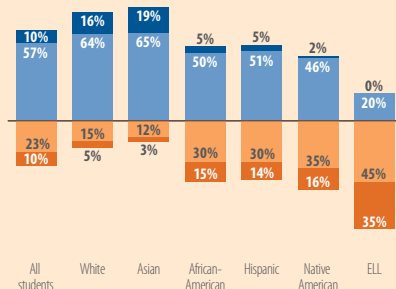
About 7 in 10 of Arizona students meet AIMS proficiency levels, large gaps

AIMS 4th grade proficiency levels, 2007

4th grade reading

4th grade math

Exceeds
Meets
Approaches
Falls far below



Student performance on the AIMS test is generally consistent across the elementary grades, ranging from 67 percent to 74 percent of students meeting the state standards, depending on subject and grade.

The state field-tested an AIMS science test in spring 2007 to be administered state-wide in spring 2008.

Source: Arizona Department of Education

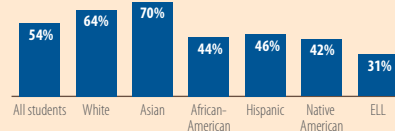
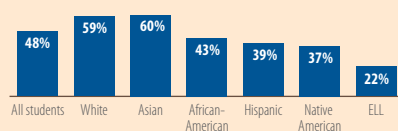
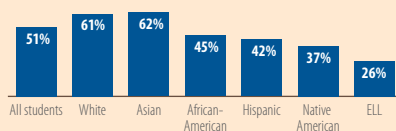
Students score between 48th and 54th percentile on Terra Nova, large gaps

Terra Nova percentile rankings, 2007

4th grade language

4th grade reading

4th grade math



As on the AIMS test, student performance on the Terra Nova is consistent across the elementary grades. In grade 2, when the full Terra Nova is given (rather than the smaller pool of questions added to AIMS-DPA in the other grades), our students were in the 47th percentile in reading, and the 51st percentile in math, compared to the 48th and 54th percentiles in grade 4 reading and math.

Source: Arizona Department of Education

Middle School

During middle school, students work to master skills they learned in elementary school. In particular, their reading comprehension, research and writing skills should be improving. In math, they should be able to go beyond simple arithmetic and learn to apply higher-level mathematical skills. Research shows that students who have the opportunity to take Algebra 1 by 8th grade are more likely to be admitted to and succeed in college.¹

Between 20 and 26 percent meet NAEP proficiency standards

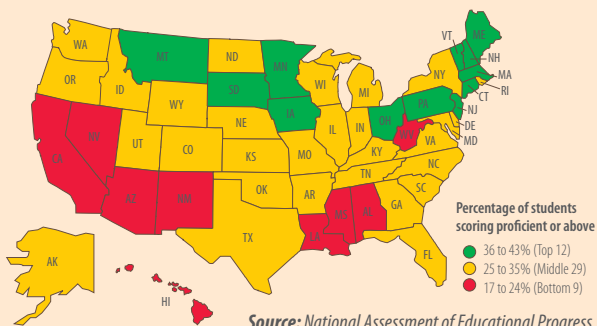
In 2007, on the 8th grade NAEP exam, 24 percent of Arizona students met or exceeded proficiency in reading, and 26 percent did so in math. Reading scores were up 1 point since 2005; math scores were unchanged. On the 2005 test, 20 percent were proficient or above in science.²

As in elementary school, results were different on the state AIMS test and Terra Nova test. On the AIMS reading test, 65 percent of our 8th-graders met or exceeded the state standard in 2007; 62 percent met or exceeded the state's math standard. On the Terra Nova, 8th grade students scored in the 53rd percentile in both reading and language arts and in the 54th percentile in math; the 50th percentile is average.³

Performance gaps between white and Asian students and African-American, Hispanic and Native American students remain large, between 20 to 30 percentage points. And across the board, low-income students' and ELL's performance is lower than average.

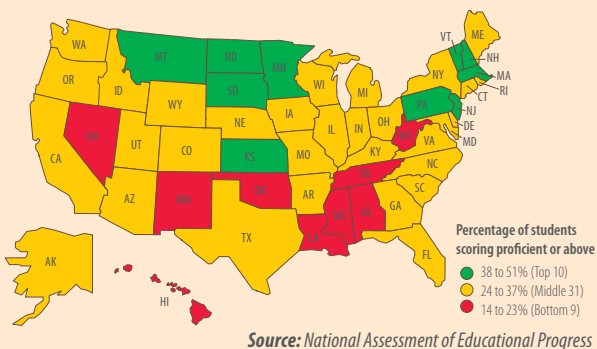
Arizona is 42nd nationally — NAEP grade 8 reading, 2007

To reach the national average of 29 percent, Arizona needs to gain 5 percentage points. To reach the top performing states, Arizona would need to gain at least 12 points.



Arizona is 38th nationally — NAEP grade 8 mathematics, 2007

To reach the national average of 31 percent, Arizona needs to gain 5 percentage points. To reach the top performing states, Arizona would need to gain at least 12 points.



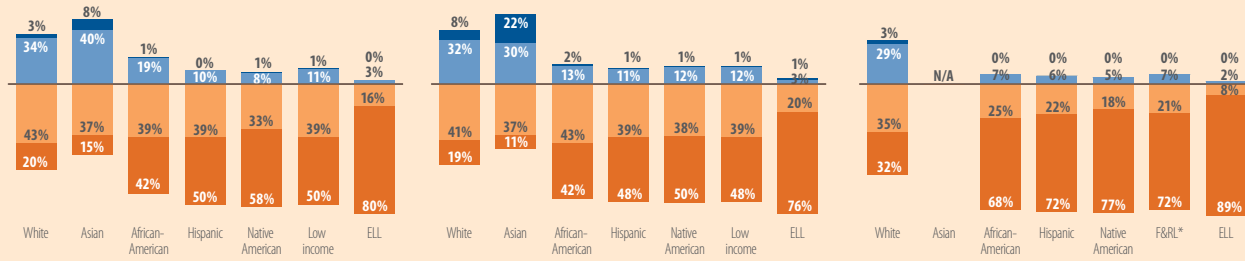
One-quarter or fewer of Arizona's students meet NAEP proficiency levels, large gaps

Arizona NAEP 8th grade proficiency levels

8th grade reading, 2007

8th grade math, 2007

8th grade science, 2005



Source: National Assessment of Educational Progress

Fewer than 7 in 10 Arizona students meet AIMS proficiency levels, large gaps

AIMS 8th grade proficiency levels, 2007

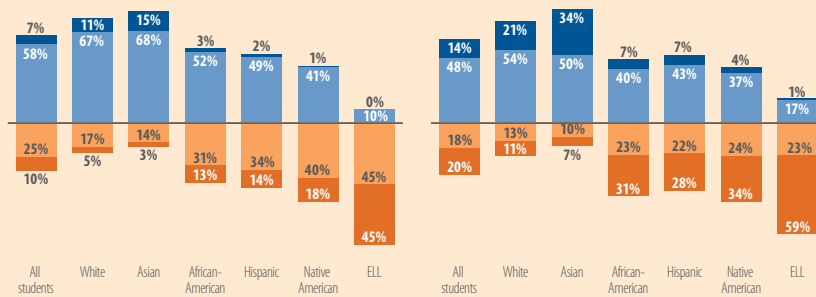
8th grade reading

8th grade math

Student performance on the AIMS test is generally consistent across the middle grades, ranging from 62 to 72 percent of students meeting or exceeding the state standards, depending on subject and grade.

The state began field-testing an AIMS science test in spring 2007 and will administer it statewide in 2008.

Source: Arizona Department of Education



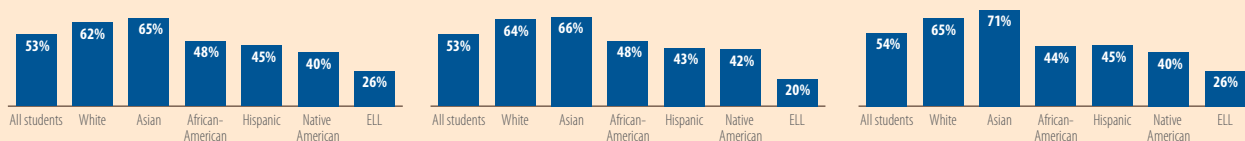
Students score between 53rd and 54th percentile on Terra Nova, large gaps

Terra Nova 8th grade percentile rankings, 2007

8th grade language

8th grade reading

8th grade math



Student performance on the Terra Nova also is consistent across the middle grades. Scores on the full Terra Nova, which is given in grade 9 (rather than the smaller pool of questions added to AIMS-DPA in the other grades), differ from those in grade 8 by 1 to 4 percentage points, depending on subject.

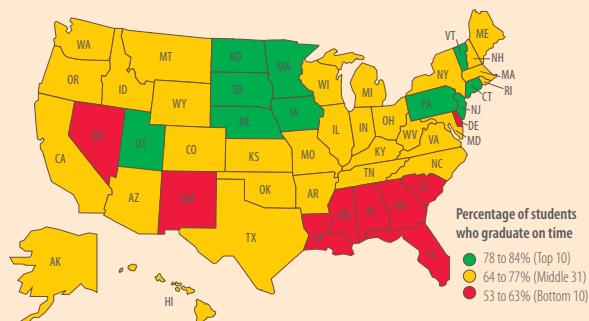
Source: Arizona Department of Education

High School

Today, graduating from high school is a bare minimum for success in life. Arizona's young people must have the knowledge and skills required by colleges and employers to compete in our global economy. Currently, too few of our youth complete high school, and too many receive diplomas when they are not prepared for higher education or for jobs that pay middle-class incomes. The consequences extend to both individuals and society.

Seven in 10 students graduate on time — about average nationally

Class of 2004 high school completion rates



Source: Diplomas Count 2007, Education Week

Arizona's graduation rates are about average

Arizona is about average among states for high school graduation, with 68 percent of students graduating within four years. On average, graduation rates for our Asian and white students are about 10–30 percentage points higher than for many of their African-American, Hispanic and Native American counterparts — mirroring achievement gaps generally consistent across grade levels and subjects.¹

Each state sets its own graduation requirements, so meaningful comparisons are difficult to make. In Arizona, to graduate from high school, students must pass a set of courses (see the table on page 38 for how our requirements compare) and an exit exam — 23 other states have exit exams, and two additional states and the District of Columbia are phasing in such tests.²

AIMS, Arizona's graduation exam, measures 10th grade skills in reading, writing and math, and can be retaken numerous times before the end of 12th grade.

Top five reasons U.S. students say they don't finish school

Classes not interesting	47%
Missed too many days	43%
Spent time with people not interested in school.....	42%
Too much freedom.....	38%
Failing courses.....	35%

Source: The Silent Epidemic, March 2006

Sixty to 70 percent of students pass AIMS graduation requirement

High school students must pass AIMS tests to graduate. In 2006, about 28 percent of the state's 12th-graders (17,603 students) were unable to pass all three AIMS tests. However, the classes of 2006 and 2007 were able to augment their scores with coursework to earn a diploma.³

In 2007, about six in 10 students passed the AIMS math exam; 67 percent passed the reading exam; and 69 percent passed the writing exam. Since 2005, averages are unchanged in writing, down 1 percentage point in reading and down 4 percentage points in math.⁴ Fewer than one in five ELLs pass the reading, math or writing exams.

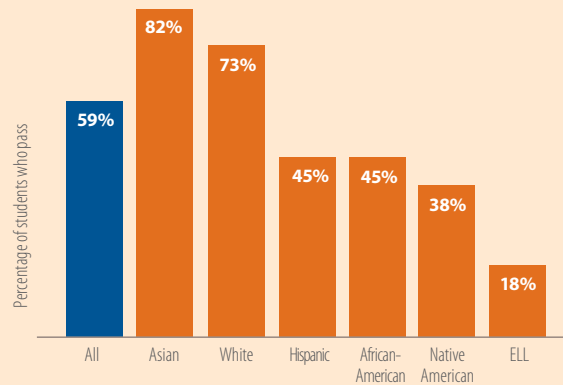
Many graduates are not prepared for college

College entrance exams — ACT and SAT tests — are one measure of students' readiness for college. Arizona students are not required to take these tests, and there is no incentive for students not planning to go to college to do so. Those Arizona students who take the test perform slightly better than the national average on the tests; the average composite score in 2007 on the ACT was 21.8 of 36, compared to 21.2 nationally, and 1547 of 2400 on the SAT, compared to 1524 nationally. But Arizona's ACT and SAT participation rates are very low — 18 percent and 32 percent in 2006, respectively, compared to 40 percent and 48 percent nationally. Participation of mostly better-prepared students elevates the average score for Arizona students compared to states with a higher participation rate.⁵

Advanced Placement (AP) courses, which offer students the chance to earn college credit in high school, are another predictor of how students will fare in college courses. Arizona's AP participation, as measured by the number of exams taken, is below the national average — 15.8 percent compared to 24.2 percent nationally.

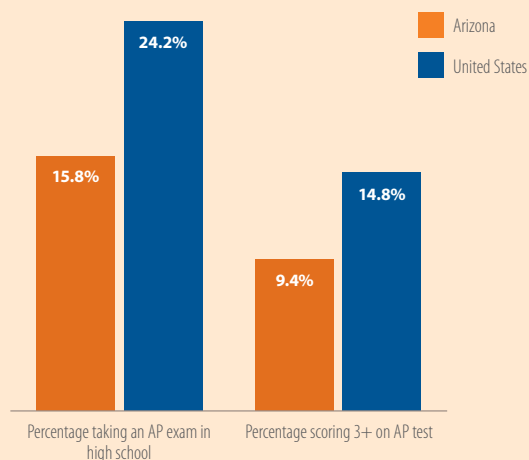
Less than 6 in 10 passed the state math test last year, and gaps are huge

AIMS high school math exam passing rates, by race/ethnicity, 2007 (includes test takers grades 10–12)



Source: Arizona Department of Education

Low participation and scores on AP tests, 2006



Source: College Board, 2007

Fewer than 10 percent of Arizona students score 3 (the minimum score required to earn college credit) or higher (out of a possible 5) on the exams, compared to about 15 percent nationally.⁶

Moreover, many of those who enroll in college are not prepared. In Arizona, fewer than half of the state's graduates are eligible for admission to the state's universities, based on their high school performance.⁷

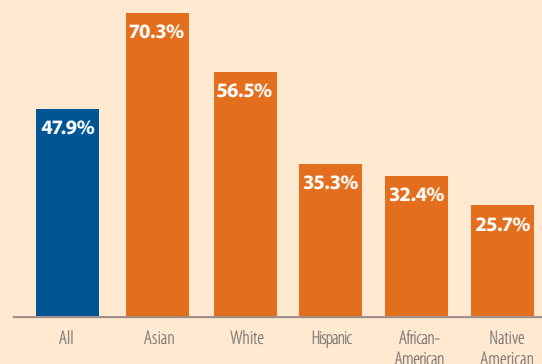
Moreover, many of those who are admitted to college have to enroll in lower-level courses to make up for academic deficiencies. For instance, 19 percent of freshmen at Arizona's four-year universities are enrolled in lower-division English or math.⁸

Although specific data are not available for all Arizona community colleges, we know from national studies that remediation rates generally are much higher in two-year colleges than in four-year universities. Data from the Maricopa County Community College District, which enrolls more than half of the state's community college students, show that between 20 percent and 42 percent of entering freshmen are not ready for college-level work, depending on the course.⁹

Finally, college is out of reach financially for many Arizona students. Based on the annual survey compiled by the National Association of State Student Grant and Aid Programs, Arizona ranks 48th of 52 reporting entities (50 states plus Washington, DC, and Puerto Rico), in the grant aid provided per student. States at the median position in the survey provided approximately 30 times more support per student than Arizona.¹⁰

Fewer than half of graduates are ready for college

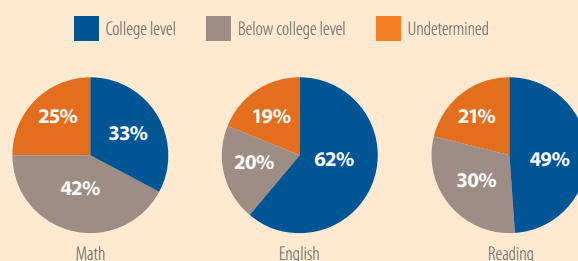
Percentage of Arizona high school graduates eligible for admission to the universities



Source: 2006 High School Eligibility Study, Board of Regents

Large numbers of community college freshmen are not prepared

Placement levels of freshmen who entered Maricopa County Community College District in fall 2006



Note: "Underdetermined" placement level includes students who did not take a placement exam, and students whose level could not be determined by the exam taken.

Source: MCCCDD District Office of Institutional Effectiveness, October 11, 2007



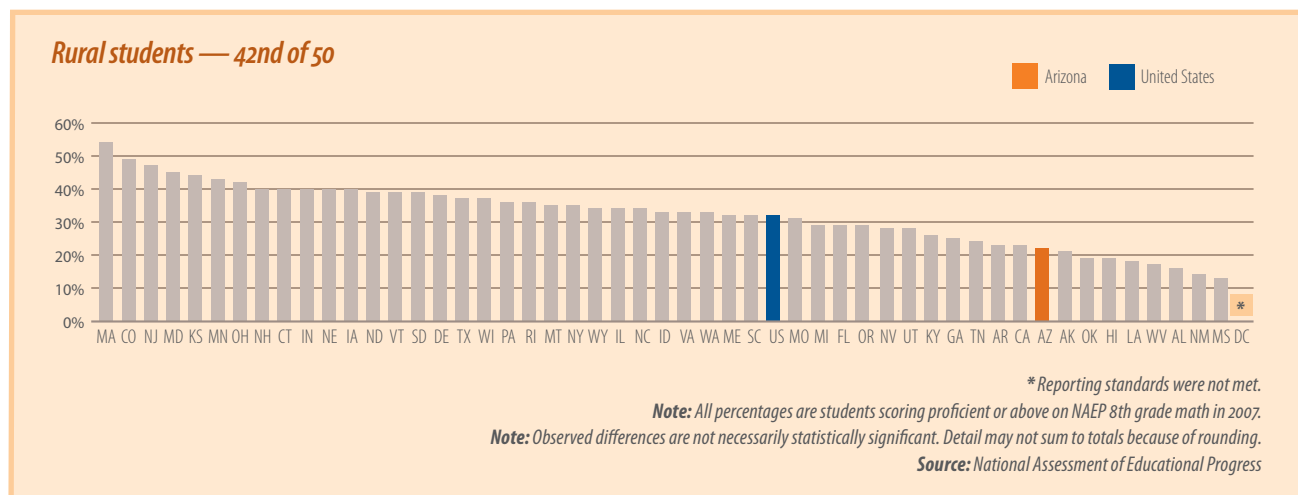
Performance in Context

So what do these scores add up to?

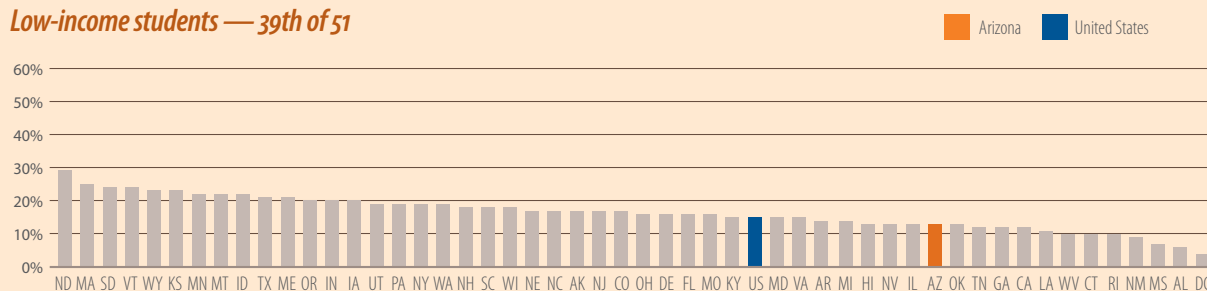
It is clear that demographic challenges such as those described on pages 11–14 have a significant impact on student achievement. Although there are inspiring exceptions (see “Introduction,” page 10), low-income and non-English-speaking students tend to underperform their peers.

When poverty, family structure, language proficiency and other factors are considered, Arizona’s national averages look better. For instance, a RAND study shows that Arizona ranks 21st of 47 states on NAEP after accounting for family background.¹ Similarly, the Manhattan Institute’s Teachability Index says Arizona ranks 30th in performance on NAEP after controlling for circumstances such as school readiness, economics, community factors, health, race and family circumstances.²

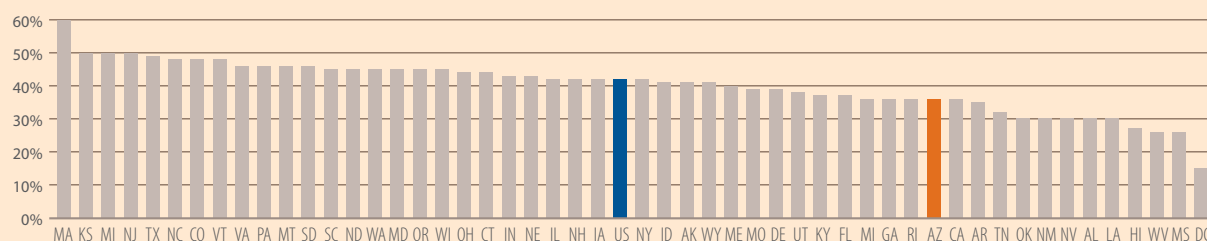
Yet when comparing discrete groups of students (such as Arizona’s low-income students versus low-income students in other states), our students do poorly. Even on the 2007 NAEP 8th grade math test, where our performance was better than any other subject or grade, Arizona’s rural students rank 42nd among all rural students; our low-income students rank 39th among their peers; our non-low-income students also rank 39th; our white students rank 25th; our Hispanic students rank 31st (of 43 jurisdictions); and our ELLs rank 23rd (of 32 jurisdictions).³



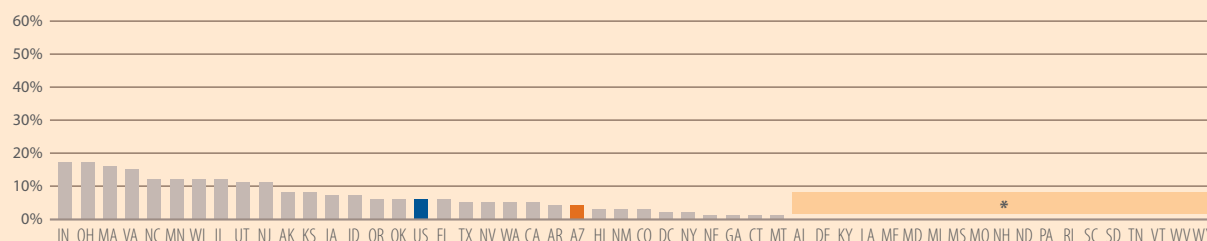
Low-income students — 39th of 51



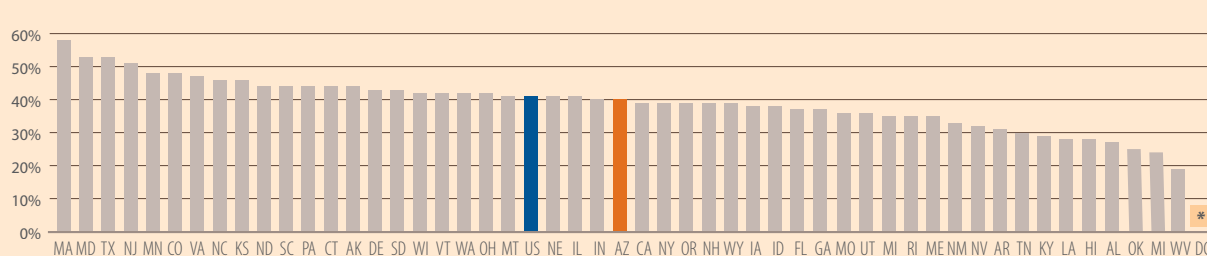
Non-low-income students — 39th of 51



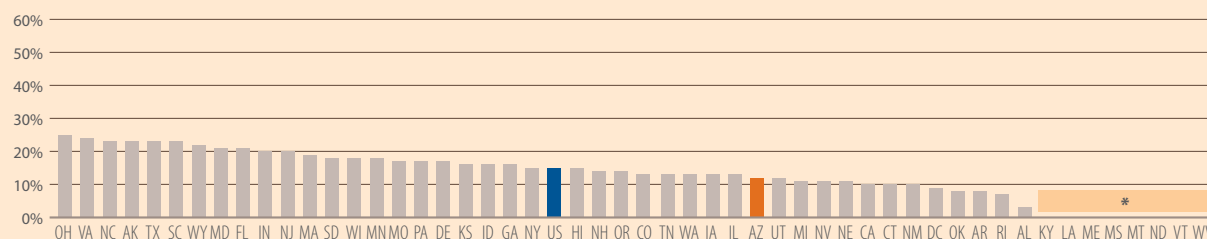
ELL students — 23rd of 32



White students — 25th of 50



Hispanic students — 31st of 43

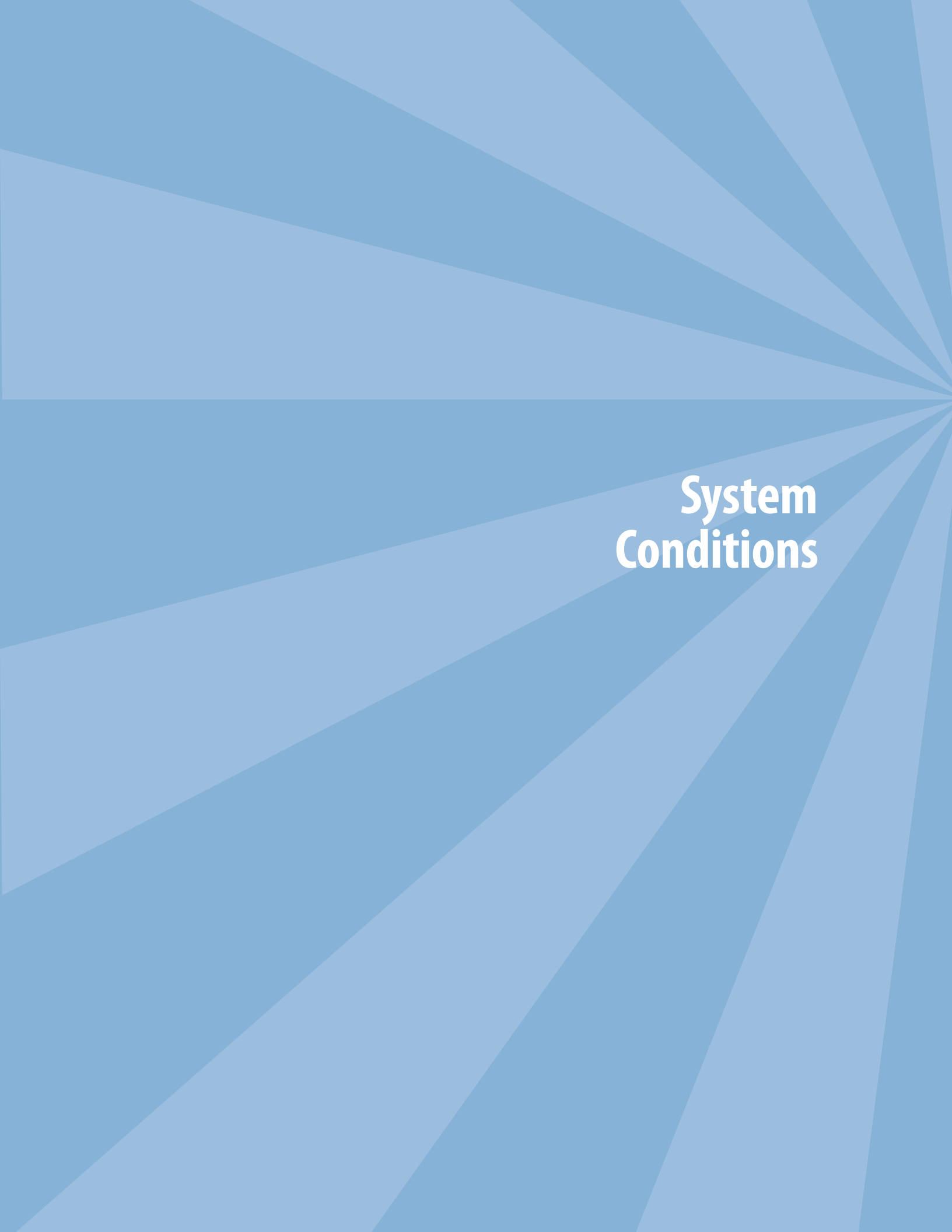


* Reporting standards were not met.

Note: All percentages are students scoring proficient or above on NAEP 8th grade math in 2007.

Note: Observed differences are not necessarily statistically significant. Detail may not sum to totals because of rounding.

Source: National Assessment of Educational Progress



System Conditions

Why These Five Conditions

Most states, including Arizona, start with standards, defining what student success looks like and how it will be measured, and use those results as the centerpiece of the larger accountability system.

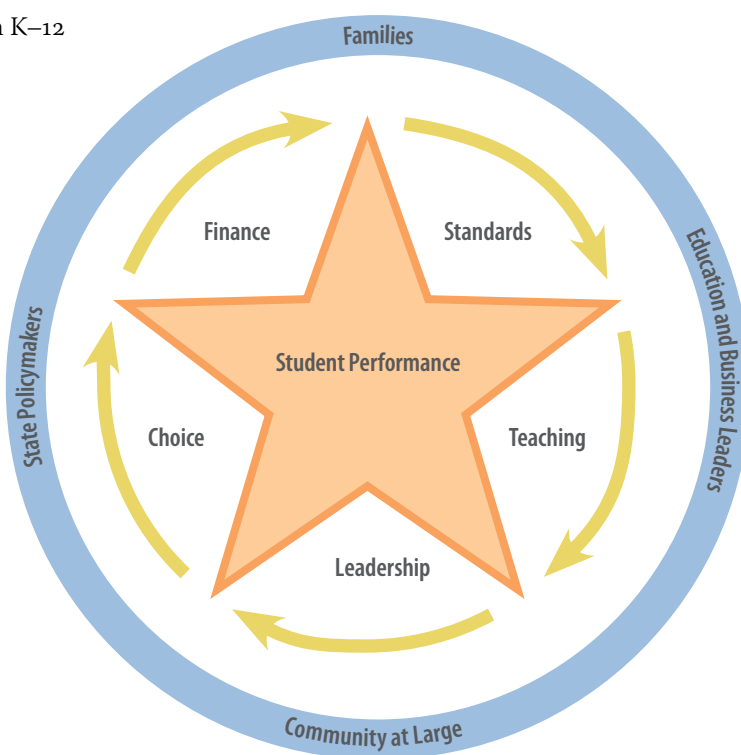
To help students achieve high **standards**, they need carefully constructed curricula taught by highly effective **teachers**.

Research also shows that teachers cannot do a highly effective job unless they work with strong **leadership**, so we also need outstanding principals and administrators.

While the standards are constant, a one-size-fits-all approach won't work for all students or families, so multiple **choices** are necessary to spur innovation within the system.

Finally, **funding** is critical to attracting and retaining great teachers and leaders, offering sufficient choices and providing the multiple instructional supports students need to reach the standards.

The following pages examine these five essential conditions for excellent learning in K–12 schools.



Standards and Accountability

Although the establishment of state academic standards has begun to transform education systems across the nation, two critical questions must be addressed if these sweeping changes are to lead to higher achievement for all Arizona's students. Will the standards in place today be adequate for the high-tech, globally focused future that many Arizonans envision? And how will the state make sure that all of the pieces of the system connect and reinforce one another? Not only do we need to re-examine our current standards, but we need to design a system that is dynamic and can continue to respond to an ever-changing world. High-quality standards are meaningless unless they are aligned with a rigorous curriculum and fair assessments across grade levels from pre-kindergarten through college, and unless educators are held accountable for helping students meet these standards.

Math and science expectations are lower than the national average

Academic credits required for high school graduation, class of 2006

	English	History	Math	Science	Other	Total
Arizona	4.0	2.5	2.0	2.0	9.5	20
U.S. average	3.9	2.8	2.7	2.5	8.6	20.5
Recom- mended*	3.75	2.0+	3.75 (including calculus, precalculus or trigonometry)	2.5+ (including biology, chemistry, physics)	2+ credits of foreign language, 1+ credits of computer science, 1+ Advanced Place- ment courses, and no remedial English or math courses	

*Students taking these recommended courses are most likely to complete a college degree.

Source: Cliff Adelman, *Answers in the Toolbox Revisited: Paths to Degree Completion from High School through College*, U.S. Department of Education, February 2006, Washington, DC

Arizona is taking steps to improve its academic standards

Over the past four years, the Arizona Department of Education (ADE) has worked with task forces of teachers from around the state, as well as the State Board of Education, to increase the rigor and richness of Arizona's academic content standards, which define what students should know (as opposed to performance standards or "cut scores," which determine the levels of achievement that allow one to pass the test). For 2006, the Thomas B. Fordham Foundation gave Arizona's content standards an A in U.S. history; a B for English, science and world history; and a C in math, based on the standards' organization, clarity and richness of content.¹

The American Federation of Teachers (AFT) gave Arizona's math standards strong marks for being aligned to state tests and accessible to parents, teachers, students and the public. AFT also says Arizona is one of 17 states with at least three-quarters of its assessments aligned to strong content standards.² The state board was expected to increase math and science graduation requirements in December 2007. In addition, Arizona recently has committed to align its high school and postsecondary standards (only five states now do), and to align its high school tests with college admissions or placement requirements or employer hiring standards (only six states now do), according to the American Diploma Project (ADP), a multistate coalition that Arizona recently has joined. (See "Progress," page 40.)³

Arizona is working toward better aligning expectations, from preschool through college

The term "alignment" asks the question, "Are we adequately preparing our students to progress from one grade level to the next, for postsecondary education or for careers?" Like many states, Arizona has a series of disconnected "systems":

- Early care and education data systems are not linked to K–12 data systems, although information flows informally (e.g., kindergarten teachers typically are given an analysis of Head Start students' skills before the start of school).
- Likewise, higher education institutions' admission requirements and data systems are not linked to K–12 graduation requirements or data.
- A new system assigns a unique number for each student but does not yet track a student's progress across all early care, K–12 and higher education — a step that would enable educators throughout the system to work in concert on behalf of students.

The Governor's P–20 Council is trying to strengthen these connections. (See "Progress," page 40.) Beyond creating better links, a related challenge is to create a series of

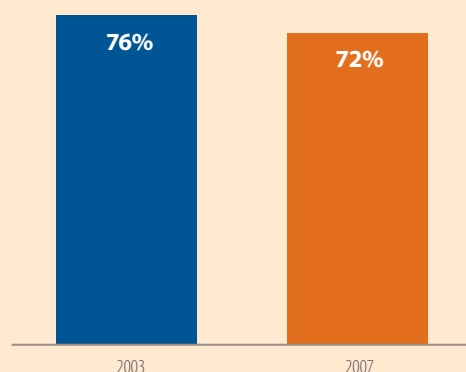
common measures from preschool through college that policymakers, educators and the public agree provide an accurate and reliable assessment of performance.

Arizona is taking steps to strengthen its accountability system

Arizona holds schools and districts accountable for student performance on state tests through a program called AZ LEARNS. It combines the measures required by the federal No Child Left Behind (NCLB) law with the state's own system for tracking progress. The level of student performance expected on the state test (the passing score) is at or slightly below that of other states studied. For instance, a 2005 study showed Arizona was 19th of 34 states in grade 8 reading, and passing scores were very close to the National Assessment of Educational Progress (NAEP) "basic" level rather than NAEP "proficient." A 2007 report showed that the state's definitions of proficiency in grade 8 reading were slightly lower or at the average of the other 26 states studied.⁴

Since passage of the federal NCLB law in 2001, states have been required to annually report the percentage of schools making "adequate yearly progress" (AYP),

Seven in 10 schools making "adequate yearly progress"



Source: Arizona Department of Education

measured largely by reading and math test scores. Seventy-two percent of Arizona's schools made AYP in 2007, up from 67 percent the previous year but down from a high of 86 percent in 2005.⁵

Few take advantage of tutoring, transfer options

Although NCLB requires any school "in need of improvement" for three years to provide free tutoring to low-income students, the auditor general's report found that only 2 percent of eligible students participated in tutoring in fall 2005 — partly because schools were not communicating effectively.⁶ In response, ADE has expanded its outreach and reports that participation increased to 8 percent of eligible students by spring 2006.

NCLB also allows students who attend schools needing improvement for two years to transfer (with free transportation) to another higher-performing public school in the district.⁷ But few parents are using this option; for example, 7,530 Tucson students were eligible to transfer in 2003–04, but only seven requests were made and, of those, only five students actually transferred.⁸

PROGRESS

The statewide P–20 Council, established in July 2005 by Governor Napolitano and including key players from early learning, K–12 education, business, and Arizona's community colleges and universities, has developed recommendations to help strengthen all aspects of the system from preschool through higher education.⁹

Among the recommendations are a review of Arizona's current math and science standards, comparing them with national and international benchmarks and aligning them with higher education expectations. The council also recommends that: Students take Algebra I by 8th grade; Arizona increase the math requirement for graduation from two credits to four; and Arizona increase student access to AP and International Baccalaureate courses.¹⁰

In summer 2007, Arizona became one of only eight states to win approval from the U.S. Department of Education to test growth models for measuring individual student progress on reading and math tests. Educators and researchers say that this is a more sophisticated and accurate way to assess student learning because it allows one to track the progress of individual students from year to year.¹¹

The new state system, the Integrated Data to Enhance Arizona's Learning (IDEAL), will collect data from different sources statewide and make it accessible to help districts, schools and teachers improve. The system should provide a more comprehensive look at teacher and student demographics, test scores and trends to help teachers and administrators make decisions about programs and interventions.¹²

In 2003, ADE launched the Arizona High School Renewal and Improvement Initiative in partnership with the Governor's office, higher education, business and secondary educators to improve the graduation rate, engage teachers in using data-driven decisionmaking in school improvement efforts, increase curricular rigor, strengthen AIMS intervention and deepen teacher's pedagogy of adolescent literacy.¹³

Teaching Quality

Research is clear: More than any other school-based factor, having high-quality teachers is what makes the difference in closing achievement gaps between groups of students and in overcoming such obstacles as poverty. The challenge is ensuring that all students have effective teachers every day in every classroom. Most states are working on teacher quality as a central education reform strategy.

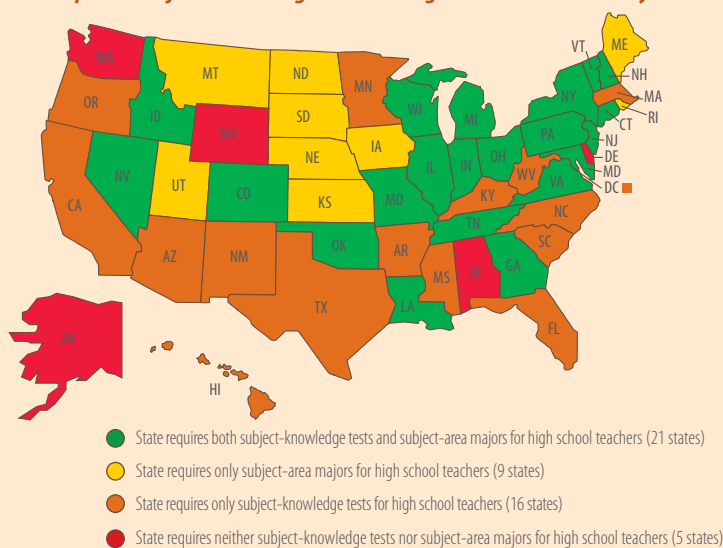
Teacher preparation programs must be strengthened

Teacher preparation has improved over the years, with changes in instruction, content and methods, but recent reports argue that preparation programs still are not producing the kind of teachers that are needed in today's classrooms.¹ There is agreement that any preparation program should prepare a strong beginning teacher: one who understands the content and basics of the profession. Arizona prepares teachers through university-based teacher preparation programs, alternative programs

such as Teach for America and accelerated university programs that help professionals from other fields make the transition to teaching. For instance, the National Science Foundation sponsors the Robert Noyce Scholarships, a \$9 million grant program to universities for identifying talented science, technology, engineering or mathematics undergraduates or professionals who will go into teaching.²

According to the 2007 *State Teacher Policy Yearbook*, published by the National Council on Teaching Quality (NCTQ), Arizona's preparation programs get low marks. We receive a D for our teacher preparation programs and an F for preparing special education teachers. The reviewers fault the state

Arizona requires subject-knowledge tests for high school teachers only



Note: Data represent the 2004–05 school year.

Source: Editorial Projects in Education, 2004

for not requiring candidates to pass a basic skills test before being admitted to a teacher preparation program, requiring excessive amounts of coursework and not ensuring that special education candidates receive relevant subject-matter training.³

The state also does not set a minimum grade point average for course-taking in preparation programs, although our individual universities do. The U.S. Chamber of Commerce gives us a D grade for our teacher workforce policies, citing our lack of basic skills requirements.⁴

Certification policies

Arizona is one of 13 states and the District of Columbia that does not require a subject-area bachelor's degree for initial certification.⁵ Thirty-three states have such requirements for all initial certificates, and another four states require a bachelor's degree for at least one certificate.⁶ We have 61,880 public school teachers.⁷ Of them, 1 percent have a doctorate, 44 percent have a master's, and the remaining 54 percent have a bachelor's degree.⁸

Arizona is among 29 states that require all teaching candidates to pass a professional knowledge assessment, which measures knowledge of teaching methods, theories and techniques.⁹ However, unlike most states, Arizona does not use a basic skills assessment that gauges basic reading, writing and math competency in order to obtain a teaching certificate.

Attracting the best

Two major recent reports have encouraged the United States to develop policies explicitly designed to attract leading college students into the teaching profession. The New Commission on the Skills of the American Workforce says it is no coincidence that Singapore, which tops the list of all the nations in mathematics and science achievement, recruit its teachers from the top third of high school graduates going on to college.¹⁰ The National Academy of Sciences, the National Academy of Engineering and the Institute of Medicine urged that scholarships be given to 10,000 of America's brightest students who agree to teach science and mathematics.¹¹

Pay for performance

In 2006, eligible employees earned up to \$8,400 more a year because of Proposition 301, a 2000 referendum that called for pay for performance in all school districts.¹² Since Proposition 301's inception, the statewide average teacher salary has increased by close to \$5,800, with the largest portion of this increase, approximately \$3,900, occurring in fiscal year 2006.¹³ In addition, about 70 percent of eligible teachers are participating in the state's Career Ladder Program, through which 28 districts provide incentives to teachers to advance in their profession as mentors and coaches, for example, without having to become administrators.¹⁴ Arizona also is one of eight states participating in the Milken Family Foundation's Teacher Advancement Program, which offers incentives to teachers.

The *2007 State Teacher Policy Yearbook* gives Arizona a C for its policies on teacher certification and alternate routes. The study recognizes the state's effort to develop teaching standards that are connected to student learning, but it says the standards lack needed specificity and faults the state's reciprocity rules, which make it difficult for qualified out-of-state teachers to transfer their licenses. However, a 2007 law expands the state's reciprocity policy.¹⁵ New legislation was passed this year (HB2714) that expands the state's policy on reciprocity by excusing new teachers from other states from taking the Arizona Educator Proficiency Assessments test if they have taken a similar exam in the state where they initially were certified.

Low grades for teacher evaluation and compensation policies

Arizona policies receive a D from the *2007 State Teacher Policy Yearbook*, which faults the state for having annual evaluations that are "not based on evidence of classroom effectiveness," for not having value-added data that measure teacher effectiveness and for granting tenure after only three years of teaching. The NCTQ national report card, however, singles out the state's performance-pay plan as "a bright spot in an otherwise bland teacher accountability landscape."¹⁶ (See "Pay for performance," above.)

Although trends are improving, the salaries of Arizona teachers still lag behind those of teachers in other states, ranking 27th nationally.¹⁷ Of our neighbors, only New Mexico and Utah have lower average salaries. Some states offer financial incentives to recruit effective teachers to hard-to-staff schools or high-need subject areas; Arizona does neither. The base salary in most districts is extremely low — \$28,218 in Maricopa County,¹⁸ for example, with many districts well below that figure, though some are quite a bit higher, such as Alhambra School District, which recently raised its starting pay to \$40,000 a year.¹⁹

In response, the Governor's Committee for Teacher Quality and Support recommends that Arizona set a base salary of \$35,000 to retain new teachers and provide prospective teachers with an incentive to choose teaching as a career.²⁰ Whether this is enough of an incentive is an open question. The National Association of Colleges and Employers (NACE) reported that the class of 2007's beginning salaries in many other fields are considerably higher than what a beginning teacher would earn:

Chemical engineers	\$59,361
Computer engineers	\$56,361
Accounting majors	\$46,718
Business majors	\$43,701
Marketing majors	\$40,161
History majors	\$35,092

Source: The National Association of Colleges and Employers

Retention and shortages are a problem, especially in certain areas

Historically, Arizona has experienced teacher shortages in rural areas near or in reservations serving Native American students and in fast-growing counties, such as Maricopa or Pinal.²¹

Emergency certificates

One way to deal with shortages is to allow less than fully qualified individuals to work with emergency certificates or waivers, which are stop-gap measures designed to last for one year at most. In 2004–05, Arizona reported 3.7 percent of its teachers on waivers, compared to the national average of 2.5 percent, with a higher concentration (6.9 percent) in high-poverty districts.²² In Pinon and Gadsden school districts, for instance, more than one-third of its teachers have only emergency certificates. In a few other districts, 20 percent or more fall into that category.²³ Waivers and out-of-field teaching (teachers who are assigned to teach subjects that do not match their areas of preparation or certification) shortchange students because teachers often lack the necessary expertise to provide students with the knowledge and skills they need, exacerbating the achievement gap.

Number of teachers lacking basic qualifications indicates shortage

Percentage of teachers on waivers by poverty status, 2004–05

	Teachers on waivers	Teachers on waivers in high-poverty districts	Teachers on waivers in all other districts
Arizona	3.7%	6.9%	3.1%
United States	2.5%	3.0%	2.1%

Source: U.S. Department of Education, 2006

Subject-area shortages

In 2004–05, close to 10 percent of all special education teachers in Arizona were working with a waiver, compared to 5 percent nationally.²⁴ Secondary math (5.3 percent) and science (4.2 percent) also had slightly higher percentages of teachers working under waivers than the national averages (3.0 percent and 2.9 percent, respectively).²⁵ As a result, students are less likely to have highly qualified teachers in these areas.

Retention

Of the 5,200 Arizona educators surveyed statewide by the Center for Teaching Quality in 2006, 18 percent wanted to leave their school, and 9 percent wanted to leave teaching altogether. Fifty-nine percent cited a lack of support from administrators, followed by feeling ineffective with their students (55 percent) and low salaries (50 percent). Nationally, about half of all new teachers leave within the first five years.²⁶ Arizona's attrition rate mirrors the nation's, with half of our new teachers leaving in their first five years; altogether, we lose an estimated \$88 million annually from teacher turnover — half from teachers who transfer schools, half from those who quit altogether.²⁷

In response to such challenges, the Governor's Committee on Teacher Quality and Support recommends providing such incentives as one-time

hiring bonuses, housing assistance, scholarships or student loan repayments to attract teachers to high-poverty or rural schools.

Teachers also say quality professional development is important. Arizona teachers generally give high marks to their training, but they report needing more help to reach students with disabilities (50 percent), close the achievement gap (46 percent) and help English language learners (44 percent).²⁸ The state receives and distributes \$40 million annually in federal funds for professional development, plus additional funds generated by Proposition 301 and the Department of Gaming's Instructional Improvement Fund.²⁹ Thus, the state offers an array of professional development programs, but as is the case nationally, there is no evidence whether or how these programs lead to increased student learning.

PROGRESS

Governor Napolitano, the Arizona K–12 Center and ADE have developed the Arizona Teacher Excellence Plan, which offers scholarships to expand the pool of highly qualified Native American teachers.³⁰

Some 348 Arizona teachers have earned advanced certification from the National Board for Professional Teaching Standards, up significantly in the past few years.³¹

The Rodel Foundation of Arizona is partnering with the state's colleges of education and high-poverty school districts to pair Rodel Exemplary Teachers with Rodel Promising Student Teachers. New teachers who opt to work in high-poverty areas for at least three consecutive years receive a \$10,000 U.S. savings bond after their third year. Rodel Promising Student Teachers are named by Colleges of Education to teach with a Rodel Exemplary Teacher. The Rodel Student Teachers receive a \$1,000 college tuition waiver while student teaching and a \$10,000 U.S. Savings Bond from Rodel after teaching in a qualifying school for three consecutive years.³²

ADE's IDEAL, supported by part of a \$6 million federal grant, serves as an online gateway to an array of K–12 professional development and curricular resources. To date, the professional development portal has been used over 123,000 times by Arizona teachers and has been utilized by other educators in almost 40 countries.³³

The Governor has contracted with the Arizona K–12 Center to develop a process for identifying "distinguished educators" to serve as master teachers. The fiscal year 2008 budget passed by the legislature included the Governor's requests for \$46 million in teacher pay and benefits as well as a \$2 million increase in the Governor's Master Teacher Program.³⁴

The Maricopa College and Career Transitions Initiative, part of a national program, is a partnership among three colleges in the Maricopa system (Estrella Mountain Community College, Phoenix College and South Mountain Community College), ADE, and the U.S. Department of Education's Office of Vocational and Adult Education. This dual-enrollment program is structured to increase the number of students participating in teacher education programs, in which students can earn associate degrees in secondary education.³⁵

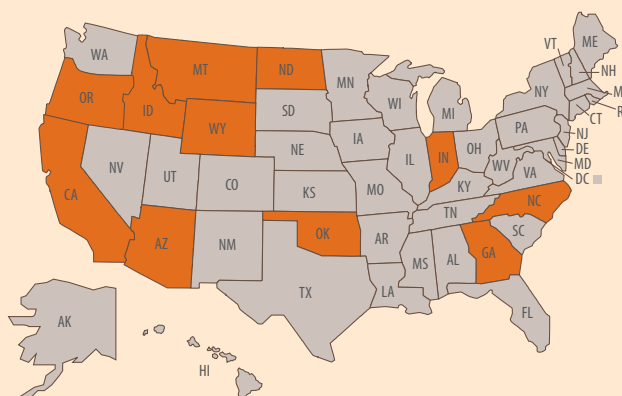
Leadership and Governance

Laws, policies, regulations, the allocation of resources and the quality of leadership — at the state, school and district level — have a significant impact on student achievement. Because governance and leadership are very difficult to measure, however, there are few useful national or state comparisons.

State and local leadership structures diffused

Like most states, Arizona has complicated governing structures that have evolved over time and, as a result, decision-making, authority and accountability are diffuse. Decisions are made at every level, and the quality of the system as a whole reflects actions taken within schools, districts, counties and the state. On the face of it, this cumbersome reporting and governing structure makes it difficult for schools to have both the autonomy they need to serve students well and to be truly accountable for their performance.

Eleven states with similar governance structures



Source: Adapted from Briefing Memo on Educational Leadership, Education Commission of the States, May 2005

State level

Arizona is one of 11 states with an elected superintendent working with a state board appointed by the governor.¹

Governor	Legislature	Board of education	ADE	Elected state superintendent
Nominates members of the 11-member state board of education; proposes policies, budgets and programs	Approves 10 members of the 11-member state board of education; authorizes and funds education programs	Sets policy for all public schools in the state; establishes incentives (grants, awards, etc.); can withhold funds for noncompliance	Manages education programs; implements federal education laws; manages federal education funding	Elected every four years; oversees ADE; serves as executive member of state board of education

Local level²

15 counties

Each county has an elected superintendent who oversees county school operations; operates “accommodation schools” for students not served by a district; has responsibility for local funding and for administering local, state and federal programs in 1,962 public schools (shared with school districts).

219 local school districts

Each district has an elected school board that appoints the district superintendent; has responsibility for local funding and for administering local, state and federal programs in 1,851 public schools (shared with counties); districts range in size from less than 200 students to more than 70,000; many different configurations include:

- 106 elementary school districts
- 15 union high school districts
- elementary districts within secondary districts (with two school boards)
- 98 unified K–12 districts (with a single board)
- “accommodation” schools for students not served by a district
- “overlay districts,” such as the joint technical education districts that provide vocational education services to more than one district

In addition ...

- **20 Indian tribes** manage education through various schooling arrangements, including student enrollment in regular district schools, in the 54 federal Bureau of Indian Affairs schools and in charters and other public and private schools on tribal lands. Tribal departments of education typically coordinate local, state and federal services and regulations related to the diverse set of school options.³
- **469 charter schools**, including seven virtual schools that are exempt from many state education laws, are overseen by one of three groups: the state board of education, the Arizona State Board for Charter Schools or local school boards.⁴
- **616 private schools** are exempt from many state education laws.⁵
- **Home schools**, which are loosely overseen by regional superintendents, serve an unknown number of students (parents must simply file an affidavit with the county superintendent to home school, and there are no other state requirements).⁶

To help simplify our complex structure for building and sustaining leadership in education, a state redistricting commission is preparing recommendations for some elementary and high school districts to merge, creating a more seamless K–12 administrative approach and the opportunity to reduce dollars spent on administration.⁷

Growing recognition about the importance of strong school leadership

While larger system changes are important, school leadership has a more direct influence on teaching and learning. A 2003 review by the American Education Research Association found that only the quality of the curriculum and teachers' instruction had more impact on student learning than school leadership. Arizona teachers say the most important factor in determining whether they stay or leave the profession is the competence of the building leader.⁸

The National Governors Association says, "Leadership appears to especially impact the quality of teaching in schools. School leaders provide focus and direction to curriculum and teaching and manage the organization efficiently to support student and adult learning."⁹

Partly in response, large districts such as Boston, Chicago, Houston, New York, Oakland, San Francisco and Seattle have adopted decentralized models, which give principals more autonomy in return for increased

accountability for results. Many of these plans draw from the successes of the Edmonton, Canada, school system, which pioneered the site-based management approach more than two decades ago. Political and education leaders from Delaware, New York and Ohio also are considering similar strategies statewide.

A 2007 study by the U.S. Chamber of Commerce awards Arizona comparatively high marks for school leader autonomy.¹¹ Seventy-two percent of Arizona's principals say they have a major influence over school spending, and 94 percent say they have a major influence over hiring new teachers, both above the national average.¹²

Inadequate data to judge our leaders

There also is growing agreement that the principal's job has become increasingly demanding. A recent report from Stanford Education Leadership Institute observed:

The role of principal has swelled to include a staggering array of professional tasks and competencies. Principals are expected to be educational visionaries, instructional curriculum leaders, assessment experts, disciplinarians, community builders, public relations and communication experts, budget analysts, facility managers, special-programs administrators as well as guardians of various legal, contractual, and policy mandates and initiatives. In addition, principals are expected to serve the often conflicting needs and interests of many stakeholders, including students, parents, teachers, district office officials, unions, and state and federal agencies.¹³

But there is little hard data to judge the performance of school leaders or the programs that prepare them — in Arizona and nationally. Are Arizona's administrators well-qualified for their jobs? Are Arizona's licensing requirements stringent enough? How well do our university-based leadership programs prepare administrators? What is the quality of administrators' ongoing professional development? Do some courses and/or institutions

Beating the odds

Recent Morrison Institute for Public Policy and the Center for the Future of Arizona research on 12 steadily improving Arizona schools with a majority of low-income and Hispanic students found the quality of leadership helped explain their success.¹⁰ The report recommended the following for all schools:

- Provide a leadership institute for principals that focuses on leadership, learning and linking people and resources.
- Offer a major talent initiative that includes opportunities for school leaders to attend leadership academies, programs that teach collaborative education processes with data analysis and high-quality mentoring for new teachers.
- Begin public and private efforts to help schools obtain the necessary technology and skills to use those tools to produce and analyze student data.
- Disseminate best practices and a list of "what works" as widely as possible.
- Drive authority downward to the principal.
- Reward collaboration.
- Be patient.

yield better results than others? Do we have enough well-qualified school leaders, and are they placed in the schools that need them most? Are there shortages? And for each of these questions, how does Arizona compare nationally? There is no way of answering these questions with any precision. Licensing and certification, as in most states, are based largely on the number of courses taken, not on demonstrated performance on objective measures.

Several recent national studies, however, have offered powerful critiques of states' licensing, preparation and professional development programs and have strongly recommended major improvements. The quality of most administrator preparation programs ranges from "inadequate to appalling," reported a 2005 study led by Arthur Levine, then president of Teachers College at Columbia University. The report found that most programs had low standards, watered-down course requirements, weak faculty and an incoherent curriculum.¹⁴

Our principals have low salaries and poor working conditions

Evidence suggests that Arizona is having a hard time encouraging potential administrators to fill available jobs. Although ADE reports issuing 7,300 administrative certificates to potentially fill the 3,000 positions (including superintendents, principals and assistant principals) available in 2004, many of those with certificates do not

end up taking administrator jobs.¹⁵ A recent Arizona State University (ASU) survey found that more than half of respondents said that low pay is the main reason why candidates may not seek leadership positions.¹⁶

The ASU survey found that administrators do not have enough time or funding for or access to professional development, and they feel training should be focused on the specific needs identified in each region.¹⁷

PROGRESS

Several initiatives are under way to strengthen school leadership in Arizona, though their impact is not known at this point. Efforts include:

- **AZLEADS₃**, a statewide initiative, supports principals and superintendents in their efforts to improve student achievement. Efforts include the Circle of Honor recognition program and three-year leadership grants.¹⁸
- A three-year, \$3.6 million grant from the Wallace Foundation aims to develop leaders and improve educational leadership across Arizona.¹⁹
- The Learner-Centered Leadership program serves approximately 100 administrators through mentoring and coaching. Arizona State University sponsors the program—in collaboration with Alhambra Elementary School District, Creighton Elementary School District, Phoenix Union High School District, Roosevelt Elementary School District, and the Southwest Center for Education Equity and Language Diversity.²⁰
- Professional Learning Communities helps Phoenix and Tucson administrators address issues associated with school reform and related challenges.²¹
- The Leadership Institute for Technology, housed at the Arizona K–12 Center, provides technology workshops.²²
- The Rodel Foundation's math initiative, MAC-Ro, provides professional development to administrators and liaison/mentors throughout the state, helping teachers deliver more effective instruction.²³

Arizona administrator salaries are low and vary among districts

Salary ranges for school administrators, 2004–05

District size (by student enrollment)	Superin- tendent	Elemen- tary principal	Middle school principal	High school principal
Fewer than 500	\$65,000	\$50,078	\$55,500	\$57,000
500–5,000	\$87,562	\$64,000	\$62,448	\$67,785
5,001–10,000	\$105,082	\$77,847	\$77,375	\$79,380
10,001–20,000	\$115,000	\$82,577	\$81,749	\$88,913
More than 20,000	\$149,100	\$84,217	\$83,116	\$88,205

Source: AEP, Arizona School Boards Association, Salary Survey 2004–05, 2005

School Choice

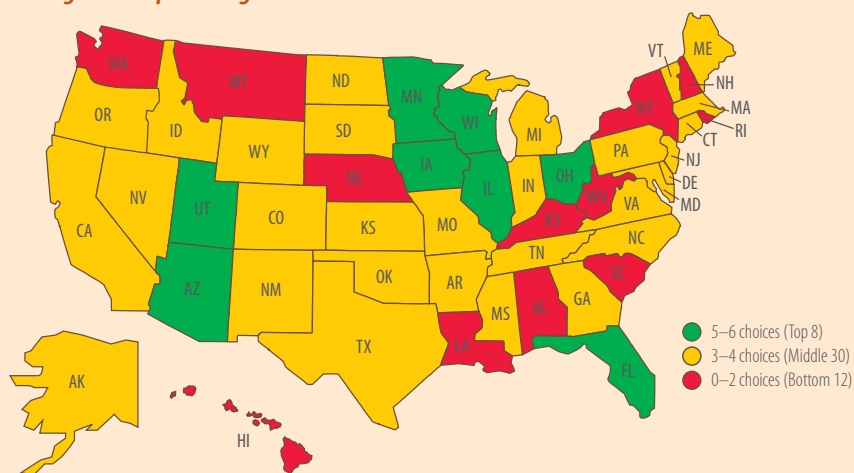
If our students are going to succeed in a more competitive global economy, our schools must lead the way in excellence and innovation. Parents should have the right to choose the best public school for their child, and providers should be held to consistent standards of quality to ensure that the promise of choice — individualized learning, high achievement and equity of opportunity for each child — is realized. Oversight and accountability are needed to ensure that quantity translates into quality.

Arizona families have a variety of choices

The state is considered a leader in offering families a choice of public school options, especially charter schools.

In Arizona, opportunities for families to choose a school have expanded significantly since the 1990s.¹ Currently, there are myriad options:

A leading state in providing choices*



Source: Heritage School Choice Web site for all data except dual enrollment. Dual enrollment data from State Dual Enrollment Policies, U.S. Department of Education, 2004.

*Based on whether the state has the following six options: open enrollment, charter schools, vouchers, tax credits, dual enrollment and home schooling.

Current choices available

Type of choice	Do Arizona families have this option?
Magnet schools: Magnet schools specialize in certain curricular areas, such as science or the performing arts. Typically, such schools draw students from various attendance areas within a district, as well as from other districts.	Yes. Twenty magnet schools, mostly in Tucson for desegregation purposes, serve 15,267 students. ²
Open enrollment: The process allows students to enroll in a public school outside the boundaries of their traditional enrollment zone. There are two different types of open enrollment depending on local and state policy and space availability within existing schools: Students can choose a public school within the local school district (intradistrict) or a public school that is not within the district (interdistrict).	Yes. Arizona is one of 28 states with both an intradistrict and interdistrict open-enrollment policy. ³
Charter schools: Founded by parents, educators, community groups or private organizations, charter schools essentially are deregulated public schools. They are funded with public taxpayer money and exchange fewer regulations and requirements for more accountability.	Yes. Arizona has the second-largest percentage of students in charter schools in the nation, with 469 charter schools serving 93,210 students statewide. ⁴
Dual/concurrent enrollment: Dual/concurrent enrollment allows secondary school students to enroll in postsecondary courses and apply course credit at the secondary school, at postsecondary institutions or both.	Yes. Arizona is one of 38 states with dual-enrollment policies. In 2006, 3,828 students statewide were enrolled in college-level classes offered in 10 community college districts. ⁵
Vouchers: Vouchers are payments made to a parent or an institution to pay for a child's education expenses, usually at a private or parochial school. Though some voucher programs are financed through private sources, others use public tax dollars to fund tuition at private institutions.	Yes. A bill passed in the 2006 legislative session would give vouchers to special education students and foster children. A lawsuit has been filed with the state supreme court to prevent implementation of the program.
Tax credits and deductions: Some tax credits and deductions allow parents to redirect their tax dollars to offset some of the expenses incurred by sending their child to a private school. Other tax credits and deductions allow individuals and/or corporations to redirect their tax dollars to scholarship-granting organizations, which in turn redistribute these contributions to students in the form of private school scholarships.	Yes. Arizona is one of only six states (AZ, FL, IL, IA, MN, PA and RI) with a tax credit program. ⁶ Arizona law allows taxpayers to claim a nonrefundable tax credit of up to \$500 for a cash contribution to a nonprofit organization that distributes scholarships or tuition grants to private and parochial schools. In 2005, 22,522 students received scholarships. ⁷ Arizona law also allows taxpayers to claim a nonrefundable tax credit of up to \$200 as reimbursement for fees paid to a public school for extracurricular activities. ⁸ A new program passed in a recent session of the legislature allows business tax credits up to \$5 million for low-income student tuition in private schools. The program was expanded to \$10 million and will increase by 20 percent each year after. ⁹
Private schools: Private schools are privately owned and religious or nonsectarian. These schools charge tuition for admission.	Yes. In 2003–04, 616 private schools served 53,887 students in Arizona. ¹⁰
Home schools: Home schooling is an alternative form of education in which parents or guardians teach their children at home.	Yes. In the United States, more than 1.1 million children (grades K–12) were educated at home in 2002–03. Figures for Arizona are difficult to pinpoint, as reporting is not required. ¹¹

In 2005, Arizona had only 2.2 percent of the nation's public school students,¹² but the state is home to 13 percent of all charter schools in the nation, and it has the second largest share of public school students in charter schools, behind only the District of Columbia.¹³ The Center for Education Reform gives Arizona an A for one of the strongest charter laws in the nation based on such criteria as the number of charters allowed and the degree of autonomy permitted.

Second largest percentage of charter schools nationally

Top five states in number of charter schools, 2005–06

State	Number of charter schools	Number of students served	Percentage of total public school population in charters
1. District of Columbia	63	17,819	23.1%
2. Arizona	469	93,210	7.6%
3. Michigan	226	91,567	5.3%
4. Ohio	297	72,000	3.9%
5. California	574	212,000	3.4%
Nation	3,613	1,040,536	2%

Source: National Alliance for Public Charter Schools and NCES, Numbers and Types of Public Elementary and Secondary Education Agencies from the Common Core of Data: School Year 2005–06.

Charter schools operate in 14 of the 15 counties in Arizona, but 74 percent of all charters statewide are in Maricopa and Pima counties.¹⁴

Charter schools perform comparatively well

Students in Arizona charter schools were more likely to be proficient in reading and math at the 4th grade level than students in the neighboring regular school, according to Harvard economist and researcher Caroline Hoxby.¹⁵ In addition, Arizona students of similar ethnicities were more likely to do better in charter schools than in regular schools.

Two reports in 2004 found that, on average, charter school students started school with lower scores but achieved an overall annual academic growth three points higher than their traditionally schooled peers¹⁶ and that slightly more than 40 percent of charter schools were “highly performing” or “excelling,” compared to 27 percent of traditional schools.¹⁷ Arizona’s 4th and 8th grade charter students outperformed noncharter students on the National Assessment of Educational Progress’ reading and math tests by between 9 and 14 percentage points in 2005.¹⁸ However, charter students underperform compared to district students on high school Arizona’s Instrument to Measure Standards; high school students do not take the NAEP.

Moreover, 80 percent of charter school parents give their child’s school an A or A+ for overall quality.¹⁹

Virtual schools in Arizona

Virtual or online schools are quickly becoming a viable option for students in rural areas and for those students with complex schedules. A pilot program legislated in 2003 and run by ADE allows for 14 virtual schools in Arizona. In 2005, 10,816 students took at least one class through these schools.²⁰ Half the virtual schools are operated by school districts, and half are operated by charter schools. The Arizona State Board of Education and the Arizona State Board for Charter Schools must review each school’s effectiveness. Virtual schools must re-apply every five years to remain open; the first reviews will come in 2008.

Mixed report on oversight and accountability

The Thomas B. Fordham Institute gives Arizona a B for authorizer practices and quality of oversight.²¹ The Arizona State Board for Charter Schools authorized more than 73 percent of Arizona's charter schools as of 2003. It is charged with ensuring quality and accountability. However, many other states provide significantly greater accountability tools to ensure that charter schools are meeting their academic and financial obligations.

Current Arizona charter contracts are granted for 15 years, which makes it difficult to hold schools accountable for poor performance.²² Of the 40 states with charter systems, most have five-year terms or shorter; only Arizona and Washington, DC, have 15-year terms.²³ Arizona's first 40 charter school renewals will begin to be considered in 2009.

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Newsweek named 11 charter schools to its 2007 Top 1,000 High Schools. BASIS Charter in Tucson was the highest-ranked charter school, ranking third nationally. BASIS Charter boasts 100 percent of graduating seniors with at least one passing grade on an AP or IB test.²⁴

Public School Finance

In school finance, there are basically three issues. First, is funding adequate — that is, does each school have enough money to ensure all students meet state standards, even if that means some students will need a greater investment than others, such as students who don't speak English or come from a low-income family? Second, is funding equitable — that is, are state and local funds distributed in a way that most schools have a similar amount to spend per pupil, regardless of their local community's wealth? And third, is funding efficient and effective?

Is our funding adequate?

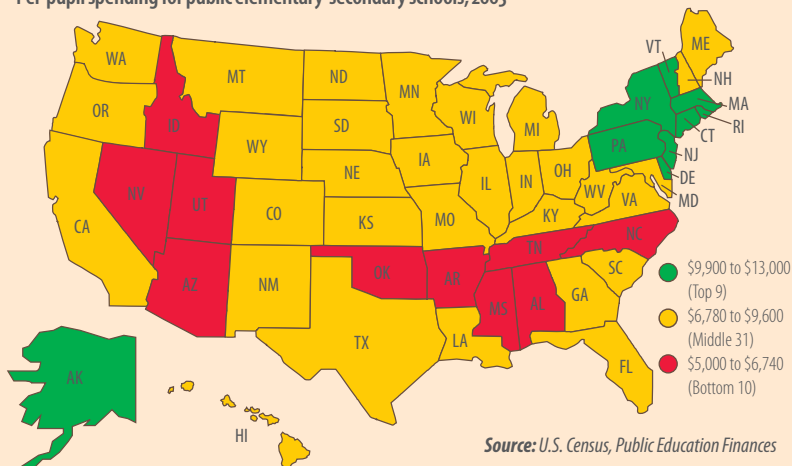
The central school finance question for the state is whether the amount of money available to districts and schools is adequate for preparing all students for college or the workplace and beyond. The past decade has seen a surge of lawsuits across the country claiming that no matter how equally money is distributed, current levels of spending are inadequate to accomplish the task, especially for children who come to school unprepared and with greater needs.

The payoff

New research is helping policymakers and the public see the benefits of educational investments more clearly, such as the \$3 gained for every \$1 invested in quality early childhood programs¹ and the average \$127,000 saved in social welfare costs for each new high school graduate.²

Only Idaho and Utah spend less per student than Arizona

Per-pupil spending for public elementary-secondary schools, 2005



Arizona's per-pupil spending is low, and capital costs are high

Operating expenditures

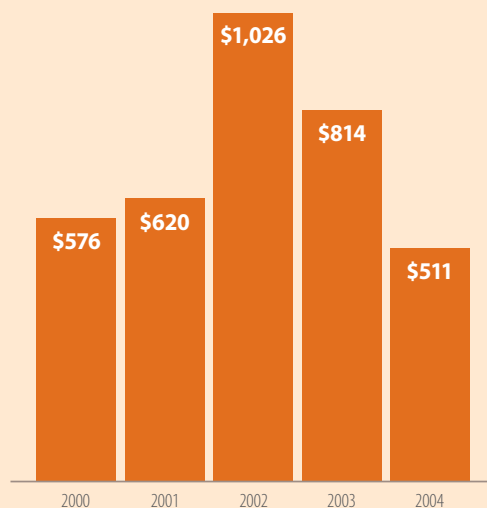
Arizona's per-pupil funding is very low compared to other states: Operating expenditures (annual expenditures covering everything from salaries to textbooks) in 2004–05 were \$6,261 per student, while the national average was \$8,701. The state share of school revenues is slightly lower here than the national average. Only two states spend less per student.³

Capital expenditures

Operating funds directly affect student achievement, whereas capital funds are longer-term investments in facilities and construction that have an indirect impact on student learning. Capital funds — chiefly used for school construction — are raised and allocated separately from operating funds. Arizona's construction expenditures are high compared to other states, largely because our school-age population is growing quickly, and many schools are being built. Arizona ranked 19th nationally from 1995 to 2004, spending an average of \$690 per student per year.

Like other states, Arizona's capital expenditures fluctuate dramatically from year to year

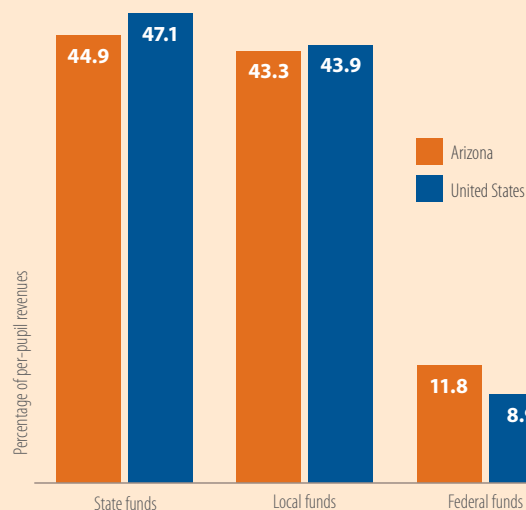
Construction expenditures per pupil, 2000–04



Source: BEST, Growth and Disparity: A Decade of U.S. Public School Construction 1995–2004, October 2006 (uses only construction costs)

State share of spending below average

Sources of school revenues, 2004–05



Source: U.S. Census Bureau, Public Education Finance 2005

Is our funding system equitable?

General state revenues and local property taxes make up the principal sources of public funds Arizona has available to spend on operating expenses. The state uses a formula that determines how much each district receives. More state funding goes to low-wealth districts, and less goes to high-wealth districts to balance their local spending ability. Adjustments are made to account for students with additional needs, such as special education students and English language learners, as well as for other cost factors, such as teacher experience levels, school size and grade levels; for instance, students in grades 8–12 receive more weighting and more funds than the lower grades, while a full-day or half-day kindergarten student is weighted at half as much as a 1st-grader.

Arizona created revenue control limits in the 1980s to ensure that all districts have about the same amount to spend per student. But the addition of new components within the revenue controls (covering items from transportation to teacher career ladders) and the ability to “override” the controls and raise additional local tax dollars have made it possible for some districts to raise and spend more money than others.

Funding gaps in Arizona are comparatively low, but significant

Even with these local overrides, the gap between the highest- and lowest-poverty districts in Arizona is low compared to other states: about \$225 more per student in the low-poverty districts, compared to the national average of \$825. While our funding gap is less than many states, \$225 per student can add up: \$90,000 for a school of 400 low-income students, or \$337,500 for a larger school of 1,500 students.⁴

Moreover, unlike many states, Arizona does not provide an additional weight in the finance formula for low-income students, which could have a significant impact, given the state's high proportion of low-income students. Some argue that excessive attention to equity is misguided, especially if a priority is to steer *additional* resources to students who most need extra help.

Is our funding efficient?

Simply increasing spending in some general way is unlikely to boost outcomes. Nor is further equalizing spending. We need to spend wisely and be clear about what we will invest in and what results we will expect. To get there, we need a more transparent understanding of how funds are allocated and which spending produces the greatest returns.

Unfortunately, it is difficult to assess whether districts and schools are spending effectively. The “Dollars in the Classroom” report, produced annually by the state auditor general’s office, found that classroom spending accounted for 58.4 percent of Arizona’s local budgets over a five-year period, lower than the national average of 61.5 percent.

Arizona also is slightly below the national average in the percentage of spending on administrators and instructional support, but ahead in the percentage spent on support services staff (guidance counselors, speech therapists, special education resources).⁵

Arizona has advantages

Arizona also has assets for the support of schools that other states don’t have, such as the State Trust Lands. Because the vast majority of Arizona is public land (83 percent) — including federal land that is not taxable — the Trust Lands were set aside in 1912 to help pay for education. The funds generated through the School Trust Lands (through sales, leases, interest, etc.) are used to help pay for education. The first \$72 million in earnings in any given year goes into the general fund; the remaining money (estimated at \$100.7 million for fiscal year 2008) is allocated to classrooms, largely for teacher compensation (base pay and pay for performance), class-size reduction, professional development and dropout prevention.⁶

School finance lawsuits: A mixed record

Because policymakers have failed to address the issue sufficiently, debates about the adequacy of school funding increasingly are being decided by courts — in Arizona and nationally. Arizona has had a mixed record.

In a landmark case in the 1990s (*Roosevelt Elementary School District No. 66 v. Bishop*), the court found that a lack of state spending on school construction was unfair to low-wealth school districts, and the case led to the development of a state school facilities board that now funds capital costs statewide rather than relying on local property taxes.⁷

On the other hand, a 2002 lawsuit (*Crane Elementary School District v. Arizona*) that sought extra funding for low-income and at-risk students who scored poorly on state tests was unsuccessful, and final appeals were dismissed in April 2007.

Meanwhile, in a long-running case that began in 1992 (*Flores v. Arizona*), the state was ordered in 2000 to increase funding for ELL programs and to determine the cost of effective ELL services. While additional funds have been provided by the legislature, the plaintiffs claimed successfully in 2006 that the state had not met its obligations. The case has been appealed.⁸

Another case under review by the courts (*Espinoza v. State of Arizona*) claims that the state’s funding system “is arbitrary and not based on educational need.” The plaintiffs asked to suspend the AIMS graduation tests because the state had failed to pay for programs to help poor, minority and limited English-speaking students. The case will go to trial in January 2008.⁹

Significantly, the proportion of spending in Arizona on plant operation/management and transportation also exceed national averages. Statewide averages mask significant differences in these costs among Arizona's diverse school districts. Because many of these "ancillary" activities (food, transportation, maintenance, etc.) become essentially fixed costs, they can consume substantially larger proportions of school budgets in smaller districts where economies of scale are not immediately available.

Where the money goes, five-year averages

	U.S.	Arizona
Classroom dollars	61.5%	58.4%
Plant operation/maintenance	9.6	11.5
Administration	11.0	9.7
Student support services	5.1	6.9
Instructional support services	4.7	4.4
Food service	3.9	4.7
Transportation	4.0	4.0
Other noninstructional services	0.2	0.2

Note: U.S. averages for 2000–04, Arizona averages from 2002–06

Sources: Arizona Office of the Auditor General, Dollars Spent in the Classroom, FY 2005, May 2006

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Spending is up steadily but not dramatically, essentially keeping pace with average increases nationally; the increase in teacher pay (in most districts) that resulted from Proposition 301 has helped to increase classroom-based funding.

If Arizona were to increase spending just to the national average of \$8,701 per student, we would have an additional funding base of over \$2 billion to spend,¹⁰ more than enough to pay for the recommendations of the *Lead with Five* report, published by the Rodel Foundation of Arizona in 2004 to identify the five strategic investments proven to be successful in improving student achievement.¹¹



Recommendations

Although too many of Arizona's current performance indicators reflect significant room for improvement, a critical mass of forces are aligning to strengthen the state's schools. The work of the Governor's P–20 Council to promote lifelong learning and align all elements of our educational systems, and the Superintendent of Public Instruction's recent announcement to increase instructional time and create individual graduation plans could pay significant dividends.

Building on this momentum, the Arizona Community Foundation and Ellis Center recommend additional actions in seven primary areas. New public investments likely will be required, but when spent well, the returns will make the quality of life and the strength of Arizona's economy the envy of the world. It is time to invest wisely, innovate courageously and fully embrace the notion that every young person, regardless of race, ethnicity or economic status, is important to our future and therefore worthy of these investments. Going forward, Arizona should:

1. Implement internationally competitive academic standards and comparably aligned curricula. Move from a system that advances students based on age and time spent to one in which demonstrated mastery of subject matter is the determining factor for promotion.
2. Refine and improve teacher preparation, and elevate the status and compensation of teachers. Link pay to performance, and provide relevant and effective professional development. Create pay differentials to attract teachers into high-needs districts and high-needs subjects.
3. Enhance the quality of training, and increase compensation for administrative leaders, from building principals to district superintendents.
4. Improve the quality of our state's charter schools through greater accountability and transparency.

5. Strengthen the school financing system by addressing demonstrated needs and insisting on measurable results. Creative approaches for allocating resources are needed, in particular, to ensure that students from low-income families receive greater support.
6. Create a needs-based tuition assistance program to dramatically increase the number of college students. Providing increased postsecondary opportunities is essential for the state to meet the increasing demands for a more highly educated workforce critical to the 21st century economy.
7. Develop common performance metrics from early childhood through postsecondary education to ensure that everyone is clear about expectations and held accountable for agreed-upon results. Such agreements are all the more important given the state's diffuse system of education governance.

Beginning with changes such as these, we can help our young people get the education that they deserve and that our state's well-being requires. We encourage Arizona's civic leaders, philanthropic community and general public to learn more about what is working well in education and also to ask questions about where we fall short and how we'll know when we're making progress.



Academic Content Standards

Clearly defined statements and/or illustrations of what all students, teachers, schools and districts are expected to know and be able to do.

Academic Performance Standards

The state's determination of how well students must perform on tests of the standards.

Achievement Gap

The disparity in academic performance between groups of students. It is most often used to describe the performance gaps between many African-American and Hispanic students at the lower end of the performance scale and their non-Hispanic white peers, and the similar academic disparity between students from low-income and well-off families.

Adequacy

A legal determination of whether schools have sufficient funds to ensure that all but the most severely disabled students meet state and district academic standards.

Adequate Yearly Progress (AYP)

The measure by which schools, districts and states are held accountable for student performance under Title I of the No Child Left Behind Act of 2001. It includes separate measures for both reading/language arts and math and for students in four "subgroups": economically disadvantaged students, students from major racial and ethnic groups, students with disabilities, and students with limited English proficiency.

Advanced Placement (AP)

College-level course taught in high school using a standardized course syllabus aligned with the College Board Advanced Placement test for that course. Courses may be offered in any subject area approved by the College Board and in which the College Board offers a testing program. Course syllabi, including content, instructional materials and activities, are suggested by the College Board and are designed to prepare students for the AP exams at the end of each course. Earning qualifying scores on such exams may result in college credits being granted in those subject areas. However, this decision is made by the individual college. (www.collegeboard.com)

Arizona Early Education Funds (AEEF)

Established in 2005 at the Arizona Community Foundation, in conjunction with the Community Foundation for Southern Arizona and the United Way of Tucson and Southern Arizona, to help communities statewide build the quality and capacity of early childhood education programs for children from birth to age 5. (www.arizonaearlyeducationfunds.org)

Arizona's Instrument to Measure Standards (AIMS)

Students in grades 3–8 take the AIMS DPA (Dual Purpose Assessment). The AIMS DPA is a combination of AIMS criterion-referenced assessment questions developed by Arizona educators and based on the Arizona Academic Standards and questions from the Terra Nova, a national norm-referenced test created by CTB/McGraw-Hill. Students in grade 10 take the AIMS HS (High School) and continue to test twice annually in grades 11–12 until they have met or exceeded the standard in each area tested. The AIMS HS is a criterion-referenced test with questions developed by Arizona educators and based on the Arizona Academic Standards. It is an assessment of three content areas: writing, reading and mathematics. Scores are reported in the percentage of students falling into one of four performance categories (Falls Far Below Standards, Approaches, Meets, Exceeds). (www.ade.state.az.us/standards/aims/)

Capital Funds

Long-term investments in facilities. Funds are raised and allocated separately from operating funds.

Charter Schools

Nonsectarian public schools of choice, publicly funded and open to all students with no admission testing or screening. Each school has a charter, or performance contract, detailing its program, goals and methods of assessment. Charter schools operate with increased autonomy in exchange for accountability. They are accountable for both academic results and fiscal practices to several groups: the authorizer that grants the charter, the parents who choose to send their children and the public that funds them. (www.azcharters.org/)

Dual Enrollment

High school students can earn college credit either by enrolling in college-endorsed classes taught by their high school teachers at their regular schools, by taking classes on college campuses or through a distance-learning provider.

English Language Learner (ELL)

Students enrolled in U.S. schools who speak a language other than English and haven't yet mastered English. Also known as limited-English-proficient (LEP) students and students for whom English is a second language (ESL).

Equity

The fair distribution of funding, technology, facilities, services and equal educational opportunities for all students, regardless of race, ethnicity, poverty status, etc.

Graduation Rate

Though until recently states have used different indicators, a national consensus has emerged to measure the percentage of 9th grade students who earn a high school diploma within four years.

Head Start

A federal program, created in 1965, that provides economically disadvantaged preschoolers with education, nutrition, health and social services at special centers based in schools and community settings throughout the country.

Integrated Data to Enhance Arizona's Learning (IDEAL)

A Web-based portal of professional development resources for Arizona's teachers. (<https://www.ideal.azed.gov/>)

Leading Education through the Accountability and Results Notification System (AZ LEARNS)

The state's own accountability system and scorecard, which measures each school's progress based on students' AIMS test scores, year-to-year student gains on the AIMS tests or the graduation rate, and the federal Adequate Yearly Progress rating. (www.ade.az.gov/azlearns/)

Low-Income

Various federal measures to determine if students are impoverished, including: (a) "federal poverty level" (annual income below \$17,170 for a family of three); (b) "low-income family" (annual income below \$34,340 for a family of

three); and (c) "free and reduced price lunch" indicates students eligible to participate in the federal school lunch program based on family income (set at 180 percent of the federal poverty level, or \$30,306).

Magnet School

A school that places special emphasis on a particular schooling approach or field, such as science or the arts, designed to attract students from elsewhere in the school district.

National Assessment of Educational Progress (NAEP)

Known as "the nation's report card" and administered periodically by the U.S. Department of Education, the test measures performance of 4th, 8th and 12th grade students in reading, math, science, writing, history and geography. Of special importance are the state NAEP tests of a representative sample of each state's 4th- and 8th-graders in reading, math and science, which allow for state-by-state comparisons every two years. Unlike any other national exam, the state NAEP is required by federal law and is administered in the same way in every state. Scores are reported in two ways: scale scores and the percentage of students falling into one of four categories (Below Basic, Basic, Proficient, Advanced). (<http://nces.ed.gov/nationsreportcard/>)

No Child Left Behind (NCLB)

The 2001 federal law that reauthorized the Elementary and Secondary Education Act, drives most federal involvement in K–12 public education. Several measures are designed to improve student achievement and hold states and schools more accountable for student progress, including annual testing in reading and math; more support and choices for students in schools not making "Adequate Yearly Progress"; and public annual reports on the progress of all students groups. (www.nclb.gov)

Open Enrollment

A policy allowing students to transfer in and out of schools that have available space.

Operating Funds

The funds needed for day-to-day school operations, from salaries to textbooks to food service, mostly paid for by state and local governments.

P-20

The focus of the Governor's P-20 Council is to improve education in Arizona, as well as to ensure more students graduate from high school, succeed in college and are ready for the modern workforce by creating policies and practices designed to create a seamless system of education in which all levels of education — preschool through college — work together on behalf of student success. (www.governor.state.az.us/P20/)

Pay for Performance

Various plans pay teachers on the basis of their demonstrated competence in teaching or increase in student test scores, rather than on their number of years in the profession.

Pre-Kindergarten (also known as Preschool)

Programs of any type (private or public, full or part time) serving 3- and 4-year-old children.

Proposition 203 (First Things First/ Early Childhood Development and Health Board)

Passed by Arizona voters in 2006, a new tax on tobacco is raising an anticipated \$150 million a year for health screenings and early childhood education. (www.azecdh.gov)

Proposition 301

Passed by Arizona voters in 2000, creates a six-tenths of 1 percent increase in the state's sales tax for 20 years earmarked for public education. The new tax was projected to add between \$450 million and \$780 million annually into the system. (www.ade.state.az.us/sais/prop301.asp)

Special Education (SPED)

Programs designed to serve children with mental and physical disabilities, who are entitled to individualized education plans that define the services needed and special needs to reach their educational goals, ranging from speech therapy to math tutoring.

State Trust Land

Revenues from the nearly 8.1 million acres of public land are used to help subsidize public education. (www.land.state.az.us.)

Teacher Alternative Certification

Allows teachers to bypass four-year undergraduate teacher education programs and earn their teaching certificates more quickly. Offered by most states.

Teacher Career Ladder Program

Arizona's performance-based compensation plan provides incentives to teachers in 28 districts, promotes and supports the professional development of teachers and requires a completely different way of evaluating and compensating teachers. Rather

than advancing on a salary schedule as a result of seniority and educational credits, teachers are paid according to their level of skill attainment and demonstrated student academic progress.

Teacher Certification

The process by which teachers receive state permission to teach. States typically have minimum requirements, such as the completion of certain coursework and experience as a student teacher. Sometimes referred to as "licensure." (www.ade.az.gov/certification)

Teacher Certification Waiver

Granted by the state department of education to allow teachers to work without having completed a preparation program. Typically used to fill shortages in hard-to-staff subjects, such as math or science, or in high-poverty schools.

Teaching Out of Field

A teacher who is certified or on a waiver (see above) but teaching out of his or her subject area or field because no other certified teacher is available to teach that subject.

Terra Nova

The Terra Nova is a norm-referenced, standardized assessment created by CTB/McGraw-Hill and used by Arizona in grades 2 and 9 in reading/ language arts, mathematics, science and social studies. A small number of Terra Nova questions also are added to

the state's AIMS-DPA tests in grades 3-8. Individual student scores on the Terra Nova are reported relative to the U.S. norm on the test (established based on the scores of a national sample of students who took the test when it was developed in 2000). Scores are reported in terms of percentile ranks, with scores higher than the 50th percentile considered above average. While some districts or schools in every state use the test, only 11 states are known to use it in their statewide program. Not all of those states use the same version of the tests or administer them in exactly the same way so it is not possible to compare one state's results to another state. For more Terra Nova information or support, contact CTB/McGraw-Hill.

Trends in International Mathematics and Science Study (TIMSS)

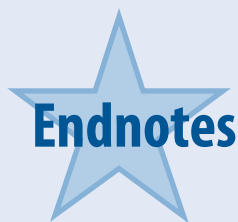
An international test, given in 1995, 1999, 2003 and 2007, that compares the achievement of U.S. students to that of students in other countries. (<http://nces.ed.gov/timss/>)

Virtual School

Now operating in most states, students of all ages can do their coursework online.

Voucher

A document or chit, usually issued by the state, that parents can use to pay tuition at an out-of-district public school, a private school and/or a religious school.



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The Arizona Community Foundation (ACF) and its 13 affiliates are a statewide philanthropy and partnership of donors, staff, volunteers, nonprofit organizations and the community working together to empower and align philanthropic interests with community needs and build a legacy of giving. Founded in 1978, ACF manages 885 component funds, with endowment and trust assets exceeding \$565 million. Individuals, families, organizations and businesses come to ACF to establish charitable funds that address the causes most important to them. Donor gifts are pooled and may be invested, earning returns that are used for grants and scholarships. Over time, the amount granted exceeds the original gift, while the fund balance remains intact. In fact, thanks to responsible investing, the fund balance continues to grow, generating funding for community needs in perpetuity. Funding is awarded year-round to a wide range of community organizations, educational institutions and government agencies. In 2006, ACF and its donors distributed \$30.6 million, including nearly \$4 million in scholarships. More information is available at www.azfoundation.org.

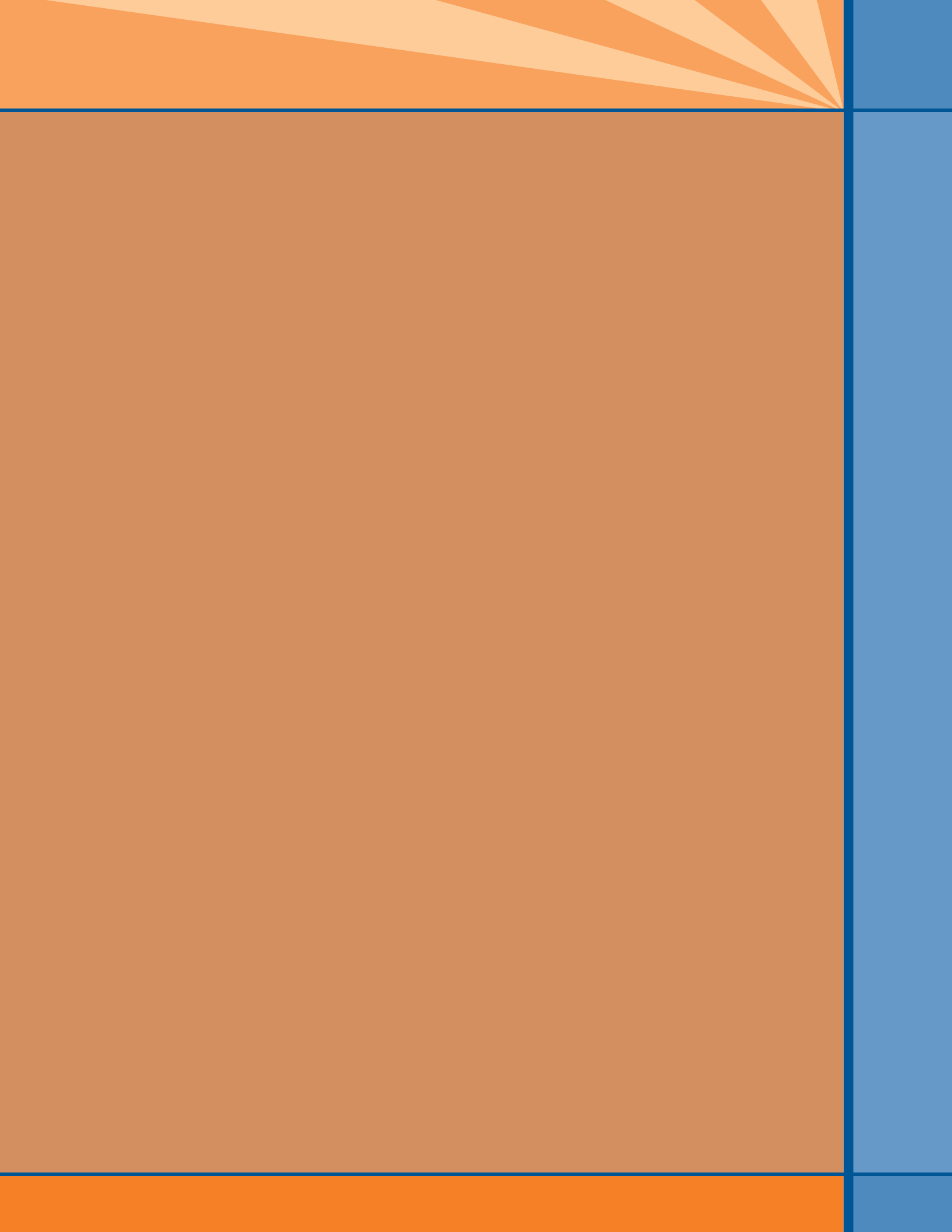


ELLIS CENTER FOR EDUCATIONAL EXCELLENCE

The Ellis Center for Educational Excellence was founded in 2006 with a bequest from the estate of John Ellis, a long-time ACF donor and benefactor. The mission of the Ellis Center is to promote comprehensive education improvement at the district level in Arizona. Partnerships will be formed with select K–12 districts to plan and implement systemic reform in key areas of education practice, including the institutionalization of higher academic expectations, improved alignment of standards, curriculum and assessment, teacher training, pedagogical innovation, school leadership development, parental and community engagement, better elementary, high school and college interface, and many other components of education “systems.”

The goal of the Center is to demonstrate that by inculcating both an ethic and an infrastructure of continuous improvement in district-level education operations, tangible benefits can accrue, such as enhanced student achievement, higher retention and graduation rates, more college and technical school placements, and other measures of educational efficacy.

The Ellis Center will remain highly focused in both its grantmaking and capacity-building interventions.





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ELLIS CENTER FOR EDUCATIONAL EXCELLENCE

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I am ready to succeed.

ARIZONA'S SCHOOL READINESS ACTION PLAN





MY FELLOW ARIZONANS:

Imagine a future in which all children enter the first grade ready to succeed. Imagine children who have all had quality early experiences, children who are immunized and excited to learn, with teachers who are enthusiastic and eager to instruct. Imagine a state that is the envy of the nation with our ability to attract top-notch industry and workers because of our excellent educational system.

What follows is a five-year action plan developed by the State School Readiness Board to enable all children to enter first grade safe, healthy and ready to succeed. It is a plan that recognizes the value of working cooperatively to create the best possible outcomes for children. It is a plan that can make Arizona a state others aspire to in caring for their own early learners.

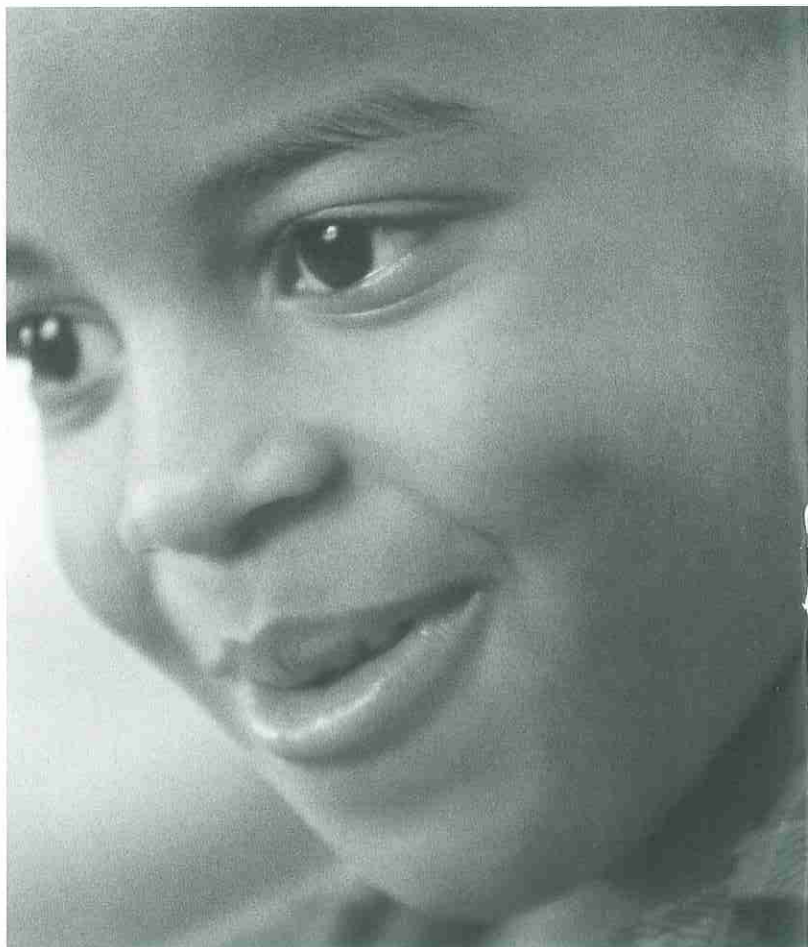
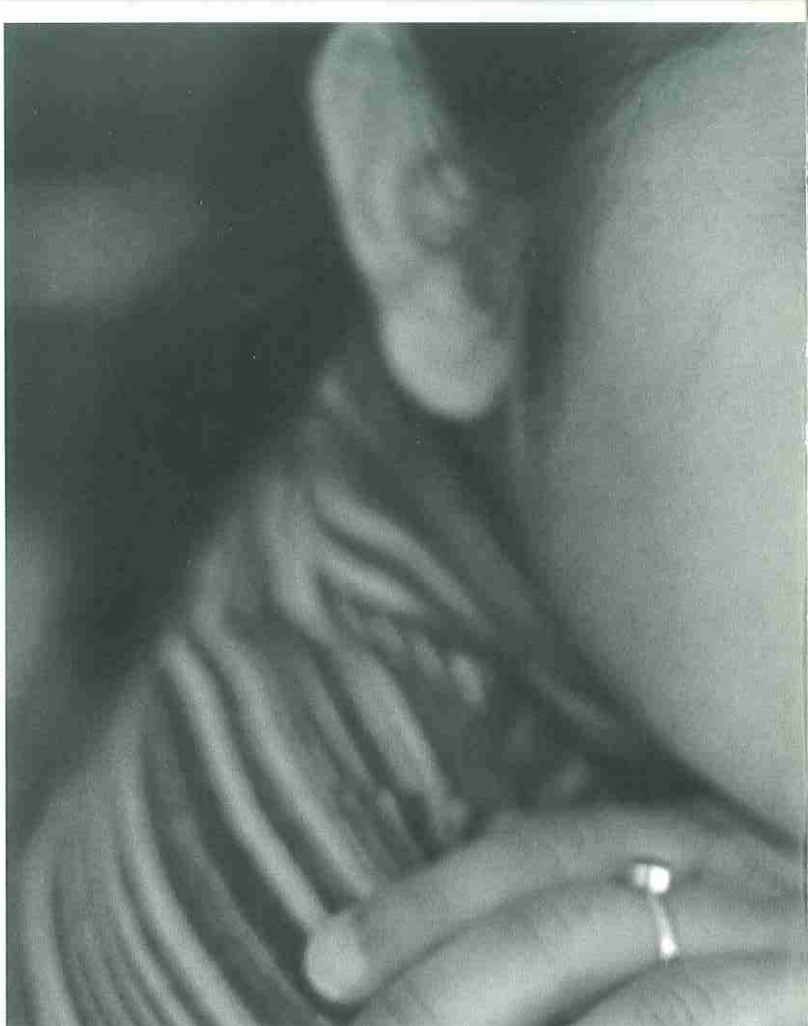
I commend the dedicated citizens who envisioned how our state can move forward, and I wholeheartedly endorse the 10 steps outlined in the plan. Special thanks go out to The Virginia G. Piper Charitable Trust and the Whiteman Foundation, whose generous financial support made it possible to print and distribute this important plan. This plan is achievable because it is not the work of one, but the work and vision of many, including policy makers, community leaders and groups, educators and families. Preparing our children for school is not the responsibility of one entity; all of us have a responsibility to bear, and all of us have a stake in the outcome.

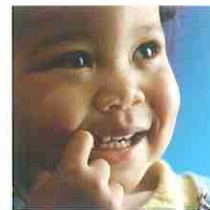
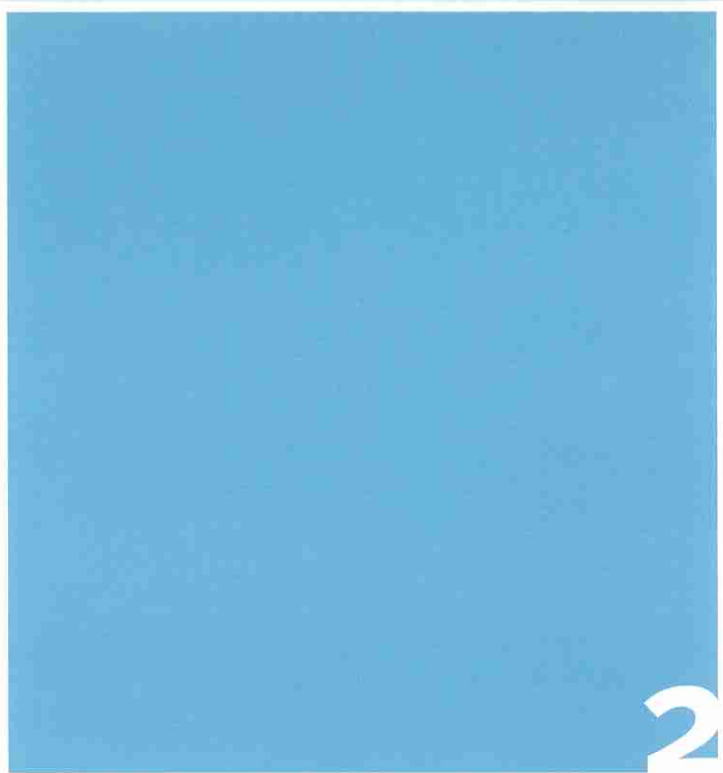
Arizona is already a great state in which to grow old. Now let's make it a great state in which to grow up.

Yours very truly,

A handwritten signature in cursive script that reads "Janet Napolitano".

Governor Janet Napolitano





OUR VISION: ALL CHILDREN IN ARIZONA ENTER FIRST GRADE SAFE, HEALTHY AND READY TO SUCCEED.

What is being ready for school? There are several answers to this question. For many of us, being ready for school means our children are mature enough and eager to learn. They're excited about taking a bus or walking into a classroom for the first time. Being ready for school also means having proper immunizations, completed well-checks, singing the alphabet and counting to 10. Some of our children have already been in early learning situations that have helped to develop these skills.

While many of our children are ready for school, far too many children are sadly behind when they enter primary grades, and may never catch up. Many children enter school and have never spoken English, may come from violent situations, or live in poverty. These children have likely never been to a doctor or dentist, do not communicate well, nor have they ever sat down for a meal. Daily activities that help a child grow in their early years are very important steps that prepare them to enter kindergarten and first grade.

OUR ROLE: WE SHOULD ALL TAKE RESPONSIBILITY FOR PREPARING CHILDREN FOR SCHOOL.

- › As parents and caregivers, we build the foundation to help our children succeed in life.
- › As business people, we should invest now in our community's youngest learners to receive dividends in the future.
- › As retirees, we are here to ensure that the younger generations are prepared to succeed and grow to be healthy and productive citizens.
- › As taxpayers, we are responsible for ensuring that future generations have the same opportunities for success.
- › As Arizona residents, we need to create a quality early childhood environment to make our state a better place to live and work.

RESULT

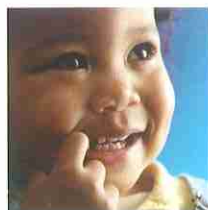
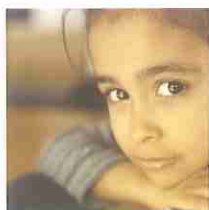
ALL CHILDREN IN

ARIZONA START

FIRST GRADE SAFE,

HEALTHY AND READY

TO SUCCEED.



INTRODUCTION

Ready Families

Parents and families are children's first teachers. This action plan supports culturally sensitive, community-based efforts to educate and inform families in critical areas of literacy, brain development, health and wellness and the importance of early learning.

Ready Programs & Schools

Quality early learning experiences can lead not only to success in elementary school, but also lead to a more productive, happy and healthy life. The actions in this plan seek to provide all children with access to high-quality early learning settings so that all children have an equal opportunity to succeed.

Ready Teachers

Early education teachers can have a profound impact on a child's potential for success, but Arizona's early education industry provides little incentive for teachers to remain in the field. This plan supports training and education for early childhood teachers, and builds strategies to increase the retention and compensation of early childhood education teachers.

Ready Communities

This action plan was conceived by community members, and its ultimate success is contingent on full engagement by parents, businesses, programs/schools and communities at every level. The action steps build public/private partnerships to create and expand capacity at the local level.



TEN ACTION STEPS

Provide parent education and family support programs that strengthen families and promote school readiness.



Increase health screening for Arizona children birth to 6 years old.



Assist families who earn low wages by providing adequate funding for child care subsidies.



Improve the quality, health and safety of early childhood education settings.



Enhance students' chances of academic success by making voluntary full-day kindergarten available to every child.



Phase in high-quality, state-supported preschool.



Provide child care providers and preschools with access to a nurse health consultant.



Increase the pool and retention of qualified early childhood professionals.



Create public/private partnerships to build the capacity of local communities to provide quality early childhood education.



Coordinate early childhood education functions between state agencies, Head Start and Tribes.



STRATEGIES

Expand Healthy Families, maintain Family Literacy, increase parent education, improve knowledge of early brain and child development, support early literacy.

Increase well-child screens (medical, developmental, behavioral, oral), immunize all children, train health professionals on screening and child care staff on oral health, conduct hearing screenings on all newborns.

Maintain caseload growth and eliminate waiting list to allow low-income working families to afford care for their children.

Offer child care providers technical assistance to improve quality, phase in quality rating system, ensure sufficient monitoring of health and safety, improve infant-toddler care.

Phase in full-day kindergarten over 5 years beginning with schools with a high percentage of children on the free/reduced lunch program.

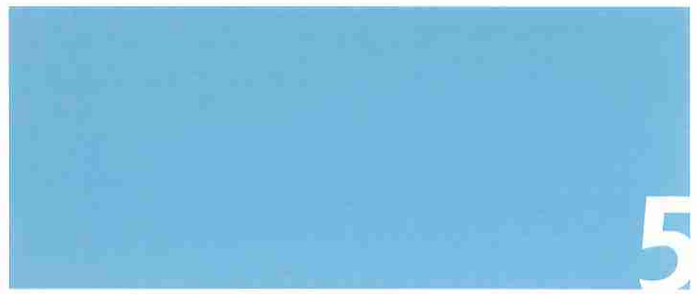
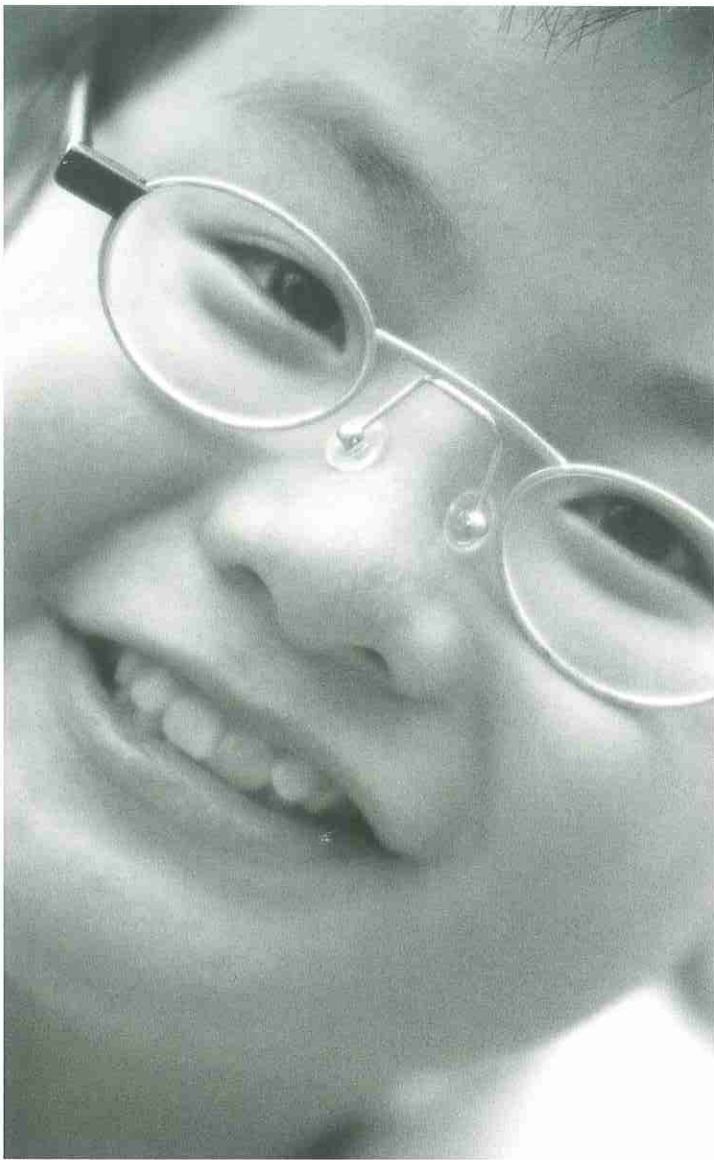
Expand supply of preschool. Redirect Early Childhood Block Grant to high-quality preschool.

Phase in a health consultant system to improve child and staff health and safety by providing access to a healthcare professional.

Develop professional development system, provide scholarships to improve number, diversity and quality of early education teachers, phase in wage incentive program, establish Early Educators Leadership Program.

Establish AZ Early Education Fund, recruit Advisory Committee, raise private donations, galvanize business leaders, build quality early childhood education at local level, empower families, instill foundation for reading.

Coordinate and maximize efficiency of early childhood education functions under auspices of the State School Readiness Board, develop Accountability System to report indicators and for continuous system improvement.



WHO IS THE ANSWER? ALL OF US.

We can all get involved and help our children succeed by taking any of the following steps:

FOR PARENTS AND/OR CAREGIVERS:

- › Take children to healthcare providers for check-ups, immunizations and screenings.
- › Read to children; listen to children.
- › Ensure that children eat nutritiously.
- › Take care of ourselves.
- › Provide a warm and nurturing home environment.
- › Choose high-quality early learning programs.

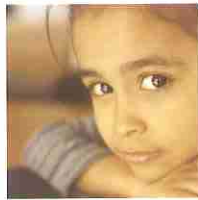
IN OUR COMMUNITIES:

- › Visit or volunteer at a local early education program or school.
- › Help families who earn low wages to afford quality child care.
- › Ask our business and community networks to support the actions in this plan.
- › Support early education teachers in their ongoing development.
- › Create your own community school readiness board; adapt the goals to fit your own community's special needs.

FOR MORE INFORMATION:

- › Call the School Readiness Board for more information or for a group presentation.







ARIZONA STATE BOARD ON SCHOOL READINESS

GOVERNOR'S OFFICE FOR CHILDREN, YOUTH & FAMILIES

602-542-3620

<http://gocyf.az.gov/sr>

1700 W. WASHINGTON, SUITE 101

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Health, Education and Welfare for Children

G R O W I N G A R I Z O N A



A R E P O R T B Y
T H E A R I Z O N A S C H O O L R E A D I N E S S T A S K F O R C E



**DEAR COMMUNITY
AND OPINION LEADER:**

Large segments of our population are not receiving the kind of schooling they will need to have any hope of success in tomorrow's economy.

This report wrestles with perhaps the weakest link in our educational chain: preschool education or "school readiness." Children who arrive at kindergarten without the needed skills fall behind and never catch up. This is a great human loss to those children and their families, and it affects our entire social fabric as well as our economy.

I strongly urge you to read the attached report of the Arizona School Readiness Task Force. Over the last year, the task force has put their time and energy behind this effort to find ways to improve – and help families pay for – quality child care and early education. I believe this issue is critically important to Arizona's families and its economy.

Our Task Force uncovered the common elements for successful early childhood education programs and developed a set of recommendations for achieving success. Some of our recommendations will seem almost obvious and easy to implement; others are more controversial, requiring debate and time to achieve consensus.

Our hope is that this report will produce meaningful action. With your support on key recommendations, we can begin making a serious difference in the lives of our children, our communities and our economy.

Please share this report with your employees and your colleagues. They will find these issues of personal interest concerning child care and preschool options. Expanding our public awareness of this important topic will hopefully create momentum for improvement.

Improving child care and preschool education should be near the top of everyone's personal agenda and the highest priority for Arizona's public policy leaders.

Sincerely,

Bill Post



ACKNOWLEDGMENTS

Growing Arizona is the product of a year-long project of the Arizona School Readiness Task Force with staff support from Children's Action Alliance. The 31 business leaders and early education experts serving on the Task Force researched, discussed, viewed and evaluated the issue of early care and education in the state of Arizona.

We gratefully acknowledge the organizations and individuals who made this report possible through financial support and leadership:

The Arizona Community Foundation
Southwest Human Development
St. Luke's Health Initiatives

Special thanks to Pinnacle West for design and production assistance.

Beyond the expertise and commitment of the Task Force members, we had the pleasure of working with a number of knowledgeable people who shared our enthusiasm for the work of this Task Force:

Dr. Michael F. Kelley Ed.D.
Arizona State University West
Dr. Jill Stamm, New Directions Institute
for Infant Brain Development
Doug Price, co-founder of Educare
Colorado

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Children's Action Alliance is a nonprofit, nonpartisan research, education and advocacy organization dedicated to promoting the well-being of all of Arizona's children and families. Through research, publications, media campaigns and advocacy, we act as a strong and independent voice for children.

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Executive Summary

Arizona business knows that our competitive success in the 21st century depends on the quality and productivity of our workforce. It is a simple fact that our workforce of tomorrow cannot meet competitive demands if children in elementary schools today are not on track to learn and succeed.

The reality is that our state has a long way to go to achieve the kind of educational success it needs. Arizona has the highest rate of school dropouts in the nation and nearly half of all 4th graders are reading below basic levels.¹ The Arizona School Readiness Task Force believes that our children's care, development and education prior to entering the formal school system are the seeds we need to plant for Arizona's future.

The Task Force's conclusions are based on recent landmark brain research confirming that a child's earliest years dramatically shape lifelong learning capacity and behavior. Educational success depends, in large part, on what happens to children before they ever start school.

To prepare children for success in kindergarten and beyond, child care and preschool must have the following six key components:

- Trained, qualified teachers
- Teacher salaries and benefits comparable to kindergarten teachers
- Low teacher turnover
- Low child to teacher ratios
- Parent partnerships
- Enriching classroom and teacher materials

Unfortunately, most child care and preschools in Arizona do not have these key school readiness components.

There is no requirement for teachers in child care centers or homes to have any prior training before they begin their employment.

Arizona preschool teachers earn about half the salary of kindergarten teachers, child care teachers earn even less.

Preschool and child care teachers earn less than \$17,000 a year for full-time work.

One third of child care and preschool teachers have been in their jobs a year or less.

Arizona does not meet recommended child to teacher ratios for any age group.

There are several major barriers to elevating the quality of child care and preschool on a broad scale. One barrier is duplication and fragmentation within the governance structure. Early care and education programs are extremely fragmented. Several different state agencies are involved in different parts of the system, and there is no mechanism to ensure coordination, comprehensive planning, or efficient funding.

Another barrier is cost. Child care and preschools that effectively promote school readiness cost more than most parents in Arizona can afford. Full-time child care and preschool already cost between \$3,600 and \$7,000 each year, as much or more than the cost of annual tuition at Arizona's public universities. Adding the school readiness components raises the cost to \$7,000 to \$10,000 a year — out of reach for most families.

The Arizona School Readiness Task Force presents the following recommendations to improve the quality of early education and overcome the barriers of governance and cost.

IMPROVING QUALITY

Require training for child care and preschool teachers.

Provide salary compensation for child care and preschool teachers who complete specialized early childhood education and training.

Establish a voluntary quality rating system for parents to use in choosing child care and preschool for their children.

Provide financial resources and incentives so that child care centers and preschools can make the investments needed to improve their ratings.

GOVERNANCE

Develop a statewide mechanism to improve the coordination and delivery of child care and preschool in Arizona.

Create a cohesive and comprehensive multi-year plan to coordinate and improve child care and preschool services, and to enhance public and private investment in school readiness.

FINANCE

Provide financial support for child care and preschool through diversified sources.

Encourage employers to offer employees the federally allowed pre-tax payroll deductions for child care.

Launch a campaign by employers to provide information to employees about available publicly funded child care subsidies and to assist employees in enrolling in this program.

Create a public fund-matching program for employer contributions to child care and preschool.

Use additional funds to expand Arizona's finance system for K-12 education to include preschool.

These recommendations are substantial and putting them into action will require long-term commitment and significant resources. Success will require leadership from both the business community and state government. Arizona's future depends on planting these seeds and nurturing their growth.

Task Force Report

Arizona business knows that our competitive success in the 21st century depends on the quality and productivity of our workforce. It is a simple fact that our workforce of tomorrow cannot meet competitive demands if children in elementary schools today are not on track to learn and succeed.

With the highest dropout rate in the nation and nearly half of our 4th graders reading below basic levels,¹ we must change our perspective of preschool development. Maximizing school success is an investment in the future work force and economic strength of Arizona. Educational success depends, in large part, on what happens to children before they ever start kindergarten. Children who participate in well-run early learning programs are less likely to drop out of school, repeat grades, need special education or get into future trouble with the law.

The Task Force is proud to present its findings and recommendations to improve learning opportunities for Arizona children and families. We believe these recommendations deserve the serious attention of all Arizonans.

FINDINGS

EARLY CHILDHOOD EXPERIENCES SHAPE SCHOOL SUCCESS

Landmark brain research confirms that a child's earliest years dramatically shape life-long learning capacity and behavior. This research concludes that 90 percent of brain development occurs between birth and age

three.² In the first few weeks, months and years of life, as a child's brain takes in millions of sights, sounds and experiences, the brain becomes more organized, children begin to make sense of the world around them, and they develop vision, language and thinking skills. The neurons and synapses in the brain are literally shaped by the baby's environment and experiences. Therefore, the positive and negative experiences children have during the first few years of life will influence how their brains will be wired as adults.³

In 2000, the National Research Council and the Institute of Medicine published a report, *From Neurons to Neighborhoods: The Science of Early Childhood Development*. This report was the result of a two and a half year project by 17 members, with backgrounds in neuroscience, psychology, child development, economics, education, pediatrics, psychiatry and public policy. The panel examined all the available scientific literature about the influence of early experiences on children's lives.

The report concludes: "The scientific evidence on the significant developmental impacts of early experiences, caregiving

relationships and environmental threats is incontrovertible. Virtually every aspect of early human development, from the brain's evolving circuitry to the child's capacity for empathy, is affected by the environments and experiences that are encountered in a cumulative fashion, beginning early in the prenatal period and extending throughout the early childhood years."⁴

The experiences and stimulation children need to thrive in early childhood do not require regimented curricula, flashcards or expectations that toddlers learn letters and numbers. Rather, young children need attention from caring adults. They need adults who touch, talk and read to them. They need to have things to look at, touch and experience.

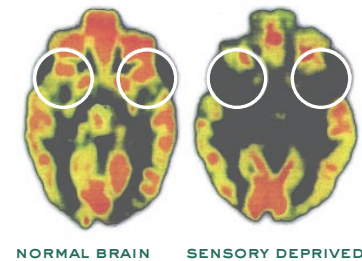
**THE
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YEARS.**

Jack P. Shonkoff, Dean of the Florence Heller Graduate School at Brandeis University and Chair of the National Research Council Committee on Integrating the Science of Early Childhood Development, describes these real needs of young children, "Young children thrive naturally when adults routinely talk, read and play with them in a safe and encouraging environment."⁵

When young children do not receive this basic care and attention, the results can be devastating and long lasting. Brain scans graphically show the physical effects children suffer when they lack stimulation and touch from caregivers – neural connections in the brain are impeded. The picture compares a brain scan of a normal brain of a three-year-old child to a brain of a three-year-old child who has been sensory deprived due to severe neglect or a combination of neglect and abuse. The scan of the neglected child's brain shows a significantly underdeveloped brain structure and energy flow.⁶

What do these scientific facts mean for helping children start school ready to learn?

**NORMAL VS. DEPRIVED BRAIN
OF A 3-YEAR-OLD CHILD**



According to kindergarten teachers, starting school ready to learn means that children are well-fed and rested, able to engage in conversation, willing to listen and understand when somebody talks to them, and cooperative with teachers and others. School readiness depends on physical and emotional health, as well as communication and cognitive skills.⁷

Based on all four of these components, kindergarten teachers can predict with confidence which of their young students will succeed throughout their school careers and which will fall behind. The research literature confirms teachers' experience and intuition: the likelihood for school success is significantly reduced when children face poverty, lack of health care and single and struggling parents in their earliest months and years.⁸

Clearly, families have the most responsibility and greatest role in raising healthy children. However, most young children in the United States and in Arizona spend a substantial portion of their days with other caregivers while their parents are at work. Using U.S. Census data, it is estimated that more than half of Arizona children younger than age six live with a single, working parent or with two working parents. The chart on the next page displays the variety of settings where young children in Arizona spend their days.

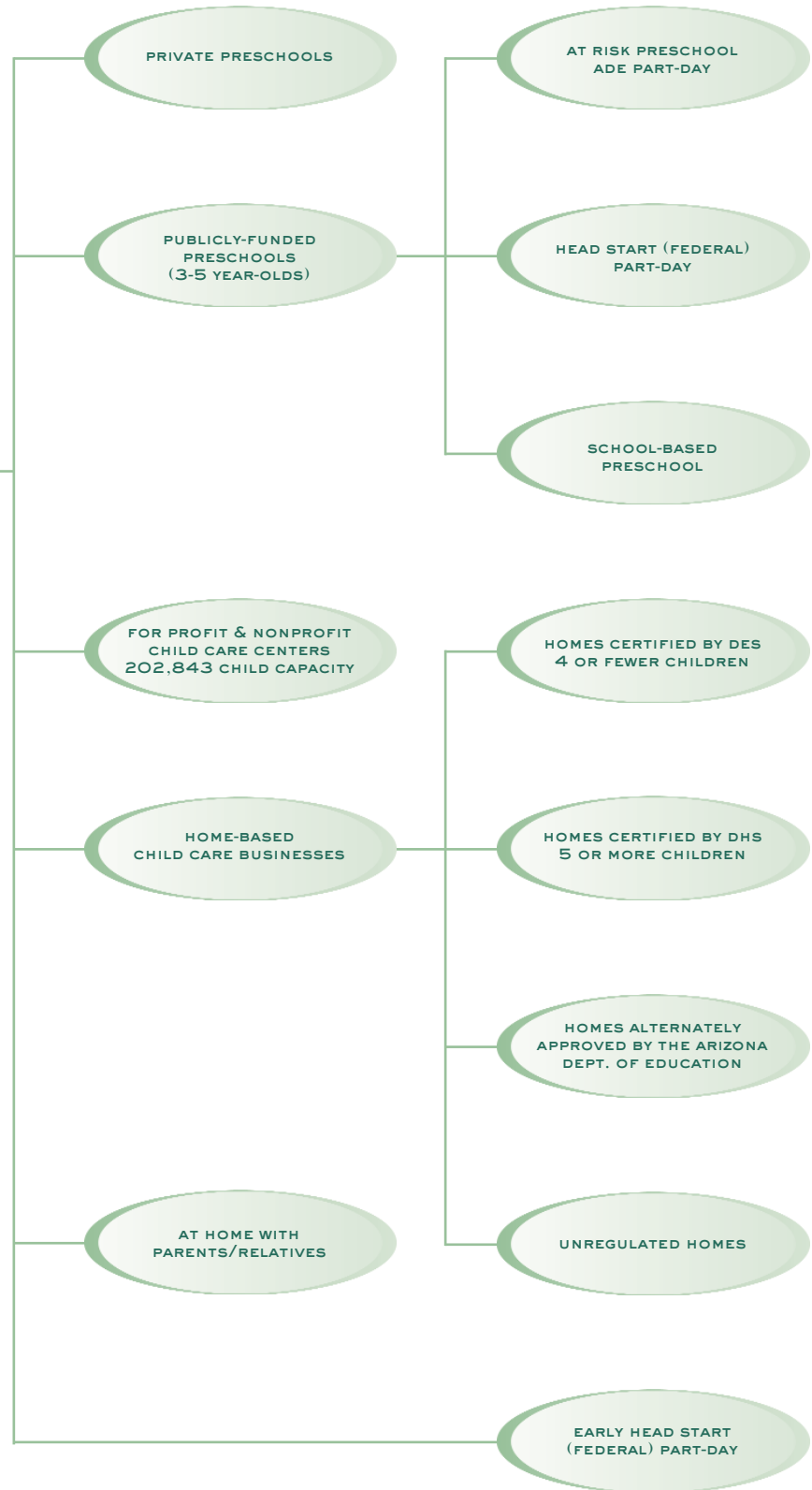
— continued on page 6

WHERE ARE ARIZONA'S 0-6 YEAR-OLDS?

NUMBER OF BIRTHS
IN 2000: 84,985

CHILD POPULATION
0-5 YEARS OLD IN 2000:
459,141

WORKING PARENTS:
270,900 (59%) OF
CHILDREN YOUNGER
THAN 6 LIVE EITHER
WITH A SINGLE WORKING
PARENT OR WITH TWO
WORKING PARENTS



**THE
COMPONENTS
THAT ARE
NECESSARY
FOR CHILD
CARE AND
PRESCHOOL
TO PROMOTE
HEALTHY
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AND SCHOOL
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HAVE BEEN
CLEARLY
DOCUMENTED.**

The care and stimulation children receive in each of these settings dramatically impact their chances for school success.

According to the *From Neurons to Neighborhoods* report: “Second only to the immediate family, child care is the context in which early development unfolds, starting in infancy and continuing through school entry for the vast majority of young children in the United States. It is the setting in which most children first learn to interact with other children on a regular basis, establish bonds with adults other than their parents, receive or fail to receive important inputs for early learning and language development, and experience their initial encounter with a school-like environment.”⁹

THE QUALITY OF CHILD CARE SHAPES SCHOOL READINESS

The components that are necessary for child care and preschool to promote healthy development and school readiness have been clearly and thoroughly documented through the research literature. These components include: trained, qualified teachers; teacher salaries and benefits comparable to kindergarten teachers; low teacher turnover to create the stable relationships that young brains need; low child-teacher ratios and small classes to ensure that children get attention and stimulation; parent partnerships; and classroom and teacher materials that facilitate learning.¹⁰

While we have a clear understanding of what high quality child care is, we do not have many clear examples of high quality child care in the state of Arizona.

In 2001, the median salary for child care and preschool teachers in Arizona was \$8.00 per hour, equivalent to less than \$17,000 a year for full-time work.¹¹

According to the U.S. Bureau of Labor Statistics, Arizona preschool teachers earn about half the salary of kindergarten teachers; child care teachers earn even less.¹²

Nearly one in five child care centers and preschools do not contribute anything toward health insurance for teachers.¹³

There is no requirement for teachers in child care centers or child care homes to have any prior training before they begin their employment

One-third of child care and preschool teachers have been in their jobs a year or less.¹⁴

Arizona does not meet recommended child-teacher ratios for any age group.¹⁵

There are several major barriers to elevating the quality of child care and preschool on a broad scale, including duplication and fragmentation within the governance structure and cost.

RECOMMENDATIONS

IMPROVING QUALITY

The goal of the Task Force was to identify strategies to improve early childhood learning and development by strengthening parents’ ability to find and pay for high quality preschool and child care options. The Task Force explored specific strategies to improve school readiness. Other states that have successfully elevated the quality of early care and education teachers and the programs in which they work have taken a multi-faceted approach. Examples are described in Appendix A.

Based on the research literature and experience throughout the country, the Task Force

focused on strategies to provide young children with more stable and stimulating relationships with better educated teachers.

The Task Force also believes it is critical that parents be aware of child care quality and school readiness issues so that they can make informed choices. Specifically, the Task Force identified strategies to improve child to teacher ratios, upgrade formal education and specialized training of child care and preschool teachers, increase teacher salaries, and reduce teacher turnover.

The Task Force developed four recommendations that, in combination, will move toward these objectives:

- Develop and implement a scholarship program that encourages child care teachers to get more training and education in early childhood.
- Develop and implement a program that provides salary supplements or salary increases to child care and preschool teachers who have completed specific education and training goals.
- Establish a voluntary quality rating system, such as a one- two- or three-star rating, to give parents simple information they can use in choosing child care and preschool.
- Provide child care and preschool programs with resources and incentives to improve their quality rating.

Many states around the country have begun to implement these types of strategies, with promising results. Scholarships and wage supplements for child care and preschool teachers have reduced turnover and increased overall child care teacher salaries in the states and metropolitan areas where they been tried.

Quality rating systems succeed by helping parents look for high quality care and helping child care businesses through financial incentives to make specific quality improvements. Clearly, parents don't have the time or expertise to compare all available child care options on all of the quality criteria. The rating systems provide a consistent and reliable methodology to measure the relevant indicators of quality. They also summarize the quality rating with simple labels, such as one-star, two-star, and three-star, so that parents can quickly and easily identify the level of quality of individual child care providers.

Effective rating systems will also help increase the supply of high quality child care. To do this, financial resources and technical assistance must be available so that child care businesses and preschools can implement improvements that will increase their quality rating. Funding can be made available, for example, for providers to increase wages and/or benefits for child care staff.

GOVERNANCE

Despite the number of children needing child care and preschool and the critical importance of quality, Arizona has no child care "system." Instead, we have an extremely fragmented set of policies, regulations and programs pertaining to early care and education. Administrative responsibilities for these regulations and programs are divided among three different state agencies. The Department of Economic Security (DES) provides subsidies to eligible low-income parents seeking private child care and certifies/monitors home-based DES contractors with four or fewer children. The Department of Education (ADE) administers the federal child and adult care food program and coordinates and monitors the home-based businesses that participate in this program.

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ING RESULTS.**

**IN ARIZONA,
THERE IS NO
STATE-LEVEL
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IN THE MOST
EFFICIENT OR
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MANNER.**

ADE also administers the Early Childhood Block Grant which provides funding to school districts for preschool and other early childhood programs. The Department of Health Services (DHS) licenses and monitors child care centers and preschools and certifies and monitors home-based child care businesses with five to ten children.

In addition, the state contracts with non-profit agencies to operate the child care resource and referral systems. Selected public and private organizations operate federally funded Head Start preschool programs, and some school districts operate and/or contract for preschool programs on their campuses. The chart on the preceding page illustrates this division and the resulting inefficient puzzle of functions that is confusing to both parents and child care busi-

nesses. Appendix B describes in more detail the roles and responsibilities of the various agencies for this variety of programs.

While each agency is responsible for its own particular piece of the puzzle, there is no state-level entity responsible for the coordination, comprehensive planning or efficient financing of early education as a whole. Similarly, there is no state-level entity responsible for developing or coordinating overall early education policy. As a result, available resources are not used in the most efficient or effective manner, many children receive inadequate and even harmful care, and there is no roadmap to improve school readiness.

Arizona's struggle is not unique. Many other states have faced similar circumstances.

EARLY CARE AND EDUCATION IN ARIZONA: DIVIDED GOVERNANCE

DEPARTMENT OF HEALTH SERVICES

LICENSES AND MONITORS CHILD CARE
CENTERS AND PRESCHOOLS

CERTIFIES AND MONITORS HOME-BASED
BUSINESSES CARING FOR 5-10 CHILDREN

ARIZONA DEPARTMENT OF EDUCATION

ADMINISTERS CHILD AND ADULT
CARE FOOD PROGRAM

COORDINATES AND MONITORS
ALTERNATE APPROVAL HOME-BASED
BUSINESSES THAT COMPLY WITH
FEDERAL REGULATIONS

ADMINISTERS THE EARLY CHILDHOOD
BLOCK GRANT

DEPARTMENT OF ECONOMIC SECURITY

PROVIDES SUBSIDIES TO ELIGIBLE LOW-INCOME
PARENTS SEEKING PRIVATE CHILD CARE

CERTIFIES AND MONITORS HOME-BASED
BUSINESSES THAT CARE FOR FOUR OR FEWER
CHILDREN THAT HAVE A CONTRACT WITH DES

CHILD CARE RESOURCE AND REFERRAL

NONPROFIT ORGANIZATIONS UNDER CONTRACT
WITH DES

MAINTAINS A DATABASE OF PROVIDERS:
SOME ARE REQUIRED TO LIST WITH CCR&R;
SOME OTHER PROVIDERS OF CHILD CARE MAY
VOLUNTARILY LIST WITH CCR&R

HEAD START

FEDERALLY-FUNDED DISBURSEMENT TO
21 REGIONAL GRANTEEES WHO ADMINISTER
PRESCHOOL AND FAMILY SUPPORT CENTERS

And quite a few states have developed initiatives that support collaborations and/or consolidation of early care and education services. While each approach is different, they are all designed to keep a focus on the big picture, promote long-term thinking, and encourage policy development that crosses many different systems and funding streams. The Task Force reviewed a variety of models in other states. They are described in Appendix C.

To reduce fragmentation in Arizona, strengthen policy, and make more efficient use of all available early care and education funds and services, the Task Force recommends the creation of a state-level mechanism. More specifically, the Task Force recommends that this mechanism:

- Include all state agencies that have a role in early care and education in Arizona
- Include coordination and oversight for child care, preschool and family support programs that are designed to help young children succeed;
- Develop a multi-year plan to improve service delivery and standards of care, avoid duplication and fragmentation of service, and enhance public and private investment;
- Measure the quality and capacity of early care and education programs; and
- Support and facilitate community efforts aimed at promoting school readiness

FINANCE

Even mediocre child care is often unaffordable for thousands of working families in Arizona. In 2000, the cost of full-time care ranged from \$3,600 to \$7,000 per year, depending on the age of the child, type of child care provider and the geographic area of the state.¹⁶ The Head Start Program that includes part-day preschool and family support services costs close to \$7,000 per year.



WORKING FAMILIES STRUGGLE TO AFFORD CHILD CARE

A MARRIED COUPLE WITH TWO CHILDREN AND AN ANNUAL HOUSEHOLD INCOME OF \$30,000 PER YEAR WILL SPEND 30% OF MONTHLY EARNINGS ON CHILD CARE (BASED ON ONE 3-YEAR-OLD IN FULL-TIME CARE AND ONE 7-YEAR-OLD IN A MARICOPA COUNTY AFTER-SCHOOL CHILD CARE PROGRAM).¹⁸

This is as much or more than a year's tuition at one of Arizona's state universities. The pie chart on page 9 shows a sample family budget with household costs based on national and Arizona data. For this family with two working parents, a three-year-old child and a seven-year-old child, child care is already the largest single monthly expense, consuming more than a quarter of the family's income.

Improving the quality of child care with the components that are necessary for school readiness raises the price of child care to a minimum of \$7,000 to \$10,000 per child per year — making it out of reach for even more families. To raise the level of school readiness

THE HEAD START PROGRAM THAT INCLUDES PART-DAY PRESCHOOL AND FAMILY SUPPORT SERVICES COSTS AS MUCH OR MORE THAN A YEAR'S TUITION AT ONE OF THE STATE UNIVERSITIES.

**THERE IS
NO SINGLE
“BEST” WAY
TO FINANCE
CHILD CARE.
FINANCING
OPTIONS ARE
AS DIVERSE AS
THE SYSTEM
ITSELF.**

components in child care and preschool on a broad scale requires some type of financing mechanism that bridges the gap between what quality costs and what parents can afford to pay.

Arizona has several financing mechanisms in place to help bridge this gap for some families. For example, state and federal funds are used to subsidize the price of private child care for families who meet specific income and other requirements (family income must be below 165 percent of the federal poverty level, \$29,900 per year for a family of four). Approximately \$10 million in state funds are used to provide public and private part-day preschool to approximately 4,300 low-income four-year-old children. And federal Head Start funds pay for part-day preschool for another 12,000 poor children.

However, these opportunities are limited and leave out thousands of families and their children. In 2000, Head Start’s limited resources served fewer than half of the children who were eligible.¹⁷ The child care subsidy rates are four years out of date and many parents can’t afford the co-payments that are required even after receiving a subsidy. Clearly, additional mechanisms are needed. Based on estimates of children 0-6 years old living in families with incomes below 200 percent of the federal poverty level (\$36,200 annual income for a family of four), a substantial investment is needed to give parents access to quality child care and preschool. There are approximately 173,000 Arizona children younger than school age living in working families at or below this income level. National estimates show that approximately 60 percent of working families with young children use paid child care, meaning that 104,000 of these children would need paid care. Quality child care/preschool is estimated to cost at least \$7,000 annually but national

data show that parents at this income level now pay an average of \$2,844. The cost to bridge the gap would be \$4,156 per child per year. Arizona already invests approximately \$244 million per year in child care subsidies and preschool programs for low-income children. The remaining investment needed is an estimated \$188 million per year.¹⁸

There is not any one best way to finance child care. Financing options are as diverse as the system itself. Appendix D describes a variety of public financing mechanisms that have been used to improve school readiness in other states and the current status in Arizona for each financing option.

The Task Force makes the following recommendations to finance the quality improvements needed in child care and preschool for school readiness:

- Develop multi-source financing for improving school readiness in child care and preschool programs;
- Direct, to the extent possible, the state’s portion of the federal Workforce Investment Act funds toward increasing parents’ access to early care and education opportunities that get children ready for school;
- Encourage employers to offer the federally allowed pretax payroll deductions to pay for child care, as well as, employee assistance in using this option;
- Conduct business-based information campaigns, to make employers aware of the publicly-funded child care subsidy program that is available for some of their employees. Employers should conduct information and assistance services to help eligible employees enroll in the child care subsidy program;
- Stimulate foundation and business financial support to implement a consumer education campaign so that

parents increase their demand for child care and preschool with school readiness components;

- Create a simple system to match employer contributions to school readiness efforts with public funds; and
- Expand Arizona's public finance system for K-12 education to include preschool without affecting funds for K-12.

PLANTING THE SEED

The key to improving our children's education and our future workforce is recognizing that Arizona needs to prepare our children for school. That preparation encompasses parental education, establishing standards for preschool and child care facilities and providing financial support. Arizona's parents and child care organizations have not had that necessary assistance. Dropout rates, poor reading skills and general sub-standard education relative to other states confirm that we are paying the price for that gap in our children's development.

Providing our children early care and education is our responsibility and one we need to take very seriously. Children who start school behind their peers are unlikely to catch up. Children who are unable to read at grade level by the end of third grade are unlikely to graduate from high school. Poorly-educated workers are increasingly unable to earn a living wage. Arizona pays in many ways for failing to take full advantage of the learning potential of all of its children, from lost economic productivity to higher crime rates and diminished participation in the civic life of our state.

As with our formal education system, the task force has concluded that Arizona needs a comprehensive and coordinated strategy to address the planning and financing of a quality early care and education system. Moving beyond today's fragmented and

inadequate array of early care and education options to a high quality system that meets the needs of young children and their families will require a long-term commitment and will clearly take time. It is the hope of the Task Force that these recommendations will help make meaningful progress toward that goal.

**ARIZONA PAYS
IN MANY WAYS
FOR FAILING
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- 14 Maricopa County Office of Research and Reporting (October 2001) Arizona Wage and Benefit Survey of Child Care/Early Childhood Education; Center Based Personnel, op. cit.
- 15 Arizona state requirements compared to levels recommended by the National Association for the Education of Young Children.
- 16 Child care costs are based on the Child Care Market Rate Survey published by the Maricopa County Office of Research and Reporting in December 2000. Taxes include federal income taxes less the Earned Income Tax Credit and Child Tax Credit, Social Security, Medicare, and Arizona's income tax. Utility costs are based on low-income energy costs by state in 1992, published by the National Consumer Law Center, adjusted for inflation using the Consumer Price Index. Food costs are based on the U.S. Department of Agriculture's Low Cost Plan for this family type from the USDA website in February 2001. Rent cost is for a two-bedroom apartment at fair market rate for the Phoenix metropolitan area in 2000 published by the U.S. Department of Housing and Urban Development in the Federal Register, Part III, 24 CFR Part 888, January 2, 2001. Transportation includes half the average cost to run one car that is more than ten years old and has 100,000 miles, published by John E. Schwatz in *Illusion Of Opportunity 1997* and adjusted for inflation using the Consumer Price Index. This family has less than 1% of monthly earnings remaining to pay for health care, phone, clothing, personal items, school supplies, etc.
- 17 Maricopa County Office of Research & Reporting (August 2000) Child Care Market Rate Survey 2000. Arizona Department of Economic Security Division of Employment & Rehabilitation Services Child Care Administration.
- 18 Fight Crime: Invest in Kids (May 2001) Arizona's Child Care Crisis: A Crime Prevention Tragedy, Washington, D.C.
- 19 U.S. Census data for 2000 show that 39% of children in Arizona are 0-6 years old. According to the 2000 KIDS COUNT Data Book published by the Annie E. Casey Foundation, 440,000 Arizona children lived in working families with incomes below 200% of the federal poverty level. Using 39%, an estimated 172,795 are younger than six. The estimate that 60% of working families with children younger than six use paid child care and the estimate that low-earning families with children younger than six pay an average of \$237 per month (\$2844 annually) for child care come from Child Care Expenses of America's Families, Occasional Paper Number 40, published by the Urban Institute in December 2000. According to the State Appropriations Report, there were a total of \$139.7 million in state and federal funds originally allocated for child care subsidies in 2002. According to data from the Arizona Department of Education, school districts reported spending \$13.3 million from the Early Childhood Block Grant for preschool programs and full-day kindergarten programs in 2000. According to Arizona Head Start information, Arizona was allocated a total of \$91.4 million in federal funds for Head Start and Early Head Start in 2000. Those allocations and the grant total \$244,400.

APPENDIX A: STRATEGIES TO IMPROVE CHILD CARE QUALITY

States that have successfully elevated the quality of early care and education teachers, and the programs in which they work, have taken a multi-faceted approach. Examples include the following:

North Carolina improved staff to child ratios in child care settings, implemented a new five star rated licensing system, and raised and restructured reimbursement rates to reward programs that attain higher levels of quality. The state also funded the T.E.A.C.H. Early Childhood Project to strengthen education and compensation of early childhood teachers and staff, and the T.E.A.C.H. Health Insurance Initiative to provide subsidized health insurance to staff who participate in the scholarship program. Additionally, the WAGES Project was established to help retain qualified staff by providing salary supplements, based on education attainment, to early childhood program teachers and directors as well as family child care providers. Early care and education programs can get loans and grants for quality improvements, as well as business training and technical assistance, from the Center for Community Self-Help, which is partially funded by the state's Division of Child Development. And the Smart Start initiative makes flexible funds available to local partnerships, several of whom have used the funds to create innovative, new approaches to quality improvement.

Wisconsin has focused on building a quality improvement system that includes: higher rates for accredited child care as well as grants to help programs become accredited; replication of the T.E.A.C.H. Early Childhood Project; a new staff compensation initiative called Wisconsin R.E.W.A.R.D.S.; a well-established early childhood career development training and education system (that also supports early childhood credentials, mentor teacher training, management and on-site technical assistance); a child care information system geared to informing consumers about the importance of quality pro-

grams and qualified teachers; direct Quality Improvement Grants to early care and education programs that meet the state's high-quality standards; and a new Early Childhood Excellence Initiative aimed at building and supporting high-quality child care centers in low-income neighborhoods.

Oklahoma implemented a "reach for the stars" rated licensing system and raised and restructured reimbursement rates to reward programs that attain higher levels of quality. The state also funds a TEACH Early Childhood initiative, a new wage initiative called Oklahoma REWARDS, and a comprehensive early childhood career development initiative. Two years ago Oklahoma expanded its prekindergarten program to include all children, regardless of income, and allows school districts to contract with community-based early childhood program so that services can be made available to working families. Additionally, the state is in the process of launching a statewide accreditation facilitation project.

Colorado has a TEACH Early Childhood scholarship initiative as well as a Department of Labor early childhood apprenticeship program. The state's well-established career development system is frequently linked with other child care policy initiatives so that it can have a significant impact. (For example, licensing regulations were revised to include stronger pre-service and in-service educational requirements.) Educare, an initiative that assesses and rates the quality of early childhood programs, provides grants for accreditation and other quality improvements, and educates consumers on the importance of high-quality programs, was spearheaded by the private sector but works closely with government. The state has established an income tax "check-off" for quality as well as several tax credits aimed at generating additional investment in child care. Additionally, Colorado has made funds available for wage supplements for child care providers in the Consolidated Child

Care Pilot Projects (local partnerships that are not given authority to blend early childhood funds.)

Florida improved staff-to-child ratios for infants and toddlers in child care centers, raised the introductory training requirement for staff, and required that at least one staff person for every 20 children have a Child Development Associate (CDA) credential or its equivalent. State funds were made available to help teachers obtain CDA credentials. The state also initiated the Gold Seal program, through which child care programs that have voluntarily met national accreditation standards receive special statewide recognition and higher public reimbursement rates. Additionally, the Florida Department of Education spearheaded the Early Childhood Collaborative Project, which gave flexible funds to community-based partnerships that included all early care and education stakeholders and developed a plan to improve quality in a wide range of early childhood programs.

Arizona: Arizona has not focused on increasing the quality of early care and education. However, it is important to mention efforts recently implemented to improve the quality of early care and education. Child care centers that contract with the Department of Economic Security (DES) and attain national accreditation may receive an additional 10% in subsidy fees from the DES. The Arizona Self-Study Project is a statewide project for public and private preschools, child care centers, and certified family child care providers. The Project assists programs in improving the quality of care and education they provide to young children by focusing on developmentally appropriate practices and integrating quality early childhood and special education methods into an appropriate model. The Department of Economic Security contracts with a variety of community based organizations to provide free early care and education training on a statewide basis.

APPENDIX B: DESCRIPTION OF CHILD CARE LICENSURE AND EARLY CHILDHOOD PROGRAMS

DEPARTMENT OF HEALTH SERVICES

Generally, a child care center that serves more than four children for compensation and provides regular hours of care must be licensed by the Department of Health Services (DHS). According to Arizona statute, DHS is mandated to monitor centers (one unannounced visit each year) to verify compliance with licensing requirements. Licensing requirements include basic health and safety standards, as well as compliance with staff to child ratios.

Similarly, a child care home that serves more than four children for compensation and provides regular hours of care must be certified by DHS. According to Arizona statute, DHS is mandated to monitor child care homes caring for 5-10 children for compensation with at least one unannounced visit annually.

DEPARTMENT OF ECONOMIC SECURITY

The Department of Economic Security (DES) provides subsidies to eligible low-income working parents seeking child care, including school-age care. Subsidies are available to working parents who meet the income criteria (up to 165 percent of the federal poverty level — \$22,122 per year for a family of four) and whose children are under age 13. The amount of subsidy available to parents varies depending on their income level and family size. Parents can use the subsidy for various child care options.

The maximum monthly-adjusted income is 165% of the federal poverty level adjusted for family size. A family of four who qualifies for care may earn a maximum of \$2,345 per month. Two-parent families are eligible if both parents are participating in eligible activities and need child care in order to do so. Children must be under the age of thirteen to participate. The parent or guardian chooses either a home or center

child care setting. The child care provider must be state licensed, certified, or be a relative, e.g. an aunt, uncle, or grandparent of child.

Subsidies can be used at DHS-licensed centers that have a contract with DES or at home-based child care that is certified by DES. To be certified, the homes that care for four or fewer children for compensation must pass health and safety standards, and obtain Child Protective Services fingerprinting and background checks on the provider and any individual who resides in the provider's home who is 18 or older. DES monitors their child care homes twice annually, one visit is unannounced.

Limitations: The payment of the child care subsidy to the child care provider is currently at the 75th percentile of the 1998 market rate survey. The market rate survey reflects what providers require all parents to pay, not the actual cost of delivering the care. Some child care providers do not have contracts with DES, therefore parents who receive the child care subsidy must limit their choice of care to those providers who choose to contract with DES. However, the vast majority of providers are contracted with DES.

ARIZONA DEPARTMENT OF EDUCATION

The Arizona Department of Education (ADE) administers the federal Child and Adult Care Food Program (CACFP), which reimburses providers for meals they serve to children in child care. To participate in the CACFP, a child care home must either be certified by DES or be "alternately approved" by the Department of Education. To receive "alternate approval," homes must comply with minimal health and safety standards, established by federal regulation. Homes providing child care as an "alternate approval" home are monitored three times per year. For a center or group home to participate in the CACFP, they must be licensed by the DHS or be operated by a tribal government.

ADE also administers the Early Childhood Block Grant, which began in 1990 as funding for comprehensive preschool programs for four-year-old disadvantaged children. These preschools were modeled on Head Start and administered by school districts. The initial funding was \$600,000 in 1991. Comprehensive guidelines were developed by a broad-based Early Childhood Advisory Council. The state appropriation grew to \$12.5 million in 1995. By 1996 4,900 children were served. In 1996, funding for the preschool program was combined with other money into an early care block grant.

Currently, school districts are allocated funds from the Early Childhood Block Grant based on a formula set in statute. Districts may choose to use their block grant funds for preschool services or any services for kindergarten through third grade. Eligibility for preschool services is based on the USDA's free and reduced lunch program with a maximum income of \$32,653 per year for a family of four. Schools are required to allow 50% of the eligible children to receive services from other providers including Head Start and private child care providers. The schools are no longer required to follow the comprehensive guidelines as they are required to be accredited. However, the guidelines are strongly encouraged to be utilized as an effort to promote quality programming. Preschool programs must be licensed by DHS.

Limitations: All state funding is capped just under 20 million dollars. The money is placed into an early care block grant and the districts have flexibility as to how the money is spent. Some districts may include preschools into the spending of these dollars and other districts may use their entire allocation for K-3 programs. The funds allocated to each district are based on a formula decided by law. This formula allows large, poor districts to receive larger allocations and the smaller, poor districts receive a smaller allocation. Research done on Head Start preschool programs has shown that approximately 5,000 per child needs to be spent to provide quality services. In Arizona, with one child care

provider for every 10 children and a group size maximum of 20, this would equate to \$100,000 per classroom.

CHILD CARE RESOURCE AND REFERRAL (CCR&R)

CCR&R is a coalition of community organizations providing referrals to families seeking child care and assistance/training to child care providers. Child & Family Resources, Inc. in Tucson and the Association for Supportive Child Care in Phoenix operate the programs in Arizona using state funds.

Providers required to register with the CCR&R databases include child care homes certified by DES and child care centers licensed by DHS that have contracts to care for children receiving DES subsidies. Some other programs may voluntarily be listed with the CCR&R.

The databases contain information on these care providers, including location of provider by geographic area, the total capacity of the provider, the cost of care, hours of operation and yearly schedule, ratios of staff to children, and special programs.

UNREGULATED CHILD CARE HOMES

Home-based businesses that care for four or fewer children for compensation are not regulated or monitored by any state or private agency. As of 2002, if a child care provider chooses to be listed with Child Care Resource and Referral (CCR&R), the provider must undergo a background check for the conviction of specific crimes and for substantiated cases of child abuse or neglect. The child care provider will also need to sign a sworn statement saying that they maintain minimal safety measures in their business, such as a fence around the pool, infant and toddler CPR/first aid certification and safe, locked storage of firearms.

HEAD START

Head Start is a national program, which provides comprehensive child development services for America's low-income, preschool children

age three to five and social services for their families. Head Start is administered through the Department of Health and Human Services, Administration on Children, Youth, and Families, Head Start Bureau. Since 1965, Head Start has served over 15 million (1998) children and their families. Head Start serves some of the most disadvantaged children in local communities in quality developmental programs, with 10 percent of the enrollment reserved for children with disabilities. Head Start plays a major role in focusing attention on the importance of early childhood development, emphasizing the importance of the early identification of health problems. Every child is involved in a comprehensive health program, which includes immunizations, medical, dental, and mental health, and nutritional services. Federal dollars are provided to the grantee private, or government or tribal. There are seven Arizona Head Start grantees serving non-reservation, non-migrant children, thirteen tribes operate Head Start programs, and Chicanos Por La Causa serves children whose parents are identified as “migrant.”

Limitations: 19,278 are being served in Arizona which amounts to a fraction of those children eligible to receive Head Start services. The approximate cost of offering Head Start services to one child is \$7,000.

EARLY HEAD START

The Early Head Start Program, established in 1994, expands the benefits of early childhood development to low-income families with children under three and to pregnant women. Services include quality early education in and out of the home; home visits; parent education, including parent-child activities; comprehensive health services, including services to women before, during and after pregnancy; nutrition; and case management and peer support groups for parents.

Limitations: The total number of children being served is less than 800.

In addition the standards each Head Start program adheres to can be expensive and difficult

to implement. Infants and toddlers have a group size of 1:8 and a ratio of 1:4 up to three years of age. Renovation and square footage requirements for each age group contribute to limitations in partnering. In addition, the cost for offering center-based care is approximately \$12,000 per child.

APPENDIX C: EARLY CHILDHOOD GOVERNANCE MODELS

Arizona's struggle to coordinate and improve early childhood policies and programs is not unique; many other states have faced similar circumstances. And quite a few states have developed initiatives that support collaboration and/or consolidation of early care and education services. While each approach is different, they are all designed to keep a focus on the big picture, promote long-term thinking and encourage policy development that crosses many different systems and funding streams.

A summary of six basic approaches used by states to coordinate child care policy is included below. Each example also identifies states that have used the strategy, although the list of states is by no means exhaustive.

States that have established a single state agency which is responsible for administering all early care and education funds include:

- Minnesota created the Department of Children, Families and Learning, which is responsible for administering all pre-K-12 and early care and education programs.
- Alaska established the Department of Education and Early Development. This agency also oversees all K-12 and early care and education programs, with two exceptions. Child care for protective services cases, and child care that is paid for directly with TANF dollars is still managed by the Department of Human Services.
- Delaware recently established a new Office of Early Care and Education within the State Education Department to coordinate the implementation of the state's Early Success Report, a long-term plan for early care and education that was drafted by a public/private group.
- Arkansas established a Division of Child Care and Early Childhood Education within the Department of Human Services to administer all early care and education initiatives except child care subsidies that are paid directly by TANF.

States that have established a single public/private agency to administer all early care and education funds and services include:

- Florida established a statewide Florida Partnership for School Readiness to oversee the administration of all early care and education funds and services. Each county (or a group of counties) was also directed to establish a local, public/private Partnership for School Readiness. In addition to creating this new administrative structure the state pooled all available funds (which were previously administered as categorical grants) and will now begin to allocate funds to local Partnership Boards as a block grant.

States that have created a new, cross-system early care and education initiative governed by a public/private partnership that manages funds and provides leadership in policy, finance and planning include:

- North Carolina's Smart Start initiative is governed by the North Carolina Partnership for Children, a non-profit entity that was created by the state. In addition to administering state Smart Start funds (which are awarded to local public/private partnerships, who are required to conduct a local needs assessment and develop a plan to coordinate services and fill in gaps) the Partnership raises private sector matching funds and provides statewide leadership on early care and education policy.
- South Carolina created a public/private partnership to oversee First Steps to School Readiness, a statewide early childhood education initiative modeled on North Carolina's Smart Start. First Steps requires every county to establish a local public/private partnership board to assess local needs and resources and develop strategic plans.
- Kentucky created an Early Childhood Development Authority to oversee KIDS Now, a new Governor's initiative that devotes 25%

of the state's tobacco settlement funds to a range of early care and education services. Community councils, which are responsible for assessing local needs and applying for seed grants from the Authority, were also established.

States that use a Children's Cabinet to guide policy development and administration of early care and education funds include:

- Colorado established a Children's Cabinet under Governor Roy Romer which was very involved in program coordination and administration. This entity no longer exists.
- West Virginia established a Children's Cabinet with designated staff and the capacity to raise funds to spearhead several innovative, new early care and education initiatives.
- Rhode Island uses a Children's Cabinet to coordinate planning across state agencies and make policy recommendations. The Integrated Services Initiative Steering Committee, a state-level partnership, reports to the Children's Cabinet and provides leadership, coordination, training and technical assistance on key initiatives.
- Kansas established a Children's Cabinet to oversee expenditures from the Children's Initiatives Fund (tobacco settlement money) and to identify, evaluate and recommend funding for children's programs. Members are appointed by the Governor and include cabinet level leadership from each state agency as well as a diverse group of Kansas citizens.

States that have established a new inter-agency body to help coordinate early care and education programs and services, or have assigned this responsibility to an existing, interagency coordinating body, include:

- Vermont created the Early Childhood Steering Committee to bring together staff from the Departments of Health, Social Welfare, Education, and Employment; early childhood programs; community partnerships; community-based organizations; and parent groups. The Steering Committee works to ensure a

unified, comprehensive early care and education system in Vermont.

- Georgia established a state-level partnership, comprised of the Departments of Children & Youth, Education, Human Resources, Medical Assistance, and the Governor's Office of Planning and Budget. The partnership works to promote state-level coordination and support local collaborative groups.
- Hawaii has an interdepartmental Council (made up of state agency directors) and state staff, that works closely with the Good Beginnings Alliance (described below.)
- Mississippi established the Early Childhood Services Interagency Council including representation from the Departments of Human Services, Education, Health, and Mental Health, as well as higher education, educational TV, and other stakeholders. The Council works to coordinate funds and services.
- Washington created The Family Policy Council, a state-level, inter-agency entity that establishes outcomes for families and initiated a study of child care and early learning organizations within the state. The Council also oversees and provides technical assistance to local Community Public Health and Safety Networks. The Networks assess needs, devise solutions, and are legislatively mandated to achieve specific outcomes for children and families.

States that have established a Commission or Task Force to plan for and assist in overseeing all early care and education programs include:

- Kentucky Governor Patton appointed a Task Force on Early Childhood, which recommended using 25% of tobacco settlement (\$56 million over 2 years) for the comprehensive KIDS Now! Initiative. (An Early Childhood Development Authority was then established to oversee the initiative and administer funds; see above.)
- Hawaii established the Good Beginnings Alliance, a statewide public/private partnership that works to improve and coordinate services and supports for children 0 to 6.
- Illinois recently established a Task Force on

Universal Access to Preschool, chaired by the First Lady.

- New Jersey established a Commission on Early Childhood Education to gather feedback and make policy recommendations on the delivery of preschool.
- Oregon has a State Commission on Children & Families that sets guidelines for the planning, coordination and delivery of services by local county commissions. The State Commission also provides local groups with training, technical assistance, and staff funds. Local commissions prepare a Coordinated Community Plan.
- Washington established a Commission on Early Learning, which expired in June 2000.

APPENDIX D: FINANCING OPTIONS FOR CHILD CARE AND PRESCHOOL

There is not one, best way to finance child care. Financing options are as diverse as the system itself. A brief description of the strategies that are currently used by states and cities is included below. The italicized paragraphs summarize Arizona's current financing structure in each of the categories discussed.

Federal, state and local governments generate revenue through taxation and fees. Taxes are assessed based on what you own (e.g. property taxes), what you spend (e.g. sales taxes) or what you earn (e.g. income taxes). Fees are payments for services you use or transactions you make. Fees can be charged to use a park, drive on a highway, acquire a marriage license, record a deed or buy a lottery ticket. Some states fund child care with dedicated revenue sources; that is, they "earmark" a specific tax or fee for child care. Examples of this approach include the following:

DEDICATED PROPERTY TAXES

Florida enacted a law that allows local governments to create a juvenile welfare board and to levy a property tax earmarked for children's services. To date, six Florida counties have taken advantage of this taxing authority. Funds are used for a variety of children's services, including child care.

The cities of San Francisco (Proposition J) and Seattle (Families and Education Levy) have passed referenda establishing dedicated property taxes for children's services.

Arizona repealed the state property tax in 1996. There is a county property tax with a set, statewide rate that is earmarked for K-12 education. There are a number of special districts that levy property taxes for specific purposes, such as flood control. There are also property taxes levied by school districts and community college districts to pay for maintenance and

operations (and some limited bonding for capital expenses). School district property taxes were reduced significantly when Students First was adopted in 1998 to pay for most K-12 capital expenditures. This law replaces local bond financing with appropriations from the state general fund.

DEDICATED SALES AND EXCISE TAXES

California imposed a new tax on tobacco products and dedicated these funds to improving childhood development (Proposition 10). Indiana initially funded its school-age child care project with a cigarette tax. The voters in Aspen, Colorado approved a provision to increase the local sales tax and earmark the increase for affordable housing and child care.

Arkansas recently imposed a new tax on beer, earmarked for child care.

In Arizona, there is a tax on tobacco and alcohol that is earmarked for correctional facilities. An additional tobacco tax was passed by voters in 1994 with the revenue earmarked for health services. In 2000, voters increased the state-wide sales tax by 0.6% with funding earmarked primarily for K-12 education.

DEDICATED FEES

Three California cities (San Francisco, Concord, and Santa Cruz) have established laws that require any new real estate development project to either make space available for a child care center or pay an "exaction" tax to help fund child care facilities.

Kentucky established a voluntary surcharge on motor vehicle registration or renewal to generate funds for child care assistance.

There are no similar dedicated fees in Arizona.

LOTTERIES AND GAMING

Georgia earmarked part of the state lottery for a universal prekindergarten program.

Missouri earmarked a portion of the Gaming Commission Fund (from riverboat gambling) for early care and education services.

Arizona's lottery revenues are earmarked for a wide range of purposes, including transportation, parks, economic development, and the state general fund. Currently, several of the programs which are supposed to receive lottery funds actually get none, because the statutory allocations exceed the actual revenue. Lottery sales have been decreasing since 1995.

In Arizona, the state currently receives no revenue from the gaming on Indian reservations. The compacts that govern Indian gaming will be expiring soon and must be renegotiated. There is a pari-mutuel tax of less than 5% on revenues from dog and horse racing. These tax dollars are deposited into special funds for racing and are not allocated to the state general fund.

TAX CREDITS, DEDUCTIONS, AND EXEMPTIONS

Individual and corporate income taxes are one of the largest sources of revenue for the federal government and for forty-three states. Governments have established a variety of credits (taken against taxes owed) and deductions (subtracted from income before computing taxes owed) for child care related expenses. Twenty-five states also provide some sort of income or franchise tax assistance to employers who pay for child care for their employees. Unfortunately, these credits are not widely used in most states. Several states have attempted to address this problem by making the credits much more generous and/or developing new kinds of employer tax incentives.

New York greatly expanded its Child and Dependent Care Tax Credit. It is available to all families, regardless of income, and is refundable (which means that even families who pay no tax can receive a refund.) The maximum credit is approximately twice the federal credit.

Use of the Georgia employer child care tax credit jumped significantly when it was increased to allow companies to claim a credit of 75% of their investment in employer-sponsored care and 100% of the investment if they construct an on-site facility.

Colorado established a Child Care Contribution Tax Credit, equal to 25% of any contribution to promote child care in Colorado, up to \$100,000. Since the credit is available to anyone — not just employers — it functions more like a specialized credit for charitable contributions than a targeted employer tax credit.

Oregon just enacted the Pilot Corporate Child Care Tax Credit, a new initiative modeled after the success of the Low Income Housing Tax Credit (LIHTC). Like the LIHTC, the child care pilot allows businesses to receive a significant financial return on their investment. Businesses may use the dollars they invest in the child care industry to purchase tax credits with a value greater than their initial investment. (For example, for every 50 to 80 cents invested in child care the business would receive a tax credit worth \$1.) Approved community agencies will be responsible for selling child care tax credits to investors and allocating the funds collected to eligible child care programs.

Austin, TX created a child care fund as a set-aside when negotiating tax abatements with new businesses such as Samsung Semiconductor.

Maine has an initiative that refunds withholding taxes to businesses that create at least 15 new jobs, pay more than the average wage, and offer health and retirement benefits. (This strategy could be used to help fund wage and benefit enhancements for child care staff — especially if it is linked to a career development system.)

Arizona has no state tax credit on individual income taxes for child care expenses. A state tax credit was in place from 1991 through 1994 which provided a credit on corporate income taxes for employers that made expenditures for

child care services for their employees. This credit was used by only a handful of businesses when it was in place.

FINANCING CHILD CARE WITH GENERAL REVENUES

States are increasingly allocating their general public revenues to child care, using a variety of agency budgets for increased investment.

FEDERAL TEMPORARY ASSISTANCE FOR NEEDY FAMILIES (TANF) FUNDS

Washington uses TANF reinvestment funds to support a pilot Child Care Career and Wage Ladder that makes wage supplements available to early childhood teachers in 100 child care centers.

Connecticut makes tax exempt bonds available to help finance facilities, and then uses TANF funds to underwrite a portion of the debt. (The bonds are issued by a state authority, CHEFA, and used to leverage private investment.)

Arizona uses over 20% of our TANF funds to pay for existing child care subsidies. Arizona is relying on unspent TANF funds from past years to cover current expenditures.

STATE EDUCATION FUNDS: PRESCHOOL

Forty-two states spend education funds to support a preschool program or to supplement the federal Head Start program. Most states allocate targeted general funds for this purpose, although three states (Maine, Wisconsin, and West Virginia) permit school districts to enroll four-year olds in public schools and increase the general education budget appropriation. Pennsylvania also permits districts to enroll four-year olds but does not appropriate state funds.

The Arizona Department of Education budget includes an “early childhood block grant” of \$19.5 million from the state general fund. These dollars are distributed to school districts and can be used for preschool programs for economically disadvantaged children or for any purpose

to improve the academic achievement of all pupils in kindergarten through third grade. In fiscal year 2001, \$9.8 million was used by 54 districts for preschool programs for economically disadvantaged children and \$3 million was used by 67 districts for full-day kindergarten.

Previously, some school districts were also using their regular K-12 budget to help pay for pre-school programs. However, a state attorney general opinion issued last September clarifies that no state dollars (other than the early childhood block grant) can be used for preschool. (This does not apply to preschool programs for children with disabilities, because these programs are required by federal law.) In addition, Students First does not count preschool or full-day kindergarten students in the funding formula for capital expenses. This makes it financially and physically difficult for many districts to house preschool programs in the schools.

SCHOOL-AGE CHILD CARE

Many states also use education funds to support school-age child care.

Hawaii’s A+ Program makes after-school child care universally available to all families with children enrolled in public elementary schools (kindergarten through sixth grade.)

California allocates education funds for the After School Learning and Safe Neighborhoods Partnership Program, which operates at elementary, middle and junior high schools with large numbers of children and youth from low-income families.

Arizona is using \$4 million in TANF funds this fiscal year for after-school programs for youth 11-17 years old.

STATE AND FEDERAL HEALTH FUNDS

Rhode Island uses states and federal Medicaid funds to pay for health insurance for child care providers.

Pennsylvania uses state Department of Health funding to support the Early Childhood Education Linkage System (ECELS), which offers child care providers health and safety training and technical assistance, as well as linkages to health care professionals who volunteer to work with child care programs.

New Hampshire uses funds from the departments of health and substance abuse services to fund Plustime, a school-age child care initiative.

STATE HIGHER EDUCATION FUNDS

New York, along with six other states (CA, FL, IL, KS, MI, OH) makes higher education funds available to support campus-based child care. The funding is intended to keep child care affordable for student parents.

CRIME PREVENTION AND JUSTICE FUNDING

North Carolina allocates state crime prevention funds for Support Our Students initiative, which provides after-school programming and enrichment activities to middle school youth.

Colorado has earmarked 20% of the Youth Crime Prevention and Intervention fund for services provided to children less than 9 years old. Funded services include: school-age child care, a nurse which is shared by several early childhood programs to conduct home visits, training for staff who work with children who are at risk for later crime or are exposed to violence, parent mentoring and a summer reading program.

New York has allocated funds from the New York State Office of Court Administration to establish child care centers in court buildings.

PUBLIC/ PRIVATE PARTNERSHIPS

Blending public and private funds for child care is not new. But many states have developed new, innovative strategies to leverage and blend funding. These partnerships have also helped to build stronger, private-sector support for publicly funded child care.

North Carolina's Smart Start initiative combines state general funds with matching funds from the corporate sector to support a diverse array of early care and education services. Funds are awarded to community groups, who identify needs and plan services. The North Carolina Partnership for Children oversees the initiative, in partnership with the state's child development division.

Colorado's Educare initiative is run by a non-profit entity that raises funds from the private and public sectors. Educare focuses on quality improvement through a range of strategies, including program assessment, program grants, technical assistance and public education.

Florida established a matching grants program, called the Child Care Partnership, for employers who agree to help pay the cost of child care for low-wage employees.

Ithaca, a small town in upstate New York, has raised public and private funds to establish a community-based child care fund to help families at all income levels pay for child care. Organizers of the initiative are also exploring the feasibility of using funds from the New Markets Tax Credit and the National Community Capital Corporation.

New Jersey has formed a partnership with several private foundations to support a statewide accreditation facilitation project.

Community foundations in Indiana and Pennsylvania are helping to build child care endowment funds.

Four states — New Jersey, New York, California, Hawaii, Rhode Island — and Puerto Rico use Temporary Disability Insurance to provide partial wage replacement for maternity leave. Many more states are exploring the feasibility of using Unemployment Insurance to fund partial wage replacement during family leave.



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