

**First Things First
Yavapai Needs and Assets Report
2010**



FIRST THINGS FIRST

Chair

Anne Babinsky

Vice Chair

Mica LaBellarte Williams

Members

Margie Beach

Barbara Jorgensen

Kelly McCready

Becky Ruffner

Heidi Atkinson

Ophelia Tewawina

Sherry Birch

Sara Lienau

Julie Clark

1100 East Sheldon Street, PMB 6908

Prescott, Arizona 86301

Phone: 928.776.0062

Fax: 928.776.8118

www.azftf.gov

July 29, 2010

Message from the Chair:

The past two years have been rewarding for the First Things First Yavapai Regional Partnership Council, as we delivered on our mission to build better futures for young children and their families. During the past year, we have touched many lives of young children and their families by providing child care scholarships, increasing the availability of child care health and mental consultation, and delivering Parenting Education and Home Visitation programs.

The First Things First Yavapai Regional Partnership Council will continue to advocate and provide opportunities for quality improvement in child care centers, professional development for early childhood professionals, assistance to families with young children, and collaboration amongst early childhood family support programs.

Our strategic direction has been guided by the Needs and Assets reports, specifically created for the Yavapai Region in 2008 and the new 2010 report. The Needs and Assets reports are vital to our continued work in building a true integrated early childhood system for our young children and our overall future. The Yavapai Regional Council would like to thank our Needs and Assets Vendor LeCroy & Milligan Associates, Inc., for their knowledge, expertise and analysis of the Yavapai region. The new report will help guide our decisions as we move forward for young children and their families within the Yavapai region.

Going forward, the First Things First Yavapai Regional Partnership Council is committed to meeting the needs of young children by providing essential services and advocating for social change.

Thanks to our dedicated staff, volunteers and community partners, First Things First is making a real difference in the lives of our youngest citizens and throughout the entire State.

Thank you for your continued support.

Sincerely,

Anne Babinsky, Chair

Yavapai Regional Partnership Council

**Regional Partnership Council Members
(FTF Provides)**

Chair

Anne Babinsky

Vice Chair

Mica LaBellarte Williams

Members

Margie Beach

Barbara Jorgensen

Kelly McCready

Becky Ruffner

Heidi Atkinson

Ophelia Tewawina

Sherry Birch

Sara Lienau

Julie Clark

Introductory Summary and Acknowledgments

First Things First Yavapai Regional Partnership Council

The way in which children develop from infancy to well functioning members of society will always be a critical subject matter. Understanding the processes of early childhood development is crucial to our ability to foster each child's optimal development and thus, in turn, is fundamental to all aspects of wellbeing of our communities, society and the State of Arizona.

This Needs and Assets Report for the Yavapai Geographic Region provides a clear statistical analysis and helps us in understanding the needs, gaps and assets for young children and points to ways in which children and families can be supported. The needs young children and families face in the Yavapai Region include geographically dispersed high rates of poverty, a shortage of preventive services, a lack of service availability outside of several population centers, cuts in child care assistance subsidies, and a freeze on new enrollment in KidsCare. Other possibilities include high rates of birth complications and a decrease in immunization rates.

The First Things First Yavapai Regional Partnership Council recognizes the importance of investing in young children and empowering parents, grandparents, and caregivers to advocate for services and programs within the region. During the last year, the regional Partnership Council focused on: Quality First expansion; increasing availability of child care health and mental consultation; providing professional development scholarships to child care professionals; providing child care scholarships to low-income families; providing Parenting Education and Home Visitation programs; providing matching funding for a Head Start building purchase; and supporting collaboration amongst early childhood family support programs. This report provides basic data points that will aid the Council's decisions and funding allocations; while building a true comprehensive statewide early childhood system.

Acknowledgments:

The First Things First Yavapai Regional Partnership Council owes special gratitude to the agencies and key stakeholders who participated in numerous work sessions and community forums throughout the past two years. The success of First Things First was due, in large measure, to the contributions of numerous individuals who gave their time, skill, support, knowledge and expertise.

To the current and past members of the Yavapai Regional Partnership Council, your dedication, commitment and extreme passion has guided the work of making a difference in the lives of young children and families within the region. Our continued work will only aid in the direction of building a true comprehensive early childhood system for the betterment of young children within the region and the entire State.

The Yavapai Regional Partnership Council also wants to thank the Arizona Department of Economic Security and the Arizona Child Care Resource and Referral; the Arizona Department of Health Services and the Arizona State Immunization Information System; the Arizona Department of Education and School Districts across the State of Arizona; the Arizona Head Start Association; the Office of Head Start; Head Start and Early Head Start Programs across the State of Arizona; and the Arizona Health Care Cost Containment System for their contribution of data for this report.

TABLE OF CONTENTS

Executive Summary

Demographic Overview: Who are the families and children living in the Yavapai Region?

I. General Population Trends

- A. Overall Population
- B. Overall Population Growth
- C. Population Growth by Community
- D. Early Childhood Population and Population Growth
- E. Other Information

II. Additional Population Characteristics

- A. Racial/Ethnic Group
- B. Immigrant or Tribal Status
- C. Family Composition
- D. Language Usage

III. Economic Circumstances

- A. Children and Families Living Below Federal Poverty Level
- B. Household Income
- C. Employment and Unemployment
- D. Other Relevant Economic Indicators

IV. Educational Indicators

- A. Educational Attainment
- B. Kindergarten Readiness
- C. Standardized Test Scores
- D. Other Relevant Data

V. Implications for Kindergarten Readiness

The Early Childhood Education System

I. Early Childhood Education

- A. Accredited Early Care and Education Centers/Homes
- B. Early Care and Education Programs
- C. Other Relevant
- D. Professional Development
- E. Level of Certification, Credentials, or Degrees
- F. Retention Rates
- G. Wages and Benefits
- H. Availability of Certification, Credentialing or Degree Programs

II. Supporting Families

- A. Family Needs
- B. Child Abuse/Neglect
- C. Foster Care
- D. Juvenile Justice

III. Health

- A. Health Insurance Coverage and Utilization
- B. Healthy Births
- C. Immunizations
- D. Developmental Screening
- E. Injuries
- F. Child Mortality and Morbidity
- G. Other Relevant Data

IV. Public Awareness & Collaboration

- A. Public Information
- B. System Coordination

V. Implications for Kindergarten Readiness

Additional Regional Partnership Council Funded Tasks

I. Background

II. Regional Characteristics

- A. General Information
- B. Prenatal Characteristics
- C. Birth Characteristics
- D. Parental Characteristics
- E. Socio-Demographic Characteristics

III. Identification of Risk Factors

- A. Definitional Considerations
- B. Theoretical Frameworks
- C. Hybrid Framework for the Identification of Risk and Protective Factors

IV. Identification of Regional Risk Factors

- A. Regional Risk Factors

V. Identification of Best Practice/Services

- A. Effective Services/Programs

VI. Identification of Regional Assets

- A. Description of Regional Services and Programs
- B. Summary of Regional Services and Programs
- C. Observations

Summary & Conclusion

I. Summary

- A. Demographic & Regional Overview
- B. Early Care and Education
- C. Health
- D. Yavapai Regional Partnership Council Special Request

II. Current Support Strategies

III. Next Steps

Appendices

Appendix A: Table of Regional Assets

Appendix B: References and Citations

Appendix C: Yavapai County Home Visiting Matrix

EXECUTIVE SUMMARY

This report details findings from the second First Things First (FTF) Regional Needs and Assets Assessment completed in 2010 for the Yavapai Regional Partnership Council. This assessment will be used to help guide strategic planning and funding decisions of the Regional Council for the next year. While much of this report includes pertinent comparisons with data from previous years, the 2008 Needs and Assets Report for Yavapai can also be used to provide additional longitudinal perspectives and background information on this region.

Region Description

The Yavapai region is located in north central Arizona and encompasses all of Yavapai County as well as a portion of the City of Sedona that is in Coconino County. The region is over 8,125 square miles, and is as large as the state of New Jersey. There are two centers of population (Central Yavapai and Verde Valley) and a number of cities and towns, including: Prescott, Prescott Valley, Chino Valley, Dewey-Humboldt, Camp Verde, Clarkdale, Cottonwood, Jerome, and Sedona.

Demographics

Yavapai County has a current population of 215,503 and has experienced a 30% growth in population since 2000. This trend was paralleled by a similar increase (38%) in the number of children aged zero to five living in the region. According to the 2008 records, 2,216 births were recorded in Yavapai County across a number of communities. Residents of the Yavapai region are largely members of one of two racial/ethnic groups. Almost two-thirds (66%) of the births in Yavapai County in 2008 were to mothers who identified as White, Non-Hispanic. Another 29% were to mothers who were Hispanic or Latino. In addition, families include a significant number of teen parents, making up 14% of births in Yavapai County in 2008, above the state average of 12%. The families who make up this region are also diverse in composition. Of the households in Yavapai County, 66% are married couple households, 23% are female-headed with no husband present, and 11% are male-headed with no wife present. Although most children in Yavapai County live in these three household types, data indicates that both in the county and in Arizona as a whole a noticeable number of grandparents are also responsible for their grandchildren.

Economic Circumstances

In regard to economic circumstances, 9% of families in Yavapai County lived below the poverty line in 2008. This proportion increases dramatically to 32% for single parent, female-headed households and to 62% for single-parent, female-headed households with children under the age of five. This suggests female-headed households with children constitute a high need population in the region. Yavapai County School Districts also show wide variability in the prevalence of poverty in the region. The average gross annual income in Yavapai County was \$43,610, a 6% increase from 2000 to 2008. However, this number is still well below the \$51,124 median income reported for Arizona as a whole in 2008. The median income for female-headed households in Yavapai County was \$20,067 in 2007 compared to \$62,365 for married couples in the region. It is important to consider the current national economic climate when assessing the needs and assets of local regions.

The nation is currently facing one of the worst economic climates in the country's history and families and children nationwide are impacted significantly. The families in Yavapai County are

no exception. Unemployment data may provide the most complete and up-to-date picture of economic circumstances. A current “snapshot” of the unemployment rate in Yavapai County in 2010 shows a gradual decline over the first four months of the year from 10.5%, in January to 9.5% in April. Over that period, the Yavapai County unemployment rate has ranged from 0.4% to 0.8% higher than Arizona as a whole. Examination of the 2007-2009 unemployment rates for Yavapai County localities shows the trajectory of impact of the recent economic recession with unemployment rates rising by 2-3% in most communities.

Data regarding net job flows, new hires, separations, and total employment exhibit noticeable trends in 2008 and 2009. New job flows begin with a very modest (134) increase in the first quarter of 2008, but for the following three quarters of 2008 and the first quarter of 2009 there were large losses in the number of jobs. New hiring continued at a strong relatively steady pace through the third quarter of 2008 before dropping significantly. Total employment numbers provide the clearest picture of economic trends in Yavapai County in 2008-2009. These numbers show an almost steady decrease from 61,949 in the first quarter of 2008 to 54,329 in the third quarter of 2009. This amounts to an 11% decrease in employment over the seven reported quarters of 2008-2009.

Many families rely on benefits to help them survive unemployment or low income levels. The number of children under the age of five receiving nutrition assistance benefits in Yavapai County increased by 11% from January 2009 to June 2009, and saw an additional 8% increase between June 2009 and January 2010. The overall number of children enrolled increased from 2,692 to 4,985 over this one-year time period. In addition, the number of women and children enrolled in the Women, Infant, and Children (WIC) program, which provides supplemental food for low-income pregnant and post-partum women and their children, increased from 2005 to 2009 in most communities. The rates of receipt of unemployment benefits in the region further emphasize the severity of the economic downturn. In almost all of the Yavapai region’s zip codes, the number of residents receiving unemployment benefits increased in each consecutive reporting period from January 2007 to January 2010. In many zip codes, the number of claimants grew by 7 to 10 times the number they were in 2007.

Educational Indicators

Research suggests that a mother’s education level can have important implications for the educational progress of her child. From 2004 to 2008, the Yavapai region experienced a modest but noticeable increase in the educational level of mothers. The percentage of women giving birth who had not graduated high school decreased from 31% in 2004 to 28% in 2008. Over the same period the percent of mothers who were high school graduates increased from 32% to 34% and those who had attended or graduated from college increased from 36% to 38%. The region’s percentage of mothers without a high school diploma is slightly higher than the state rate of 26%, while its percentage of mothers who have attended or graduated high school is noticeably lower than that of the state as a whole (43%).

Other important educational indicators to consider include assessments of standardized test scores and graduation rates. In 2009, there was great variation by school district in the performance of the Yavapai region’s 3rd grade students on the AIMS mathematics, reading, and writing exams. Of the 15 districts for which 2009 AIMS data are available, 40% or more of the students failed the

mathematics exam in five districts, the reading exam in five districts, and the writing exam in four districts. Yavapai high school graduation rates vary longitudinally as well as within and between schools. In 2007, rates in the Yavapai region ranged from 33% for South Verde Middle High School to 87% for Bagdad High School.

Early Care and Education

A majority of children in the United States aged birth to six years in the United States participate in out-of-home child care suggesting its importance to early childhood development. In addition, quality of care has shown to affect a variety of child outcomes. In 2010 there were seven nationally accredited early care and education centers in the Yavapai region, an increase of one from 2008. This represents 8.8% of the region's 80 licensed centers, somewhat lower than the statewide rate of 10.7%. Four of the accredited centers are in Prescott and five of the accredited centers are Head Starts. With many of the accredited centers located in Prescott and an income-based eligibility requirement for Head Start, it is likely that many of the region's families do not have access to accredited centers.

There are a total of 80 licensed child care facilities in Yavapai Region. Fifty-seven of the licensed facilities are child care centers, with a capacity of 3,906 children. Fourteen of the licensed facilities are child care centers located in public schools and together had a capacity of 1,420 children. Nine of the licensed facilities are small group homes, with a capacity of 100 children. The region's licensed facilities have a combined capacity of 5,426 children. The largest percentage (38%) of this capacity is in Prescott.

The Child Care Administration Office of the Arizona Department of Economic Security assists eligible families with child care costs. The number of families in the Yavapai region eligible for child care assistance has decreased 46% from 617 in January 2009 to 333 in January 2010. The number of families receiving child care assistance has decreased by 30% over the same period, from 617 in January 2009 to 333 in January 2010. The number of children in those families receiving child care assistance dropped 45%. This compares with a 39% decrease in both the number of families and the number of children receiving child care assistance statewide over this period of time. Though the number of families eligible for DES child care subsidies has decreased dramatically, it may be argued that this decrease is more reflective of the changes in eligibility requirements for these subsidies than an indication of a decline in poverty.

Family Support Programs

Family Support is a broad system of programs, services and collaborations designed with the goal of helping families function to their potential. Different family support programs and services approach this goal quite differently.

Data from the First Things First 2008 Family and Community Survey provide insight into parents' perception of services currently available in the region and their knowledge of child development. Although 39% of parents expressed moderate or strong dissatisfaction with how agencies that serve young children and their families work together and communicate, 70% (or more) of the parents surveyed in the Yavapai region agree or strongly agree that it is easy to locate the services they need and feel that the services they receive are of a high quality and culturally appropriate. It should be noted however that 64% agreed or strongly agreed that services were not available at

convenient times or location. Additionally, 50% of the parents felt that the services they were able to access filled only a portion of their families needs, with 40% noting a particular lack in preventive services. Larger percentages of the region's parents answered correctly on 15 of 22 survey questions concerning child development on the survey than did parents statewide. However, the relatively low level of some scores indicates that continued efforts are still needed to educate parents about child development in the Yavapai region.

Child Abuse/Neglect, Foster Care, and Juvenile Justice

The number of reports and substantiations of child abuse can indicate an increased need for family support. The number of reports of child abuse fluctuated slightly from October 2007 to September 2009, ranging from 509 to 480 for each six month period in Yavapai County. The number of substantiated reports witnessed a steady decline over that same period. Examination of CPS data by Yavapai zip code shows variation in the number of child removals.

Foster care families and youth in the juvenile justice system may also require specific services or supports. According to the Arizona Department of Economic Security's most recent reporting, the percent of children entering foster care who had another instance of removal in the prior 12 months was 11.5%, slightly higher than the state rate of 10.5%. The percent of Yavapai children entering foster care who had been removed on another occasion in the prior 24 months was 5.2%, double the 2.6% rate of the state as a whole.

According to the Administrative Office of the Courts, of the 1,630 Yavapai juveniles referred to Arizona's court system, 22% received standard probation, 7% entered Juvenile Intensive Probation Services, and 57% were diverted to community service or other non-judicial alternatives. For 45% of the youth, petitions were filed requesting the court assume jurisdiction. The number of a region's children who are in the juvenile justice system may to some degree be taken as a measure of the efficacy of early child development and programs in the region.

Health Coverage and Utilization

The health and safety of children is of the utmost importance to parents. With the high costs associated with health care, most families are dependent on health insurance to cover the needed services. In general, insurance is associated with increased access to services and utilization of these services¹ as well as less unmet health needs.² Data from 2008 shows that in the Verde Valley, Central Yavapai, and other census-designated communities of the region, 16% of children under the age of 18 do not have health insurance coverage. In addition, KidsCare enrollment dropped by 33% from February 2008 to February 2010 in Yavapai County, in part due to the state freeze on new enrollment starting in January 2010 which was a response to state fiscal problems.

Healthy Births

A mother's lifestyle while pregnant as well as her access to and utilization of prenatal and perinatal care have important short-term and long-term implications for the health of her child. It is

¹ Selden, T.M., & Hudson, J.L. (2006). Access to care and utilization among children: Estimating the effects of public and private coverage. *Medical care trends in medical care costs, coverage, use and access: Research findings from the Medical Expenditure Panel Survey*, 44(5), pp. I-19-I-26.

² Kenney, G. (2007). The impacts of the State Children's Health Insurance Program on children who enroll: Findings from 10 states. *Health Services Research*, 42(4), 1520-1543.

recommended that a woman have monthly medical care from the beginning of her pregnancy. Arizona Department of Health Services data from 2006 to 2008 show that the region compared favorably with the state as a whole in terms of the number of prenatal visits by pregnant women. In all three years, a slightly higher percent (5%) of Yavapai women had only 1-4 prenatal visits than did women statewide (4%), an indication of less than adequate prenatal care. However, in 2007 and 2008, the percent of Yavapai women with 9-12 prenatal visits was 50% and 51%, respectively, as compared to 47% and 48% for the state as a whole.

In terms of prenatal practices and characteristics of births, the 2008 data from the Yavapai region compares unfavorably with that of Arizona as a whole. For example, compared to the statewide average, more than twice as many women in the region use tobacco during pregnancy; while alcohol use is 80% higher. Births in the region are almost twice (175%) as likely to have complications with labor and/or delivery, while abnormalities are almost three times (275%) as common. Teen mothers often face added prenatal and perinatal challenges, an important fact given that teen birth rates are relatively high for a number of Yavapai communities.

Low birth weight babies are at risk for serious health problems as newborns that may affect their health and development throughout their lives. Low birth weight means less than 5.8 pounds at birth and the birth weight ratio is calculated per 1,000 live births. In 2006, the region's low birth weight ratio (71.8) was slightly higher than that of the state as a whole (71.2). In 2007, the region's low birth weight ratio rose to 78.4 while the state's decreased to 70.9. The region's low birth weight ratio made a dramatic drop to 65.9 in 2008, in contrast to 75.4 statewide.

Other Health Indicators

The public's health has been greatly improved since the introduction of immunizations over the last century. The percentage of young children who are adequately immunized is a measure of the overall health status of a community. Recent data for Yavapai region zip codes for 2005, 2007, and 2009 show a disturbing recent trend in the number of children 19-35 months old receiving two common series of vaccinations. There was an increase in the percentage of two-year old children who were appropriately immunized (i.e., received both the 4:3:1:3:3:1 and 4:3:1:3:3:1:4 series of immunizations). However, in 2009, there was a decrease in both immunization percentages in most zip codes. In many cases, the decreases were quite large. The decrease in immunizations rates noted may be due to a combination of factors, including reductions in state services and the reduced incomes of families.

Developmental screening is another preventative health practice essential for ensuring children grow and develop optimally. Yavapai region surpasses Arizona in some measures of family access to early intervention services for children with developmental delays but remains behind it in others. One useful indicator of such access is the percent of infants and toddlers who have developmental delays and have been referred to early intervention services and who received evaluation/assessment within 45 days of referral. In fiscal years 2005-2007, significantly higher percentages of infants and toddlers were screened within 45 days in the region than in the state. The region has fluctuated below and above the state rate in the number of children ages 0-3 and 0-1 who had individual family service plans. The percent of infants and toddlers with an IFSP who receive services in their home or through programs is another area in which the Yavapai region's rates have surpassed statewide averages during fiscal years 2005-2007.

Over the last 50 years, the United States has seen significant declines in infant and child mortality, however many deaths still occur that are the result of injuries that could be prevented. The leading causes of infant death in the Yavapai region reflect the influence of both health and social factors. The leading cause of infant death over the period 2004-2008 was congenital malformations, and the next highest contributor was conditions originating in the perinatal care period. The leading causes of deaths among children ages 1-14 in the region varied from 2004 to 2008, though the most consistent cause of death was motor vehicle accidents, with one or two reported each year since 2004. In regard to injuries, the number of Yavapai youth under 19 years of age with inpatient discharges with injury and poisoning as a first-listed diagnosis increased from 2006 to 2007, but decreased from 2007 to 2008. There were a total of 10 pre-term newborns born in Yavapai County in 2008 who were admitted to intensive care units and another 69 newborns admitted who were born after 37 weeks (not pre-term). Details are not available on the reasons these infants were admitted.

Hospital admittance for asthma issues may sometimes result from inadequate preventative illness management or poor environmental conditions in the home. In 2008, 46 youth under 19 years of age received an inpatient discharge with asthma as the first-listed diagnosis in a Yavapai hospital. It is worth noting that 100% of the youth receiving such a discharge were under 15 years of age and 63% were males.

Yavapai Special Request

The Yavapai Regional Partnership Council requested that additional local information be obtained to complement the FTF Regional Needs and Assets Report. The following specific objectives were addressed:

- Compiling a comprehensive list of the characteristics of parents and children born in a 12-month period in the region.
- Compiling research that identifies risk factors related to poor early childhood outcomes
- Compiling research that identifies best practices for effectively reducing risk factors
- Identifying local assets that are available to assist families in the region
- Identifying gaps in local service related to reducing the risk of poor early childhood outcomes

As a result of this additional regionally-assigned task, a number of recommendations were developed about the types of services that would best address the particular needs of the families and children in the region. These recommendations take into consideration: 1) the predominant risk factors experienced by families and young children in the Yavapai region as identified in this Needs and Assets report, 2) an analytical review of the risk factors that impact healthy childhood development and the practices that are most effective in ameliorating the impact of the risk factors, and 3) the supports and services currently available in the region. It is suggested that attention to the following components will strengthen the system of services in the Yavapai region that are needed for children and families to experience success.

- **Key Indicator Data** – early childhood development may be assessed through a variety of factors. Two sources for which data is available in Yavapai County are the AIMS Scores

- ***Implementation of Proactive Surveillance Services*** – As with other community-based initiatives (e.g., policing), due to the current level of need, there is often an emphasis on providing reactive/responsive services and programs and, given resource issues, this often leads to an inability to provide additional preventative services. According to Foley, (1999)³ in order to go beyond simply meeting the current need of those at risk for negative early childhood outcomes, communities must develop and implement specific preventative surveillance programs. As indicated above, the implementation of proactive surveillance services has its genesis in the field of health and has yet to be expanded to other areas such as early childhood development. As such, it is suggested that attention be given to the development and implementation of these services in the Yavapai region. For example, these services may be designed to specifically identify parents, children, and families who are most *likely* to portray negative early childhood outcomes if not provided with assistance (based on research and data). A program may then be developed to provide services to this population even though they are not currently exhibiting any key indicators. Expanding this model outside of the field of health may provide Yavapai County with significant attention.
- ***Coordination of Information/Navigation Services*** – There are 54 identified services in Yavapai County, 18 of them provide information and/or navigation services. Given the relatively large number of those providing information, it may be helpful to discuss the possibility of developing and implementing a coordinated program for the distribution of up-to-date information on the services available.
- ***Level of Service*** – Research suggests that one of the most effective community-wide strategies for engaging families is to ensure that the level of services provided are reflective of the universal, selective, and intensive needs of the community. A review of the current level of service distribution for Yavapai County indicates that there are 28 universal services, 27 selective services, and 2 intensive services.
- ***Increased Attention for Low Income Families*** – Additional attention should be paid to developing, implementing, and enhancing programs targeting low income families and economically disadvantaged individuals during these economic times. Direction regarding allocation to these programs may be found in the data presented in this report describing the economic indicators for the various communities in Yavapai County.
- ***Geographic Distribution of Services*** – A variety of information presented in this report may be employed to inform discussions regarding the effective geographic distribution of services in Yavapai County. There is currently a concentration of services in the Prescott, Prescott Valley, and Chino Valley areas, and many Yavapai families noted that services they needed were not available at convenient times or locations.

³ Foley, D., Goldfield, S., McLoughlin, J., Nagorcka, J., Oberklaid, F., & Wake, M. (1999). *A review of early childhood literature*. The Centre for Community Child Health: Canberra, Australia.

- ***Child Care Need*** – It is clear that given the current economic situation, attention should be paid to developing and implementing a system for identifying the child care needs of Yavapai residents. Cuts to government subsidy programs as well as unemployment rates and other economic changes suggest that accurate assessments of child care need in Yavapai County are likely to be unavailable from either state or federal agencies. As such, it is suggested that identification of need, as well as eligibility (given changes to guidelines) for child care be addressed. Development of this system would allow for a more accurate determination of whether the need for child care is being addressed in Yavapai County.

- ***Child Care Teachers and Assistants*** – It is recommended that an assessment be made of child care teachers and assistants in order to determine how to increase a variety of areas including: retention, wages, and education. This is especially important given research on the impact that child care has on the positive development of young children. As such, any process designed to address these issues should be informed by the evidence-based literature on this subject.

DEMOGRAPHIC OVERVIEW: WHO ARE THE FAMILIES AND CHILDREN LIVING IN THE YAVAPAI REGION?

I. General Population Trends

Prior to examining the well-being of children and families in the Yavapai region, it is important to examine the demographic makeup of these populations. Demographics offer descriptive information about a region that can help to inform an analysis of needs, assets, and trends. Some of the important questions to answer include: How many families and children are living in this region? Has the population grown or declined over the last ten years? How has the population changed since the 2008 Needs and Assets Report? Are there any specific sub-regions with notable growth? Are there other notable trends that might help to provide important context for an assessment of regional needs and assets?

The above questions, as well as others, are answered in the following sections. Whenever possible, data is included for children ages zero to five, as this is the target population for First Things First initiatives. The data presented is the most current, reliable data that is available. For an assessment of population trends, data from the 2008 Needs and Assets Report (as well as from previous years) is included as appropriate. In some instances, data from multiple sources is included, based on the years of data that are available from a given source, reliability of sources, and other considerations. A rationale for inclusion of multiple data sources is noted where applicable.

A. Overall Population - In 2008, the total population estimate for Yavapai County was 215,503 people.⁴ This constitutes approximately 3 percent of the population of Arizona as a whole in that year.

Population, All Ages, 2005-2008

| | 2005 | 2006 | 2007 | 2008 |
|-----------------------|-------------|-------------|-------------|-------------|
| Yavapai County | 197,367 | 206,300 | 212,179 | 215,503 |
| Arizona | 5,961,239 | 6,178,251 | 6,353,421 | 6,500,180 |
| United States | 295,753,151 | 298,593,212 | 301,579,895 | 304,374,846 |

Source: U.S. Census Population Estimates Program (n.d.). *Annual Estimates of the Resident Population for the United States, Regions, States, and Puerto Rico: April 1, 2000 to July 1, 2008 (NST-EST2009-01)*. Retrieved April 14, 2010, from <http://www.census.gov/popest/states/NST-ann-est.html> and <http://www.census.gov/popest/counties/CO-EST2008-01.html>

B. Overall Population Growth - Yavapai County has experienced significant growth over the last decade. As noted in the table below, it is estimated that from 2000-2008 the region experienced a 30% increase in population. The county grew by 2% from 2007 to 2008, matching the growth rate experienced by the state of Arizona. This growth rate is twice the national average of 1% for the same time period.

⁴ It should be noted that data included since the 2000 Census is an estimate, based on the US Census Population Estimates Program.

Change in Population, All Ages, 2000-2008

| | 2000 | 2007 | 2008 | Percent Change (2000-2008) | Percent Change (2007 to 2008) |
|-----------------------|-------------|-------------|-------------|-----------------------------------|--------------------------------------|
| Yavapai County | 167,517 | 212,179 | 215,503 | +30% | +2% |
| Arizona | 5,130,632 | 6,353,421 | 6,500,180 | +27% | +2% |
| United States | 281,421,906 | 301,579,895 | 304,374,846 | +8% | +1% |

Source: U.S. Census Bureau (2000). *PI. Total [1] Universe – Total Population*
http://factfinder.census.gov/servlet/DTTable?_bm=y&-context=dt&-ds_name=DEC_2000_SF1_U&-mt_name=DEC_2000_SF1_U_P001&-CONTEXT=dt&-tree_id=4001&-all_geo_types=N&-geo_id=01000US&-geo_id=04000US04&-geo_id=05000US04009&-geo_id=05000US04011&-search_results=04000US04&-format=&-_lang=en;
 Retrieved April 14, 2010, from <http://www.census.gov/popest/states/NST-ann-est.html>; : U.S. Census Population Estimates Program (n.d.). *Annual Estimates of the Resident Population for the United States, Regions, States, and Puerto Rico: April 1, 2000 to July 1, 2008 (NST-EST2009-01)*. Retrieved April 14, 2010, from <http://www.census.gov/popest/states/NST-ann-est.html>

C. Population Growth by Community - Yavapai County is comprised of numerous communities, including incorporated cities and towns, census-designated areas, Indian Reservations, and other smaller locales. The incorporated cities and towns of the region are: Prescott, Prescott Valley, Chino Valley, Dewey-Humboldt, Camp Verde, Clarkdale, Cottonwood, Jerome, and Sedona. The Prescott area is designated as a Metropolitan Statistical Area. Of the nine incorporated cities and towns, six have a population of over 10,000 people. According to 2000 Census data, 62% of the region’s population live in these nine incorporated cities and towns.

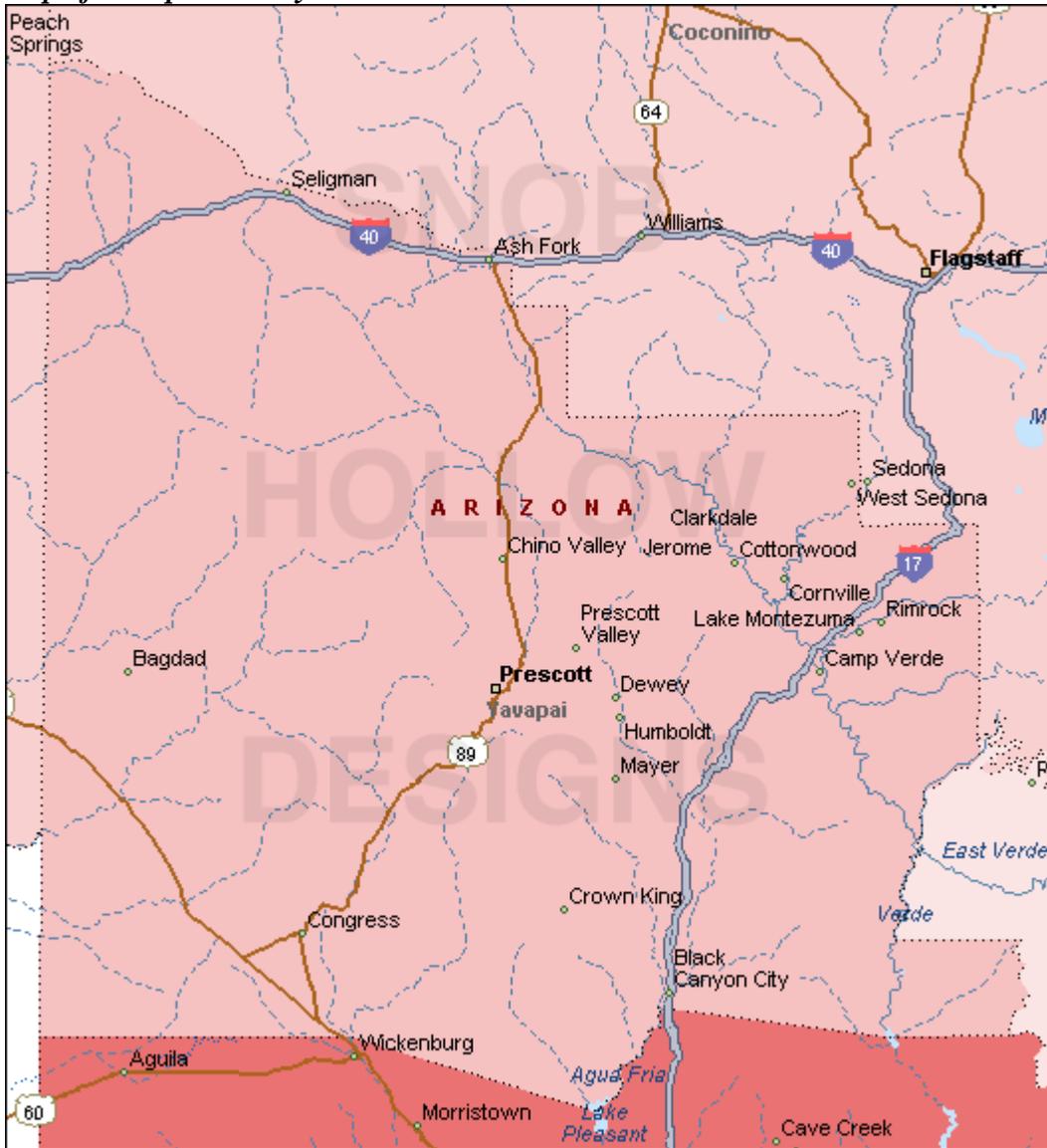
There are 17 census-designated areas that represent concentrations of populations that are identifiable by name but that are not legally incorporated. These communities are generally small, geographically disperse, and have a limited infrastructure. Census-designated areas in Yavapai County are: Ash Fork, Bagdad, Black Canyon City, Congress, Cordes Lakes, Cornville, Cottonwood-Verde Village, Lake Montezuma, Mayer, Paulden, Peoples Valley, Seligman, Spring Valley, Village of Oak Creek, Wilhoit, Williamson Valley and Yarnell. Approximately 25% of the region’s population lives in these census-designated areas. The remaining 13% of the population live throughout the region in locales that are not identified by name or which have populations so small that they are not specifically identified by the U.S. Census Bureau.

Within the region there are two centers of population. The Verde Valley is located in the eastern part of the region and, according to data from 2000, approximately 33% (55,850 people) of the region’s population live here. This area includes the communities of Camp Verde, Clarkdale, Cornville, Cottonwood, Cottonwood-Verde Village, Jerome, Lake Montezuma (Rimrock, McGuireville), and Sedona. The Central Yavapai Region is located in the western part of the county and, according to data from 2000, approximately 49% (83,466 people) of the population live here. This area includes the communities of Chino Valley, Cordes Lakes, Dewey-Humboldt, Mayer, Paulden, Prescott, Prescott Valley, Spring Valley, and the Yavapai Prescott Reservation.

Five percent of the population (8,588 people) live in small communities outside of the two population centers. These communities are: Ash Fork, Bagdad, Black Canyon City, Congress, Peoples Valley, Seligman, Wilhoit, and Yarnell. The remaining 13% of the population (22,576 people) live in other locations, outside of these communities.

From 2000 to 2008, the rate of growth in most Yavapai County communities (for which data are available) exceeded 20%. During that period, Prescott Valley experienced the highest percent change in population, increasing its population by 64%. Chino Valley also grew rapidly over the same eight-year period, increasing by 41%. A 1-2% population increase from 2007 to 2008 in most of Yavapai County's towns suggests that the region is continuing to grow, but that its rate of population increase may be slowing.

Map of Yavapai County



Changes in Population in Yavapai Communities, All Ages, 2000-2008 and 2007-2008

| | 2000 | 2007 | 2008 | Percent Change (2000-2008) | Percent Change (2007-2008) |
|---|-------------|-------------|-------------|-----------------------------------|-----------------------------------|
| Camp Verde | 9,451 | 10,776 | 10,849 | +15% | <1% |
| Clarkdale | 3,422 | 4,180 | 4,263 | +25% | +2% |
| Chino Valley | 7,835 | 10,844 | 11,078 | +41% | +2% |
| Cottonwood | 9,179 | 11,264 | 11,412 | +24% | +1% |
| Cottonwood – Verde Village | 10,610 | NA | NA | NA | NA |
| Dewey-Humboldt | 3,421* | 3,759 | 3,822 | 12% | +2% |
| Jerome | 329 | 352 | 353 | +7% | <1% |
| Cornville | 3,335 | NA | NA | NA | NA |
| Prescott | 33,938 | 42,178 | 42,697 | +26% | +1% |
| Prescott Valley | 23,535 | 37,699 | 38,535 | +64% | +2% |
| Sedona | 10,192 | 11,453 | 11,599 | 14% | +1% |
| Village of Oak Creek | 5,245 | NA | NA | NA | NA |
| Lake Montezuma/ Rimrock/McGuireville | 3,344 | NA | NA | NA | NA |
| Yavapai-Apache Nation | 743 | NA | NA | NA | NA |
| Verde Valley | 55,850 | NA | NA | NA | NA |
| Yavapai County | 167,517 | 212,179 | 215,503 | +29% | +2% |

Source: U.S. Census Bureau, Census 2000 Summary File 1 (SF 1), *100-Percent Data PI. Total Population[1] Universe: Total Population*; U.S. Census Bureau, 2007 Population Estimates, *Table T1*; U.S. Census Bureau 2008 Population Estimates, *Table T1*. Retrieved on April 28, 2010 from . Retrieved on April 28, 2010 from

http://factfinder.census.gov/servlet/DTGeoSearchByListServlet?ds_name=DEC_2000_SF1_U&_lang=en&_ts=295872201096;http://factfinder.census.gov/servlet/DTTable?_bm=y&-context=dt&-ds_name=PEP_2008_EST&-CONTEXT=dt&-mt_name=PEP_2008_EST_G2008_T001&-tree_id=808&-redoLog=true&-all_geo_types=N&-caller=geoselect&-geo_id=16000US0409690&-geo_id=16000US0412840&-geo_id=16000US0413890&-geo_id=16000US0416410&-geo_id=16000US0419145&-geo_id=16000US0436290&-geo_id=16000US0457380&-geo_id=16000US0457450&-geo_id=16000US0465350&-search_results=01000US&-format=&-_lang=en; http://factfinder.census.gov/servlet/DTTable?_bm=d&-context=dt&-ds_name=PEP_2008_EST&-CONTEXT=dt&-mt_name=PEP_2008_EST_G2008_T001&-tree_id=808&-redoLog=true&-all_geo_types=N&-caller=geoselect&-geo_id=05000US04001&-geo_id=05000US04003&-geo_id=05000US04005&-geo_id=05000US04007&-geo_id=05000US04009&-geo_id=05000US04011&-geo_id=05000US04012&-geo_id=05000US04013&-geo_id=05000US04015&-geo_id=05000US04017&-search_results=01000US&-format=&-_lang=en

NA indicates data is not available.

*There are no U.S.Census 2000 data for Dewey Humboldt due to the fact that the town was not incorporated in 2000. Therefore, the April 1, 2000 estimates base of the population estimates is used.

The region also includes two American Indian communities, the Yavapai Prescott Indian Tribe located in the Prescott area and the Yavapai-Apache Nation located in the Verde Valley (see tables below for additional demographic information regarding these communities).

Census 2000 Demographic Information (Yavapai-Prescott Indian Tribe & Yavapai Apache Nation)

| Demographic Information | Yavapai-Apache Nation | Yavapai-Prescott Indian Tribe |
|--|------------------------------|--------------------------------------|
| Population (Male/Female) | 743 (363/380) | 182 (86/96) |
| Children under 5 years of age | 85 | 20 |
| Male household (no wife present) with own children under 18 years of age | 16 | 0 |
| Female household (no husband present) with own children under 18 years of age | 36 | 11 |
| Married couple with own children under 18 years of age | 58 | 11 |
| Grandparents as sole caregiver for grandchildren under 18 years of age | 41 | 12 |
| Unemployment rate | 6.8% | 1.8% |
| Median household income | \$24,583 | \$51,250 |
| Percentage of families below poverty level (1999) | 30.8% | 4.9% |
| Percentage of families with female householder (no husband present) with related children under 5 (1999) | 22.2% | 33.3% |

Source: U.S. Census Bureau, Census 2000 Summary File

D. Early Childhood Population and Population Growth - The overall increase in population for the region has been paralleled by a similar increase in the number of young children. First Things First calculates their own estimates for the number of children ages zero to five in each region, primarily for the purpose of funding allocations. These numbers provide the most accurate estimate of children from this age range in the Yavapai Regional Partnership Council boundaries, and thus are included below. From 2000 to 2008 the area overseen by the Yavapai Regional Partnership Council saw a 38% increase in the population of children aged zero to five, rising from 10,485 children to 14,463 children.

Yavapai Region Change in Population, Population 0-5, 2000-2008

| 2000 | 2008 | Net Change |
|-------------|-------------|-------------------|
| 10,485 | 14,463 | +38% |

Source: First Things First *Fiscal Year 2010 Population and Potential Discretionary Allocations - Final*

In order to provide a more detailed description of this population change, Census population estimates for children under five years old living in Yavapai County are also included below.⁵ Yavapai County saw a 37% increase in children under five years old from 2000-2008, matching the overall growth for the region. The 2% increase in the population of children under five from 2007-2008 also mirrors the change in Yavapai County's overall population as a whole during that period. Interestingly, Yavapai County's 2% increase in the under-five population from 2007-2008 is less than the 3% increase in that population experienced statewide.

⁵ Please note that First Things First and Census Population Estimates are calculated differently.

Changes in Population, Children Under 5 Years Old, 2000-2008 and 2007-2008

| | 2000 | 2007 | 2008 | Percent Change (2000-2008) | Percent Change (2007-2008) |
|-----------------------|------------|------------|------------|----------------------------|----------------------------|
| Yavapai County | 8,648 | 11,659 | 11,888 | +37% | +2% |
| Arizona | 381,833 | 499,851 | 515,910 | 35% | +3% |
| United States | 19,137,974 | 20,730,216 | 21,005,852 | 10% | +1% |

Source: US Census 2000 and U.S. Census Population Estimates Program (PEP), National And State Population Estimate, Annual Population Estimates 2000 to 2009; Annual Estimates of the Resident Population by Sex and Five-Year Age Groups for the United States: April 1, 2000 to July 1, 2008 (NC-EST2008-01). Retrieved February 23, 2010 from <http://www.census.gov/popest/national/asrh/NC-EST2008-sa.html>; County Characteristics, Annual Estimates of the Resident Population by Selected Age Groups and Sex for Counties: April 1, 2000 to July 1, 2008. Retrieved on February 23, 2010 from <http://www.census.gov/popest/counties/asrh/CC-EST2008-agesex.html>; Estimates of the Population by Selected Age Groups for the United States and States, and for Puerto Rico: July 1, 2006 (SC-EST2006-01). Retrieved February 23, 2010 from <http://www.census.gov/popest/states/asrh/SC-EST2006-01.html>. Estimates of the Resident Population by Selected Age Groups for the United States, States, and Puerto Rico: July 1, 2007 (SC-EST2007-01). Retrieved February 23, 2010 from <http://www.census.gov/popest/states/asrh/SC-EST2007-01.html>. Estimates of the Resident Population by Selected Age Groups for the United States, States, and Puerto Rico: July 1, 2008 (SC-EST2008-01). Retrieved on February 23, 2010 from <http://www.census.gov/popest/states/asrh/SC-EST2008-01.html>.

E. Other Information - It is essential that estimates of population and population growth in this region be considered within the context of the current economic downturn. The numbers presented in the section above include those through 2008, the most current year for which accurate information is available. This was prior to the start of the worst economic period since the Great Depression. In regions like Yavapai County that are reliant on the service sector, businesses supported by tourism, and the construction and mining industries, the impact of this downturn was likely significant. It is unknown what the exact impact of the recession has been on the population of Yavapai; although it is plausible that some families may have been forced to relocate to larger urban areas in order to try to obtain employment. Section III (Economic Circumstances) includes data on key indicators suggesting the impact of the recession on families in Yavapai County.

II. Additional Population Characteristics

In addition to information on population growth, it is also important to examine a number of additional characteristics of the population that have a direct relationship to early childhood development. For example, significant research has been conducted on child maltreatment, resilience, and wellness in an effort to understand what factors contribute to positive and negative outcomes for youth. Most of the factors identified can be categorized into societal, community, family/parental, and child specific risk and protective factors. Increasingly, research suggests that it is a complex inter-play of these factors that impacts early childhood outcomes.⁶ While no single factor has been found to predict poor outcomes, all of these factors are important to consider in assessing the needs and assets of a region.⁷

⁶Peirson, L., Laurendeau, M., and Chamberland, C. (2001). Context, contributing factors, and consequences. In Prilleltensky, I., Nelson, G., and Peirson, L. (Eds.) *Promoting Family Wellness and Preventing Child Maltreatment: Fundamentals for Thinking and Action* (pgs. 41-123). Canada: University of Toronto Press Incorporated.

⁷ More information on the specific risk factors most prevalent in the Yavapai region is included in the Special Request Section of this report.

Demographic data on family characteristics can help provide important contextual information about the factors that may impact early childhood outcomes. Thus, this section of the Needs and Assets Report includes additional information on the racial/ethnic makeup, immigrant and tribal status, family composition, language usage, and other relevant characteristics of people living in Yavapai County.

While many of these particular family factors cannot be, or cannot *easily* be, impacted directly through program efforts, they still help to inform specific risks or needs that may exist in the community. For example, parent household structure has been correlated with the likelihood of child abuse in the household in some studies, with single parent household at increased risk.⁸ In addition, this section helps to inform the need to target programs and services to specific cultural groups or sub-populations. For example, should there be a high percentage of Hispanic families in a region, it might suggest the importance of offering a parenting program/curriculum to young mothers that uses culturally and linguistically appropriate materials and activities that show and emphasize core Latino cultural values.

As above, when possible, data is included for children ages zero to five, as this is the target population for First Things First initiatives. The data presented is the most current, reliable data available with comparisons made to the 2008 Needs and Assets report, as well to previous years, as appropriate

A. Racial/Ethnic Group – It appears that residents in the Yavapai region are largely members of one of two racial/ethnic groups. Almost two-thirds (66%) of the births in Yavapai County in 2008 were to mothers who identified as White, Non-Hispanic. Another 29% were to mothers who were Hispanic or Latino. The percent of births to White, Non-Hispanic mothers in Yavapai County was 24% greater than for the same group in Arizona as a whole. In contrast, the percent of births to Hispanic or Latino mothers in Yavapai County was 14% lower than the statewide rate.

It is difficult to compare 2008 race/ethnicity data from the Arizona Department of Health Services (ADHS) to that of the 2000 U.S. Census because the two agencies use differing race/ethnicity categories. ADHS utilizes an “Other/Unknown” category while the U.S. Census uses the two similar but non-equitable categories of “Two or More Races” and “Some Other Race”.

⁸ Weissman, A. (2003). Community characteristics associated with child abuse in Iowa. *Child Abuse and Neglect* 27: 1145-1159.

Birth by Mother's Race/Ethnicity, 2008

| | White, Non-Hispanic | Hispanic or Latino | Black or African American | American Indian or Alaska Native | Asian or Pacific Islander | Other / Unknown |
|-----------------------|----------------------------|---------------------------|----------------------------------|---|----------------------------------|------------------------|
| Yavapai County | 1,470 (66%) | 632 (29%) | 13 (<1%) | 51 (2%) | 26 (1%) | 24 (1%) |
| Arizona | 41,925 (42%) | 42,639 (43%) | 4,301 (4%) | 6,362 (6%) | 3,425 (3%) | 563 (<1%) |
| United States | 2,273,220 (53%) | 1,038,933 (24%) | 625,314 (15%) | 49,540 (1%) | 253,396 (6%) | - |

Source: Arizona State, Department of Health Services, Arizona Health Status and Vital Statistics 2008, Table 5B-8, *Births by Mother's Race/Ethnicity, Child's Gender and County of Residence, Arizona, 2008*. Retrieved on February 25, 2010 from <http://www.azdhs.gov/plan/report/ahs/ahs2008/5b.htm>. Centers for Disease Control (CDC) *National Vital Statistics Reports Vol. 58 No. 16 April 2010, Table 3. Live births by age of mother, live-birth order, and race and Hispanic origin of mother: United States, preliminary 2008*. Retrieved on June 9, 2010 from <http://www.cdc.gov/nchs/fastats/births.htm>.

According to 2000 Census data on the race/ethnicity of children under five years old in Yavapai towns, a high percentage of children are White, Non-Hispanic. In Bagdad, Black Canyon City, Chino Valley, Cordes Lakes, Dewey-Humboldt, Mayer, Prescott Valley, Spring Valley, and Wilhoit white children make up 70% or more of the under five population. The Yavapai towns with the highest percent of Hispanic children under five are Ash Fork (71%), Cottonwood (31%), Seligman (28%), and Congress (26%). However, it should be noted this data may no longer accurately represent the demographics of the region given that it is from 2000 and the county's total population has increased by 37% since that time.

Race/Ethnicity of Children Under Five Years-old, 2000

| | White, Non-Hispanic | Hispanic | Black | American Indian or Alaska Native | Asian | Native Hawaiian or other Pacific Islander | Two or More Races | Some Other Race |
|--------------------------|----------------------------|-----------------|--------------|---|--------------|--|--------------------------|------------------------|
| Yavapai County | 66% | 19% | <1% | 2% | <1% | <1% | 5% | 7% |
| Ash Fork | 24% | 71% | - | - | - | - | 3% | 3% |
| Bagdad | 72% | 19% | - | - | - | - | 5% | 4% |
| Black Canyon City | 94% | 3% | - | <1% | - | - | 3% | - |
| Camp Verde | 53% | 21% | <1% | 12% | <1% | <1% | 7% | 7% |
| Chino Valley | 70% | 18% | <1% | 2% | - | - | 4% | 5% |
| Clarkdale | 54% | 20% | <1% | 13% | <1% | - | 4% | 8% |
| Congress | 51% | 26% | - | 2% | - | - | 11% | 11% |
| Cordes Lakes | 81% | 11% | <1% | - | - | 3% | 4% | - |
| Cornville | 66% | 22% | <1% | - | - | - | 7% | 5% |

| | | | | | | | | |
|----------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|
| Cottonwood | 45% | 31% | <1% | <1% | <1% | - | 5% | 16% |
| Cottonwood -Verde Village | 66% | 19% | <1% | <1% | <1% | - | 5% | 7% |
| Dewey-Humboldt | 83% | 10% | - | <1% | - | - | 1% | 4% |
| Jerome | 60% | 20% | - | 20% | - | - | - | - |
| Lake Montezuma | 69% | 17% | - | 5% | - | - | 3% | 4% |
| Mayer | 78% | 12% | - | 1% | - | - | 5% | 3% |
| Paulden | 66% | 24% | <1% | 1% | - | - | 5% | 3% |
| Peeples Valley | 56% | 22% | - | - | - | - | - | 22% |
| Prescott | 67% | 18% | <1% | 3% | <1% | - | 4% | 7% |
| Prescott Valley | 70% | 17% | <1% | <1% | <1% | <1% | 4% | 7% |
| Sedona | 58% | 23% | 2% | - | 1% | - | 3% | 13% |
| Seligman | 55% | 28% | - | - | - | - | 14% | 3% |
| Spring Valley | 91% | 3% | 3% | - | 3% | - | - | - |
| Wilhoit | 84% | 8% | - | - | - | - | 8% | - |
| Yarnell | - | - | - | - | - | - | - | - |
| Arizona | 38% | 33% | 3% | 5% | 1% | <1% | 5% | 15% |
| United States | 53% | 18% | 13% | 1% | 3% | <1% | 4% | 8% |

Source: U.S. Census 2000 data included in First Things First Regional Profile data

It may be useful to also examine the data for the race/ethnicity of children under five by the sub-region in which the children and their families live. The following tables present this information by a number of Census-Designated Communities.

Race/Ethnicity of Children Under 5 Years Old, 2000, Verde Valley

| | Amer. Indian/ Alaska Native | Asian | Black | Hispanic | Hawaiian or Other Pacific Islander | Some Other Race | Two or More Races | White alone, not Hispanic |
|-----------------------------------|------------------------------------|--------------|--------------|-----------------|---|------------------------|--------------------------|----------------------------------|
| Camp Verde | 13% | <1% | <1% | 23% | <1% | 8% | 7% | 59% |
| Clarkdale | 14% | <1% | <1% | 23% | - | 9% | 5% | 62% |
| Cornville | - | - | <1% | 24% | - | 5% | 8% | 72% |
| Cottonwood | 1% | <1% | <1% | 38% | - | 20% | 7% | 57% |
| Cottonwood – Verde Village | <1% | <1% | <1% | 21% | - | 8% | 6% | 74% |
| Jerome | 25% | - | - | 25% | - | - | - | 75% |
| Lake Montezuma | 6% | - | - | 19% | - | 5% | 4% | 74% |

| | | | | | | | | |
|------------------------------|-----|-----|-----|-----|-----|-----|----|-----|
| Sedona | - | 1% | 3% | 27% | - | 15% | 3% | 67% |
| Village of Oak Creek | NA | NA | NA | NA | NA | NA | NA | NA |
| Yavapai-Apache Nation | 87% | - | - | 13% | - | 1% | 8% | 4% |
| Verde Valley | NA | NA | NA | NA | NA | NA | NA | NA |
| Yavapai County | 3% | <1% | <1% | 21% | <1% | 8% | 5% | 73% |
| Arizona | 7% | 2% | 4% | 40% | <1% | 18% | 6% | 46% |
| United States | <1% | 4% | 15% | 19% | <1% | 9% | 5% | 58% |

Source: U.S. Census 2000 data included in First Things First Regional Profile data

Race/Ethnicity of Children Under 5 Years Old, 2000, Central Yavapai

| | Amer. Indian/Alaska Native | Asian | Black | Hispanic | Hawaiian or Other Pacific Islander | Some Other Race | Two or More Races | White alone, not Hispanic |
|------------------------|-----------------------------------|--------------|--------------|-----------------|---|------------------------|--------------------------|----------------------------------|
| Chino Valley | 2% | - | <1% | 18% | - | 5% | 4% | 70% |
| Cordes Lakes | - | - | <1% | 11% | 3% | - | 5% | 81% |
| Dewey-Humboldt | <1% | - | - | 11% | - | 5% | 1% | 87% |
| Mayer | 1% | - | - | 13% | - | 3% | 6% | 81% |
| Paulden | 1% | - | <1% | 25% | - | 3% | 6% | 70% |
| Prescott | 3% | <1% | <1% | 20% | - | 8% | 5% | 73% |
| Prescott Valley | <1% | <1% | <1% | 19% | <1% | 8% | 5% | 77% |
| Spring Valley | - | 3% | 3% | 3% | - | - | - | 91% |
| Yavapai County | 3% | <1% | <1% | 21% | <1% | 8% | 5% | 73% |
| Arizona | 7% | 2% | 4% | 40% | <1% | 18% | 6% | 46% |
| United States | <1% | 4% | 15% | 19% | <1% | 9% | 5% | 58% |

Source: US Census 2000 data included in First Things First Regional Profile data

Race/Ethnicity of Children Under 5 Years Old, 2000, Other Census-Designated Communities

| | Amer. Indian/Alaska Native | Asian | Black | Hispanic | Hawaiian or Other Pacific Islander | Some Other Race | Two or More Races | White alone, not Hispanic |
|--------------------------|-----------------------------------|--------------|--------------|-----------------|---|------------------------|--------------------------|----------------------------------|
| Ash Fork | - | - | - | 73% | - | 3% | 3% | 24% |
| Bagdad | - | - | - | 21% | - | 4% | 5% | 78% |
| Black Canyon City | <1% | - | - | 3% | - | - | 3% | 95% |
| Congress | 2% | - | - | 29% | - | 12% | 12% | 59% |
| Peoples Valley | - | - | - | 29% | - | 29% | - | 71% |

| | | | | | | | | |
|----------------------|-----|----|-----|-----|-----|-----|-----|-----|
| Seligman | - | - | - | 33% | - | 4% | 17% | 67% |
| Wilhoit | - | - | - | 8% | - | - | 8% | 84% |
| Yarnell | - | - | - | - | - | - | - | - |
| Arizona | 7% | 2% | 4% | 40% | <1% | 18% | 6% | 46% |
| United States | <1% | 4% | 15% | 19% | <1% | 9% | 5% | 58% |

Source: U.S. Census 2000 data included in First Things First Regional Profile Data

B. Immigrant or Tribal Status - An immigrant family is one in which at least one parent is foreign-born. Even though many of the children in immigrant families are themselves citizens, these children face unique challenges compared to their peers. For example, educational attainment of parents in immigrant households may be limited, which may prevent them from helping their children learn to read or prepare for kindergarten. Research suggests that children from some low-income immigrant families are less likely to be prepared to start kindergarten.⁹ In addition, mothers of immigrant children may not have access to, or feel comfortable accessing, preventive health care (such as prenatal care) which has been shown to positively impact childhood outcomes.¹⁰ Many individuals of foreign origin may not seek the services they need for themselves or their children for fear of having their status questioned, even if they do have legal status to be living in the United States.

Proposed changes to Arizona immigration law in the spring of 2010 may have additional implications for the immigrant population in Arizona and their utilization of services. This law, known as the “Support Our Law Enforcement and Safe Neighborhoods Act” (Senate Bill 1070), is currently under federal scrutiny due to the fact that it allows law enforcement officials to question individuals whom they have reason to believe may be in the country illegally. Some preliminary information conveyed at the House Democrats Ad Hoc Hearing on the Arizona Immigration Law suggests that some individuals and families in Arizona are already seeking services in other States or are not accessing services they need because they are afraid.¹¹ The full implications of this law on service access, availability, and utilization statewide is not yet known.

Currently in Arizona, it is estimated that about 650,000 people are foreign-born, non-U.S. citizens (American Community Survey, 2006-2008). The Annie E. Casey Foundation estimated in 2004 that Arizona ranked fifth in the nation for births to foreign-born mothers, at 32%. Two years later, in 2006, the National Center for Children in Poverty projected that 78% of Arizona children born to low income families had immigrant parents, consistent with recent surges in immigration trends from Mexico being reported by federal agencies (“Children’s Action Alliance,” 2006). It is likely that these are under-estimates, as immigrant families living in the country illegally may avoid completion of Census documents, limit participation in services, and otherwise minimize involvement in the system in efforts to prevent deportation back to their home country. These are the common methods through which population and demographic data are obtained.

⁹ Murphy, David E. (2005). *Improving Literacy in America: Guidelines for Research*. New Have: Yale University Press.

¹⁰ Glasford, A., and Huang, P. (2008). Immigrant women’s health a casualty in the immigrant policy war. *The Women’s Health Activist*, Mar/April 2008.

¹¹ House Democrats Hold an Ad Hoc Hearing on the Arizona Immigration Law’s Impact on Women and Children (2010). Political/Congressional Transcript Wire 11 June 2010. *General OneFile*. Web. 22 June 2010.

For these reasons, finding data to accurately describe the ethnic and language characteristics of families in Yavapai County can be particularly challenging. American Community Survey estimates for 2006-2008 show that 199,415 of the population of Yavapai County are native-born U.S. citizens, while 10,170 are believed to be foreign-born non-citizens. An additional 5,918 Yavapai residents were reported to be foreign-born naturalized citizens.

Population by Citizenship Status, 3 Year Average 2006-2008

| | Native-born, U.S. Citizen | Foreign-born, Naturalized Citizen | Foreign-born, Not U.S. Citizen |
|-----------------------|--------------------------------------|--|---|
| Yavapai County | 199,415 | 5,918 | 10,170 |
| Arizona | 5,567,662 | 283,915 | 648,603 |
| United States | 266,098,793 | 16,329,909 | 21,631,026 |

Source: U.S. Census Bureau, 2006-2008 American Community Survey 3-Year Estimates, *Selected Social Characteristics in the United States*; 2008 American Community Survey 1-year Estimate, *Selected Social Characteristics in the United States*. Retrieved March 16 from

http://factfinder.census.gov/servlet/ADPTable?_bm=y&-geo_id=05000US04009&-qr_name=ACS_2008_3YR_G00_DP3YR2&-context=adp&-ds_name=&-tree_id=3308&-lang=en&-redoLog=false&-format= ;
http://factfinder.census.gov/servlet/ADPTable?_bm=y&-context=adp&-ds_name=ACS_2008_1YR_G00_&-tree_id=308&-redoLog=true&-caller=geoselect&-geo_id=04000US04&-format=&-lang=en ;
http://factfinder.census.gov/servlet/ADPTable?_bm=y&-context=adp&-qr_name=ACS_2008_1YR_G00_DP2&-ds_name=ACS_2008_1YR_G00_&-tree_id=308&-redoLog=true&-caller=geoselect&-geo_id=01000US&-format=&-lang=en

C. Family Composition - The structure of American families has been changing over the past few decades. Many American families no longer follow a traditional mother and father household structure. Instead, many are composed of single parent households, teen mothers taking care of their young children, grandparents, or other relative caregivers. The full impact of these different family arrangements on infants is not yet fully known. Some studies have shown that children of teen mothers are at increased risk for physical and cognitive problems when compared to children born to mothers who are adults,¹² as well as facing increased likelihood of economic challenges. Increased rates of poverty for single mothers are also well-documented, and these economic hardships may impact educational resources available to youth, family relationships, and other factors associated with positive parenting environments.¹³ The number of families in which grandparents are raising their grandchildren is also increasing. While many grandparents make excellent parents, they require unique resources and face some parenting challenges. One consideration is that children often enter the care of their grandparent after negative life events, such as the death of a parent or parent drug use, which may contribute to some increased risk factors for children in grandparent care.¹⁴

The following section details the family composition of families in Yavapai County. It is important to consider the specific support these different types of families may need to help ensure positive outcomes for the children in their care as part of a needs and asset assessment for the region.

¹² Cornelius, M.D., Goldschmidt, L., Willford, J.A., Leech, S.L., Larksby, C., and Day, N.L. (2009). Body size and intelligence in 6-year-olds: Are offspring of teenage mothers at risk? *Maternal Health Journal*. 13:847-856. DOI 10.1007/s10995-008-0399-0.

¹³ Jackson, A.P., Brooks-Gunn, J., Huang, C., & Glassman, M. (2000). Single mothers in low-wage jobs: Financial strain, parenting, and preschooler’s outcomes. *Child Development*, 71(5), 1409-1423.

¹⁴ Edwards, O.W. & Taub, G.E. *A conceptual pathways model to promote positive youth development in children raised by their grandparents*. School Psychology Quarterly. Vol. 24, No. 3, 160-172.

The American Community Survey defines a household as including “all the people who occupy a housing unit.” One type of household, the family household, “consists of a householder and one or more other people living in the same household who are related to the householder by birth, marriage, or adoption.”¹⁵ Some family households have children, while others do not. Of the 54,260 households in Yavapai County identified in the 2006-2008 American Communities Survey as being family households, 18,276 (34%) had children of their own under 18 years old. Two thirds (66%) of these households were composed of married couples and their children. This is slightly lower than the rate of married couple households found in both Arizona and the United States (68%). Another 23% of the county’s family households are headed by single females, 1% below the statewide rate but the same as that of the country as a whole. Single males head the remaining 11% of the county’s family households. The data suggest that compared to statewide averages, children in the Yavapai region may be slightly less likely to live in a two-parent household and slightly more likely to live in a single-parent household headed by their father. Significantly, just over a third (34%) of all Yavapai children under the age of 18 live in a single-parent household.

Makeup of Households with Children Birth to 18 Years of Age, 3 Year Average 2006-2008

| | Married Couple Households | Female-Headed Household, No Husband Present | Male-Headed Household, No Wife Present | Total Households with Children Birth-18 years |
|-----------------------|----------------------------------|--|---|--|
| Yavapai County | 12,051 (66%) | 4,200 (23%) | 2,025 (11%) | 18,276 (100%) |
| Arizona | 461,402 (68%) | 160,398 (24%) | 60,471 (9%) | 682,271 (100%) |
| United States | 24,045,128 (68%) | 8,301,901 (23%) | 2,537,787 (7%) | 35,567,087 (100%) |

Source: U.S. Census Bureau, 2006-2008 American Community Survey 3-Year Estimates, Selected *Social Characteristics in the United States: 2006-2008*. Retrieved March 18, 2010 from http://factfinder.census.gov/servlet/ADPTable?_bm=y&-context=adp&-qr_name=ACS_2008_3YR_G00_DP3YR2&-ds_name=ACS_2008_3YR_G00_-tree_id=3308&-redoLog=true&-caller=geoselect&-geo_id=05000US04025&-format=&-lang=en; http://factfinder.census.gov/servlet/ADPTable?_bm=y&-context=adp&-qr_name=ACS_2008_3YR_G00_DP3YR2&-ds_name=ACS_2008_3YR_G00_-tree_id=3308&-redoLog=false&-caller=geoselect&-geo_id=04000US04&-format=&-lang=en; http://factfinder.census.gov/servlet/ADPTable?_bm=y&-context=adp&-qr_name=ACS_2008_3YR_G00_DP3YR2&-ds_name=ACS_2008_3YR_G00_-tree_id=3308&-redoLog=false&-caller=geoselect&-geo_id=01000US&-format=&-lang=en

Percentage refers to total number of households, including households without children under 18 years of age. Percentages for each of the geographic divisions (i.e., Yavapai County, Arizona, and the United States) do not add up to 100% because of rounding off.

The American Communities Survey data presented above provides recent estimates of family composition in the Yavapai region for families with children less than 18 years of age. U.S. Census data from 2000 offers deeper analysis of family composition, focusing on households with children under five years of age and presenting data at the community level. The three tables below show the race/ethnicity of married couple, female-headed, and male-headed households with children under five years old in Yavapai County communities. Percents are computed based on the total number of families of a particular race/ethnicity with children less than five years of age. For example, according to the tables below, 67% of all of the Hispanic families with children under five in Camp Verde are married. Information provided in these tables also shows that 18% of all

¹⁵ <http://www.census.gov/acs/www/UseData/Def.htm>

Hispanic families with children under five in Camp Verde are female-headed and that 15% of all Hispanic families with children under five in Camp Verde are male-headed. Together, the three types of families total to 100% for each race/ethnicity.

Married Families with Children Under 5 Years Old: By Race/Ethnicity, 2000

| | White/ Non- Hispanic | Hispanic | Black | American Indian or Alaska Native | Asian | Native Hawaiian /Other Pacific Islander | Two or More Races | Other |
|--|-------------------------------------|-----------------|--------------|---|--------------|--|--------------------------------------|--------------|
| Yavapai County | 70% | 71% | 71% | 55% | 79% | 76% | 65% | 70% |
| Ash Fork | 75% | 50% | - | - | - | - | - | 75% |
| Bagdad | 75% | 87% | 100% | 50% | - | - | 100% | 75% |
| Black Canyon City | 72% | 38% | - | 75% | - | - | - | 72% |
| Camp Verde | 71% | 67% | 50% | 53% | 67% | 100% | 52% | 71% |
| Chino Valley | 70% | 74% | 67% | 75% | 100% | - | 71% | 70% |
| Clarkdale | 75% | 68% | 100% | 52% | 100% | 100% | 56% | 75% |
| Congress | 76% | 64% | - | - | - | - | 100% | 76% |
| Cordes Lakes | 65% | 67% | 100% | 50% | - | - | - | 65% |
| Cornville | 63% | 75% | 100% | 33% | - | - | 75% | 63% |
| Cottonwood | 59% | 67% | 100% | 50% | - | - | 50% | 59% |
| Cottonwood -Verde Village | 73% | 73% | 75% | 50% | 100% | 100% | 67% | 73% |
| Dewey- Humboldt | 73% | 69% | - | 75% | - | - | 83% | 73% |
| Jerome | 18% | 100% | - | 100% | - | - | 100% | 18% |
| Lake Montezuma | 65% | 82% | - | 67% | - | - | 50% | 65% |
| Mayer | 68% | 77% | - | 100% | - | - | - | 68% |
| Paulden | 78% | 73% | 100% | 50% | - | - | 89% | 78% |
| Peeples Valley | 89% | 100% | - | - | - | - | 100% | 89% |
| Prescott | 65% | 63% | 44% | 46% | 82% | - | 56% | 65% |
| Prescott Valley | 69% | 76% | 82% | 68% | 77% | 67% | 69% | 69% |
| Sedona | 65% | 71% | 25% | 100% | 75% | - | 50% | 65% |
| Seligman | 63% | 64% | - | - | 100% | - | 100% | 63% |
| Spring Valley | 76% | 67% | - | - | - | - | 100% | 76% |

| | | | | | | | | |
|----------------------|-----|------|-----|-----|-----|-----|-----|-----|
| Wilhoit | 78% | 50% | - | - | - | - | - | 78% |
| Yarnell | 50% | 100% | - | - | - | - | - | 50% |
| Arizona | 21% | 24% | 41% | 37% | 15% | 18% | 27% | 25% |
| United States | 18% | 25% | 52% | 34% | 13% | 23% | 29% | 26% |

Source: U.S. Census 2000 data included in First Things First Regional Profile data

Female-Headed Families with Children Under 5 Years Old: By Race/Ethnicity, 2000

| | White Non-Hispanic | Hispanic | Black | American Indian or Alaska Native | Asian | Native Hawaiian /Other Pacific Islander | Two or More Races | Other |
|---------------------------------|---------------------------|-----------------|--------------|---|--------------|--|--------------------------|--------------|
| Yavapai County | 22% | 18% | 16% | 36% | 13% | 18% | 24% | 17% |
| Ash Fork | 13% | 23% | - | 100% | - | - | - | - |
| Bagdad | 13% | 11% | - | - | - | - | - | - |
| Black Canyon City | 17% | 50% | - | - | - | - | - | - |
| Camp Verde | 22% | 18% | - | 38% | - | - | 17% | 21% |
| Chino Valley | 22% | 19% | 33% | 25% | - | - | 21% | 22% |
| Clarkdale | 19% | 23% | - | 35% | - | - | 22% | 6% |
| Congress | 15% | 14% | - | - | - | - | - | - |
| Cordes Lakes | 25% | 8% | - | 50% | - | - | 100% | - |
| Cornville | 26% | 14% | - | 33% | - | - | 13% | 15% |
| Cottonwood | 31% | 22% | - | 44% | 100% | - | 50% | 21% |
| Cottonwood-Verde Village | 21% | 19% | 25% | 33% | - | - | 28% | 21% |
| Dewey-Humboldt | 16% | 19% | - | 25% | - | - | 17% | 23% |
| Jerome | 45% | - | - | - | - | - | - | - |
| Lake Montezuma | 25% | 11% | - | 33% | - | - | 50% | 7% |
| Mayer | 17% | 8% | - | - | - | - | 100% | - |
| Paulden | 13% | 12% | - | 50% | - | - | - | 10% |
| Peeples Valley | - | - | - | - | - | - | - | - |
| Prescott | 28% | 25% | 44% | 39% | 9% | - | 32% | 22% |
| Prescott Valley | 24% | 17% | 9% | 29% | 8% | 33% | 16% | 18% |
| Sedona | 25% | 9% | 25% | - | 25% | 100% | 50% | 10% |
| Seligman | 28% | 27% | - | 100% | - | - | - | - |

| | | | | | | | | |
|----------------------|-----|-----|-----|-----|-----|-----|-----|-----|
| Spring Valley | 14% | 17% | - | - | - | - | - | - |
| Wilhoit | 20% | 50% | - | - | - | - | - | - |
| Yarnell | 28% | - | - | - | - | - | - | 17% |
| Arizona | 21% | 24% | 41% | 37% | 15% | 18% | 27% | 25% |
| United States | 18% | 25% | 52% | 34% | 13% | 23% | 29% | 26% |

Source: U.S. Census 2000 data included in First Things First Regional Profile data

Male-Headed Families with Children Under 5 Years Old: By Race/Ethnicity, 2000

| | White Non-Hispanic | Hispanic | Black | American Indian or Alaska Native | Asian | Native Hawaiian /Other Pacific Islander | Two or More Races | Other |
|----------------------------------|---------------------------|-----------------|--------------|---|--------------|--|--------------------------|--------------|
| Yavapai County | 8% | 11% | 14% | 9% | 8% | 9% | 11% | 12% |
| Ash Fork | 13% | 27% | - | - | - | - | - | - |
| Bagdad | 12% | 3% | - | 50% | - | - | - | - |
| Black Canyon City | 11% | 13% | - | 25% | - | - | 100% | 50% |
| Camp Verde | 7% | 15% | 50% | 10% | 33% | - | 30% | 15% |
| Chino Valley | 8% | 7% | - | - | - | - | 7% | 7% |
| Clarkdale | 6% | 10% | - | 13% | - | - | 22% | 12% |
| Congress | 9% | 23% | - | 100% | - | - | - | 50% |
| Cordes Lakes | 10% | 25% | - | - | - | - | - | - |
| Cornville | 11% | 11% | - | 33% | - | - | 13% | 15% |
| Cottonwood | 9% | 10% | - | 6% | - | - | - | 13% |
| Cottonwood -Verde Village | 6% | 9% | - | 17% | - | - | 6% | 3% |
| Dewey-Humboldt | 11% | 11% | - | - | - | - | - | 8% |
| Jerome | 36% | - | - | - | - | - | - | - |
| Lake Montezuma | 10% | 7% | - | - | - | - | - | 7% |
| Mayer | 16% | 15% | - | - | - | - | - | - |
| Paulden | 9% | 15% | - | - | - | - | 11% | 40% |
| Peoples Valley | 11% | - | - | - | - | - | - | - |
| Prescott | 7% | 12% | 11% | 15% | 9% | 7% | 12% | 14% |
| Prescott Valley | 7% | 8% | 9% | 4% | 15% | 100% | 14% | 7% |

| | | | | | | | | |
|----------------------|-----|-----|-----|-----|-----|-----|-----|-----|
| Sedona | 10% | 21% | 50% | - | - | - | - | 27% |
| Seligman | 10% | 9% | - | - | - | - | - | - |
| Spring Valley | 10% | 17% | - | - | - | - | - | - |
| Wilhoit | 2% | - | - | - | - | - | - | - |
| Yarnell | 22% | - | - | - | - | - | - | - |
| Arizona | 21% | 24% | 41% | 37% | 15% | 18% | 27% | 25% |
| United States | 18% | 25% | 52% | 34% | 13% | 23% | 29% | 26% |

Source: U.S. Census 2000 data included in First Things First Regional Profile data

Although most children in Yavapai County live in married couple, female-headed, or male-headed households, data shows that both in the county and in the state as a whole a noticeable number of grandparents are also responsible for their grandchildren. Of the 3,153 grandparents living with their own grandchildren, 1,070 (34%) are responsible for full care of those grandchildren. This is somewhat lower than the statewide average of 41% for such responsibility, but still suggests grandparents play an important role in the care of children.

Grandparents' Responsibility for Grandchildren, 2006-2008

| | Grandparents Living with Own Grandchildren | Grandparents Responsible* for Grandchildren | Years Responsible for Grandchildren | | | |
|-----------------------|--|---|-------------------------------------|-------------|-------------|----------------|
| | | | <1 yr. | 1 or 2 yrs. | 3 or 4 yrs. | 5 or more yrs. |
| Yavapai County | 3,153 | 1,070 (34%)** | 189 (6%) | 384 (12%) | 71 (2%) | 426 (14%) |
| Arizona | 143,837 | 58,702 (41%) | 14,151 (10%) | 13,436 (9%) | 10,764 (8%) | 20,351 (14%) |

Source: U.S. Census Bureau, 2006-2008 American Community Survey 3-Year Estimates, *Selected Social Characteristics in the United States: 2006-2008*. Retrieved April 22, 2010 from http://factfinder.census.gov/servlet/ADPTable?_bm=y&-context=adp&-qr_name=ACS_2008_3YR_G00_DP3YR2&-ds_name=ACS_2008_3YR_G00_&-tree_id=3308&-redoLog=true&-caller=geoselect&-geo_id=05000US04025&-format=&-lang=en; http://factfinder.census.gov/servlet/ADPTable?_bm=y&-context=adp&-qr_name=ACS_2008_3YR_G00_DP3YR2&-ds_name=ACS_2008_3YR_G00_&-tree_id=3308&-redoLog=true&-caller=geoselect&-geo_id=04000US04&-format=&-lang=en

*Grandparent(s) who have assumed full care of their grandchildren on a temporary or permanent live-in basis. ** Percentages are computed based on the total number of grandparents living with their own grandchildren under 18 years of age.

In 2008, 145 (14%) of the births in the Yavapai region were to teen mothers. This compares to the statewide rate of 12% and the national rate of 10% for the same year. It is important to note that most of the teen births that make the regional rate higher occur in the 18-19 year old age group. Teen births as a percent of total births was higher in the region than in Arizona as a whole in all years except one from 2004-2008.

Number of Teen Births by Age Sub-Group, 2008

| | <15 years old | 15-17 years old | 18-19 years old | Total Teen Births |
|-----------------------|---------------|-----------------|-----------------|-------------------|
| Yavapai County | 5 (<1%)* | 94 (4%) | 201 (10%) | 300 (14%) |
| Arizona | 161 (<1%) | 4,151 (4%) | 7,849 (8%) | 12,161 (12%) |
| United States | 5,775 (<1%) | 135,733 (3%) | 299,267 (7%) | 440,775 (10%) |

Source: Arizona State, Department of Health Services, *Arizona Health Status and Vital Statistics 2008 report, Table 5B-9. Number of Births by Mother's Age Group and County of Residence, Arizona, 2008*. Retrieved on May 14, 2010 from http://www.azdhs.gov/plan/report/ahs/ahs_2008/5b.htm. U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics System, Volume 58, Number 16, *Births: Preliminary Data for 2008, Table 2. Births and birth rates by age and race and Hispanic origin of mother: United States, preliminary 2007 and preliminary 2008*. Retrieved June 7, 2010 from http://www.cdc.gov/nchs/data/nvsr/nvsr58/nvsr58_16.pdf. *All percentages are computed based on the total number of births in Yavapai County (2,216), Arizona (99,215), and the United States (4,251,095) in 2008.

Births to Teenagers as a Percent of Total Births, 2004-2008

| | 2004 | 2005 | 2006 | 2007 | 2008 |
|-----------------------|------|------|------|------|------|
| Yavapai County | 15% | 13% | 13% | 15% | 14% |
| Arizona | 12% | 12% | 13% | 13% | 12% |

Source: Arizona State, Department of Health Services, Vital Statistics, *Resident Births by Mother's Age Group, Race/Ethnicity, County of Residence and Year, Arizona, 2000-2008*. Retrieved on May 12, 2010 from <http://www.azdhs.gov/plan/menu/for/births.htm>.

D. Language Usage - In Arizona, Spanish is the most commonly spoken language besides English due to the close proximity to the Mexican border and large Hispanic population, followed by several Native American languages including Navajo and Apache.¹⁶ Hispanic children continue to lag behind non-Hispanic Whites children on many of the measures of educational attainment.¹⁷ One study found that not having a basic understanding and knowledge of oral English prior to entering kindergarten was associated with low achievement in reading and math by the end of 5th grade for Hispanic students. These findings suggest that English language learners are in need of quality early childhood education.¹⁸ Household language use has an influence on a young child's language acquisition, and suggests an increased likelihood of entering school as an English Language Learner.

In the Yavapai region, 13% of the population five years of age and older speak a language other than English at home, substantially lower than the statewide rate of 28%. Of those who speak a language other than English at home, 5% reported speaking English "less than well."

¹⁶ The Center for Public Education (2000). *Top Five Languages By State*. Available: http://www.centerforpubliceducation.org/site/c.lvIXIiNOJwE/b.5057603/k.86EA/Top_five_languages_by_state.htm

¹⁷ National Center for Education Statistics (2006). *Conditions of Education 2006*. Washington, DC: U.S. Department of Education.

¹⁸ Reardon, S.F. & Galindo, C. (2006) *Patterns of Hispanic students' math and English literacy test scores in the early elementary grades*. Tempe, AZ: National Task Force on Early Childhood Education for Hispanics.

Language Spoken at Home, Population 5 Years of Age and Older, 3 Year Average 2006-2008

| | Only English | Languages other than English | Spanish | Speak English “less than well”* |
|-----------------------|--------------|------------------------------|---------|---------------------------------|
| Yavapai County | 87% | 13% | 10% | 5% |
| Arizona | 72% | 28% | 22% | 12% |

Source: U.S. Census Bureau, 2006-2008 American Community Survey 3-Year Estimate (n.d), *Selected Social Characteristics in the United State; 2008 American Community Survey 1-Year Estimates, Selected Social Characteristics in the United States*. Retrieved May 17, 2010 from http://factfinder.census.gov/servlet/ADPTable?_bm=y&-context=adp&-qr_name=ACS_2008_3YR_G00_DP3YR2&-ds_name=ACS_2008_3YR_G00_-tree_id=3308&-redoLog=true&-caller=geoselect&-geo_id=05000US04025&-format=&-lang=en; http://factfinder.census.gov/servlet/ADPTable?_bm=y&-context=adp&-qr_name=ACS_2008_3YR_G00_DP3YR2&-ds_name=ACS_2008_3YR_G00_-tree_id=3308&-redoLog=true&-caller=geoselect&-geo_id=04000US04&-format=&-lang=en *All individuals who reported speaking a language other than English (including Spanish) indicate their English-speaking ability based on one of the following categories: “Very well,” “Well,” “Not well,” or “Not at all.”

III. Economic Circumstances

A. Children and Families Living Below Federal Poverty Level - The United States is currently facing one of the worst economic climates in the country’s history. From rising unemployment to a dismal housing market, it is clear that the recession is directly impacting people across America in devastating ways. The national unemployment rate rose to 9.9% as of April 2010, suggesting that numerous families are struggling without wages to support their families. In addition, it is widely acknowledged that this figure does not include all individuals who no longer are attempting to seek employment or who work fewer hours than desired, and is considered a conservative estimate of families struggling without sufficient employment.¹⁹

Even health and well-being are impacted by the added stress of these tough financial times. For example, some mental health professionals report a growing need for services. Similarly, some physicians report seeing more cases of alcohol abuse, drug overdose, mental health problems, and physical problems such as abdominal and chest pains associated with stress. In addition, families may avoid accessing important services such as dental care or eye care if they lose health insurance coverage.²⁰ According to the director of the National Association of Free Clinics, the patient load at free clinics has grown by nearly 50% since the previous year.²¹

The effects are certainly being felt by families and children. According to a recent analysis by the Foundation for Child Development, 17% of children were living in families with an “insecure” source of food. This number is projected to increase to 18% in 2010, culminating in an additional 750,000 children living without adequate access to food. The rate of children living in poverty this year is projected to climb to 22% (from 17% in 2007).²²

¹⁹ Straining the Safety Net: Is Joblessness Overwhelming Aid Programs? (2009, July 31). *CQResearcher*. Volume 19, Number 27. Available www.cqresearcher.com.

²⁰ Recession stresses mental health system (2009, August 4). *Canadian Medical Association Journal*. News.181 (3-4).

²¹ Boushey, H. (2007). Understanding Low-Wage Work in the United State. *The Mobility Agenda*, March 2007. As cited in *Straining the Safety Net: Is Joblessness Overwhelming Aid Programs?* (2009, July 31). *CQResearcher*. Volume 19, Number 27. Available www.cqresearcher.com.

²² Szabo, Liz. (2010, June 8). More than 1 in 5 kids in poverty; U.S. rate is highest in two decades, analyses show. *USA Today*. News Section ,Pg. 1.

Although Federal programs, such as Temporary Assistance for Needy Families (TANF) and the Supplemental Nutrition Assistance Program (SNAP) are in place to help families experiencing economic challenges, these programs are stretched thin as the economic recession continues. In addition, many local service providers who are typically able to intervene and meet the needs of families in their areas are struggling to keep up with the increased demand for services. Some are experiencing budget cuts or are simply unable to serve all the families who require assistance.²³

Thus, it is clear that the national economic picture, as well as the specific local economic climate has major implications for the health, child care, and educational needs of families with young children and the resources available to address these needs. This section of the Needs and Assets Report highlights both historical and recent economic circumstances in the Yavapai region through an examination of a number of key economic indicators including the percentage of the population living below the federal poverty line, median income, unemployment rates, and net job flows.

Before examining data related to a variety of specific aspects of Yavapai County and its inhabitants, it is important to present an overall picture of the region. The table below provides information from the 2000 Census comparing the percentage of people with low income (commonly defined as income that is 200% or less of the Federal Poverty level) in Yavapai County to both the Arizona and U.S. figures.

Percentage of People in Yavapai County Living Below the Poverty Line (2000 Census Data)

| Income as a Percent of the Federal Poverty Line (FPL) | Yavapai County | Arizona | U.S. |
|--|-----------------------|----------------|-------------|
| 50% below the poverty line | 4.5% | 6.2% | 5.6% |
| 100% below the poverty line | 11.9% | 13.9% | 12.4% |
| 150% below the poverty line | 22.7% | 23.7% | 20.9% |
| 200% below the poverty line | 34.0% | 33.5% | 29.6% |

Source: U.S. Census 2000 data

Data regarding household composition is an especially useful lens for examining how a region's economic situation translates to the household level. As indicated by the table below (*Percentage of Families Below Poverty Level, 3 Year Average 2006-20008*), 9% of all Yavapai families live below the poverty line, marginally lower than the 10% rate for Arizona. Similarly, for married couple families, the poverty rate is slightly lower (5%) in the Yavapai region than for Arizona (6%). However, the poverty rate for Yavapai households with children under five exceeds that of Arizona by 10% (i.e., 26% vs. 16%). Moreover, the poverty rate for single-parent female-headed households with children under five is 62%, as compared to 44% statewide. This suggests that of all households with children under five, those that are single-parent female-headed may need the most assistance in meeting young children's health and early education needs. It should also be noted that the three-year period from which the data are drawn includes only the first year of the current economic recession, suggesting that poverty rate for some types of families may actually have increased.

²³ Straining the Safety Net: Is Joblessness Overwhelming Aid Programs? (2009, July 31). *CQResearcher*. Volume 19, Number 27. Available www.cqresearcher.com.

Percentage of Families with Income Below the Federal Poverty Level (3 Year Average 2006-2008)

| | Yavapai County | Arizona |
|--|-----------------------|----------------|
| All Families | 9% | 10% |
| Families with Related Children Under 5 Years Old | 26% | 16% |
| Married Couple Families | 5% | 6% |
| Married Couple Families with Related Children Under 5 Years Old | 11% | 7% |
| Female- Headed Household with no Husband Present | 32% | 28% |
| Female- Headed Household with no Husband Present and Related Children Under 5 Years Old | 62% | 44% |

Source: U.S. Census Bureau, 2006-2008 American Community Survey 3-Year Estimates, *Selected Economic Characteristics: 2006-2008*. Retrieved on May 6, 2010 from http://factfinder.census.gov/servlet/ADPTable?_bm=y&-context=adp&-qr_name=ACS_2008_3YR_G00_DP3YR3&-ds_name=ACS_2008_3YR_G00_&-tree_id=3308&-redoLog=true&-caller=geoselect&-geo_id=05000US04025&-format=&-lang=en; http://factfinder.census.gov/servlet/ADPTable?_bm=y&-context=adp&-qr_name=ACS_2008_3YR_G00_DP3YR3&-ds_name=ACS_2008_3YR_G00_&-tree_id=3308&-redoLog=true&-caller=geoselect&-geo_id=04000US04&-format=&-lang=en

Additional community-level data regarding children living in poverty in the Yavapai region is provided by the U.S. Census Small Area Income and Poverty Estimates (SAIPE). SAIPE 2008 estimates for poverty in Yavapai school districts show wide geographic variability in the prevalence of poverty in the region. The rate ranges from a low of 4% in the Bagdad Unified District to a high of 28% in the Ash Fork Joint Unified School District. According to the SAIPE estimates for the 17 Yavapai school districts, 20% or more of the students in seven districts lived in poverty in 2008.

Estimated Poverty for Children Age 5-17 by School District, 2008

| | Total Population of District | Children Age 5-17 | Children Age 5-17 in Families in Poverty |
|---|-------------------------------------|--------------------------|---|
| Ash Fork Joint USD | 1,824 | 312 | 88 (28%) |
| Bagdad UD | 2,322 | 478 | 20 (4%) |
| Camp Verde UD | | | |
| Canon Elementary UD | 12,823 | 2,047 | 533(26%) |
| Chino Valley UD | 20,323 | 3,789 | 798 (21%) |
| Clarkdale-Jerome Elementary District | 3,491 | 344 | 56 (16%) |
| Congress Elementary District | 2,556 | 197 | 31(16%) |
| Cottonwood-Oak Creek Elementary District | 32,309 | 3,625 | 696 (19%) |
| Crown King Elementary SD | 175 | 10 | 2 (20%) |
| Hillside Elementary District | 169 | 12 | 3 (25%) |
| Kirkland Elementary | 1,088 | 110 | 29 (26%) |

| SD | | | |
|---|--------|-------|-----------|
| Prescott USD | 59,594 | 6,711 | 894 (13%) |
| Sedona-Oak Creek Joint UD | 17,645 | 1,787 | 244 (14%) |
| Skull Valley Elementary District | 593 | 50 | 5 (10%) |
| Williamson Valley Elementary SD | 497 | 46 | 8 (17%) |
| Yarnell Elementary District | 1,440 | 106 | 18 (17%) |

Source: U.S. Census Bureau *Small Area Income and Poverty Estimates (SAIPE), Estimates for Arizona School Districts, 2008*. Retrieved on May 6, 2010 from <http://www.census.gov/did/www/saipe/district.html>. Estimates are available only for school districts identified in the U.S. Census Bureau's school district mapping project. The U.S. Census states that these estimates have a confidence interval of 90%, which means the actual number may be 5% higher or lower.

B. Household Income - Household income serves as another useful indicator for examining the economic status of the Yavapai region's families. According to an American Community Survey estimate, the average median household gross annual income for 2006-2008 in Yavapai County was \$43,610, a 6% increase from 2000. This increase lags behind a 9% increase statewide over the same period of time, but surpasses the 4% increase recorded in the United States over that period. Moreover, the 2006-2008 Yavapai median household gross annual income of \$43,610 is approximately 15% below the \$51,124 reported for Arizona for the period, the percentage gap having increased from just over 12% since the 2000 Census.

Median Family Gross Annual Income, 2000 and 3 Year Average 2006-2008

| | 2000 | 2008 | Percent Change |
|-----------------------|----------|----------|----------------|
| Yavapai County | \$40,910 | \$43,610 | +6% |
| Arizona | \$46,723 | \$51,124 | +9% |
| United States | \$50,046 | \$52,175 | +4% |

Source: U.S. Census Bureau, Census 2000 Summary File 3 (SF 3) - Sample Data, P77. Median Family Income In 1999 (Dollars) [1] - Universe: Families. Retrieved April 6 from http://factfinder.census.gov/servlet/DTTable?_bm=y&-context=dt&-ds_name=DEC_2000_SF3_U&-CONTEXT=dt&-mt_name=DEC_2000_SF3_U_P077&-tree_id=403&-redoLog=true&-all_geo_types=N&-caller=geoselect&-geo_id=01000US&-geo_id=04000US04&-geo_id=05000US04025&-search_results=04000US04&-format=&-lang=en; U.S. Census Bureau 2006-2008 American Community Survey 3-Year Estimates, *Selected Economic Characteristics: 2006-2008*. Retrieved April 6, 2010 from http://factfinder.census.gov/servlet/ADPTable?_bm=y&-context=adp&-qr_name=ACS_2008_3YR_G00_DP3YR3&-ds_name=ACS_2008_3YR_G00&-tree_id=3308&-redoLog=true&-caller=geoselect&-geo_id=05000US04025&-format=&-lang=en; http://factfinder.census.gov/servlet/ADPTable?_bm=y&-geo_id=04000US04&-qr_name=ACS_2008_3YR_G00_DP3YR3&-context=adp&-ds_name=&-tree_id=3308&-lang=en&-redoLog=false&-format=; http://factfinder.census.gov/servlet/ADPTable?_bm=y&-context=adp&-qr_name=ACS_2008_3YR_G00_DP3YR3&-ds_name=ACS_2008_3YR_G00&-tree_id=3308&-redoLog=false&-caller=geoselect&-geo_id=01000US&-format=&-lang=en

U.S. Census data from 2000 and American Community Survey data from 2006-2008 presented above indicate that median family income in Yavapai County has been well below that of Arizona as a whole. Further examination of median family income reveals major differences in median income for families with children under 18 years of age based on family type. For example, U.S. Census data suggests that in 2000 the median income in Yavapai County was \$45,247 for married couple families with children, \$23,117 for male-headed families, and \$18,096 for female-headed households. This indicates that the median income of male-headed and female-headed families was lower (48% and 60% respectively) than that of married couple families. By 2007, the gap in

median income between married couple families with children and male-headed households with children had substantially narrowed to 17%. However, the gap in median income between married couple families with children and female-headed households with children had increased to 68%. This suggests that female-headed households with children constitute a significant group in need of child care assistance and that children living in such households would benefit from nutritional supplementation programs.

Median Income of Families with Children Under 18 by Family Type

| | | Female-headed Families | Male-headed Families | Married Couples |
|-------------|---------|-------------------------------|-----------------------------|------------------------|
| 2000 | Yavapai | \$18,096 | \$23,117 | \$45,247 |
| | Arizona | \$21,517 | \$28,171 | \$53,815 |
| | U.S. | \$20,284 | \$29,907 | \$59,461 |
| 2005 | Yavapai | \$22,165 | \$38,336 | \$52,985 |
| | Arizona | \$24,183 | \$33,546 | \$64,615 |
| | U.S. | \$22,037 | \$34,667 | \$70,104 |
| 2006 | Yavapai | \$16,108 | \$45,030 | \$54,116 |
| | Arizona | \$26,201 | \$37,732 | \$66,624 |
| | U.S. | \$23,008 | \$35,884 | \$72,948 |
| 2007 | Yavapai | \$20,067 | \$51,888 | \$62,365 |
| | Arizona | \$25,911 | \$37,525 | \$71,471 |
| | U.S. | \$23,761 | \$37,559 | \$76,393 |

Source: U.S. Census 2000 and American Community Survey 2005-2007 from First Things First Regional Profile data

C. Employment and Unemployment - A region’s unemployment rate may provide the most complete picture of its economic condition due to the fact that it is an indicator that has been calculated monthly for many years and the latest data is no more than 1-2 months old. Moreover, it is calculated at the community level, allowing analysis of variation in economic conditions by locality. A current “snapshot” of the unemployment rate in Yavapai County in 2010 shows a gradual decline over the first four months of the year from 10.5% in January to 9.5% in April. Over that period, the Yavapai County unemployment rate has ranged from 0.4% to 0.8% higher than that of the state as a whole.

Unemployment Rate for Yavapai County, January-April 2010

| | Jan. | Feb. | Mar. | Apr. |
|-----------------------|-------------|-------------|-------------|-------------|
| Yavapai County | 10.5% | 10.4% | 10.1% | 9.5% |
| Arizona | 9.7% | 9.8% | 9.4% | 9.1% |
| United States | 9.7% | 9.7% | 9.7% | 9.9% |

Source: Arizona State, Department of Commerce, Arizona Workforce Informer, Local Area Unemployment Statistics (LAUS), Arizona Unemployment Statistics Program, Special Unemployment Report, 2007-2009. Retrieved May 11, 2010 from <http://www.workforce.az.gov/?PAGEID=67&SUBID=160>. United States Department of Labor, Bureau of Labor Statistics, Labor Force Statistics from the Current Population Survey. Retrieved June 8, 2010 from http://data.bls.gov/PDO/servlet/SurveyOutputServlet?data_tool=latest_numbers&series_id=LNS14000000

Examination of the 2007-2009 unemployment rates for Yavapai County communities shows both the trajectory of impact of the recent economic recession and the geographic variability of that

impact. Although some Yavapai communities had high unemployment rates in 2007 (e.g., Ash Fork at 12.1% and Peeples Valley at 8.1%), most had rates of 4% or less. In 2008, the unemployment rate rose by 2-3% in most communities and at a greater rate in communities that had high or even higher than average rates in 2007. In 2009, the unemployment rate continued to rise across Yavapai County. However, as the table below indicates, the rate varied dramatically by community, from a low of 6.7% in Dewey-Humboldt to a high of 27.5% in Ash Fork. Yavapai County's largest population center, Prescott, had a 2009 unemployment rate (8.5%) below that of Arizona as a whole, while the county's second largest city (Prescott Valley) had a rate (9.7%) slightly above the state average.

Unemployment Rates for Yavapai County Localities, 2007-2009

| | 2007 | 2008 | 2009 |
|---------------------------------|-------------|-------------|-------------|
| Ash Fork | 12.1% | 18.4% | 27.5% |
| Bagdad | 5.5% | 8.8% | 13.9% |
| Black Canyon City | 3.7% | 6.0% | 9.6% |
| Camp Verde | 5.0% | 8.0% | 12.8% |
| Chino Valley | 3.8% | 6.1% | 9.8% |
| Clarkdale | 3.6% | 5.8% | 9.3% |
| Congress | 3.0% | 4.9% | 8.1% |
| Cordes Lakes | 7.6% | 11.9% | 18.4% |
| Cornville | 2.8% | 4.5% | 7.4% |
| Cottonwood | 4.0% | 6.4% | 10.4% |
| Cottonwood-Verde Village | 3.4% | 5.5% | 8.9% |
| Dewey-Humboldt | 2.5% | 4.1% | 6.7% |
| Jerome | 4.0% | 6.1% | 10.0% |
| Lake Montezuma | 3.8% | 6.2% | 10.0% |
| Mayer | 7.1% | 11.0% | 17.3% |
| Paulden | 2.7% | 4.3% | 7.0% |
| Peeples Valley | 8.1% | 12.1% | 19.0% |
| Prescott | 3.2% | 5.2% | 8.5% |
| Prescott Valley | 3.7% | 6.0% | 9.7% |
| Sedona* | 4.3% | 6.8% | 11.0% |
| Seligman | 3.3% | 5.1% | 8.4% |
| Spring Valley | 4.9% | 7.9% | 12.7% |
| Wilhoit | 3.8% | 5.8% | 9.6% |
| Yarnell | 5.9% | 9.4% | 15.0% |
| Yavapai County | 3.7% | 5.9% | 9.5% |
| Arizona | 3.8% | 5.9% | 9.1% |
| United States | 4.6% | 5.8% | 9.3% |

Source: Arizona State, Department of Commerce, Arizona Workforce Informer, Local Area Unemployment Statistics (LAUS), *Arizona Unemployment Statistics Program, Special Unemployment Report, 2007-2009*. Retrieved on May 11, 2010 from <http://www.workforce.az.gov/?PAGEID=67&SUBID=160>. United States Department of Labor, Bureau of Labor Statistics, *Household Data Annual Averages, 1. Employment status of the civilian noninstitutional population, 1940 to date*. Retrieved on May 1, 2010 from <http://www.bls.gov/cps/tables.htm#empstat>. *The rates are the averages for the years.

In 2007, the unemployment rate in Arizona ranged from 3.3% to 4.3%. In 2008, the rate ranged from 4.7% to 7.5%., steadily rising over the course of the year. In 2009, the rate ranged from 8.2% to a high of 9.9% in July. Data from the Arizona Department of Economic Security (ADES) indicates that in almost all of the region’s zip codes, the number of residents receiving unemployment benefits increased in each consecutive reported period from January 2007 to January 2010. For many zip code areas, the number of claimants grew by an extraordinary 7 to 10 times over that period of time.

Unemployment Insurance Claimants by Yavapai County Zip Codes, 2007, 2009, and 2010

| | Locality | Jan. 2007 | June 2007 | Jan. 2009 | June 2009 | Jan. 2010 |
|--------------|-------------------|------------------|------------------|------------------|------------------|------------------|
| 85324 | Black Canyon City | 22 | 12 | 64 | 93 | 122 |
| 85332 | Congress | 11 | 1 | 21 | 37 | 1 |
| 85362 | Yarnell | 5 | 2 | 13 | 21 | 21 |
| 86301 | Prescott | 59 | 57 | 283 | 362 | 485 |
| 86302 | Prescott | 10 | 2 | 34 | 36 | 53 |
| 86303 | Prescott | 44 | 58 | 222 | 289 | 368 |
| 86304 | Prescott | 5 | 7 | 27 | 33 | 68 |
| 86305 | Prescott | 33 | 36 | 178 | 238 | 317 |
| 86312 | Prescott Valley | 13 | 15 | 56 | 75 | 102 |
| 86313 | Prescott | 2 | 1 | 4 | 7 | 12 |
| 86314 | Prescott Valley | 138 | 149 | 643 | 865 | 1,198 |
| 86315 | Prescott Valley | - | - | 86 | 125 | 180 |
| 86320 | Ash Fork | 7 | 5 | 29 | 48 | 56 |
| 86321 | Bagdad | 4 | 6 | 23 | 56 | 52 |
| 86322 | Camp Verde | 48 | 42 | 132 | 256 | 353 |
| 86323 | Chino Valley | 80 | 71 | 346 | 490 | 631 |
| 86324 | Clarkdale | 14 | 10 | 40 | 83 | 108 |
| 86325 | Cornville | 13 | 10 | 61 | 96 | 133 |
| 86326 | Cottonwood | 69 | 74 | 314 | 516 | 657 |
| 86327 | Dewey | 29 | 29 | 162 | 193 | 255 |
| 86329 | Humboldt | 4 | 29 | 39 | 50 | 68 |
| 86331 | Jerome | 1 | 4 | 8 | 10 | 17 |
| 86332 | Kirkland | 6 | 2 | 23 | 34 | 42 |
| 86333 | Mayer | 20 | 22 | 126 | 184 | 250 |
| 86334 | Paulden | 17 | 12 | 90 | 122 | 149 |
| 86335 | Rimrock | 11 | 11 | 52 | 96 | 139 |
| 86336 | Sedona | 10 | 15 | 69 | 88 | 143 |
| 86337 | Seligman | 1 | 2 | 14 | 18 | 28 |
| 86338 | Skull Valley | 1 | 3 | 13 | 20 | 16 |
| 86339 | Sedona | 2 | - | 7 | 10 | 16 |
| 86340 | Sedona | 4 | 2 | 13 | 20 | 20 |
| 86341 | Sedona | 2 | 1 | 7 | 12 | 18 |
| 86342 | Sedona | 1 | - | 11 | 12 | 18 |

| | | | | | | |
|--------------|--------|---|----|----|----|----|
| 86343 | Sedona | - | - | 4 | 3 | 8 |
| 86351 | Sedona | 8 | 12 | 38 | 62 | 99 |

Source: Arizona Department of Economic Security (supplied by First Things First). Data was not provided for January and June of 2008.

Additional employment indicators add further evidence of the negative impact of the economic recession on families in Yavapai County. Data on earnings and job creation for 2008, and the first three quarters of 2009, follow no discernible pattern. However, data regarding net job flows, new hires, separations, and total employment exhibit noticeable trends over that same period. New job flows begin with a very modest (134) increase in the first quarter of 2008, but for the following three quarters of 2008 and the first quarter of 2009, there are large losses in the number of jobs. New hiring continued at a strong and relatively steady pace through the third quarter of 2008 before dropping 24% to 8,262 in the fourth quarter, and dipping as much as 41% lower (6,384) in 2009. Separations peaked at 14,189 in the second quarter of 2008, stayed high throughout the rest of that year, but moderated in the first two quarters of 2009. Of the data provided below, the figures for total employment provide the clearest picture of economic trends in Yavapai County in 2008-2009. They show an almost steady decrease from 61,949 in the first quarter of 2008 to 54,329 in the third quarter of 2009. This amounts to an 11% decrease in employment over the seven reported quarters of 2008-2009.

Key Employment Indicators for Yavapai County

| | 2008 Quarter 1 | 2008 Quarter 2 | 2008 Quarter 3 | 2008 Quarter 4 | 2009 Quarter 1 | 2009 Quarter 2 | 2009 Quarter 3 |
|----------------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| Average Monthly Earnings | \$2,856 | \$2,889 | \$2,859 | \$2,958 | \$2,715 | \$2,857 | NA |
| Average New Hire Earnings | \$1,851 | \$1,872 | \$1,883 | \$2,129 | \$1,716 | \$1,954 | NA |
| Job Creation | 3,362 | 3,890 | 3,472 | 3,390 | 2,744 | 3,689 | NA |
| Net Job Flows | 134 | -1,104 | -900 | -1,916 | -1,282 | -3 | NA |
| New Hires | 9,719 | 10,634 | 10,848 | 8,262 | 6,384 | 7,332 | 7,332 |
| Separations | 11,212 | 14,189 | 13,394 | 12,918 | 9,142 | 9,686 | NA |
| Total Employment | 61,949 | 61,793 | 59,085 | 59,630 | 55,588 | 55,208 | 54,329 |
| Turnover | 11.3% | 12.2% | 11.7% | 12.3% | 9.8% | 9.7% | NA |

Source: U.S. Census Bureau, Local Employment Dynamics, QWI (Quarterly Workforce Indicators) Online (NAICS), *LEHD State of Arizona County Reports*. Retrieved on May 13, 2010 from <http://lehd.did.census.gov/led/datatools/qwiapp.html>. LEHD is the acronym for Longitudinal Employer-Household Dynamics. NAICS is the acronym for the North American Industry Classification System. The data presented are for all sectors included in the system. NA indicates no data is available for an indicator. The third quarter of the 2009 is the last period for which data is available.

D. Other Relevant Economic Indicators - The poverty, median income, unemployment, and key employment data presented above provide a comprehensive picture of economic condition in Yavapai County. It may be argued that a natural complement to this data includes information

about participation in state-based and federal benefit programs, especially as it relates to the high rates of poverty in some communities, low median income for single-parent families, and a loss of jobs across the county.

The federal and state governments offer a variety of assistance programs utilized by Yavapai residents. TANF is a program of the Office of Family Assistance of the U.S. Department of Health and Human Services that funds state efforts to provide financial assistance and work opportunities to needy families. Cash Assistance is a state program that provides temporary financial assistance and supportive services to low-income Arizona residents who are pregnant or responsible for a child under 19 years of age.

The table below shows that the number of Yavapai family and child participants receiving TANF and Cash Assistance benefits modestly increased in January 2008 and January 2009. As nutrition assistance benefits are income-tested, these large increases in the number of recipients suggest that many Yavapai families have experienced economic difficulties and continue to do so in 2010.

Participation in Benefits Programs January 2007-2010 (Yavapai County)

| Program | January 2007 | | January 2008 | | January 2009 | | January 2010 | |
|--|--------------|----------|--------------|----------|--------------|----------|--------------|----------|
| | Families | Children | Families | Children | Families | Children | Families | Children |
| Temporary Aid to Needy Families (TANF) | 675 | 1,030 | 704 | 1,039 | 734 | 1,128 | 669 | 1,026 |
| Cash Assistance | 642 | 975 | 680 | 1,004 | 685 | 1,055 | 634 | 964 |
| General Assistance | 62 | NA | 61 | NA | 83 | NA | NA | NA |
| Cash Assistance – Unemployed Parent Program | 6 | 13 | 11 | 22 | 25 | 43 | 11 | 28 |

Source: Arizona Department of Economic Security, *Statistical Bulletin* January 2007, 2008, 2009, 2010. Retrieved on June 8, 2010 from https://www.azdes.gov/DESsearch.aspx?q=Statistical+Bulletin&site=Reports&output=xml_no_dtd&sort=date%3AD%3AL%3Ad1&client=default_frontend&oe=UTF-8&ie=UTF-8&proxystylesheet=default_frontend. The number of families is the same as the number of cases. Cash Assistance refers to Arizona 1. Data are not reported for Cash Assistance or Cash Assistance recipients receiving under \$100. General Assistance data is for cases/persons. Nutrition Assistance data is not available for children in the January 2007, 2008, and 2009 editions of the *Statistical Bulletin*. There are no data for General Assistance in the January 2010 *Statistical Bulletin*.

Data regarding the number of children less than five years of age and families with children ranging from zero to five who are SNAP recipients provides additional insight into the economic status of Yavapai families with young children. As data from 2008 is unavailable, data from the months of January 2009, June 2009, and January 2010 offer the most insight into recent conditions. Mirroring the SNAP data presented above for all families, the table below shows that the number of children less than five years old receiving supplemental nutrition assistance

increased by 19,536 (11%) between January 2009 and June 2009, and an additional 16,470 (8%) from June 2009 to January 2010.

Supplemental Nutrition Assistance Program (SNAP) Recipients, 2007 and 2009

| | Jan-07 | Jun-07 | Jan-09 | Jun-09 | Jan-10 |
|---------------------------|--|--|--|--|--|
| | Children 0-5 ----- Families with children 0-5 |
| Yavapai County | 2,692 ----- 1,826 | 2,709 ----- 1,820 | 3,970 ----- 2,754 | 4,613 ----- 3,139 | 4,985 ----- 3,452 |
| Arizona | 134,697 ----- 88,171 | 139,170 ----- 91,054 | 179,831 ----- 119,380 | 199,367 ----- 133,148 | 215,837 ----- 145,657 |

Source: Arizona Department of Economic Security (provided by First Things First)
The Arizona Department of Economic Security did not provide SNAP recipient data for January and June of 2008.

Women, Infants and Children (WIC) is a program of the Food and Nutrition Service of the U.S. Department of Agriculture that provides grants to supplement low-income pregnant and postpartum women and their children up to age five who are found to be at nutritional risk. To qualify for WIC benefits a family’s income must fall at or below 185% of the federal poverty line. Some studies of WIC programs suggest that it can have positive impacts on family well-being. For example, there is evidence that prenatal participation in WIC improves birth weight and fetal growth.²⁴ In addition, given the program’s focus on mothers and their young children and its low-income eligibility guidelines, WIC participation numbers may serve as another useful indicator of the economic conditions of the region’s families with children less than 5 years of age.

According to WIC data from the Arizona Department of Health Services, program participation increased in a number of the region’s communities from 2005 to 2007 and from 2007 to 2009. The data shows that for all of the reported years there was large variability by zip code in larger communities having multiple zip codes. This suggests neighborhood-level data should be an important consideration when decisions are made concerning the location of early childhood services.

Enrollment of Women and Children in WIC Program by Yavapai County Zip Codes, 2005, 2007, 2009

| | | 2005 | | 2007 | | 2009 | |
|-----------------|----------------------|--------------|-----------------|--------------|-----------------|--------------|-----------------|
| Zip Code | Locality | Women | Children | Women | Children | Women | Children |
| 85324 | Black Canyon City | 11 | 17 | 7 | 16 | 8 | 16 |
| 85332 | Congress | 4 | 15 | 7 | 12 | 6 | 14 |
| 85362 | Yarnell | 2 | 3 | 1 | 3 | 1 | 4 |

²⁴ Kowalski-Jones, L., & Duncan, G.J. (2002). Effects of participation in the WIC program on birth weight: Evidence from the National Longitudinal Survey of Youth. *American Journal of Public Health*, 92(5), 799-804.

| | | | | | | | |
|-------|-----------------|--------|--------|--------|--------|--------|---------|
| 86301 | Prescott | 86 | 151 | 123 | 172 | 130 | 225 |
| 86302 | Prescott | 1 | 1 | - | - | 0 | 1 |
| 86303 | Prescott | 40 | 65 | 49 | 69 | 48 | 85 |
| 86304 | Prescott | 4 | 9 | 1 | 9 | 1 | 6 |
| 86305 | Prescott | 25 | 62 | 42 | 77 | 49 | 107 |
| 86312 | Prescott Valley | 16 | 36 | 16 | 17 | 5 | 22 |
| 86313 | Prescott | - | - | - | - | 0 | 1 |
| 86314 | Prescott Valley | 397 | 750 | 434 | 658 | 473 | 866 |
| 86315 | Prescott Valley | 0 | 1 | 1 | 1 | 11 | 10 |
| 86320 | Ash Fork | 24 | 45 | 30 | 45 | 26 | 56 |
| 86321 | Bagdad | 6 | 6 | 10 | 13 | 10 | 20 |
| 86322 | Camp Verde | 84 | 128 | 83 | 138 | 92 | 175 |
| 86323 | Chino Valley | 128 | 263 | 12 | 235 | 150 | 305 |
| 86324 | Clarkdale | 19 | 34 | 24 | 36 | 20 | 39 |
| 86325 | Cornville | 15 | 40 | 26 | 32 | 34 | 49 |
| 86326 | Cottonwood | 243 | 421 | 276 | 399 | 309 | 510 |
| 86327 | Dewey | 37 | 71 | 29 | 57 | 34 | 72 |
| 86329 | Humboldt | 12 | 29 | 20 | 22 | 13 | 31 |
| 86331 | Jerome | 2 | 3 | - | - | - | - |
| 86332 | Kirkland | 3 | 12 | 5 | 11 | 8 | 21 |
| 86333 | Mayer | 34 | 63 | 44 | 51 | 42 | 66 |
| 86334 | Paulden | 46 | 98 | 64 | 105 | 40 | 83 |
| 86335 | Rimrock | 43 | 65 | 38 | 82 | 40 | 83 |
| 86336 | Sedona | 35 | 49 | 36 | 57 | 8 | 8 |
| 86337 | Seligman | 5 | 9 | 3 | 12 | 8 | 8 |
| 86338 | Skull Valley | 3 | 4 | 3 | 2 | 4 | 6 |
| 86339 | Sedona | 5 | 6 | 3 | 4 | 3 | 5 |
| 86340 | Sedona | - | - | 1 | 1 | 0 | 1 |
| 86341 | Sedona | 0 | 1 | - | - | 0 | 1 |
| 86342 | Sedona | 3 | 5 | 3 | 3 | 7 | 3 |
| 86343 | Sedona | 1 | 2 | - | - | - | - |
| 86351 | Sedona | 10 | 24 | 17 | 21 | 17 | 32 |
| | Yavapai County | 1,344 | 2,488 | 1,408 | 2,360 | 1,597 | 2,931 |
| | Arizona | 46,409 | 87,859 | 52,069 | 90,261 | 60,522 | 111,777 |

Source: Arizona Department of Health Services (2005, 2007, 2009). Arizona Women, Infants & Children data pulled April 22, 2010 Database (Unpublished Data). All data are from June of the indicated years.

As per the information presented in the table below, the TANF data for the region as a whole indicates that there was only modest variation in the number of families and children participating in the program during the month of January in 2007-2010. Examination of TANF data by zip code for families with children under 5 years of age similarly shows no identifiable pattern of change in participation numbers. The total number of Yavapai families with children under 5 years old participating in the program also had little variation over that period of time, as did the number of children 0-5 years of age receiving TANF benefits.

TANF Families with Children Age 0-5 by Yavapai County Zip Codes, 2007, 2009, and 2010

| Zip Code | Locality | Jan. 2007 | June 2007 | Jan. 2009 | June 2009 | Jan. 2010 |
|-----------------|-------------------|------------------|------------------|------------------|------------------|------------------|
| 85324 | Black Canyon City | 4 | 4 | 9 | 5 | 4 |
| 85332 | Congress | 3 | 1 | 0 | 0 | 1 |
| 85362 | Yarnell | 1 | 1 | 2 | 2 | 1 |
| 86301 | Prescott | 26 | 15 | 15 | 18 | 22 |
| 86303 | Prescott | 18 | 15 | 15 | 17 | 17 |
| 86305 | Prescott | 6 | 7 | 7 | 7 | 8 |
| 86314 | Prescott Valley | 72 | 80 | 91 | 90 | 88 |
| 86315 | Prescott Valley | 0 | 0 | 5 | 6 | 3 |
| 86320 | Ash Fork | 4 | 3 | 6 | 4 | 2 |
| 86322 | Camp Verde | 35 | 23 | 29 | 28 | 30 |
| 86323 | Chino Valley | 22 | 14 | 21 | 19 | 20 |
| 86324 | Clarkdale | 12 | 10 | 10 | 8 | 9 |
| 86325 | Cornville | 4 | 5 | 6 | 9 | 7 |
| 86326 | Cottonwood | 60 | 54 | 60 | 49 | 46 |
| 86327 | Dewey | 10 | 8 | 3 | 11 | 7 |
| 86333 | Mayer | 18 | 14 | 12 | 8 | 6 |
| 86334 | Paulden | 9 | 4 | 9 | 8 | 5 |
| 86335 | Rimrock | 6 | 13 | 16 | 15 | 7 |
| 86336 | Sedona | 6 | 4 | 1 | 1 | 4 |
| 86342 | Sedona | 5 | 2 | 2 | 2 | 0 |
| | Yavapai County | 321 | 277 | 319 | 307 | 287 |
| | Arizona | 16,511 | 15,527 | 18,477 | 18,045 | 18,129 |

Source: Arizona Department of Economic Security (2007, 2009, 2010). DES Multidata pulled on May 4, 2010 from Database (Unpublished Data). Zip codes that had fewer than 5 families with children 0-5 receiving TANF in all of the reported months are not included in the table. A dash indicates there were fewer than 5 families with children 0-5 receiving TANF in the zip code for the month.

TANF Children Age 0-5 by Yavapai County Zip Codes, 2007, 2009, and 2010

| Zip Code | Locality | Jan. 2007 | June 2007 | Jan. 2009 | June 2009 | Jan. 2010 |
|-----------------|-------------------|------------------|------------------|------------------|------------------|------------------|
| 85324 | Black Canyon City | 6 | 4 | 10 | 5 | 4 |
| 85332 | Congress | 4 | 1 | 0 | 0 | 1 |
| 85362 | Yarnell | 1 | 1 | 2 | 2 | 1 |
| 86301 | Prescott | 32 | 20 | 20 | 22 | 24 |
| 86303 | Prescott | 21 | 16 | 20 | 21 | 23 |
| 86305 | Prescott | 10 | 8 | 7 | 7 | 11 |
| 86314 | Prescott Valley | 103 | 103 | 117 | 108 | 106 |
| 86315 | Prescott Valley | 0 | 0 | 7 | 7 | 4 |
| 86320 | Ash Fork | 6 | 4 | 7 | 4 | 2 |
| 86321 | Bagdad | 1 | 0 | 5 | 3 | 2 |
| 86322 | Camp Verde | 45 | 34 | 34 | 34 | 38 |
| 86323 | Chino Valley | 29 | 18 | 27 | 25 | 26 |
| 86324 | Clarkdale | 17 | 12 | 11 | 9 | 10 |

| | | | | | | |
|--------------|----------------|--------|--------|--------|--------|--------|
| 86325 | Cornville | 5 | 7 | 8 | 12 | 8 |
| 86326 | Cottonwood | 73 | 64 | 77 | 59 | 52 |
| 86327 | Dewey | 11 | 11 | 3 | 14 | 9 |
| 86332 | Kirkland | 4 | 4 | 4 | 5 | 3 |
| 86333 | Mayer | 22 | 18 | 15 | 9 | 7 |
| 86334 | Paulden | 11 | 5 | 12 | 13 | 8 |
| 86335 | Rimrock | 7 | 17 | 19 | 18 | 7 |
| 86336 | Sedona | 7 | 6 | 1 | 1 | 4 |
| 86342 | Sedona | 5 | 2 | 4 | 2 | 0 |
| | Yavapai County | 420 | 355 | 410 | 380 | 350 |
| | Arizona | 20,867 | 19,646 | 24,273 | 23,746 | 23,866 |

Source: Arizona Department of Economic Security (2007, 2009, 2010). DES Multidata pulled on May 4, 2010 from Database (Unpublished Data). Zip codes that had fewer than 5 families with children 0-5 receiving TANF in all of the reported months are not included in the table. A dash indicates there were fewer than 5 families with children 0-5 receiving TANF in the zip code for the month.

The region's families can access special services for children with developmental disabilities from the Arizona Department of Economic Security's Divisions of Developmental Disabilities. In 2007 and 2009 residents in both small and large communities in the region utilized such services for young children. It is a very real possibility, however, that recent statewide budget cuts will reduce the availability of such services to families.

Count of Consumers Receiving Division of Developmental Disabilities (DDD) Services by Age and Yavapai County Zip Codes, 2007 and 2009

| | Locality | Ages 0-2.9 | | Ages 3-5.9 | |
|--------------|-------------------|------------|------|------------|------|
| | | 2007 | 2009 | 2007 | 2009 |
| 85324 | Black Canyon City | 1 | - | 1 | 1 |
| 86301 | Prescott | 6 | 8 | 5 | 4 |
| 86302 | Prescott | - | - | - | - |
| 86303 | Prescott | 1 | 3 | 6 | 3 |
| 86304 | Prescott | - | - | - | 1 |
| 86305 | Prescott | 2 | 3 | 3 | 3 |
| 86312 | Prescott Valley | - | 1 | 1 | 1 |
| 86314 | Prescott Valley | 13 | 23 | 21 | 19 |
| 86320 | Ash Fork | 2 | - | 3 | 2 |
| 86321 | Bagdad | 1 | - | 1 | - |
| 86322 | Camp Verde | 10 | 9 | 1 | 6 |
| 86323 | Chino Valley | 8 | 5 | 8 | 4 |
| 86324 | Clarkdale | - | 3 | 1 | 3 |
| 86325 | Cornville | 1 | 1 | 2 | 1 |
| 86326 | Cottonwood | 13 | 16 | 14 | 8 |
| 86327 | Dewey | 3 | 2 | 1 | 4 |
| 86329 | Humboldt | 2 | - | - | 2 |
| 86332 | Kirkland | 1 | 1 | - | 1 |
| 86333 | Mayer | 1 | | 1 | 2 |

| | | | | | |
|-------|----------------|-------|-------|-------|-------|
| 86334 | Paulden | 1 | 1 | 1 | |
| 86335 | Rimrock | 2 | 1 | 2 | 3 |
| 86337 | Seligman | 1 | - | 1 | - |
| | Yavapai County | 69 | 77 | 73 | 68 |
| | Arizona | 4,983 | 5,203 | 3,579 | 3,773 |

Source: Arizona Department of Economic Security (supplied by First Things First)

IV. Educational Indicators

A. Educational Attainment - Research suggests that education provides women with a variety of human and social capital can have implications for the educational progress of their youth.²⁵ For example, some studies suggest that, in comparison to their less-educated peers, women who are more educated place their children in child care environments that tend to better promote school readiness. In addition, maternal education may account for some of the variance in school readiness, vocabulary, and IQ among children and appears to be tied to child communication ability, perhaps through indirect methods such as increased reading per week by educated mothers.^{26 27} While it is not yet clear how important this factor of maternal education is to child academic attainment and general well-being, these findings suggest that it may be important to consider when assessing the needs and assets of the region.

From 2004 to 2008 the Yavapai region experienced a modest but noticeable increase in the educational level of mothers. The percentage of women giving birth who had not graduated high school decreased from 31% in 2004 to 28% in 2008. Over the same period the percent of mothers who were high school graduates increased from 32% to 34% and those who had attended or graduated from college increased from 36% to 38%. Although the region's percentage of mothers without a high school diploma (28%) is slightly higher than the Arizona rate of 26%, the high school graduation rate for mothers in Yavapai County (34%) is higher than the rate of mothers graduating statewide (30%).

Percentage of Live Births by Educational Attainment of Mother

| | | 2004 | 2005 | 2006 | 2007 | 2008 |
|-----------------------|------------------------|------|------|------|------|------|
| Yavapai County | No High School Diploma | 31% | 31% | 30% | 30% | 28% |
| | High School Diploma | 32% | 32% | 31% | 34% | 34% |
| | 1-4+ yrs. of College | 36% | 37% | 38% | 38% | 38% |
| | Unknown | <1% | <1% | <1% | <1% | <1% |
| Arizona | No High School Diploma | 30% | 29% | 29% | 28% | 26% |
| | High School Diploma | 29% | 29% | 30% | 30% | 30% |
| | 1-4+ yrs. of College | 40% | 41% | 41% | 41% | 43% |

²⁵ Davis-Kean, P. (2005). The influence of parental education and family income on child achievement: the indirect role of parent expectations and the home environment. *Journal of Family Psychology* 19(2):294-304.

²⁶ Fewell, R. & Deutscher, B. (2003) Contributions of early language and maternal facilitation variables to later language and reading abilities. *Journal of Early Intervention*, 26, 1322-145.

²⁷ Arterberry, M., Bornstein, M., Midgett, C., Putnick, D., & Bornstein M. (2007). Early attention and literacy experiences predict adaptive communication. *First Language*. Sage Publications 27:175.

| | | | | | | |
|----------------------|------------------------|-----|-----|-----|----|-----|
| | Unknown | 2% | 1% | 1% | 1% | <1% |
| United States | No High School Diploma | 17% | 14% | 10% | NA | NA |
| | High School Diploma | 24% | 20% | 15% | NA | NA |
| | 1-4+ yrs. of College | 38% | 33% | 25% | NA | NA |
| | Unknown | 21% | 32% | 50% | NA | NA |

Source: Arizona State, Department of Health Services, Arizona Vital Statistics, 2004-2008, *Births by Mother's Education and County of Residence, Arizona* (Table 5B-13) 2004-2008. Retrieved on June 3, 2011 from <http://www.azdhs.gov/plan/menu/for/births.htm>; U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Health Statistics (NCHS), Division of Vital Statistics, Natality public-use data 2003-2006, CDC WONDER Online Database, March 2009. Retrieved on June 3, 2010 from <http://wonder.cdc.gov/natality-current.html>. Percents do not total to 100% due to rounding off. CDC data includes the following categories for mother's education: 0-8 years, 9-11 years, 12 years, 13-15 years, 16 years and over, not stated, and not on certificate. For the purposes of the table above, data for 0-8 and 9-11 have been added together to make "No High School Diploma." Data for 12 years has been entered for "High School Diploma." Data for 13-15 years has been entered for "1-4+ yrs. of College." Data for not stated and not on certificate have been added together to make "Unknown." The following states had mother's educational data coded to "not on certificate": 2004 - Florida, Idaho, Kentucky, New Hampshire, New York excluding New York City, Pennsylvania, South Carolina, Tennessee, and Washington 2005 - Florida, Idaho, Kansas, Kentucky, Nebraska, New Hampshire, New York excluding New York City, Pennsylvania, South Carolina, Tennessee, Texas, Vermont, and Washington 2006 - California, Delaware, Florida, Idaho, Kansas, Kentucky, Nebraska, New Hampshire, New York excluding New York City, North Dakota, Ohio, Pennsylvania, South Carolina, South Dakota, Tennessee, Texas, Vermont, Washington and Wyoming. No data was available for the U.S. for 2006 and 2007.

American Community Survey data indicates that the educational attainment of the region's adults (defined as 25 years of age and older) compares favorably with statewide levels. The Yavapai region has a lower percentage of adults who have not graduated high school and higher percentages of adults who have graduated high school or have some college experience. Similar to Arizona as a whole, 8% of adults in Yavapai have obtained an Associate's Degree. Although the region lags behind statewide numbers by 2% in attainment of a Bachelor's Degree, it equals the overall Arizona rate of attainment (9%) for a graduate or professional degree.

Educational Attainment, Adults 25 Years and Older 3 Year Average 2006-2008

| | Not a High School Graduate | High School Graduate | Some College | Associates Degree | Bachelor's Degree | Graduate or Professional Degree |
|-----------------------|-----------------------------------|-----------------------------|---------------------|--------------------------|--------------------------|--|
| Yavapai County | 13% | 29% | 28% | 8% | 14% | 9% |
| Arizona | 16% | 26% | 24% | 8% | 16% | 9% |
| United States | 16% | 30% | 20% | 7% | 17% | 10% |

Source: U.S. Census 2006-2008 American Community Survey 3-Year Estimates, *Selected Social Characteristics in the United States: 2006-2008*. Retrieved May 25, 2010 from http://factfinder.dads.census.gov/servlet/ADPTable?_bm=y&-context=adp&-qr_name=ACS_2008_3YR_G00_DP3YR2&-ds_name=ACS_2008_3YR_G00_-tree_id=3308&-redoLog=true&-caller=geoselect&-geo_id=05000US04025&-format=&-lang=en; http://factfinder.dads.census.gov/servlet/ADPTable?_bm=y&-context=adp&-qr_name=ACS_2008_3YR_G00_DP3YR2&-ds_name=ACS_2008_3YR_G00_-tree_id=3308&-redoLog=false&-caller=geoselect&-geo_id=04000US04&-format=&-lang=en; http://factfinder.dads.census.gov/servlet/ADPTable?_bm=y&-context=adp&-qr_name=ACS_2008_3YR_G00_DP3YR2&-ds_name=ACS_2008_3YR_G00_-tree_id=3308&-redoLog=false&-caller=geoselect&-geo_id=01000US&-format=&-lang=en
 High school graduation rate included graduation equivalents. Percents do not total to 100% due to rounding off.

B. Kindergarten Readiness - As national focus is placed on assessment of academic progress and educational quality throughout the education system, increased attention is also being paid to

school readiness. School readiness is widely considered to include both academic skills (such as mathematics and reading) and the social and behavioral skills needed to participate in instructional activities, and effectively interact with peers and teachers.^{28 29} It has been defined by some sources as the “minimum developmental levels children need to exhibit to respond adequately to the demands of schooling.”³⁰ In addition, most scholarly definitions about school readiness also address the need for the school to be ready to meet the instructional, social and personal needs of every child who enters kindergarten. The difficulty comes in attempting to quantify and measure these comprehensive ideas of readiness. The field continues to struggle with these concepts, and in Arizona, there is no single, agreed upon definition or measurement approach to school readiness.

Many assessments have been developed to look at children’s growth across developmental domains such as language, social-emotional development, physical development, and behavior, but currently such assessments can only serve as proxy measures of school readiness. In school settings throughout Arizona, these assessments are most often used to screen for children who may be in need of additional educational supports. Some school districts also use such assessments to gather an initial understanding of children’s development as they enter preschool to best design programming and instruction.

Two instruments that are used frequently across Arizona schools for formative (ongoing and used to guide instruction) assessment are the Dynamic Indicators of Basic Early Literacy Skills (DIBELS) and the AIMS. These two assessments are often used to identify children’s early literacy skills upon entry to school and to identify the need for intervention in reading throughout the year. At the kindergarten level, the DIBELS and AIMS test only a small set of skills around letter knowledge without assessing other areas of children’s language and literacy development such as vocabulary and print awareness. Additionally, neither the DIBELS nor the AIMS measure other important skill sets around social emotional development, math, or science. While the results of the DIBELS and AIMS assessments do not reflect children’s full range of skills and understanding in the area of language and literacy, they do provide a snapshot of children’s learning as they enter and exit kindergarten. Unfortunately, only 3rd grade AIMS data is available for Yavapai County. This data shows that there is great variation by district on this indicator, which suggests varying levels of school readiness and academic progress within Yavapai County.

Kindergarten readiness is important to consider as research studies have found that participation by low-income children in early intervention programs prior to kindergarten is related to improved school performance in the early years of education.³¹ Long-term studies suggest that early

²⁸ Heavyside, S., & Farris, E. (1993). *Public school kindergarten teacher’s views of children’s readiness for school*. Washington, DC: U.S. Department of Education, National Center for Education Statistics.

²⁹ Rimm-Kaufman, S.E., Pianta, R. & Cox, M. (2000). Teacher’s judgments of success in the transition to kindergarten. *Early Childhood Research Quarterly*, 15, 147-166.

³⁰ Justice, L., Bowles, R., Pence Turnbull, K., & Skibbe, L. (2009). School readiness among children with varying histories of language difficulties. *Developmental Psychology*. Vol. 45, No. 2, 460-476.

³¹ Lee, V. E., Brooks-Gunn, J., Shnur, E., & Liaw, F. R. Are Head Start effects sustained? A longitudinal follow-up comparison of disadvantaged children attending Head Start, no preschool, and other preschool programs. *Child Development*, 61, 1990, 495-507; National Research Council and Institute Medicine, *From neurons to neighborhoods: The science of early childhood development*; Reynolds, A. J. Effects of a preschool plus follow up intervention for children at risk. *Developmental Psychology*, 30, 1994, 787-804.

childhood programs have positive impact evident in the adolescent and adult years.³² Lastly research has confirmed that early childhood education enhances young children’s social developmental outcomes such as peer relationships.³³

C. Standardized Test Scores - Given the above, it is important to present Yavapai-based data on at least one of the above measure in order to provide context. AIMS tests use a four-level scale to measure student performance, with *Falls Far Below (FFB)* as lowest performance level followed by *Approached (A)*, *Met (M)*, and *Exceeded (E)* indicating progressively increasing proficiency. Both *Falls Far Below (FFB)* and *Approached (A)* represent failing scores. The chart below shows that in 2009 there was great variation by school district in the performance of the region’s 3rd grade students on the AIMS mathematics, reading, and writing exams. For example, in Prescott Unified School District 95% of the students passed the mathematics exam (calculated as the total percentage of students who “met” or “exceeded” the defined level of proficiency), 97% passed the reading exam, and 94% passed the writing exam. In contrast, in Camp Verde Unified School District 55% of the students passed the mathematics exam, 56% passed the reading exam, and 63% passed the writing exam. Of the 15 districts for which 2009 AIMS data are available, 40% or more of the students failed the mathematics exam in five districts, the reading exam in five districts, and the writing exam in four districts.

AIMS 3rd Grade Score Achievement Levels in Mathematics, Reading and Writing By School District, 2009

| | Mathematics | | | | Reading | | | | Writing | | | |
|------------------------------------|-------------|-----|-----|-----|---------|-----|-----|-----|---------|-----|-----|-----|
| | FF B | A | M | E | FF B | A | M | E | FF B | A | M | E |
| Ash Fork Joint Unified | 39% | 28% | 33% | 0 | 11% | 44% | 44% | 0 | 6% | 44% | 50% | 0 |
| Bagdad Unified | 9% | 6% | 54% | 31% | 3% | 11% | 69% | 17% | 6% | 6% | 80% | 9% |
| Beaver Creek Elementary | 13% | 20% | 45% | 23% | 20% | 20% | 45% | 15% | 8% | 25% | 65% | 3% |
| Camp Verde Unified | 10% | 35% | 47% | 8% | 7% | 37% | 52% | 4% | 2% | 36% | 61% | 2% |
| Canon Elementary | 9% | 39% | 48% | 4% | 9% | 30% | 57% | 4% | 13% | 39% | 43% | 4% |
| Chino Valley Unified | 4% | 20% | 58% | 19% | 4% | 20% | 63% | 14% | 2% | 11% | 81% | 6% |
| Clarkdale-Jerome Elementary | 2% | 4% | 43% | 51% | 0 | 11% | 79% | 11% | 0 | 9% | 87% | 4% |
| Congress Elementary | 0 | 0 | 60% | 40% | 0 | 0 | 90% | 10% | 0 | 0 | 90% | 10% |

³² Campbell, F. A., Pungello, E. P., Miller-Johnson, S., Burchinal, M., & Ramey, C.T. The development of cognitive and academic abilities; Growth curves from an early childhood educational experiment. *Developmental Psychology*, 37, 2001, 231-242.

³³ Peisner-Feinberg, E. S., Burchinal, M. R., Clifford, R. M., Culkin, M. L., Howes, C., Kagan, S. L., et al *The children of the cost, quality, and outcomes study go to school: Technical report*, 2000, University of North Carolina at Chapel Hill, Frank Porter Graham Child Development Center.

| | | | | | | | | | | | | |
|--|------|------|------|------|------|------|------|------|------|------|------|------|
| Cottonwood-Oak Creek Elementary | 15 % | 28 % | 47 % | 10 % | 15 % | 29 % | 44 % | 12 % | 7% | 27 % | 66 % | 0 |
| Crown King Elementary | NA |
| Hillside Elementary | NA |
| Humboldt Unified | 4% | 14 % | 56 % | 26 % | 2% | 19 % | 58 % | 20 % | 6% | 10 % | 77 % | 7% |
| Kirkland Elementary | 23 % | 23 % | 46 % | 8% | 15 % | 15 % | 54 % | 15 % | 0 | 50 % | 50 % | 0 |
| Mayer Unified | 3% | 10 % | 55 % | 32 % | 10 % | 10 % | 68 % | 13 % | 3% | 10 % | 61 % | 26 % |
| Prescott Unified | 0 | 5% | 58 % | 37 % | 0 | 3% | 62 % | 35 % | 1% | 5% | 76 % | 18 % |
| Sedona-Oak Creek Joint Unified | 2% | 7% | 69 % | 21 % | 2% | 16 % | 67 % | 14 % | 2% | 14 % | 79 % | 18 % |
| Seligman Unified | 14 % | 43 % | 43 % | 0 | 7% | 43 % | 43 % | 7% | 17 % | 42 % | 42 % | 0 |
| Skull Valley Elementary | NA |
| Yarnell Elementary | NA |
| STATEWIDE | 9% | 18 % | 52 % | 20 % | 6% | 22 % | 58 % | 14 % | 4% | 17 % | 73 % | 6% |

Source: Arizona State, Department of Education, Accountability Division, Research and Evaluation Section, *2009 AIMS Results*. Retrieved on May 27, 2010 from <http://www.ade.state.az.us/researchpolicy/>. NA is used when data have not been published to protect student privacy in districts in which fewer than 10 students took the exam. The four achievement levels and their abbreviations used in the table are: Falls Far Below the Standard (FFB), Approaches the Standard (A), Meets the Standard (M), Exceeds the Standard (E). Data provided in the table show what percentage of students who took an AIMS test achieved each of the four grade levels. No data were available for Crown King Elementary District, Hillside Elementary District, Skull Valley Elementary District, and Yarnell Elementary District because the state does not release AIMS scores in situations in which the small number of students taking the test would create confidentiality issues.

D. Other Relevant Data - The completion of high school is a very important accomplishment in a young person's life. Students who stay in school and challenge themselves academically tend to continue their education, stay out of jail, and earn significantly higher wages later in their lives.³⁴ Other research suggests that students who do not graduate have higher rates of unemployment and underemployment.³⁵ Given these realities about the importance of graduation, the high school graduation rate in an area should be considered when looking at local needs and assets. Findings have implications for all aspects of early childhood development, from child care and health care services up through the education system, as many factors contribute to whether or not a youth is able to complete high school. Students who have the support, resources, and care they need to be able to develop and eventually complete high school are more likely to go on to have long term positive life outcomes.

³⁴ Sigelman, C. K., & Rider, E. A., *Life-span development*, 2003, Pacific Grove, CA: Wadsworth.

³⁵ U.S. Department of Labor. (2003). *So you're thinking of dropping out of high school*. Retrieved December 6, 2006 from <http://www.dol.gov/asp/fibre/dropout.htm>.

The high school graduation rates for the Yavapai region vary widely longitudinally as well as within and between schools. From 2004 to 2007, a change of 10% in the rate in a single year was common for many schools. For example, the rate at Bradshaw Mountain High School was 67% in 2004, 78% in 2005, 59% in 2006, and 76% in 2007. In a single year, 2007, high school graduation rates in the Yavapai region ranged from 33% for South Verde Middle High School to 87% for Bagdad High School. In that same year graduation rates were below 80% for a number of high schools.

High School Graduation Rates, 2004-2007

| | 2004 | 2005 | 2006 | 2007 |
|---|-------------|-------------|-------------|-------------|
| Prescott High School | NA | 88% | 84% | 83% |
| Sedona Red Rock High School | 93% | 91% | 85% | 81% |
| Bagdad High School | 96% | 79% | 90% | 87% |
| Bradshaw Mountain High School | 67% | 78% | 59% | 76% |
| Camp Verde High School | 77% | 88% | 68% | 82% |
| Camp Verde Alternative School | NA | 50% | 37% | NA |
| South Verde Middle High School | NA | NA | NA | 33% |
| Ash Fork High School | NA | 94% | 67% | 65% |
| Seligman High School | 73% | 46% | 73% | 75% |
| Mayer Junior/Senior High School | 69% | 64% | 63% | 77% |
| Chino Valley High School | 98% | 76% | 68% | 70% |
| Mingus Union High School | 80% | 81% | 76% | 71% |
| Juniper Canyon Alternative High School | 52% | NA | NA | NA |

Source: Arizona Department of Education, Accountability Division, Research & Evaluation Section, *2007 Four Year Grad Rate by School, Subgroup and Ethnicity; 2006 Four Year Grad Rate by District, School and Subgroup; 2005 Four Year Grad Rate by District, School and Subgroup; 2004 Five Year Grad Rate Data by School*. Retrieved on June 22, 2010 from <http://www.ade.state.az.us/researchpolicy/>. The 2004 data set includes 4-year graduation rates. NA indicates a school was not listed in that year's data set.

V. Implications for Kindergarten Readiness

The above demographic information has a number of significant implications for both assessing and impacting the kindergarten readiness of children in the Yavapai region. To begin with, it is clear that although the majority of the population in the region is White, there are significant pockets of Hispanic and Native American populations that may require culturally-based resources to address potential negative impacts on early childhood education. In addition, attention should be paid to the needs of single-parent families as well as to the young children who are being raised by grandparents. It is also clear that, given the recent economic challenges (i.e., unemployment, reduced wages) faced by people in the Yavapai region; attention should be given to the impact of decreasing assistance programs on kindergarten readiness. Finally, the above information provides important direction for ensuring that the early childhood development risks associated with the educational attainment of parents is addressed in the region.

THE EARLY CHILDHOOD EDUCATION SYSTEM

I. Early Childhood Education

There is a need for child care across the United States as a majority of children from birth to six years of age participate in out-of-home care.³⁶ Families use many criteria to make decisions about care for their children. Some of the factors that are often important to parents include: cost, proximity to home or work, and recommendations from friends, family, or acquaintances. A nationwide study by the National Association of Child Care Resources and Referral Agencies found that the cost of child care was one of the highest concerns for parents and noted that, as a result, they had to compromise on quality to be able to pay for care.³⁷ Parents also may personally assess the center or home's environment, interaction between children and staff, and perceived quality of learning environment. It is clear that the decision is not a simple one for many families, and may or may not result in the placement of a child in a quality child care setting.

Poor quality child care is a national concern, especially given research indicating that the quality of care can impact cognitive and language skill development, as well as other factors.^{38 39} As a response to this concern, a number of States have engaged in efforts to improve the quality, availability, and access to child care options for families. Some States are encouraging improvements through the endorsements of a national licensing and accreditation process that would increase parent's access to quality programs. Professional development and education levels of staff are also considered important elements of child care quality. However, many child care providers face barriers to pursuing accreditation and professional development for their staff, including low wages and lack of benefits for their providers. For example, a study of 414 child care providers in Wisconsin found that 77% were neither accredited nor working toward accreditation due to the fact that the process was deemed too expensive and/or unnecessary.⁴⁰ Findings such as these are certainly noteworthy given the insistence of researchers that the quality of child care centers does impact the child on a number of dimensions.⁴¹

In Arizona, increased efforts have been made to improve child care quality. The Board of First Things First approved funding in March 2008 for the development and implementation of a statewide quality improvement and rating system, named Quality First! This system, which took effect in 2009, set standards of child care quality for Arizona. It assists families, community members, and child care providers in identifying what quality child care looks like and which

³⁶ Federal interagency forum on child and family statistics. *America's children: Key national indicators of well-being, 2002*. Washington DC.

³⁷ Mohan, E., Reef, G., & Sarkar, M. (2006). *Breaking the piggy bank—Parents and the high price of child care*. Arlington, VA: National Association of Child Care Resources and Referral Agencies.

³⁸ Lamb, M. (1998). Nonparental child care: Context, quality, correlates, and consequences. In I. Sigel & A. Renninger (Eds.), W. Damon (Series Ed.), *Handbook of child psychology: Vol 4. Child psychology in practice* (5th ed. Pp. 73-133). New York: Wiley.

³⁹ National Institute of Child Health and Human Development Early Child Care Research Network and Duncan, G. J. (2003, Sept/Oct). Modeling the impacts of child care quality on children's preschool cognitive development. *Child Development*. Vol. 74, No. 5, pp. 1454-1475.

⁴⁰ Public Policy Forum (2008, May). Child-care provider survey reveals cost constrains quality. *Public Policy Forum Research Brief*. Vol. 96, Number 5.

⁴¹ Gormley, W.T. (2007). Early childhood care and education: Lessons and puzzles. In Besharov, D.J. (Ed.) *Journal of Policy Analysis and Management*. (Policy Retrospectives) Vol. 26, No. 3, 633-671.

providers offer quality care. This system will become a statewide asset upon which regions can build when addressing quality.

The following sections detail current indicators pertaining to child care quality and access, as well as professional development of child care staff, in Yavapai County.

A. Accredited Early Care and Education Centers/Homes - There are seven nationally accredited early care and education centers in the Yavapai region, an increase of one from 2008. This represents 8.8% of the region’s 80 licensed centers, somewhat lower than the statewide rate of 10.7%. Four of the accredited centers are in Prescott and the others are located in Clarkdale, Cottonwood, and Sedona. Five of the accredited centers are Head Starts. A concentration of accredited centers in Prescott and the income-based eligibility of Head Start suggest that many of the region’s families do not have access to accredited centers.

Number of Accredited Early Care and Education Centers

| | AMI/AMS | ASCI | NAC | NAEYC | NECPA | NAFCC* | NLSA |
|-------------|---------|------|-----|-------|-------|--------|------|
| 2008 | 1 | 1 | 0 | 4 | 0 | 0 | NA |
| 2010 | 1 | 0 | 0 | 6 | 0 | 0 | 0 |

Sources: Accreditation lists on the websites of the Association Montessori Internationale [AMI], American Montessori Society (AMS), Association of Christian Schools International (ASCI), National Accreditation Commission for Early Care and Education Programs (NAC), National Association for the Education of Young Children NAEYC, National Early Childhood Program Accreditation (NECPA), National Association for Family Child Care (NAFCC), and National Lutheran School Accreditation (NLSA). <http://nccic.acf.hhs.gov/poptopics/nationalaccred.html>

B. Early Care and Education Programs - According to the Arizona Department of Health Services’ Division of Licensing, in February 2010 there were a total of 80 licensed child care facilities in the Yavapai region. Fifty-seven of the licensed facilities were child care centers, with a capacity of 3,906 children. Fourteen of the licensed facilities were child care centers located in public schools and together had a capacity of 1,420 children. Nine of the licensed facilities were small group homes, with a capacity of 100 children. The region’s licensed facilities had a combined capacity of 5,426 children. The largest percentage (38%) of this capacity was in Prescott, followed by Cottonwood (18%), Prescott Valley (16%), Chino Valley (9%), and Camp Verde (8%).

ADHS-Licensed Child Care Facilities, 2010

| | Child Care Centers | | Child Care in Public Schools | | Small Group Homes | |
|--------------------------|--------------------|----------|------------------------------|----------|-------------------|----------|
| | No. of centers | Capacity | No. of centers | Capacity | No. of centers | Capacity |
| Ash Fork | 1 | 25 | - | - | - | - |
| Bagdad | 2 | 115 | - | - | - | - |
| Black Canyon City | 2 | 65 | - | - | - | - |
| Camp Verde | 6 | 423 | 1 | 25 | - | - |
| Chino Valley | 4 | 288 | 3 | 182 | 1 | 10 |
| Clarkdale | 2 | 108 | | | - | - |

| | | | | | | |
|------------------------|----|-------|---|-----|---|----|
| Cornville | | | 1 | 65 | - | - |
| Cottonwood | 15 | 945 | - | - | 1 | 20 |
| Humboldt | 1 | 35 | - | - | - | - |
| Prescott | 15 | 1,256 | 6 | 850 | 1 | 10 |
| Prescott Valley | 9 | 646 | 2 | 162 | 6 | 60 |
| Rimrock | - | - | 1 | 136 | - | - |

Source: Arizona State, Department of Health Services, Division of Licensing Services, Provider Databases, *Childcare Facilities 2/1/2010*. Retrieved on March 17, 2010 from <http://www.azdhs.gov/als/databases/sr-dc.txt>.

The Arizona Department of Economic Security groups Yavapai County together with Apache, Coconino, and Navajo counties, in District 3 of its statewide planning areas. Data regarding rates charged for full-time care in 2008 at DES approved homes shows that 75% of the facilities in District 3 charged a daily rate of \$25 for children of most ages.

Rates Charged by Homes for Full-time (6 or More Hours) Child Care

| | Children Under 1 | 1 and 2 Year Olds | 3,4, and 5 Year Olds | School Age |
|---------------|-------------------------|--------------------------|-----------------------------|-------------------|
| Median | \$24.00 | \$21.00 | \$20.00 | \$20.00 |
| 75%* | \$25.00 | \$25.00 | \$25.00 | \$24.00 |

Source: Arizona Department of Economic Security, Division of Employment and Rehabilitation Services, Childcare Administration, *Child Care Market Rate Survey 2008, Table 4: Approved Homes Average Rate Charged by Homes for Full-time (6 or More Hours) Child Care*. All data are for District 3 of the Statewide Planning Areas, which includes Apache, Coconino, Navajo, and Yavapai County. *The rate at which 75% of the market is at or below.

Full-time child care costs reported in March 2010 do not differ dramatically from those of 2008. The average weekly rate was \$115 per child, with some providers charging as little as \$100 and others as much as \$195. The average part-time rate was slightly more than half of the average full-time rate.

Yavapai Child Care Rates (March 2010)

| | Average | Range |
|------------------------------|----------------|--------------|
| Full-time Weekly Rate | \$115 | \$100*-150 |
| Part-time Weekly Rate | \$63 | \$60-\$75 |

Source: First Things First

The average rate for full-time child care rates comes from data for 83 children attending 16 child care facilities. The average rate for part-time child care rates comes from data for 5 children attending 2 child care facilities. *Only one facility reported a full-time rate of \$50 for one of its children. The next lowest rate for full-time child care was \$100.

C. Other Relevant Data - The Child Care Administration Office of the Arizona Department of Economic Security assists eligible families with child care costs. Although the eligibility criteria include an array of factors, income remains one of the most salient factors employed as a basis for assistance decisions. Given the economic challenges faced by families today, it is also important to note that examination of the following data (and the associated narrative) should be done within a framework that acknowledges the differences between child care need, eligibility, and assistance. Specifically, it is important to note that data regarding this issue is heavily weighted toward documentation of assistance as well as some data on eligibility (i.e., those eligible that were not

assisted). The data, however, is not conducive to empirical documentation of need (i.e., families who genuinely need assistance but are either not eligible or were denied assistance).

The number of families in the region eligible for child care assistance has decreased 46% from 617 in January 2009 to 333 in January 2010. The number of families receiving child care assistance has decreased by 30% over the same period, from 504 in January 2009 to 352 in January 2010. The number of children in those families receiving child care assistance dropped from 641 to 352, a 45% decrease. This compares with a 39% decrease in both the number of families and the number of children receiving child care assistance statewide over this period of time. Though the number of families eligible for DES child care subsidies has decreased dramatically, it may be argued that this decrease is more reflective of the changes in eligibility requirements for these subsidies than an indication of a decline in poverty. That is, when reviewing this information, it is important to note that the Department of Economic Security recently reconfigured the tier system by removing the two highest tiers of eligibility. As such, it may be argued that this reconfiguration had a direct impact on the number of families eligible for, and subsequently receiving child care benefits. The percent of families receiving assistance out of the families eligible for assistance changed only slightly from January 2009 to January 2010, from 82% to 81% for families and from 77% to 76% for children.

Number of Families and Children Eligible and Receiving Child Care Assistance

| | January 2009 | | June 2009 | | January 2010 | |
|-----------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| | Number of Families Eligible/Receiving | Number of Children Eligible/Receiving | Number of Families Eligible/Receiving | Number of Children Eligible/Receiving | Number of Families Eligible/Receiving | Number of Children Eligible/Receiving |
| Yavapai County | 617/504 | 834/641 | 476/381 | 641/507 | 333/269 | 465/352 |
| Arizona | 26,280/ 21,378 | 37,988/ 29,011 | 20,736/ 17,155 | 30,209/ 24,184 | 15,842/ 13,014 | 23,183/ 17,856 |

Source: Arizona Department of Economic Security (2007, 2009, 2010). DES Multidata pulled on May 4, 2010 from Database (Unpublished Data).

Examination of child care assistance data by Yavapai zip code reveals a decrease from January 2009 to January 2010 in the number of families and children receiving assistance in all areas of the region. Some areas in which a large number of families and children were served at the beginning of the period had particularly large decreases. For example, in the Prescott Valley area, classified as zip code 86314, the number of families and children receiving assistance both decreased by 50%. In the Chino Valley area, classified as zip code 86323, the number of families receiving assistance decreased by 63% over the period, while the number of children receiving assistance decreased by 65%.

Number of Families and Children Eligible and Receiving Child Care Assistance by Zip Code

| | January 2009 | | June 2009 | | January 2010 | |
|-----------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|
| Zip Code | Number of Families Eligible/ | Number of Children Eligible/ | Number of Families Eligible/ | Number of Children Eligible/ | Number of Families Eligible/ | Number of Children Eligible/ |

| | Receiving | Receiving | Receiving | Receiving | Receiving | Receiving |
|----------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| 85324 | 5/4 | 7/4 | 4/3 | 5/3 | 3/1 | 3/1 |
| 86301 | 41/30 | 49/37 | 37/33 | 48/43 | 22/17 | 29/23 |
| 86302 | 3/3 | 5/5 | 2/2 | 3/3 | 2/2 | 3/3 |
| 86303 | 33/30 | 45/38 | 28/26 | 35/33 | 25/18 | 34/24 |
| 86304 | 7/4 | 10/7 | 3/1 | 4/1 | 1/1 | 2/1 |
| 86305 | 16/14 | 22/17 | 17/10 | 22/15 | 8/6 | 12/7 |
| 86312 | 3/3 | 5/4 | 2/2 | 3/3 | 1/1 | 2/2 |
| 86314 | 152/127 | 208/163 | 115/93 | 155/124 | 74/63 | 98/81 |
| 86315 | 7/5 | 8/5 | 4/3 | 5/3 | 5/3 | 6/4 |
| 86320 | 2/2 | 3/3 | 1/1 | 2/2 | - | - |
| 86322 | 38/27 | 46/30 | 32/22 | 39/27 | 23/18 | 30/23 |
| 86323 | 45/41 | 61/52 | 36/29 | 48/37 | 19/15 | 24/18 |
| 86324 | 12/10 | 18/13 | 12/11 | 20/17 | 9/8 | 13/12 |
| 86325 | 14/12 | 16/14 | 11/6 | 13/8 | 9/9 | 14/11 |
| 86326 | 145/116 | 209/158 | 110/92 | 160/129 | 90/73 | 135/100 |
| 86327 | 12/11 | 14/13 | 10/9 | 13/12 | 9/6 | 12/9 |
| 86329 | 4/4 | 5/5 | 3/2 | 4/3 | 1/1 | 2/1 |
| 86331 | - | - | 1/1 | 1/1 | - | - |
| 86333 | 5/5 | 9/7 | 2/2 | 2/2 | 2/2 | 2/2 |
| 86334 | 9/7 | 13/11 | 7/5 | 11/8 | 5/4 | 7/5 |
| 86335 | 18/14 | 25/16 | 15/14 | 21/18 | 7/6 | 9/7 |
| 86336 | 10/10 | 12/11 | 8/5 | 8/5 | 7/5 | 9/6 |
| 86338 | - | - | - | - | 1/1 | 3/2 |
| 86339 | 3/3 | 3/3 | 2/2 | 2/2 | 2/2 | 2/2 |
| 86341 | 1/1 | 1/1 | - | - | - | - |
| 86351 | 7/5 | 11/8 | 5/5 | 9/7 | 5/5 | 8/6 |
| Arizona | 26,280/ 21,378 | 37,988/ 29,011 | 20,736/ 17,155 | 30,209/ 24,184 | 15,842/ 13,014 | 23,183/ 17,856 |

Source: Arizona Department of Economic Security (2007, 2009, 2010). DES Multidata pulled on May 4, 2010 from Database (Unpublished Data). *These cells were blank on the FTF spreadsheet from which data were extracted. A dash in a cell indicates no data was included for the zip code for that month on the spread sheet provided by FTF.

Arizona Department of Economic Security child care assistance data for 2009 regarding the number of families and children in the region who are eligible for and receive child care assistance mirror the data presented above. Eighty-two percent of the families and 77% of the children eligible for child care assistance received it (although, as above, it is important to note that this figure does not necessarily reflect the degree to which the need for assistance is being met). This compares with statewide rates of 84% and 79% for families and children respectively.

Families and Children Eligible for and Receiving Child Care Assistance Jan. 2009 – Dec. 2009

| | Number of Families Eligible | Number of Children Eligible | Number of Families Receiving | Number of Children Receiving |
|-----------------------|------------------------------------|------------------------------------|-------------------------------------|-------------------------------------|
| Yavapai County | 866 | 1,498 | 708 | 1,145 |
| Arizona | 35,369 | 68,950 | 29,514 | 54,116 |

Source: Arizona Department of Economic Security (2009). DES Multidata pulled on May 4, 2010 from Database (Unpublished Data).

Number of Families and Children Eligible and Receiving Child Care Assistance by Zip Code, January 2009 – December 2009

| Zip Code | Number of Families Eligible | Number of Families Receiving | Number of Children Eligible | Number of Children Receiving |
|-----------------|------------------------------------|-------------------------------------|------------------------------------|-------------------------------------|
| 85324 | 5 | 6 | 5 | 6 |
| 85332 | 3 | 3 | 3 | 3 |
| 85362 | 1 | 1 | 1 | 1 |
| 86301 | 52 | 79 | 52 | 79 |
| 86302 | 4 | 9 | 4 | 9 |
| 86303 | 43 | 67 | 43 | 67 |
| 86304 | 7 | 12 | 7 | 12 |
| 86305 | 23 | 38 | 23 | 38 |
| 86312 | 3 | 6 | 3 | 6 |
| 86314 | 169 | 267 | 169 | 267 |
| 86315 | 8 | 11 | 8 | 11 |
| 86320 | 2 | 5 | 2 | 5 |
| 86322 | 38 | 56 | 38 | 56 |
| 86323 | 56 | 96 | 56 | 96 |
| 86324 | 17 | 27 | 17 | 27 |
| 86325 | 17 | 23 | 17 | 23 |
| 86326 | 162 | 278 | 162 | 278 |
| 86327 | 13 | 16 | 13 | 16 |
| 86329 | 5 | 6 | 5 | 6 |
| 86331 | - | - | 1 | 1 |
| 86333 | 8 | 15 | 8 | 15 |
| 86334 | 8 | 16 | 8 | 16 |
| 86335 | 21 | 35 | 21 | 35 |
| 86336 | 9 | 11 | 9 | 11 |
| 86338 | - | - | 1 | 5 |
| 86339 | 3 | 3 | 3 | 3 |
| 86340 | 2 | 4 | 2 | 4 |
| 86341 | 2 | 2 | 2 | 2 |
| 86351 | 8 | 16 | 8 | 16 |
| Arizona | 35,369 | 29,514 | 68,950 | 54,116 |

Source: Arizona Department of Economic Security (2009). DES Multidata pulled on May 4, 2010 from Database (Unpublished Data). Cells with a dash were blank on the FTF spreadsheet from which data were extracted.

D. Professional Development - Professional development and education levels of staff are considered important elements of child care quality.⁴² According to the National Association of Early Childhood Teacher Educators, teachers who have good preparation in early childhood education are: prepared to apply knowledge of child development, use appropriate teaching strategies, meet the social/emotional demands of young children, understand children’s thinking, know how to build student learning over time, and understand language and literacy development. All of these elements are important, based on current research which emphasizes that the first years of life have a lasting impact on child development.⁴³ However, based on data from the National Prekindergarten Study (2005), more than one-quarter of teachers lack a Bachelors Degree, and half of these teachers had no more than a high school diploma. Only 24% had a Masters Degree. Assistant teachers had even less education, with 59% having no more than a high school diploma. Seventy one percent of teachers in this study were also found to make less than 200% of the poverty level.⁴⁴ It may be argued that low wages likely impact staff retention rates.

E. Level of Certification, Credentials, or Degrees – Examination of the table below indicates that a greater percentage of Yavapai early childhood teachers have an Associate’s Degree or a Bachelor’s Degree than do teachers statewide. More assistants in the region have a Child Development Associate (CDA) Credential or Associate’s degree than do those in the state as a whole. However, the percentage of the region’s teaching assistants who have a Bachelor’s Degree (4%) lags behind the state rate of 7%. The region’s percentage of teachers and teaching assistants with an Associate’s Degree is well behind the national averages. Although the data below indicate that the educational credentials of the region’s early childhood teachers compare favorably with those of the state as a whole, this issue is clearly one which still requires attention. For example, although the percentage of teachers in Yavapai County without a degree is lower than Arizona as a whole (i.e., 49% vs. 61%), the fact remains that almost one-half of child care teachers in the region do not have a degree. This is an important finding given research on the relationship between quality of early childhood experiences and subsequent development.

Child Care Professionals’ Educational Background

| Degree Type | Yavapai 2007 | | Arizona* 2007 | | United States** 2002 | |
|--------------------|--------------|------------|---------------|------------|----------------------|------------|
| | Teachers | Assistants | Teachers | Assistants | Teachers | Assistants |
| No degree | 49% | 81% | 61% | 82% | 20% | 12% |
| CDA | 5% | 13% | 9% | 7% | NA | NA |
| Associate’s | 20% | 9% | 15% | 8% | 47% | 45% |
| Bachelor’s | 25% | 4% | 19% | 7% | 33% | 43% |
| Master’s | 7% | 1% | 6% | <1% | | |

⁴² Bogard, K., Traylor, F., & Takanishi, R. (2008). Teacher education and PK outcomes: Are we asking the right questions? *Early Childhood Research Quarterly*, 23, 1-6.

⁴³ National Association of Early Childhood Teacher Educators (NAECTE) position statement on early childhood certification for teachers of children 8 years old and younger in public school settings (2010, June 23). *Journal of Early Childhood Teacher Education*, 30:2, 188-191.

⁴⁴ “Many pre-k teachers fall short on salaries, education levels.” *Report on Preschool Programs* 37.10 (2005): 77. General OneFile. Web. 23 June 2010.

Source: *Compensation and Credentials Report, Center for the Child Care Workforce – Estimating the Size and Components of the U.S. Child Care Workforce and Caregiving Population report, 2002*

*Arizona figures were determined by using the statewide average from the *Compensation and Credentials report*.

**United States figures had slightly different categories: *High school or less* was used for no degree. *Some college* was used for Associate’s degree, and *Bachelor’s degree or more* was used for Bachelor’s and Master’s degree.

F. Retention Rates - The average length of employment for teaching assistants in the region is relatively short. Thirty-five percent had worked one year or less, while 60% had worked less than two years. It may be argued that these figures are a result of a number of factors including: remuneration rates and/or the fact that a teaching assistant position is in some ways a temporary or transitory (step-up) position. Regardless of the underlying cause for retention rates, it may be argued that this situation may have a number of potentially negative impacts for children due to issues such as lack of personnel continuity and changes in teaching styles.

Percent of Centers Reporting Average Length of Teacher Employment Duration

| | 6 Months or Less | 7-11 Months | 1 Year | 2 Years | 3 Years | 4 Years | 5 Years or More | Don’t Know/ Refused |
|---------------------------|-------------------------|--------------------|---------------|----------------|----------------|----------------|------------------------|----------------------------|
| Teachers | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |
| Assistant Teachers | 17% | 15% | 13% | 15% | 6% | 0 | 9% | 25% |
| Teacher Directors | 4% | 6% | 6% | 11% | 0 | 2% | 17% | 53% |
| Admin. Directors | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Source: Compensation and Credentials Survey

G. Wages and Benefits - The average wages and benefits of child care professionals in the Yavapai region grew moderately from 2004 to 2007. Over that period, the average increase in wage and benefits was 12% for an assistant teacher, 9% for a teacher, and 12% for a teacher/director.

Average Wage and Benefits for Child Care Professionals

| | 2004 | 2007 |
|-------------------------------|-------------|-------------|
| Assistant Teacher | \$8.05 | \$9.13 |
| Teacher | \$10.49 | \$11.39 |
| Teacher/Director | \$12.67 | \$14.14 |
| Administrator/Director | \$17.48 | NA |

Source: 2004 and 2007 Compensation and Credentials Survey

H. Availability of Certification, Credentialing or Degree Programs - A number of institutes of higher education and social service agencies offer a range of early childhood degree programs, certifications, and trainings in the region. Yavapai College serves as a hub of the region’s early childhood education (ECE) efforts, with an Associate’s Degree in Early Childhood Education and two early childhood degree programs available at its Prescott and Verde Valley campuses. Students pursuing an education in ECE have the opportunity to work and learn under the

supervision of master teachers at the Del E. Webb Family Enrichment Center/Lab School on the Yavapai College campus. Additionally, the college assists ECE students in obtaining internships and practica with local public and private early childhood programs, including Head Start. Prescott College also offers ECE certification programs and an ECE Bachelor's Degree. Northern Arizona University, located in Flagstaff, offers degrees in both early childhood education and elementary education.

Available Education and Certification Programs for Child Care Professionals

| Organization | Offerings |
|--|---|
| Yavapai College | <ul style="list-style-type: none"> • Associate of Applied Science in Early Childhood Education Degree • Early Childhood Education Certificate • Early Childhood Education – Child Development Associate Certificate • Child care Professional Training • The Del. E. Webb Family Enrichment Center/Lab School (offers hands-on experience for ECE students) • The Professional Development Career Pathway • Workshops organized by student affiliate of National Association for the Association of Young Children (NAEYC) |
| Prescott College | <ul style="list-style-type: none"> • Early Childhood Education Certificate • Early Childhood Special Education Certificate • Early Childhood Education Bachelor's Degree (non-certification track) |
| Northern Arizona University | <ul style="list-style-type: none"> • Degree in Early Childhood Education • Degree in Elementary Education |
| University of Arizona Cooperative Extension | <ul style="list-style-type: none"> • Brain Builders for Life (training for child care providers) |
| Buena Vista Children's Services | <ul style="list-style-type: none"> • Early Childhood Conference • BVCS staff trainings open to staff of child care homes and centers in Cottonwood area • Training, coaching, and material for loan to home child care providers, infant/toddler teachers, preschool teachers, before-after school program staff, supervisors and directors |
| Child and Family Resources | <ul style="list-style-type: none"> • Arizona Infant/Toddler Institute – training for infant/toddler child care providers who work in centers and homes |

Source: The information included in the same table in the 2008 Yavapai Regional Council Needs and Assets Report was checked and updated through LeCroy & Milligan Associates' phone calls to agencies, colleges, and universities.

II. Supporting Families

A. Family Needs - Parenting can be challenging during the best of times, and during an economic recession many families face added stresses. Concerns about job loss, financial instability, and providing for their families may challenge even the most skilled and knowledgeable parents' attempts to care for their children in a way that fully prepares them for school and life. Families need access to information about early child development and services that support them in being caring and responsive parents.

Family Support includes a broad spectrum of programs, services, and collaborations designed with the goal of helping families to function in a fashion that positively impacts early childhood development. Although united by this goal, family support programs and services approach this process differently. Some programs work to increase the knowledge families have about child development and best practices in parenting. Others help parents to build skills and abilities that better enable them to meet the physical, social, and emotional demands of being a parent. Parents are encouraged to provide supportive and responsive care to their children, as this can have a long-term, positive impact on their development. Strategies for promoting enhanced development often stress parent-child attachment during infancy and parenting skills.⁴⁵ Some programs focus on the home environment to ensure that it is safe and filled with educational materials to help families prepare their children to enter kindergarten.

Supporting families early in the developmental stages of their children has been shown to minimize future health, educational, behavioral, and crime-related problems.⁴⁶ A number of studies indicate that early developmental programs can positively impact child and family well-being across a variety of outcomes. For example, a meta-analysis of 17 studies of early developmental programs (across a range of areas including child care, home visitation, family support, and parent education) found that these types of programs can have a wide range of beneficial effects on participating children and families. Positive effects were particularly found in educational success during adolescence.⁴⁷

Data from the First Things First 2008 Family and Community Survey provide insight into parents' perception of services currently available in the region and ways in which such services might better fulfill their needs. Most (95%) of the Yavapai parents surveyed were somewhat or very satisfied with the information available to them about children's development and health. However, a significant minority (39%) of the parents expressed moderate or strong dissatisfaction with how agencies that serve young children and their families work together and communicate.

⁴⁵ Sroufe, L. A. *Emotional development: The organization of emotional life in the early years*. Cambridge: Cambridge University Press; Tronick, E. Emotions and emotional communication in infants, 1989, *American Psychologist*, 44, 112-119.

⁴⁶ Farrington, D., & Welsh, B.C. (2002). Family-based crime prevention. In L.W. Sherman, D. Farrington, B.C. Welsh, & D. Layton MacKenzie (Eds.), *Evidence-based crime prevention* (pp. 22-55). London: Routledge. As cited in Manning, M., Homel, R., & Smith, C. (2010). A meta-analysis of the effects of early developmental prevention programs in at-risk populations on non-health outcomes in adolescence. *Children and Youth Services Review* 32 (2010) 506-510.

⁴⁷ Manning, M., Homel, R., & Smith, C. (2010). A meta-analysis of the effects of early developmental prevention programs in at-risk populations on non-health outcomes in adolescence. *Children and Youth Services Review* 32 (2010) 506-510.

Satisfaction of Services in Yavapai County, 2008

| | | Very Dissatisfied | Somewhat Dissatisfied | Somewhat Satisfied | Very Satisfied |
|--|---------|--------------------------|------------------------------|---------------------------|-----------------------|
| How satisfied are you with the information and resources available to you about children's development and health? | Region | 3% | 5% | 31% | 61% |
| | Arizona | 1% | 4% | 39% | 56% |
| How satisfied are you with how agencies that serve young children and their families work together and communicate? | Region | 19% | 20% | 40% | 20% |
| | Arizona | 17% | 26% | 42% | 15% |

A majority (70% or more) of the parents surveyed in the Yavapai region agree or strongly agree that it is easy to locate the services they need and feel that the services they receive are of a high quality and culturally appropriate. However, parents appear less satisfied with other aspects of service provision. Specifically, 63% of parents felt there was a repetition in the paperwork required to obtain services. More significantly, 64% agreed or strongly agreed that services were not available at convenient times or location as compared to 45% of parents statewide. Additionally, 50% of the parents felt that the services they were able to access filled only a portion of their families' needs, with 40% noting a particular lack in preventive services.

Specific Perceptions of Services in Yavapai County, 2008

| | | Strongly Disagree | Somewhat Disagree | Somewhat Agree | Strongly Agree |
|--|---------|--------------------------|--------------------------|-----------------------|-----------------------|
| It is easy to locate services that I need or want. | Region | 2% | 17% | 35% | 46% |
| | Arizona | 5% | 13% | 38% | 45% |
| I do not know if I am eligible to receive services. | Region | 39% | 17% | 26% | 18% |
| | Arizona | 43% | 18% | 22% | 18% |
| I am asked to fill out paperwork or eligibility forms multiple times. | Region | 12% | 26% | 25% | 38% |
| | Arizona | 20% | 19% | 31% | 31% |
| Available services are very good. | Region | 3% | 16% | 46% | 34% |
| | Arizona | 12% | 10% | 39% | 40% |
| Available services reflect my cultural values. | Region | 11% | 18% | 27% | 44% |
| | Arizona | 17% | 18% | 38% | 27% |
| Service providers do not speak my language or materials are not in my language. | Region | 74% | 16% | 5% | 5% |
| | Arizona | 82% | 9% | 3% | 5% |

| | | | | | |
|--|---------|-----|-----|-----|-----|
| Services are not available at times or locations that are convenient. | Region | 20% | 17% | 38% | 26% |
| | Arizona | 32% | 23% | 28% | 17% |
| Available services fill some of my needs, but do not meet the needs of my whole family. | Region | 35% | 15% | 32% | 18% |
| | Arizona | 44% | 18% | 24% | 14% |
| I cannot find services to prevent problems; I only qualify after problems are severe. | Region | 41% | 21% | 19% | 20% |
| | Arizona | 44% | 24% | 15% | 17% |

Source: First Things First (2008). *Complete by Region Family and Community Survey (Unpublished Data)*.

An important factor that influences parents' access of services for children less than five years of age is their level of knowledge regarding child development. Some studies even suggest that a parental lack of knowledge of parenting and child development may be a risk factor for child maltreatment.⁴⁸ Larger percentages of the region's parents answered correctly on 15 of 22 questions concerning child development on the First Things First Family and Community Survey than did parents statewide. However, the relatively low level of some scores indicates that continued efforts are still needed to educate parents about child development in the Yavapai region.

Parents Understanding of Early Childhood in Yavapai Counties Compared to the State, 2008

| | | |
|---|--|-------------------|
| When do you think a parent can begin to significantly impact a child's brain development? | Percent correctly responding: <i>Prenatal/From Birth</i> | |
| | In Region 87% | In Arizona 78% |
| At what age do you think an infant or young child begins to really take in and react to the world around them? | Percent correctly responding: <i>Up to one month</i> | |
| | In Region 51% | In Arizona 51% |
| Which do you agree with more? First year has a little impact on school performance First year has a major impact on school performance | Percent correctly responding: <i>First year has a major impact on school performance</i> | |
| | In Region 87% | In Arizona 79% |
| At what age do you think a baby or young child can begin to sense whether or not his parent is depressed or angry, and can be affected by his parent's mood? | Percent correctly responding: <i>Up to two months</i> | |
| | In Region 69% | In Arizona 57% |
| Children's capacity for learning is pretty | Percent correctly responding: | |

⁴⁸ Berger, L.M., Brooks-Gunn, J. (2005, June). Socioeconomic status, parenting knowledge and behaviors, and perceived maltreatment of young low-birth-weight children. *Social Service Review*. Chicago: The University of Chicago.

| | | |
|--|--|-------------------|
| much set from birth and cannot be greatly increased or decreased by how the parents interact with them. (4 choices from definitely false to definitely true) | <i>Definitely false</i> | |
| | In Region 74% | In Arizona 78% |
| In terms of learning about language, children get an equal benefit from hearing someone talk on TV versus hearing a person in the same room talking to them. (4 choices from definitely false to definitely true) | Percent correctly responding: <i>Definitely false</i> | |
| | In Region 60% | In Arizona 53% |
| Parents' emotional closeness with their baby can strongly influence that child's intellectual development. | Percent correctly responding: <i>Definitely true</i> | |
| | In Region 90 % | In Arizona 89% |
| For a five-year-old, how important do you think playing is for that child's healthy development? | Percent correctly responding: <i>Playing is crucial</i> | |
| | In Region 99% | In Arizona 90% |
| For a three-year-old, how important do you think playing is for that child's healthy development? | Percent correctly responding: <i>Playing is crucial</i> | |
| | In Region 95% | In Arizona 92% |
| For a 10-month-old, how important do you think playing is for that child's healthy development? | Percent correctly responding: <i>Playing is crucial</i> | |
| | In Region 83% | In Arizona 79% |
| If a 12-month-old walks up to the TV and begins to turn the TV on and off repeatedly, the child wants to get her parents' attention? | Percent correctly responding: <i>Not at all likely</i> | |
| | In Region 12% | In Arizona 14% |
| If a 12-month-old walks up to the TV and begins to turn the TV on and off repeatedly, the child enjoys learning about what happens when buttons are pressed? | Percent correctly responding: <i>Very likely</i> | |
| | In Region 84% | In Arizona 78% |
| If a 12-month-old walks up to the TV and begins to turn the TV on and off repeatedly, the child is angry at her parents for some reason or she is trying to get back at them? | Percent correctly responding: <i>Not at all likely</i> | |
| | In Region 69% | In Arizona 76% |
| In this case of turning the TV on and off, would you say that the child is misbehaving, or not? | Percent correctly responding: <i>Not misbehaving</i> | |
| | In Region 89% | In Arizona 92% |
| Should a 15-month-old baby be expected to share her toys with other children? | Percent correctly responding: <i>No, too young to share</i> | |

| | | |
|---|---|-------------------|
| | In Region 52% | In Arizona 60% |
| Should a 3-year-old child be expected to sit quietly for an hour or so? | Percent correctly responding: <i>A three-year-old should not be expected</i> | |
| | In Region 76% | In Arizona 74% |
| Can a six-month-old be spoiled? Or is he too young? | Percent correctly responding: <i>A six-month-old is too young to spoil</i> | |
| | In Region 52% | In Arizona 36% |
| Picking up a three-month-old every time she cries? | Percent correctly responding: <i>Appropriate</i> | |
| | In Region 76% | In Arizona 62% |
| Rocking a one-year-old to sleep every night because the child will protest if this is not done? | Percent correctly responding: <i>Appropriate</i> | |
| | In Region 33% | In Arizona 30% |
| Letting a two-year-old get down from the dinner table before the rest of the family has finished their meal? | Percent correctly responding: <i>Appropriate</i> | |
| | In Region 60% | In Arizona 58% |
| Letting a five-year-old choose what to wear to school every day? | Percent correctly responding: <i>Appropriate</i> | |
| | In Region 79% | In Arizona 77% |

Source: First Things First (2008). *Complete by Region Family and Community Survey (Unpublished Data)*.

B. Child Abuse/Neglect - Significant research has been conducted on child abuse and neglect in an effort to understand what factors may contribute to positive and negative outcomes for children. Most of the factors identified can be categorized into societal, community, family/parental, and child specific risk and protective factors. Increasingly, research suggests that there is a complex inter-play of these factors that impact the likelihood of abuse and neglect.⁴⁹

Although the number of reports of child abuse in the Yavapai region fluctuated within a relatively narrow range from October 2007 to September 2009, the substantiation rate has witnessed a steady decline over that same period. The statewide substantiation rates for the same four periods were 8%, 6%, 9%, and 6%. The number of new removals from the home has also decreased since October 2007. It is worth noting that a child abuse report is neither an indicator of risk nor does it necessarily lead to a child's removal from their home. Moreover, lack of substantiation is often due to a lack of resources in the child welfare system. The current state fiscal crisis that has led to a

⁴⁹Peirson, L., Laurendeau, M., and Chamberland, C. (2001). Context, contributing factors, and consequences. In Prilleltensky, I., Nelson, G., and Peirson, L. (Eds.) *Promoting Family Wellness and Preventing Child Maltreatment: Fundamentals for Thinking and Action* (pgs. 41-123). Canada: University of Toronto Press Incorporated.

decrease in the number of Child Protective Services (CPS) staff statewide has likely impacted the region as well.

Child Abuse Reports, Substantiations, Removals, and Placements, 2007-2009

| | Oct. 2007 through Mar. 2008 | Apr. 2008 through Sept. 2008 | Oct. 2008 through Mar. 2009 | Apr. 2009 through Sept. 2009 |
|--|--|---|--|---|
| Number of reports received | 509 | 528 | 545 | 480 |
| Number of reports substantiated | 80 | 57 | 52 | 38 |
| Substantiation rate* | 18.2% | 12.5% | 11.2% | 8.9% |
| Number of new removals | 61 | 54 | 55 | 43 |

Source: Arizona Department of Economic Security, Child Welfare Reports, Oct. 1, 2007 – Mar. 31, 2008; Apr. 1, 2009 – Sept. 30, 2009 - Tables 2,3,15, 16, 21, and 22. Retrieved on May 18, 2010 from <https://www.azdes.gov/appreports.aspx>. * Substantiation rates are computed based on the total number child abuse cases assigned for investigation whose risks levels were assessed as f low, medium, or high risk. It excluded reports reported labeled in the Child Welfare Reports as “potential.”

Examination of CPS data by Yavapai zip code shows some notable changes from 2007 to 2009 in the number of child removals and the percent of the total removals in the state. Although the overall number of increases is small when considered as a percentage of the state total, the data suggests significant changes within specific zip codes. For example, in zip code 86323 in Chino Valley, removals went from 24 (0.32%) in 2009 to 9 (0.11%) in 2007. In zip code 85332 in Kirkland there was a similar downward movement in removals from 4 (0.05%) in 2007 to 1 in 2009 (0.01%). In two zip codes in Prescott, the removal rate moved in opposite directions. In zip code 86303, removals increased from 8 (0.11%) to 14 (0.17%), while in zip code 85305 they decreased from 7 (0.09%) to 2 (0.02%). Two zip codes in the region stand out for their high numbers of removal of children in both 2007 and 2009. Zip code 86314 in Prescott Valley had 51 removals in both years (0.68% and 61%, respectively, for 2007 and 2009). In zip code 86326 in Cottonwood, in 2007 there were 32 (0.43%) removals and 30 removals in 2009 (0.37%). A large number of removals in a zip code may suggest a high level of abuse in an area, a high level of CPS oversight in an area, or both; such data should be viewed with care.

Children Removed By Child Protective Services in SFY2007 and SFY2009

| Zip Code | 2007 | 2009 | Zip Code | 2007 | 2009 | Zip Code | 2007 | 2009 |
|-----------------|---|---|-----------------|---|---|-----------------|---|---|
| | Number of Children (Percent of State Total) | Number of Children (Percent of State Total) | | Number of Children (Percent of State Total) | Number of Children (Percent of State Total) | | Number of Children (Percent of State Total) | Number of Children (Percent of State Total) |
| 85321 | - | 1 (0.01%) | 86315 | 1 (0.01%) | 1 (0.01%) | 86332 | 4 (0.05%) | 1 (0.01%) |
| 85324 | 2 (0.03%) | 8 (0.10%) | 86320 | 3 (0.04%) | 2 (0.02%) | 86333 | 10 (0.13%) | 7 (0.09%) |
| 85332 | 4 (0.05%) | 1 (0.01%) | 86322 | 11 (0.15%) | 8 (0.10%) | 86334 | - | 3 (0.04%) |
| 85364 | 4 (0.05%) | 1 (0.01%) | 86323 | 24 (0.32%) | 9 (0.11%) | 86335 | 1 (0.01%) | 3 (0.04%) |
| 86022 | - | 1 (0.01%) | 86324 | 4 (0.05%) | 2 (0.02%) | 86336 | 1 (0.01%) | 3 (0.04%) |
| 86301 | 8 (0.11%) | 9 (0.11%) | 86325 | 1 (0.01%) | 4 (0.05%) | 86337 | 1 (0.01%) | 2 (0.02%) |
| 86303 | 8 (0.11%) | 14 (0.17%) | 86326 | 32 (0.43%) | 30 (0.37%) | 86338 | - | 1 (0.01%) |
| 86305 | 7 (0.09%) | 2 (0.02%) | 86327 | 6 (0.08%) | 7 (0.09%) | 86342 | 1 (0.01%) | - |
| 86314 | 51 (0.68%) | 51 (0.64%) | 86329 | 1 (0.01%) | 1 (0.01%) | 86351 | 3 (0.04%) | 2 (0.02%) |

Source: Arizona Department of Economic Security, Child Protective Services (provided by First Things First). The same number of removals may have a different accompanying percentage in the two reported years because the state's total number of removals upon which it is based was different in those years.

When examining the information presented above regarding child abuse and maltreatment it is important to note that this issue is one of great concern in Arizona,⁵⁰ especially given research on the need to consider this situation within a public health framework.⁵¹

C. Foster Care - Over half a million children in the United States are put in foster care each year.⁵² Children are placed in foster care settings for a variety of different reasons, and few are reunited with their parents. One study found that on average, the duration of care was 48.6 months. These results suggest that many youth (approximately 70%) will age out of the welfare system before

⁵⁰ Arizona Department of Economic Security (Division of Children, Youth and Families) – Child Welfare Reporting Requirements Semi-Annual Report for the Period of April 1, 2009 Through September 30, 2009.

⁵¹ Zimmerman, F., & Mercy, J.A. (2010). A better start: Child maltreatment prevention as a public health priority. Zero to Three, May, 2010.

⁵² U.S. Department of Health and Human Services (2006). *Foster care FY2002-FY206 entries, exits, and number of children in care on the last day of each federal fiscal year*. Washington, DC: U.S. Department of Health and Human Services.

they can be reunited with their biological families or adopted.⁵³ Youth who are aging out of foster care are at increased risk for a range of poor outcomes related to employment, education, housing, criminal activity, physical and mental health, substance abuse, and child bearing.⁵⁴ Many of these risk factors hold true even for youth who are adopted or for whom permanent environments are established.

The stated policy of the Arizona Department of Economic Security is to avoid children’s repeat entry into foster care, while ensuring the best interests of children and their families. According to the department’s most recent reporting, the percent of Yavapai children entering foster care who had another instance of removal in the prior 12 months was 11.5%, slightly higher than the Arizona rate of 10.5%. The percent of Yavapai children entering foster care who had been removed on another occasion in the prior 24 months was 5.2%, double the 2.6% Arizona rate.

Number of Children Entering Out-of-Home Care by Prior Placements, Apr. 1 – Sept. 30, 2009

| | Number of Children Removed | Number of Children with Prior Removal in Last 12 Months | Percent of Children with Removal in Prior 12 months | Number of Children with Prior Removal in Last 12 to 24 Months | Percent of Children with Removal in Prior 12 to 24 months |
|-----------------------|-----------------------------------|--|--|--|--|
| Yavapai County | 96 | 11 | 11.5% | 5 | 5.2% |
| Arizona | 3,819 | 401 | 10.5% | 101 | 2.6% |

Source: Arizona State, Department of Economic Security, *Child Welfare Report 1st Apr 2009 to 31st Sep 2009*, Table 31. Retrieved on May 18, 2010 from <https://www.azdes.gov/appreports.aspx>.

D. Juvenile Justice - When children enter the juvenile justice system it is often the culmination of a history of psychological and academic problems. A youth’s entry, exit, and continued involvement in the juvenile justice system may be influenced by a range of individual, social, and environmental factors. For example, race/ethnicity, gender, histories of mental health, substance abuse, trauma, delinquency, family conflict, poverty, prior social service involvement, and even geographic location may impact a youth’s likelihood of juvenile justice involvement.⁵⁵ Thus, the number of a region’s children who are in the juvenile justice system may to some degree be taken as a measure of the efficacy of early child development and programs in a region. Involvement in the juvenile justice system is of ongoing concern, as on average, over half of juvenile delinquents go on to become adult offenders.⁵⁶

⁵³ Cheng, T.C. (2010). Factors associated with reunification: A longitudinal analysis of long-term foster care. *Children and Youth Services Review* (2010), doi:10.1016/j.chilyouth.2010.

⁵⁴ Stott, T., & Gustavsson, N. (2010). Balancing permanency and stability for youth in foster care. *Children and Youth Services Review* 32, 619-625.

⁵⁵ Maschi, T., Hatcher, S.S., Schwalbe, C.S., & Rosato, N.S. (2008). Mapping the social service pathways of youth to and through the juvenile justice system: a comprehensive review. *Children and Youth Services Review*, 30, 1376-1385.

⁵⁶ Eggleston, E.P., & Laub, J.H.(2002). The onset of adult offending: A neglected dimension of the criminal career. *Journal of Criminal Justice*, 30 (6), 603-622. Doi:10.1016/S0047-2352(02)00193-9

Given the above research, it is worthwhile to present data relating to juvenile offending in Yavapai County, even though the relationship between this data and early childhood development may be an indirect one. The number of juvenile cases filed in Yavapai County Superior Court is reported below. These numbers fluctuated in a relatively narrow range in the last three reported periods, 2004-05 to 2006-07.

Juvenile Cases Filed in Yavapai County Superior Court

| 2001-02 | 2002-03 | 2003-04 | 2004-05 | 2005-06 | 2006-07 | 1 Year Change 2005-06- 2006-07 | 5 Year Change 2001-02- 2006-07 |
|---------|---------|---------|---------|---------|---------|--------------------------------------|--------------------------------------|
| 928 | 821 | 832 | 956 | 978 | 945 | -33 (- 3%) | +17 (2%) |

Source: First Things First Regional Profile

According to the Administrative Office of the Courts, of the 1,630 Yavapai juveniles referred to Arizona’s court system, 22% received standard probation, 7% entered Juvenile Intensive Probation Services, and 57% were diverted to community service or other non-judicial alternatives. In 45% of cases, petitions were filed requesting the court assume jurisdiction.

Juveniles Process in the Arizona Court System (Yavapai County), Fiscal Year 2009

| Referred | Detained | Divert | Petition Filed | Dismissed | Penalty Only | Standard Probation | JIPS | Committed to ADJC |
|----------|----------|--------|----------------|-----------|--------------|--------------------|------|-------------------|
| 1,630 | 574 | 933 | 734 | 182 | 3 | 356 | 119 | 21 |

Source: Arizona State, Administrative Office of the Courts, Juvenile Justice Services Division, Research and Information Unit, *Juveniles Processed in the Arizona Court System, FY 2009*. Retrieved on May 12, 2010 from <http://www.azcourts.gov/Default.aspx?alias=www.azcourts.gov/jjsd>. Data are reported for juveniles ages 8 through 17. Cases for juveniles below age 8 are handled through Child Protective Services or other agencies. *Referred* indicates juveniles for whom a report was submitted to the juvenile court alleging the youth committed a delinquent act or incorrigible behavior. *Diverted* denotes a process by which a juvenile is able to avoid formal court processing and to have the referral alleging an offense adjusted if the juvenile fulfills one or more conditions. *Petitions Filed* refers to legal documents filed in the juvenile court alleging that a referred youth is delinquent, incorrigible, or dependent and which requests the courts to assume jurisdiction over the youth. *Dismissed* denotes the number of youth with petitions against them that were dismissed. The dismissal of a petition may occur because of a lack of evidence, extension of unfulfilled diversion conditions, disposition of other charges, etc. *JIPS* = Juvenile Intensive Probation.

III. Health

The health and safety of children is of the utmost importance to parents. Parents want to live in communities where they know their children will receive the health services and care they need to develop into healthy adults. Research suggests that the focus on children’s health is warranted. Poor health in childhood can have lasting and cumulative effects on an individual’s health and well-being.⁵⁷ Physical, developmental, and mental health problems that go unaddressed may result in lasting health concerns decades later.⁵⁸ Prenatal care for mothers is also crucial in preventing many negative birth outcomes which may have lasting effects on children’s health.

⁵⁷ Russ, S., et. al., Meeting children’s basic health needs: From patchwork to tapestry, *Children and Youth Services Review* (2010), doi:10.1016/j.childyouth.2010.03.007.

⁵⁸ Keating, D.P., & Hertzman, C. (1999). *Developmental Health and the wealth of nations: Social, biological, and educational dynamics*. New York: Guilford Press.

While the last 50 years have seen declines in child mortality, rates of acute illness, and pediatric hospitalizations, there appears to be an increase in chronic illness.⁵⁹ Increased rates of childhood obesity are also of concern. In the past 30 years, the percentage of American children aged 12-19 that are overweight has more than tripled.⁶⁰ One in three children aged 2-19 is now considered overweight or obese.⁶¹ It is estimated that, if current trends continue, by 2030 16-18% of all health care spending in this country will be attributable to overweight/obesity.⁶² In addition, there are significant health disparities for children in this country. Children who live in low-income households have been shown to have worse health outcomes than their peers from higher income households.⁶³ ⁶⁴ One study based on the National Survey of Children's Health, which includes a telephone survey of 102,353 parents, found that 15 health outcomes increased with increased family income.⁶⁵

Given the high costs associated with health care, most families are dependent on health insurance to cover needed services. According to the National Health Interview Survey, health insurance coverage for children increased significantly from 86% in 1996 to 91% in 2008. This increase was primarily attributed to increasing enrollment of children in public programs, such as the State Children's Health Insurance Program (CHIP) Social Security Income for children with disabilities, and The Individuals with Disabilities Act (IDEA). Enrollment in private insurance fell during the same time period.⁶⁶ Many families, however, are uninsured or underinsured. One study of 43,509 children aged 2-17 (living with at least one parent) found that 73.6% of children were insured with insured parents, 8.0% were uninsured with uninsured parents, and the remaining 18.4% had discordant patterns of coverage. Overall, about 11.6% of children were uninsured, estimated for the U.S. population to 7.4 million children each year.⁶⁷

In general, insurance is associated with increased access to services and utilization of these services⁶⁸ as well as less unmet health needs.⁶⁹ Children's healthy development greatly benefits

⁵⁹ Wise, P.H. (2007). The future pediatrician: The challenge of chronic illness. *Journal of Pediatrics*, 151 (5 Suppl), S6-S10. Cited in Russ, S., et. al., Meeting children's basic health needs: From patchwork to tapestry, *Children and Youth Services Review* (2010), doi:10.1016/j.chilgyouth.2010.03.007.

⁶⁰ National Center for Health Statistics (2009). *Health, United States, 2008, With Chartbook*. Hyattsville, MD.

⁶¹ Ogden, C.L., Carroll, M., Curtin, L., Lamb, M., Flegal, K. (2010). Prevalence of High Body Mass Index in US Children and Adolescents 2007-2008. *Journal of American Medical Association*, 303(3), 242-249.

⁶² Wang, Y., Beydoun, M.A., Liang, L. Caballero, B., & Kumanyika, S.K. (2008). Will all Americans become overweight or obese? Estimating the progression and cost of the US obesity epidemic. *Obesity*, 16(10), 2323-2330.

⁶³ Starfield, B., Robertson, J., & Riley, A.W. (2002). Social class gradients and health in childhood. *Ambulatory Pediatrics*, 2(4), 238-246.

⁶⁴ Larson, K., & Halfon, N. (2009). Family income gradients in the health and health care access of US children. *Maternal and Child Health Journal* June 5 [Electronic publication ahead of print].

⁶⁵ Larson, K. & Halfon, N. (2010). Family income gradients in the health and health care access of US children. *Maternal Child Health Journal*. 14:332-342. DOI 10.1007/s10995-009-0477-y.

⁶⁶ Cohen, R.A., & Martinez, M.M. (2009, June 5). Health insurance coverage: Early release of estimates from the National Health Interview Survey, 2008. Retrieved 10/13/2009 from <http://www.cdc.gov/nchs/data/nhis/earlyrelease/insur200906.htm>.

⁶⁷ DeVoe, J.E., Tillotson, C.J., Wallace, L. (2009, Sept/Oct). Children's receipt of health care services and family health insurance patterns. *Annals of Family Medicine*. Vol.7, No. 5.

⁶⁸ Selden, T.M., & Hudson, J.L. (2006). Access to care and utilization among children: Estimating the effects of public and private coverage. *Medical care trends in medical care costs, coverage, use and access: Research findings from the Medical Expenditure Panel Survey*, 44(5), pp. I-19-I-26.

⁶⁹ Kenney, G. (2007). The impacts of the State Children's Health Insurance Program on children who enroll: Findings from 10 states. *Health Services Research*, 42(4), 1520-1543.

from access to comprehensive preventive and primary health services that include screening and early identification of developmental milestones, vision, hearing, oral health, nutrition and exercise, and social-emotional health. The following sections detail a variety of health indicators for the Yavapai region including: health insurance coverage and access, prenatal care and healthy births, access and utilization of a range of other health programs/services, immunization rates, and child mortality and morbidity, among other indicators.

A. Health Insurance Coverage and Utilization - Data from 2008 shows that in the Verde Valley, Central Yavapai, and other census-designated communities of the region 16% of children under the age of 18 lacks health insurance coverage.

Health Insurance Coverage (2008) - Verde Valley

| | Medically Insured Under 18 | Medically Uninsured Under 18 | Percent Medically Uninsured |
|-----------------------------------|-----------------------------------|-------------------------------------|------------------------------------|
| Camp Verde | 1,754 | 323 | 16% |
| Clarkdale | 635 | 117 | 16% |
| Cottonwood | 1,704 | 313 | 16% |
| Cottonwood – Verde Village | 1,969 | 362 | 16% |
| Jerome | 61 | <50 | 16% |
| Cornville | 619 | 114 | 16% |
| Sedona | 2,070 | 385 | 16% |
| Village of Oak Creek | NA | NA | NA |
| Lake Montezuma | 621 | 114 | 16% |
| Yavapai-Apache Nation | 138 | <50 | 16% |
| Yavapai County | 31,092 | 5,718 | 16% |
| Arizona | 1,209,030 | 226,220 | 16% |

Source: Arizona Department of Health Services from First Things First Regional Profile

Health Insurance Coverage (2008) – Central Yavapai

| | Medically Insured Under 18 | Medically Uninsured Under 18 | Percent Medically Uninsured |
|------------------------|-----------------------------------|-------------------------------------|------------------------------------|
| Chino Valley | 1,454 | 267 | 16% |
| Cordes Lakes | 382 | 70 | 16% |
| Dewey-Humboldt | 1,168 | 215 | 16% |
| Mayer | 261 | <50 | 16% |
| Paulden | 635 | 117 | 16% |
| Prescott | 6,299 | 1,158 | 16% |
| Prescott Valley | 4,368 | 803 | 16% |
| Spring Valley | 189 | <50 | 16% |
| Yavapai County | 31,092 | 5,718 | 16% |
| Arizona | 1,209,030 | 226,220 | 16% |

Source: Arizona Department of Health Services, from First Things First Regional Profile

Health Insurance Coverage (2008) – Other Census-Designated Communities

| | Medically Insured Under 18 | Medically Uninsured Under 18 | Percent Medically Uninsured |
|--------------------------|-----------------------------------|-------------------------------------|------------------------------------|
| Ash Fork | 85 | <50 | 16% |
| Bagdad | 293 | 54 | 16% |
| Black Canyon City | 501 | 92 | 16% |
| Congress | 319 | 59 | 16% |
| Peeples Valley | 69 | <50 | 16% |
| Seligman | 85 | <50 | 16% |
| Wilhoit | 123 | <50 | 16% |
| Yarnell | 120 | <50 | 16% |

Source: Arizona Department of Health Services, from First Things First Regional Profile

KidsCare is a federally funded program administered by the Arizona Health Care Cost Containment System (AHCCCS) that provides health coverage to low-income children up to the age of 18 at a low monthly premium. In response to Arizona’s fiscal problems, new enrollment in KidsCare was frozen in January 2010. Enrollment in the program in the Yavapai region has decreased by 33% from 2,125 in February 2008 to 1,414 in February 2010, much of the decrease occurring before the statewide freeze.

KidsCare Enrollment, 2008-2010

| | February 2008 | February 2009 | February 2010 | Percent Change |
|-----------------------|----------------------|----------------------|----------------------|-----------------------|
| Yavapai County | 2,125 | 1,883 | 1,414 | -33% |
| Arizona | 63,580 | 59,574 | 42,162 | -34% |

Source: Arizona State, Arizona Health Care Cost Containment System (AHCCCS), *KidsCare Population as of Feb. 1, 2010, Enrollment by County*. Retrieved June 2, 2010 from <http://www.azahcccs.gov/reporting/enrollment/KidsCare.aspx>

There are several factors that have affected the number of children enrolled in KidsCare, including two legislative reasons that enrollments have declined. The first is the passage of HB 2008, which caused widespread concern throughout Arizona and was a potential factor in the marked decreases in new applications in November and December of 2009. The second is the statewide freeze on KidsCare enrollment put in place on January 1, 2010. No new applications for KidsCare are being processed, and only renewals are being accepted. If a family misses the deadline to submit renewal paperwork, they lose their healthcare coverage. The downturn in the economy led many families to experience difficulties in paying the monthly premiums for KidsCare, and also led to many families becoming eligible for Medicaid rather than KidsCare.

KidsCare Renewals & Discontinuances for 1st Quarter 2010

Total Renewals & Other Actions Processed: 19,008
 Total Continued: 6,837
 Total Discontinued: 12,171
 Moved to Medicaid: 4,923 (40%)
 Income over 200% FPL: 1,277 (11%)
 Failed to Cooperate: 1,710 (14%)
 Failed to Pay Premium: 3,638 (30%)
 Other: 623 (5%)

Source: Arizona AHCCCS website on June 29, 2010

<http://www.azahcccs.gov/shared/Downloads/News/KidsCareDiscontinuancesQuarterly.pdf>

B. Healthy Births - A mother's lifestyle while pregnant as well as her access to, and utilization of, prenatal and perinatal care have important short-term and long-term implications for the health of her child. It is recommended that a woman have monthly medical care from the beginning of her pregnancy. Arizona Department of Health Services data from 2006 to 2008 show that the region compared favorably with the state as a whole in terms of the number of prenatal visits by pregnant women. In all three years, a slightly higher percent (5%) of Yavapai women had only 1-4 prenatal visits than did women statewide (4%), an indication of less than adequate prenatal care. However, in 2007 and 2008, the percent of Yavapai women with 9-12 prenatal visits was 50% and 51%, respectively, as compared to 47% and 48% for Arizona as a whole.

Births by Number of Prenatal Visits, 2006 -2008

| | | 2006 | 2007 | 2008 |
|-----------------------|---------------------------|------|------|------|
| Yavapai County | No visits | 2% | 1% | 2% |
| | 1-4 visits | 5% | 5% | 5% |
| | 5-8 visits | 17% | 17% | 18% |
| | 9-12 visits | 45% | 50% | 51% |
| | 13+ visits | 31% | 28% | 24% |
| Arizona | No visits | 2% | 2% | 2% |
| | 1-4 visits | 4% | 4% | 4% |
| | 5-8 visits | 17% | 17% | 17% |
| | 9-12 visits | 49% | 47% | 48% |
| | 13+ visits | 28% | 30% | 30% |
| United States | Late/No visits | | | |
| | 1 st Trimester | | | |

Source: Arizona State, Department of Health Services, Arizona Vital Statistics, Birth Statistics, 2006-2008. *Table 5B-12 – Births by Number of Prenatal Visits and County of Residence*. Retrieved on April 21, 2010 from <http://www.azdhs.gov/plan/report/ahs/ahs2008/5b.htm>.

Percents do not total to 100% because of rounding off. The number of prenatal visits was unknown for only 0.1-0.4 % of births for both counties and Arizona as a whole for 2006-2008.

Low birth weight newborns are at risk for serious problems that may affect their health throughout their lives. Information regarding the prevalence of low birth weight babies for Yavapai County is presented below. It should be noted that, for the information presented in the table below, low birth weight means less than 5.8 pounds at birth. In addition it is important to note that the data provided are per 1,000 live births. In 2006, the region's low birth weight ratio (71.8) was slightly higher

than that of the state as a whole (71.2). In 2007, the region's low birth weight ratio rose to 78.4 while the state's decreased to 70.9. The region's low birth weight ratio made a dramatic drop to 65.9 in 2008, in contrast to the increase of 4.5 statewide.

Low Birth Weight Ratios, 2006-2008

| | 2006 (per 1,000 births) | 2007 (per 1,000 births) | 2008 (per 1,000 births) |
|-----------------------|-----------------------------------|-----------------------------------|-----------------------------------|
| Yavapai County | 71.8 | 78.4 | 65.9 |
| Arizona | 71.2 | 70.9 | 75.4 |
| United States | 83.0 | NA | NA |

Source: Arizona State, Department of Health Services, Arizona Vital Statistics, Birth Statistics, 2006-2008. *Table 5B-17 – Low-Birthweight Ratios in the United States and in Urban and Rural Counties of Arizona, 1998-2008.* Retrieved on April 21, 2010 from <http://www.azdhs.gov/plan/report/ahs/ahs2008/5b.htm>.

There were a total of 10 pre-term newborns born in Yavapai County in 2008 who were admitted to intensive care units and another 69 newborns admitted who were born after 37 weeks (not pre-term). Details are not available on the reasons these infants were admitted.

Newborns Admitted to Intensive Care Units, 2008

| | Pre-term (less than 37 weeks) | | | 37 weeks or more | | |
|-----------------------|-------------------------------|--------------|---------------------|------------------|--------------|---------------|
| | Total | <2,500 grams | 2,500 or more grams | Total | <2,500 grams | 2,500 or more |
| Yavapai County | 105 | 77 | 28 | 69 | 4 | 65 |
| Arizona | 3,507* | 2,688 | 819 | 2,421* | 175 | 3,507* |

Source: Arizona State, Department of Health Services, Arizona Health Status and Vital Statistics 2008, Table 5B-24, *Newborns Admitted to Newborn Intensive Care Units by Gestational Age, Birthweight and Mother's County of Residence, Arizona, 2008.* Retrieved on May 25, 2010 from <http://www.azdhs.gov/plan/report/ahs/ahs2008/5b.htm>. *This figure does not include one pre-term and two full-term newborns for whom weight is unknown.

In a number of measures in the 2008 data from the Yavapai region, the prenatal practices of pregnant women and characteristics of births compares unfavorably with those of Arizona. Compared to the statewide average, during pregnancy more than twice as many women in the region report using tobacco, while reported alcohol use is 80% higher. Births in the region are almost twice (175%) as likely to have complications with labor and/or delivery, while abnormalities are almost three times (275%) as common.

Rates of Occurrence of Selected Characteristics of Newborns and Mothers Giving Birth, 2008

| | Yavapai County | Arizona |
|--|-----------------------|----------------|
| Preterm Births (gestational age <37 weeks) | 10.1 | 10.2 |
| Births with complications of labor and/or delivery reported | 48.9 | 27.4 |
| Births with abnormal | 17.9 | 6.6 |

| | | |
|---|------|------|
| conditions reported | | |
| Births with medical risk factors reported | 37.4 | 32.1 |
| Primary and repeat caesarean births | 32.2 | 27.5 |
| Infants admitted to newborn intensive care units | 7.9 | 6.0 |
| Tobacco used during pregnancy | 11.1 | 4.9 |
| Alcohol use during pregnancy | 0.9 | 0.5 |

Source: Arizona State, Department of Health Services, Arizona Vital Statistics, *Table 5B-30- Rates of Occurrence for Selected Characteristics of Newborns and Mothers Giving Birth by County of Residence, Arizona, 2008*. Retrieved on April 21, 2010 from <http://www.azdhs.gov/plan/report/ahs/ahs2008/5b.htm>. Rate is per 100 births.

Examination of a number of characteristics of newborns and mothers by community provides insight into the variation across the region regarding public health challenges that impact the health of pregnant women and children under the age of five. For example, in a number of Yavapai communities, 30-40% of pregnant women do not access prenatal care during their first trimester.

Selected Characteristics of Newborns and Mothers by Yavapai County Community, 2008

| Community | Total Births | Mother <19 y.o. | Prenatal Care in 1st Trimester | No Prenatal Care | Public Payee for Birth | Low Birth-weight Newborn | Unwed Mother |
|--------------------------|---------------------|---------------------------|--|-------------------------|-------------------------------|---------------------------------|---------------------|
| Ash Fork | 26 | 4 (15%) | 15 (58%) | 0 (0%) | 22 (85%) | 0 (0%) | 13 (50%) |
| Bagdad | 48 | 6 (13%) | 30 (63%) | 1 (2%) | 11 (23%) | 3(6%) | 11(23%) |
| Black Canyon City | 18 | 2 (11%) | 14 (78%) | 0 (0%) | 11 (61%) | 1 (6%) | 8 (44%) |
| Camp Verde | 138 | 26 (19%) | 99 (72%) | 2 (1%) | 93 (67%) | 10 (7%) | 72 (52%) |
| Chino Valley | 187 | 15 (8%) | 120 (64%) | 6 (3%) | 99 (53%) | 16 (9%) | 54 (29%) |
| Clarkdale | 46 | 3 (7%) | 39 (85%) | 0 (0%) | 19 (41%) | 5 (11%) | 17 (37%) |
| Congress | 17 | 2 (12%) | 14 (82%) | 1 (6%) | 10(59%) | 1 (6%) | 8 (47%) |
| Cordes Lakes | 1 | 0 (0%) | 1 (100%) | 0 (0%) | 0 (0%) | 0 (0%) | 0 (0%) |
| Cornville | 48 | 8 (17%) | 34 (71%) | 1 (2%) | 27 (56%) | 0 (0%) | 19 (40%) |
| Cottonwood | 337 | 52 (15%) | 230 (68%) | 6 (2%) | 243 (72%) | 32 (9%) | 178 (53%) |
| Dewey | 72 | 2 (3%) | 56 (78%) | 1 (1%) | 30 (42%) | 3 (4%) | 17 (24%) |
| Hillside | 1 (100%) | 0 (0%) | 1 (100%) | 0 (0%) | 0 (0%) | 0 (0%) | 0 (0%) |
| Humboldt | 16 | 6 (38%) | 10 (63%) | 2 (13%) | 14 (88%) | 0 (0%) | 10 (63%) |
| Jerome | 3 | 1 (33%) | 1 (33%) | 0 (0%) | 2 (67%) | 0 (0%) | 3 (100%) |
| Kirkland | 13 | 2 (15%) | 7 (54%) | 0 (0%) | 5 (38%) | 0 (0%) | 5 (38%) |

| | | | | | | | |
|------------------------|-------|-----------|-------------|---------|-------------|----------|-----------|
| Lake Montezuma | 8 | 2 (25%) | 7 (88%) | 0 (0%) | 5 (63%) | 0 (0%) | 5 (63%) |
| Mayer | 40 | 9 (23%) | 29 (73%) | 2 (5%) | 30 (75%) | 2 (5%) | 22 (55%) |
| Paulden | 61 | 9 (15%) | 40 (66%) | 1 (2%) | 51 (84%) | 3 (5%) | 25 (41%) |
| Prescott | 373 | 45 (12%) | 272 (73%) | 4 (1%) | 196 (53%) | 21 (6%) | 146 (39%) |
| Prescott Valley | 602 | 87 (14%) | 420 (70%) | 11 (2%) | 387 (64%) | 39 (6%) | 234 (39%) |
| Rimrock | 50 | 7 (14%) | 39 (78%) | 1 (2%) | 32 (64%) | 3 (6%) | 23 (46%) |
| Sedona | 88 | 8 (9%) | 59 (67%) | 1 (1%) | 51 (58%) | 5 (6%) | 41 (47%) |
| Seligman | 5 | 0 (0%) | 1 (20%) | 0 (0%) | 4 (80%) | 0 (0%) | 4 (80%) |
| Skull Valley | 8 | 2 (25%) | 5 (63%) | 1 (13%) | 3 (38%) | 2 (25%) | 2 (25%) |
| Spring Valley | 1 | 0 (0%) | 1 (100%) | 0 (0%) | 1 (100%) | 0 (0%) | 1 (100%) |
| Yarnell | 7 | 0 (0%) | 5 (71%) | 0 (0%) | 4 (57%) | 0 (0%) | 2 (29%) |
| Unknown | 2 | 0 (0%) | 2 (100%) | 0 (0%) | 0 (0%) | 0 (0%) | 0 (0%) |
| Yavapai County | 2,216 | 300 (14%) | 1,551 (70%) | 42 (2%) | 1,352 (61%) | 146 (7%) | 919 (41%) |

Source: Arizona Department of Health Services, Arizona Vital Statistics, *Births BY Mother's Age Group and Community, Arizona, 2008*. *Selected Characteristics of Newborns and Mothers by Community, Arizona, 2008*. Retrieved on April 23, 2010 from <http://www.azdhs.gov/plan/report/cvs/cvs08/cvsindex.htm>.

As noted above, teen birth rates are relatively high in a number of Yavapai communities. On a regional level in 2008, of the 301 teens that gave birth, 252 (84%) were unmarried. Younger teens who gave birth were more likely to be unmarried than older teens, with 83% of those under 15 years old and 93% of 15-17 years old being so. The percent of older teens (18-19 years old) that gave birth who were unmarried was somewhat lower at 79%.

Teen Births by Marital Status and Payee for Birth, 2008

| | | Marital Status | | Payee for Birth | | | |
|-----------------------|------------|----------------|-----------|-----------------|-----|-------------------|------|
| | | Married | Unmarried | AHCCS | IHS | Private Insurance | Self |
| Yavapai County | < 15 y.o. | 1 | 7 | 5 | 0 | 0 | 0 |
| | 15-17 y.o. | 7 | 87 | 77 | 1 | 12 | 4 |
| | 18-19 y.o. | 41 | 158 | 181 | 0 | 16 | 4 |

Source: Arizona State, Department of Health Services, Vital Statistics, *Table TB-8 - Births By Mother's Race/Ethnicity, Child's Gender and County of Residence, Arizona, 2008*. Retrieved on April 23, 2010 from <http://www.azdhs.gov/plan/report/avs/avs08/section%202.htm>. The payee for one 18-19-year-old's birth is unknown. NA indicates no births were recorded for girls under 15 years of age.

The racial/ethnic composition of mothers who gave birth in the region in 2008 shows marked differences from that of mothers in Arizona as a whole. For example, 66% of the region's births were to White mothers, as compared to 42% statewide. In contrast, the percent of births to Hispanic mothers was 29%, compared to 43% for Arizona. The percentage of births to American Indian mothers is also much lower in the Yavapai region than across Arizona.

Births by Mother's Race/Ethnicity, 2008

| | White - non-Hispanic | Hispanic or Latino | Black or African American | American Indian or Alaska Native | Asian or Pacific Islander | Other Unknown | Total |
|-----------------------|-----------------------------|---------------------------|----------------------------------|---|----------------------------------|----------------------|--------------|
| Yavapai County | 1,470 (66%) | 632 (29%) | 13 (<1%) | 51 (2%) | 26 (1%) | 24 (1%) | 2,216 |
| Arizona | 41,925 (42%) | 42,639 (43%) | 4,301 (4%) | 6,362 (6%) | 3,425 (3%) | 563 (<1%) | 99,215 |

Source: Arizona Department of Health Services, Vital Statistics, *Table 5B-8 - Births By Mother's Race/Ethnicity, Child's Gender and County of Residence, Arizona, 2008*. Retrieved April 15, 2010 from <http://www.azdhs.gov/plan/report/ahs/ahs2008/5b.htm>.

C. Immunizations - The importance of immunizations for young children cannot be over-emphasized. Immunizations have been shown to be one of the most important health measures contributing to public health in the past century.⁷⁰ According to the Center for Disease Control (CDC), if a child is not vaccinated and is exposed to a disease, the child's system may not be strong enough to fight off the disease. The CDC also notes that immunizing individual children helps to protect the health of a community, particularly for the people who are not immunized (including those who are too young or have medical reasons preventing them from being immunized). Immunization helps to slow or stop disease outbreaks when they occur.⁷¹

Data for Yavapai Region zip codes for 2005, 2007, and 2009 shows a disturbing recent trend in the number of children 19-35 months old receiving two common series of vaccinations. In almost all zip codes from 2005 to 2007 there was an increase in the percentage of children receiving both the 4:3:1:3:3:1 and 4:3:1:3:3:1:4 series of immunizations. However, in 2009 there was a decrease in both immunization percentages in most zip codes. In many cases, the decreases were quite large. For example, in zip code 86326 in Cottonwood, the immunization rate for the 4:3:1:3:3:1 series fell from 53.3% in 2007 to 29.9% in 2009. In zip code 86321 in Bagdad, the immunization rate for 4:3:1:3:3:1:4 decreased from 47.3% in 2007 to 28.6% in 2009. This suggests that the economic recession has severely impacted parents' ability to get their young children immunized. The decrease in immunizations rates noted may be due to a combination of factors, including reductions in state services and the reduced incomes of families.

However, in a very small number of zip codes immunization rates increased in that same period. In zip code 86301 in Prescott the 4:3:1:3:3:1:4 rate rose, while in zip code 86303, also in Prescott, the rates for both series of immunizations increased. The factors that allowed immunization rates to increase in these few zip codes while those in all other zip codes decreased are worth further investigation.

⁷⁰ Pruitt, R.H., Kline, P.M. & Kovaz, R.B. (1995). Perceived barriers to childhood immunization among rural areas of the United States. *Journal of Community Health Nursing*. 12(2), 65-72.

⁷¹ www.cdc.gov/vaccines/vac-gen/howvpd.htm#why

Children Vaccinated

| Zip Code | | Number of children 19-35 months | Number and percent 4:3:1:3:3:1 completed* | Number and percent 4:3:1:3:3:1:4 completed** |
|-----------------|------|--|--|---|
| 85324 | 2005 | 36 | 16 (44.4%) | 6 (16.7%) |
| | 2007 | 50 | 22 (44.0%) | 19 (38.0%) |
| | 2009 | 33 | 12 (36.4%) | 9 (27.3%) |
| 85332 | 2005 | 25 | 10 (40.0%) | 6 (24.0%) |
| | 2007 | NA | NA | NA |
| | 2009 | 20 | 9 (45.0%) | 8 (40.0%) |
| 86301 | 2005 | 176 | 96 (54.6%) | 55 (31.3%) |
| | 2007 | 160 | 88 (55.0%) | 74 (46.3%) |
| | 2009 | 179 | 96 (53.6%) | 83 (46.4%) |
| 86303 | 2005 | 125 | 61 (48.8%) | 28 (22.4%) |
| | 2007 | 104 | 55 (52.9%) | 43 (41.4%) |
| | 2009 | 89 | 48 (53.9%) | 41 (46.1%) |
| 86305 | 2005 | 112 | 54 (48.2%) | 31 (27.7%) |
| | 2007 | 77 | 39 (50.7%) | 32 (41.6%) |
| | 2009 | 78 | 31 (39.7%) | 29 (37.2%) |
| 86312 | 2005 | 20 | 14 (70.0%) | 8 (40.0%) |
| | 2007 | NA | NA | NA |
| | 2009 | NA | NA | NA |
| 86314 | 2005 | 585 | 311 (53.2%) | 175 (30.0%) |
| | 2007 | 598 | 341 (57.0%) | 247 (41.3%) |
| | 2009 | 536 | 242 (45.2%) | 196 (36.6%) |
| 86320 | 2005 | 41 | 16 (39.0%) | 9 (22.0%) |
| | 2007 | 38 | 25 (65.8%) | 21 (55.3%) |
| | 2009 | 31 | 13 (41.9%) | 10 (32.3%) |
| 86321 | 2005 | 67 | 29 (43.3%) | 14 (20.9%) |
| | 2007 | 55 | 30 (54.6%) | 26 (47.3%) |
| | 2009 | 49 | 18 (36.7%) | 14 (28.6%) |
| 86322 | 2005 | 189 | 89 (47.1%) | 39 (20.6%) |
| | 2007 | 171 | 82 (48.0%) | 58 (33.9%) |
| | 2009 | 157 | 49 (31.2%) | 47 (29.9%) |
| 86323 | 2005 | 194 | 105 (54.1%) | 56 (28.9%) |
| | 2007 | 188 | 108 (57.5%) | 89 (47.3%) |
| | 2009 | 200 | 90 (45.0%) | 83 (41.5%) |
| 86324 | 2005 | 51 | 19 (37.3%) | 8 (15.7%) |
| | 2007 | 42 | 21 (50.0%) | 20 (47.6%) |
| | 2009 | 57 | 16 (28.1%) | 14 (24.6%) |
| 86325 | 2005 | 54 | 18 (33.3%) | 3 (5.6%) |

| Zip Code | | Number of children 19-35 months | Number and percent 4:3:1:3:3:1 completed* | Number and percent 4:3:1:3:3:1:4 completed** |
|--------------|------|---------------------------------|---|--|
| | 2007 | 49 | 24 (49.0%) | 18 (36.7%) |
| | 2009 | 46 | 11 (23.9%) | 9 (19.6%) |
| 86326 | 2005 | 395 | 192 (48.6%) | 73 (18.5%) |
| | 2007 | 396 | 211 (53.3%) | 180 (45.5%) |
| | 2009 | 408 | 122 (29.9%) | 103 (25.3%) |
| 86327 | 2005 | 53 | 29 (54.7%) | 14 (26.4%) |
| | 2007 | 59 | 34 (57.6%) | 27 (45.8%) |
| | 2009 | 59 | 32 (54.2%) | 24 (40.7%) |
| 86332 | 2005 | 20 | 7 (35.0%) | 3 (15.0%) |
| | 2007 | NA | NA | NA |
| | 2009 | NA | NA | NA |
| 86333 | 2005 | 60 | 33 (55.0%) | 14 (23.3%) |
| | 2007 | 50 | 24 (48.0%) | 12 (24.0%) |
| | 2009 | 62 | 29 (46.8%) | 22 (35.5%) |
| 86334 | 2005 | 61 | 38 (62.3%) | 21 (34.4%) |
| | 2007 | 61 | 39 (63.9%) | 31 (50.8%) |
| | 2009 | 53 | 23 (43.4%) | 17 (32.1%) |
| 86335 | 2005 | 61 | 32 (52.5%) | 16 (26.2%) |
| | 2007 | 73 | 34 (46.6%) | 28 (38.4%) |
| | 2009 | 54 | 13 (24.1%) | 12 (22.2%) |
| 86336 | 2005 | 74 | 23 (31.1%) | 13 (17.6%) |
| | 2007 | 75 | 38 (50.7%) | 28 (37.3%) |
| | 2009 | 85 | 26 (30.6%) | 24 (28.2%) |
| 86351 | 2005 | 36 | 17 (47.2%) | 5 (13.9%) |
| | 2007 | 46 | 20 (43.5%) | 18 (39.1%) |
| | 2009 | 37 | 13 (35.1%) | 12 (32.4%) |

Source: Arizona Department of Health Services (2005, 2007, 2009). Arizona State Immunization Information System Database (ASIS) data pulled on May 4, 2010 (Unpublished Data). *This refers to completion in 19-35 months of the 4:3:1:3:3:1 vaccination series (4 Diphtheria-Tetanus-Pertussis, 3 Polio, 1 MMR, 3 Hib, 3 Hepatitis B vaccines and 1 Varicella). ***Refers to completion of the 4:3:1:3:3:1:4 vaccination series (4 or more doses of Diphtheria-Tetanus-Pertussis vaccine, 3 or more doses of Poliovirus vaccine, 1 or more doses of any Measles-containing vaccine, 3 or more doses of Haemophilus influenza type b vaccine, 3 or more doses of Hepatitis B, 1 or more doses of Varicella, and 4 or more doses of PCV7). These data are derived from physicians' reports to the Arizona Department of Health Services *SW: verify ADHS as where they send reports*. Some physicians may not file reports for all children they vaccinate. The number of children reported is not inclusive of all children in the region. NA indicates the zip code was not included in the immunization spreadsheet provided for that year.

D. Developmental Screening - Developmental screening is another family health practice essential for ensuring children grow and develop optimally. The Arizona Chapter of the American Academy of Pediatrics recommends that all children receive a developmental screening at nine, 18, and 30

(or 24) months with a valid and reliable screening instrument.⁷² Research has documented that early identification through developmental screening can lead to enhanced developmental outcomes and reduced developmental problems for children who have special needs.⁷³ Providing children who screen for developmental delays with the supports and services they need early in life, leads to better outcomes in a range of areas including: health, education, and continued success through early adulthood.⁷⁴

The Yavapai region surpasses Arizona in some measures of family access to early intervention services but remains behind it in others. One useful indicator of such access is the percent of infants and toddlers who have developmental delays and have been referred to early intervention services and who received evaluation/assessment within 45 days of referral. In fiscal years 2005-2007, a significantly higher percentage of infants and toddlers were screened within 45 days of referral in the region than in Arizona as a whole. For example, in 2007 Yavapai screened 96% of its infants and toddlers while statewide only 63% were screened. In fiscal years 2005 and 2006, a greater percentage of the region's infant's age 0-3 had an IFSP than did infants statewide. This percentage fell behind the Arizona's rate in 2007. In 2005, 0.60% of the region's infant's under the age of one had an ISFP, as compared to 0.59% of infants in that age group statewide. However, in 2007 and 2008 this percentage decreased sharply (to 0.42% and 0.41%, respectively), falling behind the state rate of 0.60% for both years. It is not clear whether such decreases in the percent of infants with IFSPs occurred because of decreased screening opportunities, cuts in programs that utilize such plans, or other reasons.

A further measure of success in providing early intervention services to families is the percent of infants and toddlers with an IFSP who receive services in their home or through programs for typically developing children. This is another area in which the Yavapai region's rates have surpassed statewide averages during fiscal years 2005-2007.

⁷² King, T.M. Tandon, D. Macias, M.M., Healy, J.A., Duncan, P.M., Swigonski, N.L., Skipper, S.M., and Lipkin, P.H. (2010, Feb). Implementing developmental screening and referrals: Lessons learned from a national project. *Official Journal of the American Academy of Pediatrics*, Vol. 125, No. 2

⁷³ Garland, C., Stone, N. W., Swanson, J., & Woodruff, G. (eds.). *Early intervention for children with special needs and their families: Findings and recommendations*. 1981, Westat Series Paper 11, University of Washington; Maisto, A. A., German, M. L. Variables related to progress in a parent-infant training program for high-risk infants. 1979, *Journal of Pediatric Psychology*, 4, 409-419.; Zeanah, C. H. *Handbook of infant mental health*, 2000, New York: The Guildford Press.

⁷⁴ King, T.M. Tandon, D. Macias, M.M., Healy, J.A., Duncan, P.M., Swigonski, N.L., Skipper, S.M., and Lipkin, P.H. (2010, Feb). Implementing developmental screening and referrals: Lessons learned from a national project. *Official Journal of the American Academy of Pediatrics*, Vol. 125, No. 2

Percent of Infant and Toddlers Who Received Early Intervention Services, 2005-2008

| | | Percent of infants 0-1 years of age with IFSP compared to other states and national | Percent of infants 0-3 years of age with IFSP compared to other states and national | Percent of infants and toddlers with IFSP who received evaluation/ assessment within 45 days of referral | Percent* of infants and toddlers with IFSP who primarily receive early intervention services in the home or programs for typically developing children |
|-------------------------------------|---------|--|--|---|---|
| July 1, 2005 – June 30, 2006 | Yavapai | 0.60% | 1.96% | 83% | 93% |
| | Arizona | 0.59% | 1.61% | 39% | 86% |
| July 1, 2006 – June 30, 2007 | Yavapai | 0.42% | 2.10% | 91% | 90% |
| | Arizona | 0.60% | 1.81% | 59% | 84% |
| July 1, 2007 – June 30, 2008 | Yavapai | 0.41% | 1.50% | 96% | 89% |
| | Arizona | 0.60% | 1.81% | 63% | 63% |

Source: Source: Arizona State, Department of Health Services, *Public Report of Early Intervention Services Program*, 2008 and 2009. Retrieved on May 18, 2010 from <https://www.azdes.gov/appreports.aspx>. IFSP = Individualized Family Service Plan Note: The data for 2006-2007 came from billing sources. Services in community settings are undercounted in this data source due to coding problems.

In Arizona, one of the system components that serve eligible infants and toddlers is the Arizona Early Intervention Program (AzEIP). Examination of the number of AzEIP cases by Yavapai zip codes in fiscal year 2006 and 2008 identifies several communities in which a notable number of children receive developmental services. Among these is Prescott Valley (zip code 86314) that has by far the largest number of children serviced by AzEIP. Prescott is a second such community, with three zip codes (86301, 86303, and 86305) that have relatively high numbers of AzEIP cases. In two of those zip codes, 86303 and 86305, the number of AzEIP cases serviced increased substantially in the second of the reported years. Zip code 86326 in Cottonwood and 86323 in Chino Valley also had notable numbers of serviced cases in both fiscal year 2006 and 2008. AzEIP data regarding the number of cases serviced is worthy of further analysis to determine whether the differences in the number of cases by zip code is an artifact of population size, developmental services' locations, changes in the level of need, or another undetermined factor of interest.

AzEIP Cases Serviced between 07/01/2006 and 06/30/2007

| Zip Code | Number of Cases | |
|-----------------|------------------------------|------------------------------|
| | 7/01/2006 - 6/30/2007 | 7/01/2008 - 6/30/2009 |
| 85324 | 2 | - |
| 86301 | 17 | 15 |
| 86303 | 3 | 14 |
| 86305 | 6 | 13 |

| | | |
|--------------|------|-----|
| 86314 | 54 | 40 |
| 86321 | - | 1 |
| 86322 | 5 | 15 |
| 86323 | 14 | 11 |
| 86324 | 6 | 1 |
| 86325 | 3 | 4 |
| 86326 | 29 | 26 |
| 86327 | 5 | 1 |
| 86333 | 6 | 1 |
| 86334 | 2 | 6 |
| 86335 | 7 | - |
| 86336 | 4 | - |
| 86337 | 2 | - |
| 86342 | 1 | - |
| 86351 | - | 1 |
| Total | 167* | 149 |

Source: Arizona Department of Economic Security (2007, 2009). DES Multidata pulled on May 4, 2010. Database from (Unpublished Data) *The spreadsheet from which these data were extracted included 1 case in a zip code "0" in 7/01/2006 - 6/30/2007.

E. Injuries - One measure of child well-being is the number of severe injuries sustained in childhood. While some injuries are expected, an uncharacteristically high number can indicate homes that lack a safe environment for raising a child or may indicate something about the dangers of the community. It may also indicate whether parents are following safe parenting practices for handling newborns.

The number of Yavapai youth under 19 years of age with in-patient discharges with injury and/or poisoning as a first-listed diagnosis increased from 2006 to 2007, but decreased from 2007 to 2008. In all three reported years, the number of children under 15 years old with an in-patient discharge with such a diagnosis was higher than that for adolescents 15-19 years old. Similarly, in each of the years and for both of the age groups, males had a higher number for this indicator, sometimes by a large margin. This suggests that public health campaigns addressing injury and poisoning prevention should target Yavapai males under the age of 15 years.

Number of Inpatient Discharges with Injury and/or Poisoning as First-Listed Diagnosis for Children, 2006-2008

| | 2006 | | 2007 | | 2008 | |
|----------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|
| | Children Under 15 y.o. | Adolescents 15-19 y.o. | Children Under 15 y.o. | Adolescents 15-19 y.o. | Children Under 15 y.o. | Adolescents 15-19 y.o. |
| Females | 46 | 35 | 39 | 34 | 39 | 23 |
| Males | 58 | 36 | 74 | 75 | 55 | 51 |
| Total | 104 | 71 | 113 | 109 | 94 | 74 |

Source: Arizona State, Department of Health Services, Arizona Health Status and Vital Statistics, Table 1, *Characteristics of ER visits and inpatient discharges with the diagnosis of Injury and poisoning*. Retrieved May 18, 2010 from <http://www.azdhs.gov/plan/hip/for/injury/index.htm>

F. Child Mortality and Morbidity - Over the last 50 years, the United States has seen significant declines in infant and child mortality, likely attributed to fewer infectious diseases, improved living conditions, and advances in medical technology. However, many deaths still occur that could be prevented. In addition, there has been an increase in suicide and homicide deaths.^{75 76} These findings suggest that child mortality and morbidity are still major concerns, especially in light of the fact that the child mortality rate in the United States is almost twice that of the rate in the United Kingdom.⁷⁷

The leading causes of infant death in the Yavapai region reflect the influence of both health and social factors. Two causes of infant death in the region stand out for their size and consistent presence in most or all of the years from 2004 to 2008. The leading cause over that period by cumulative number is congenital malformations. The next highest contributor to such deaths is the variety of conditions originating in the perinatal period. It is possible that some of these conditions may be addressed by the expansion of programs targeting perinatal mothers and their newborns. Additionally, the fact that children died from influenza and pneumonia in three of the reported years suggests a need for greater access to health care by some Yavapai families and possibly additional education outreach to parents regarding appropriate health care seeking for newborns.

Leading Causes of Infant Death

| | 2004 | 2005 | 2006 | 2007 | 2008 |
|--|------|------|------|------|------|
| Conditions Originating in the Perinatal Period | 0 | 3 | 10 | 8 | 6 |
| Congenital Malformations | 6 | 4 | 4 | 4 | 1 |
| Sudden Infant Sudden Death Syndrome | 0 | 0 | 1 | 0 | 0 |
| Influenza and Pneumonia | 0 | 1 | 2 | 2 | 0 |
| Assault (homicide) | 0 | 0 | 1 | 0 | 0 |
| Other Ill-defined and Unspecified Causes of Mortality | 0 | 2 | 1 | 1 | 0 |

Source: Arizona Department of Health Services (ADHS), Arizona Health Status and Vital Statistics, Table 5E-20, *Leading Cause of Infant Death by County of Residence, Arizona, 2004-2008*
<http://www.azdhs.gov/plan/report/ahs/ahs2007/5e.htm>

⁷⁵ Singh, G. K., & Yu, S.M. (1996). US childhood mortality, 1950 through 1993: Trends and socioeconomic differentials. *American Journal of Public Health*, 97, 1658-1665. Cited in Russ, S., et. al., Meeting children's basic health needs: From patchwork to tapestry, *Children and Youth Services Review* (2010), doi:10.1016/j.chilyouth.2010.03.007.

⁷⁶ Martin, J.A., Kung, H.C., Matthews, T.J., Hoyert, D.L., Strobino, D.M., Guyer, B., et al. (2008). Annual summary of vital statistics, 2006. *Pediatrics*, 121(4), 788-801. Cited in Russ, S., et. al., Meeting children's basic health needs: From patchwork to tapestry, *Children and Youth Services Review* (2010), doi:10.1016/j.chilyouth.2010.03.007.

⁷⁷ Land, K.C. (2009). The 2009 Foundation for Child Development Child and Youth Well-being Index (CWI) Report. Retrieved 6/23/09 from http://www.fcd-us.org/usr_doc/Final-2009CWIRreport.

<http://www.azdhs.gov/plan/report/ahs/ahs2008/5e.htm>
<http://www.azdhs.gov/plan/report/ahs/ahs2006/5e.htm>
<http://www.azdhs.gov/plan/report/ahs/ahs2005/5e.htm>
<http://www.azdhs.gov/plan/report/ahs/ahs2004/5e.htm>

The leading causes of deaths among children aged 1-14 in the region varied from 2004 to 2008. In each of the first three years of that period at least one child died as a result of a suicide or an unspecified accident. However, there were no deaths due to these causes in 2006 and 2007. The most consistent cause of deaths among children over the five reported years is motor vehicle accidents. Although the number of child deaths caused by motor vehicle accidents is relatively small, it is worth considering whether greater parent education regarding child automotive safety would contribute to its decrease.

Leading Causes of Deaths Among Children Ages 1-14

| | 2004 | 2005 | 2006 | 2007 | 2008 |
|---|------|------|------|------|------|
| Motor Vehicle Accident | 1 | 1 | 0 | 1 | 2 |
| Accidental Drowning and Submersion | 2 | 0 | 1 | 0 | 1 |
| Other Accidents (unintentional injuries) | 1 | 1 | 2 | 0 | 0 |
| Malignant Neoplasms | 0 | 0 | 1 | 0 | 0 |
| Assault (homicide) | 0 | 2 | 0 | 0 | 0 |
| Intentional Self-harm (suicide) | 1 | 2 | 2 | 0 | 0 |
| Influenza and Pneumonia | 1 | 0 | 0 | NA | NA |
| Asthma | 0 | 0 | 1 | 0 | 0 |

Source: Arizona Department of Health Services (ADHS), Arizona Health Status and Vital Statistics, Table 5E-25, *Leading Cause of Death Among Children (1-14 years) by County of Residence, Arizona, 2004-2008*. Retrieved on March 29, 2010 from <http://www.azdhs.gov/plan/report/ahs/ahs2004/5e.htm>; <http://www.azdhs.gov/plan/report/ahs/ahs2005/5e.htm>; <http://www.azdhs.gov/plan/report/ahs/ahs2006/5e.htm>; <http://www.azdhs.gov/plan/report/ahs/ahs2007/5e.htm>; <http://www.azdhs.gov/plan/report/ahs/ahs2008/5e.htm>.

Influenza and Pneumonia was not a category in Table 5E-25 in 2007 and 2008.

G. Other Relevant Data - In 2008, 46 youth under 19 years of age received an inpatient discharge with asthma as the first-listed diagnosis in a Yavapai hospital. It is worth noting that 100% of the youth receiving such a discharge were under 15 years of age and 63% were males. Hospital admittance for asthma may sometimes result from inadequate preventative illness management or poor environmental conditions in the home. The data suggests that public health efforts might usefully target families with children under 15 years of age who suffer from asthma. The large difference between the numbers of female and male children discharged with asthma as the first-listed diagnosis is also worthy of further investigation.

Number of Inpatient Discharges with Asthma as First-listed Diagnosis, 2008

| | | Children 0-15 years old | Adolescents 15-19 years old |
|-----------------------|--------|-------------------------|-----------------------------|
| Yavapai County | Female | 17 | 0 |
| | Male | 29 | 0 |

Source: Arizona State, Department of Health Services, Vital Statistics, Table 1 *Number of inpatient discharges with asthma as first-listed diagnosis by age group, gender, race/ethnicity and county of residence, Arizona*. Retrieved April 7, 2010 from <http://www.azdhs.gov/plan/hip/for/asthma/index.htm>.

IV. Public Awareness & Collaboration

It is clear that any successful initiative aimed at effectively impacting early childhood development must be designed and implemented in an environment that includes both public awareness and collaboration.⁷⁸ For example, Aber & Nieto (2000)⁷⁹ found that the incorporation of a neighborhood into a wellness strategy for children and adolescents was an effective approach due to elements such as support, awareness, buy-in, and collaboration. Although information regarding public awareness and collaboration in Yavapai County is presented below, it should be noted that there are some gaps in the information due to the non-availability of the entire First Things First 2008 Family and Community Survey.

A. Public Information – although the entire 2008 Community Survey results are unavailable, there are available sections that inform the question of public information. These sections are discussed below in conjunction with additional data and information presented in the previous sections of this report.

- **Public Awareness of Early Childhood Issues** – Although there does not appear to be a primary source for gauging the level of public awareness of early childhood issues, it may be argued that an assessment may be made through the use of a number of secondary sources. First, according to the 2008 FTF Survey, 92% of respondents indicated that they were either somewhat satisfied or very satisfied with the information and resources available to them about children’s development and health. Second, a review of the percentage of Yavapai County parents correctly responding to the 2008 questions on parental understanding of early childhood indicates a significant level of knowledge. Specifically, for 16 of the 21 questions tapping knowledge of childhood development, the percentage of Yavapai parents answering correctly was equal to or higher than the State average. This finding may reflect the level of public awareness of early childhood issues.
- **Availability and Use of Sources Related to Early Childhood** – There are two sources of information that may provide evidence for the level of availability and use of sources. First, the development, publication, and free distribution of *The Little Kids Book* provides regional families with a concise, user-friendly resource for identifying and contacting agencies providing programs and services related to early childhood. Second, the fact that 18 of the 54 programs identified in the Program Matrix (located in the Additional Regional Partnership Council Funded Tasks section of this report) offer an information/navigation service indicates that there is a variety of sources for the public to access regarding issues related to early childhood.
- **Importance of Public Awareness and Support for Early Childhood Programs in the Region** – Research demonstrates that investing in early childhood development provides significant benefits to children, families, and communities. But in times of economic hardship, when resources are at a minimum and competition for those resources is high, it

⁷⁸ Boocock, S.S. (1995). Early childhood programs in other nations: Goals and outcomes. *Future of Children*, 5, 94-115.

⁷⁹ Aber, M.S., Nieto, M. (2000). Suggestions for the investigation of psychological wellness in the neighborhood context: Toward a pluralistic neighborhood theory. In D. Cicchetti, J. Rappaport, I. Sandler, & R.P. Weissberg (Eds.), *The promotion of wellness in children and adolescents* (pp.185-219). CWLA Press: Washington DC.

is particularly important that public awareness of the long range benefits of early childhood programs is cultivated. According to Lynch (2007):

Children who participate in high-quality prekindergarten programs require less special education and are less likely to repeat a grade or need child welfare services. Once these children enter the labor force, their incomes are higher, along with the taxes they will pay back to society. Both as juveniles and as adults, these children are less likely to engage in criminal activity thereby reducing criminality overall in society. High-quality prekindergarten benefits government budgets by saving government spending on K-12 education, child welfare, and the criminal justice system, and by increasing tax revenues. Thus, investment in high-quality prekindergarten has significant implications for future government budgets, both at the national and the state and local levels, for the economy, and for crime. (Executive Summary excerpt retrieved online at: http://www.epi.org/publications/entry/book_enriching/)

Efforts to raise public awareness and support for early childhood programs are crucial in the Yavapai region and statewide. Recent threats to the stability of First Things First funding, in the form of a Fall 2010 ballot to determine the continuation of the program, make the need to publicize FTF efforts and services of paramount importance. The Yavapai Council has publicized their efforts and many community members are aware of the importance and impact of the programs supported by FTF. Still, as evidenced by the lack of clarity about FTF that several community members who were contacted in conjunction with surveys and phone interviews for this report had, additional efforts to highlight FTF funded services and raise the public's awareness of the long range benefits of FTF-funded services would be beneficial.

B. System Coordination

In addition to identifying the importance of public collaboration as a factor for positively impacting early childhood development, researchers have also identified the importance of inter-agency collaboration and system coordination (see e.g., Sanders, 1999). In order to promote system coordination it is important to first identify the services available, assess the level of inter-service awareness, and identify strategies to increase coordination and cohesiveness. These elements are discussed below.

- ***Services Provided*** – a detailed description of the services provided in Yavapai County is found in the Program Matrix (located in the Additional Regional Partnership Council Funded Tasks section of this report). The matrix describes the programs currently found in Yavapai County, the services they provide (in terms of type and level), the geographic boundaries of service, and the number of clients able to be served. This matrix, among other tools, is intended to assist the various programs and organizations in the Yavapai region to increase understanding of the services available in the region.
- ***Awareness of Services*** – as discussed above, given The Little Kids Book, the number of information/navigation services available in the region, and supplementary materials (e.g., The Home Visiting Program Matrix for the Yavapai County), it appears that there is a fairly high level of awareness of services.

- ***Coordination and Cohesiveness of Early Childhood Resources*** – as stated above, there are a number of indications that efforts have been made, and are continuing to be made, to coordinate the regional efforts of early childhood resources, including The Little Kids Book, formation and support for regional coalitions of service providers (parent educators, home visitors, child care providers) that result in the development of regional resources such as the Home Visiting Matrix. What is less clear is the level of public awareness regarding the coordination of services. The only indicator of this may be found is the fact that 63% of Yavapai parents responding to the 2008 FTF Survey somewhat agree or strongly agree with the statement, “I am asked to fill out paperwork or eligibility forms multiple times.” It may be argued that this perception might lead parents to believe that there is a lack of coordination between agencies. A number of suggestions are made regarding potential additional coordination efforts in the Observations Section of the Additional Regional Partnership Council Funded Tasks part of the report.

V. Implications for Kindergarten Readiness

A review of the above information indicates a number of factors that have implications for the kindergarten readiness of children in the Yavapai region. To begin with, given research on the importance of education and training for child care workers, it is clear that this issue merits continued attention both in the Yavapai region as well as statewide. Exacerbating this issue are the retention rates as well as associated issues such as wages. Related to this issue is the increasing need for child care assistance and the potentially widening gap between those with a need for assistance and those who ultimately receive assistance. A third factor that significantly impacts kindergarten readiness is related to child abuse/maltreatment and associated outcomes such as foster care. A final area of focus for Yavapai County relates to the continual need to address the health of young children as well as their mothers, especially in the current economic situation. Concerns with insurance coverage as well as immunizations and other important early childhood health initiatives (e.g., screening) need to be addressed.

ADDITIONAL REGIONAL PARTNERSHIP COUNCIL FUNDED TASKS

I. Background

The overarching purpose of the additional Regional Partnership Council funded tasks is to complement the FTF Regional Needs and Assets Report through the addition of information that relates to local issues. In order to accomplish this, the Yavapai FTF Regional Partnership Council identified a number of specific objectives to be addressed including:

- Compiling a comprehensive list of the characteristics of parents and children born in a 12-month period in the region
- Compiling research that identifies risk factors related to poor early childhood outcomes
- Compiling research that identifies best practices for effectively reducing risk factors
- Identifying local assets that are available to assist families in the region
- Identifying gaps in local service related to reducing the risk of poor early childhood outcomes

In order to address the above objectives, a five-phase strategy was developed. These phases serve as the framework for the report and, as such, each section is described below in terms of information regarding the purpose of the section, the method employed for attaining the goal of the section, and the how the results might be employed to assist in positively impacting children in the Yavapai region.

II. Regional Characteristics

The purpose of this section of the report is to provide a comprehensive overview of the characteristics of parents and children born in the region as well as provide the nucleus for Section 3 (see below). After a number of discussions with the Regional Coordinator, it was decided that the 2008 calendar year would be the most appropriate period for data collection given the lag in the reporting of information on state and federal sites. It should be noted that the majority of information provided below in tabular form has been culled from the data presented earlier in the report. This section of the report will include a variety of information relating to mothers and children including:

- General Information
- Prenatal Characteristics
- Birth Characteristics
- Parental Characteristics
- Socio-Demographic Characteristics

A. General Information – In order to gain a more comprehensive picture of the regional characteristics of parents and children in Yavapai, as well as to provide context for this section of the report, it is important to first provide some relevant background information. According to the information provided above, Yavapai County has a current population of 215,503 and has experienced a 30% growth in population since 2000. This increase was paralleled by a similar

increase (38%) in the number of children aged 0-5 living in the region. According to 2008 records, 2216 births were recorded in Yavapai County across a number of communities.

Number of Births by Community (2008)

| Community | Births | Community | Births | Community | Births |
|-------------------|---------------|------------------|---------------|------------------|---------------|
| Ash Fork | 26 | Cottonwood | 337 | Prescott | 373 |
| Bagdad | 48 | Dewey | 72 | Prescott Valley | 602 |
| Black Canyon City | 18 | Hillside | 1 | Rimrock | 50 |
| Camp Verde | 138 | Humboldt | 16 | Sedona | 88 |
| Chino Valley | 187 | Jerome | 3 | Seligman | 5 |
| Clarkdale | 46 | Kirkland | 13 | Skull Valley | 8 |
| Congress | 17 | Lake Montezuma | 8 | Spring Valley | 1 |
| Cordes Lakes | 1 | Mayer | 40 | Yarnell | 7 |
| Cornville | 48 | Paulden | 61 | Unknown | 2 |

B. Prenatal Characteristics – A review of the information presented in the Demographic Overview section of this Report indicates that there are a number of important regional characteristics related to prenatal issues that should be noted, including the timing of the initiation of prenatal care and the number of prenatal visits made. In terms prenatal care, it appears that the majority of females initiate this service during the first trimester, with the remainder spread across the second and third trimester or not initiating any care at all (see table on Initiation of Prenatal Care). Once initiated, according to the 2008 data, the majority of mothers in Yavapai County engage in 9-12 prenatal visits (see table on Number of Prenatal Visits).

Initiation of Prenatal Care

| Initiation Period | Number | Percentage |
|---------------------------|---------------|-------------------|
| No Care | 42 | 1.9% |
| 1 st Trimester | 1551 | 70.0% |
| 2 nd Trimester | 500 | 22.6% |
| 3 rd Trimester | 122 | 5.5% |
| TOTAL | 2215 | 100% |

Number of Prenatal Visits

| Number of Prenatal Visits | Percentage |
|----------------------------------|-------------------|
| No Visits | 2% |
| 1-4 Visits | 5% |
| 5-8 Visits | 18% |
| 9-12 Visits | 51% |
| 13+ Visits | 24% |

C. Birth Characteristics – In terms of birth information, there are a number of remarkable regional characteristics in the information presented in the demographic overview. First, of 2,216 babies reported on for Yavapai County in 2008, 142 (6.6%) weighed less than 2,500 grams. Of those, 68.5% were born to mothers between the ages of 20 and 34. In addition, 10.1% of all babies born in 2008 were defined as preterm (i.e., gestational age of less than 37 weeks). Although this percentage is equal to that for Arizona (i.e., 10.2%), it is interesting to note that the percentage of

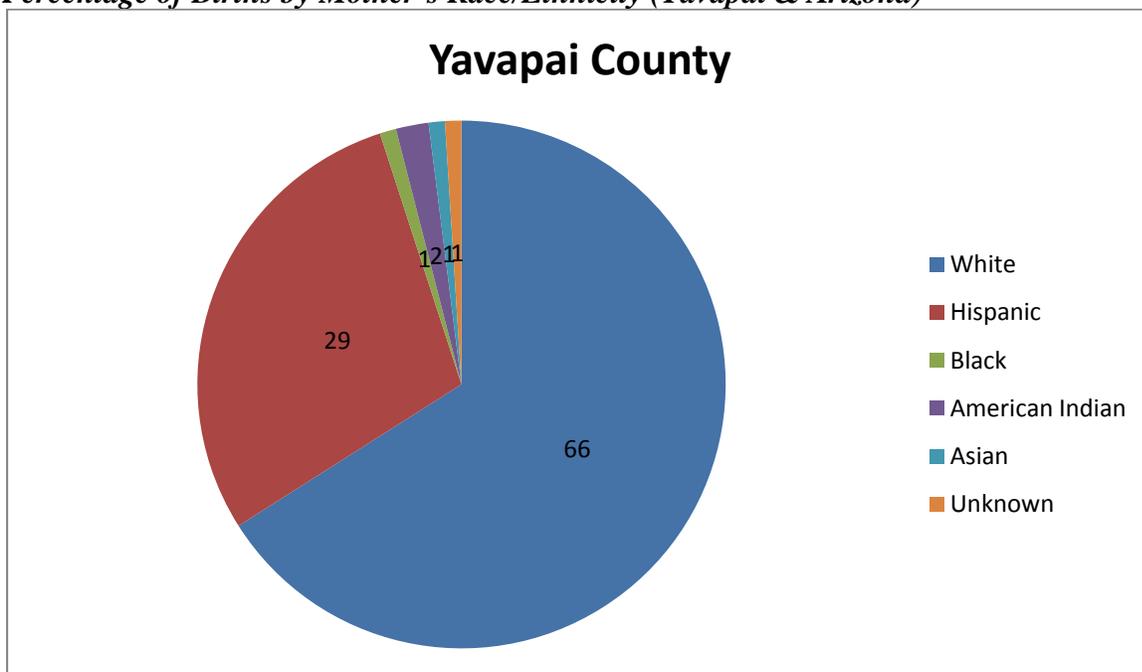
babies born with medical complications in Yavapai County is notably higher than the percentages found across the State.

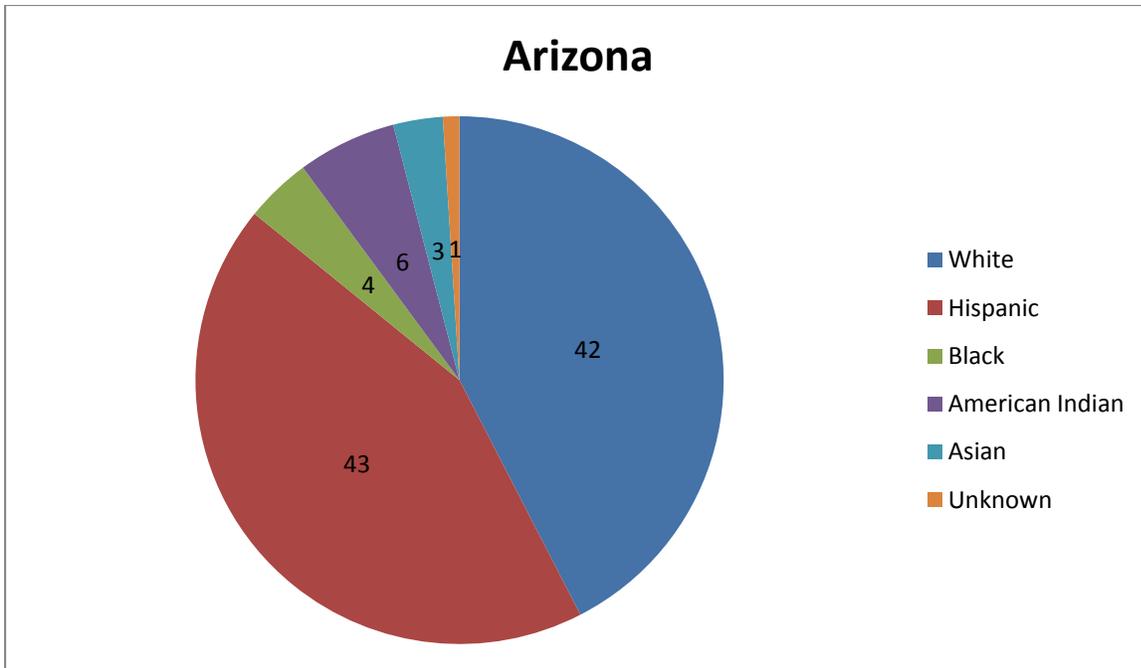
Percentage of Babies Born With Medical Challenges

| Characteristic | Yavapai (%) | Arizona (%) |
|--|-------------|-------------|
| Preterm Birth | 10.1 | 10.2 |
| Complications with Labor and/or Delivery | 48.9 | 27.4 |
| Births with Abnormal Conditions | 17.9 | 6.6 |
| Births with Medical Risk Factors Reported | 37.4 | 32.1 |
| Primary and Repeat Caesarean Births | 32.2 | 27.5 |
| Admissions to Newborn Intensive Care Units | 7.9 | 6.0 |

D. Parental Characteristics - In addition to the above information, it is important to also highlight a number of regional characteristics related to the parents of babies born in Yavapai County in 2008. In terms of the ethnic background of mothers, it appears that the majority of those giving birth are either White or Hispanic. Although these are also the two most represented groups across Arizona, it is worth noting that the percentage of White mothers is higher than the State average and the percentage of Hispanic and American Indian mothers is lower than the State average.

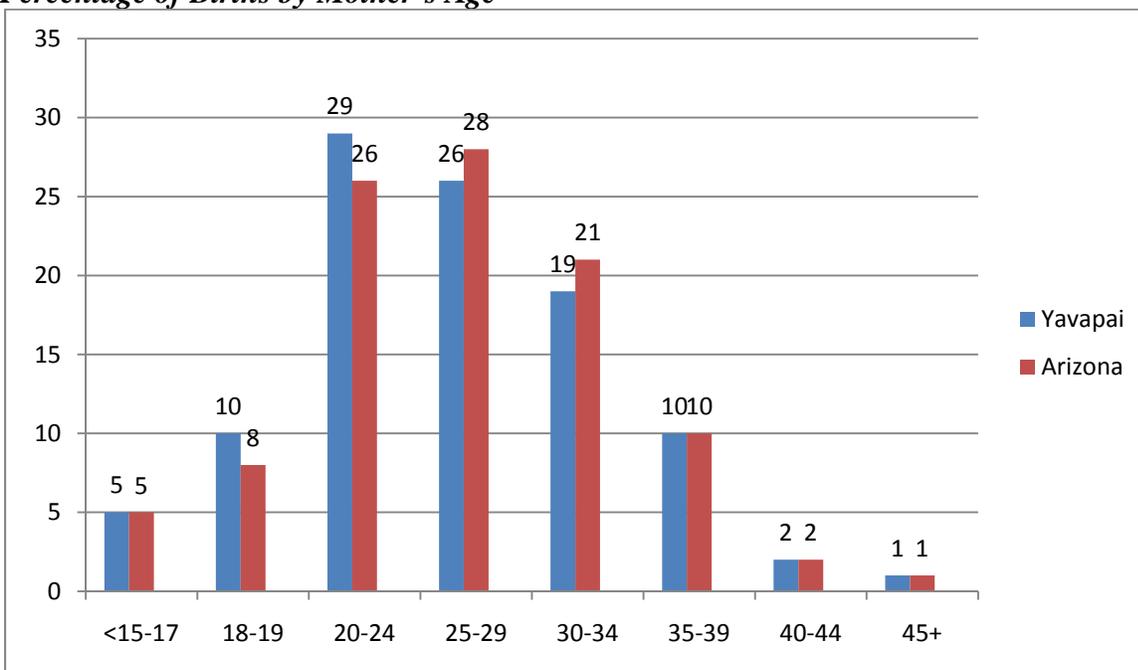
Percentage of Births by Mother’s Race/Ethnicity (Yavapai & Arizona)





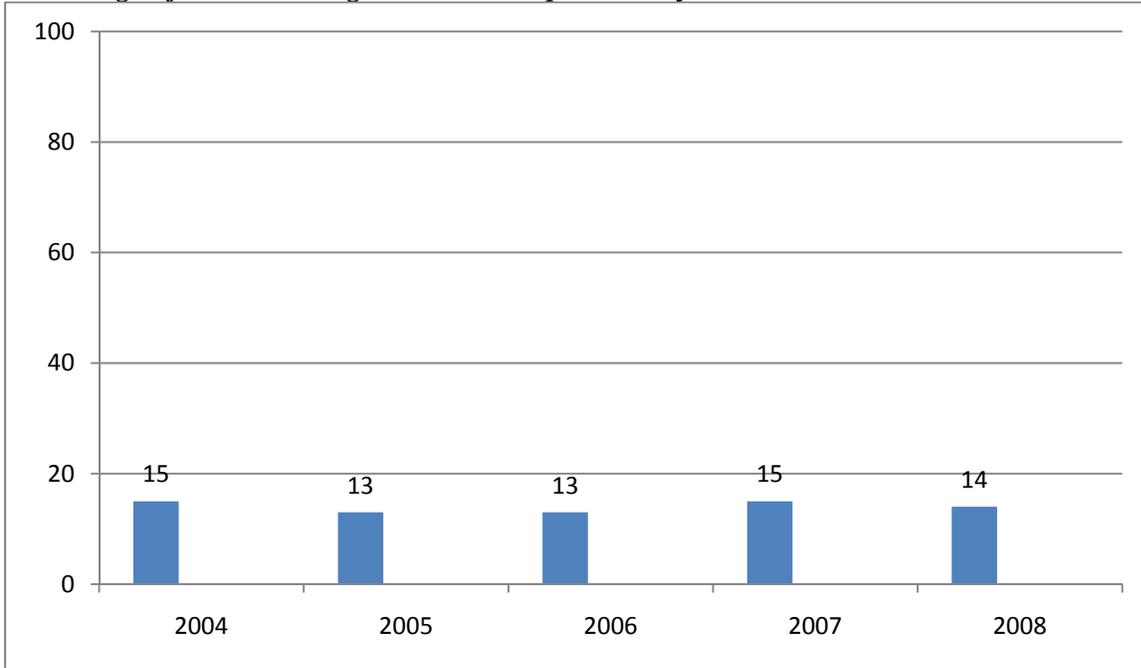
In terms of mother's age, it appears that the distribution of births is similar to that found across Arizona with the majority of mothers being between 20 and 34 years of age. One notable regional difference is that there is a slightly higher percentage of 18-24 year-old mothers in Yavapai than in Arizona.

Percentage of Births by Mother's Age



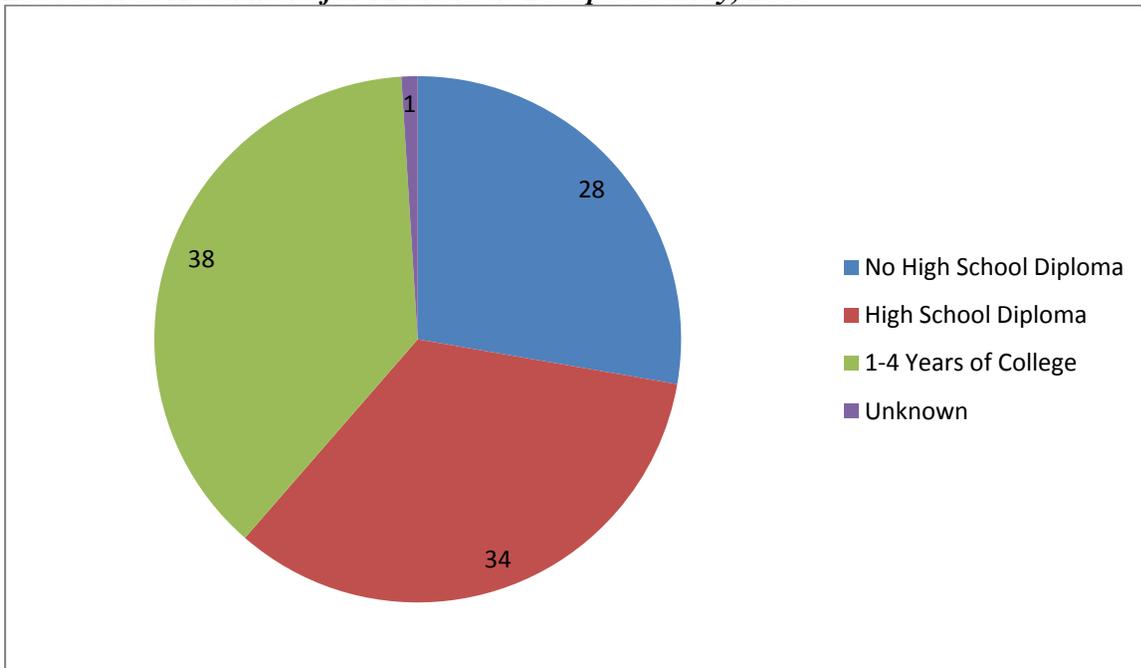
A review of longitudinal data on teen pregnancy indicates that the percentage of teens giving birth in Yavapai County has not significantly changed from 2004 to 2008.

Percentage of Teens Giving Birth in Yavapai County



In terms of educational attainment of mothers, it appears that the percentages for Yavapai County parallel those for Arizona, with most mothers (62%) having a High School Diploma or less.

Educational Attainment for Mothers in Yavapai County, 2008



In terms of marital status, the data indicates that of the 2,216 babies born in Yavapai County in 2008, 919 (41.5%) were born to single mothers. Of these 919 mothers, almost half (49.0%) lived in the central/northeast part of the County. Specifically, 54 (5.9%) lived in Chino Valley, 72 (7.8%) lived in Camp Verde, 146 (15.9%) lived in Prescott, and 178 (19.4%) lived in Cottonwood.

Another notable parental regional characteristic is the reported alcohol and tobacco use by mothers in Yavapai. According to the data, 0.9% of mothers who gave birth in Yavapai in 2008 reported using alcohol during pregnancy. Although this number may appear relatively low, it is worth noting that the figure is almost double that reported for the State of Arizona (i.e., 0.5%). This trend is even more poignant when applied to the question of tobacco use with 11.1% of mothers in 2008 reporting that they used tobacco during pregnancy. This level of usage is more than double that reported across Arizona (i.e., 4.9%).

Finally, it appears that a significant number of grandparents are responsible for raising their grandchildren. According to the 2008 data, 1070 grandparents in Yavapai County are responsible for raising their grandchildren. Of these, 644 (60.1%) are children aged 4 or younger.

E. Socio-Demographic Characteristics – in addition to the above, there are a number of socio-demographic regional characteristics that bear highlighting. These characteristics are summarized below:

- ***Health Insurance Coverage*** – 2008 data indicates that 16% of children under the age of 18 living in the majority of communities in Yavapai County do not have health insurance coverage.
- ***Poverty*** – a review of the data presented in the Overall Report Section (above) suggest that there are a number of key indicators that may be useful in gauging the level of risk faced by families and young children in Yavapai County. Included in these indicators are the following:
 - ***Supplemental Nutrition Assistance Program (SNAP)*** – According to the January 2010 data, 4985 children between the ages of 0-5 in Yavapai County received assistance from SNAP. This number may be compared to the 2692 children between the ages of 0-5 in Yavapai County who received SNAP assistance in January 2007.
 - ***Unemployment Rates*** – examination of the 2009 unemployment rates for Yavapai Counties indicates that a number of communities are facing serious challenges, including: Ash Fork (27.5%), Bagdad (13.9%), Cordes Lakes (18.4%), Mayer (17.3%), Peoples valley (19.0%), Spring Valley (12.7%), and Yarnell (15.0%). The 2009 unemployment rate for Arizona was 9.1% and 9.3% for the United States.
 - ***Poverty Level Data*** – according to Yavapai County data provided by the US Census Bureau, 26% of families with related children under the age of 5 are living below the poverty level. Perhaps even more telling is the fact that 62% of female-headed households with no husband present and related children under 5 years of age are living below the poverty line.

- **Licensed Child Care Facilities** – According to the Arizona Department of Health Services’ Division of Licensing, in February 2010 there were a total of 80 licensed child care facilities in Yavapai Region. Fifty-seven of the licensed facilities were child care centers, with a capacity of 3,906 children. Fourteen of the licensed facilities were child care centers located in public schools and together had a capacity of 1,420 children. Nine of the licensed facilities were small group homes, with a capacity of 100 children. The region’s licensed facilities had a combined capacity of 5,426 children. The largest percentage (38%) of this capacity was in Prescott, followed by Cottonwood (18%), Prescott Valley (16%), Chino Valley (9%), and Camp Verde (8%).

III. Identification of Risk Factors

The purpose of this section of the report is to identify the variety of risk factors related to poor early childhood outcomes. As such, this section will present a comprehensive literature review which will include examination of research from a number of disciplines (e.g., psychology, education, sociology, social work, and health) as well as from a variety of early childhood programs that have been developed and implemented. It should be noted that, for this section of the report, an emphasis will be placed on identifying research related to risk factors that are in some way preventable or able to be impacted rather than risk factors that are less able to be addressed through intervention (e.g., genetic factors).

A. Definitional Considerations - Before any discussion can be initiated regarding risk factors and child development, it is important to provide a clear definition of the concept. According to the child development literature, any investigation into the risk factors that may negatively impact child development must be centralized around the concept of outcomes.⁸⁰ That is, according to researchers, the examination of risk factors is premised upon identifying a set of concrete negative (or problematic) outcomes that may be displayed by the children experiencing these risk factors.⁸¹ A variety of these problematic outcomes have been identified, including:

- Poor Academic Achievement⁸²
- Behavioral Issues at School⁸³
- Impaired Social Cognitive Skills⁸⁴
- Impaired Problem-Solving Ability⁸⁵
- Anti-Social Behavior⁸⁶

⁸⁰ See e.g. Cicchetti, D. (1993). Developmental psychopathology: Reactions, reflections, projections. *Developmental Review, 13*, 471-502.

⁸¹ Lanza, S.T., Rhoades, B.L., Nix, R.L., Greenberg, M.T., & The Conduct Problems Prevention Research Group. (2010). Modeling the interplay of multilevel risk factors for future academic and behavior problems: A person-centered approach. *Development and Psychopathology, 22*, 313-335.

⁸² Montague, M., Enders, C., & Castro, M. (2005). Academic and behavioral outcomes for students at risk for emotional and behavioral disorders. *Behavioral Disorders, 31*, 84-94.

⁸³ Hinshaw, S.P. (1992). Externalizing behavior problems and academic under-achievement in childhood and adolescence: causal relationships and underlying mechanisms. *Psychological Bulletin, 111*, 127-155.

⁸⁴ Burchinal, M.R., Roberts, J.E., Hooper, S., & Zeisel, S.A. (2000). Cumulative risk and early cognitive development: A comparison of statistical risk models. *Developmental Psychology, 36*, 793-809.

⁸⁵ Carlson, M.J., & Corcoran, M.E. (2001). Family structure and children’s behavioral and cognitive outcomes. *Journal of Marriage and Family, 63*, 779-792.

⁸⁶ Ingoldsby, E.M., & Shaw, D.S. (2002). The role of neighborhood contextual factors on early-starting antisocial behavior. *Clinical Child and family psychology Review, 6*, 21-65.

- Emotional Challenges⁸⁷
- Mental Health Issues⁸⁸
- Aggression⁸⁹
- Delinquency⁹⁰

It should be noted that for the purposes of the present report, there is some regionally-based indicator data available with regard to academic achievement from two sources: AIMS scores and High School Graduation rates. The data presented below suggest that there is a significant variation across the County for both AIMS scores and High School graduation rates.

AIMS 3rd Grade Score Achievement Levels By School District

| District | *Percent FFB & A Math | Percent FFB & A Reading | Percent FFB & A Writing |
|--|--------------------------------------|--|--|
| Ash Fork Joint Unified | 67% | 55% | 50% |
| Bagdad Unified | 15% | 14% | 12% |
| Beaver Creek Elementary | 33% | 40% | 33% |
| Camp Verde Unified | 45% | 44% | 38% |
| Canon Elementary | 48% | 39% | 52% |
| Chino Valley Unified | 24% | 24% | 13% |
| Clarkdale-Jerome Elementary | 6% | 11% | 9% |
| Congress Elementary | 0% | 0% | 0% |
| Cottonwood-Oak Creek Elementary | 43% | 44% | 34% |
| Crown King Elementary | NA | NA | NA |
| Hillside Elementary | NA | NA | NA |
| Humboldt Unified | 18% | 21% | 16% |
| Kirkland Elementary | 46% | 30% | 50% |
| Mayer Unified | 13% | 20% | 13% |
| Prescott Unified | 5% | 3% | 6% |
| Sedona-Oak Creek Joint Unified | 9% | 18% | 16% |
| Seligman Unified | 57% | 50% | 59% |
| Skull Valley Elementary | NA | NA | NA |
| Yarnell Elementary | NA | NA | NA |
| Statewide | 27% | 28% | 21% |

*FFB & A: Falls Far Below & Approached categories – generally represent students who have failing scores.

⁸⁷ Gumora, G., & Arsenio, W.F. (2002). Emotionality, emotion regulation, and school performance in middle school children. *Journal of School Psychology, 40*, 395-413.

⁸⁸ Shields, A., Dickstein, S., Seifer, R., Giusti, L., Magee, K.D., & Spritz, B. (2001). Emotional competence and early school adjustment: A study of preschoolers at risk. *Early Education and Development, 12*, 73-96.

⁸⁹ Dodge, K.A., Bates, J.E., & Pettit, G.S. (1990). Mechanism is the cycle of violence. *Science, 250*, 1678-1683.

⁹⁰ Leech, S.L., Day, N.L., Richardson, G.A., & Goldschmidt, L. (2003). Predictors of self-reported delinquent behavior in a sample of young adolescents. *Journal of Early Adolescence, 23*, 78-106.

High School Graduation Rates By District for 2005 and 2007

| High School | 2005 | 2007 |
|--|------|------|
| Prescott High School | 88% | 83% |
| Sedona Red Rock High School | 91% | 81% |
| Bagdad High School | 79% | 87% |
| Bradshaw Mountain High School | 78% | 76% |
| Camp Verde High School | 88% | 82% |
| Camp Verde Alternative School | 50% | NA |
| South Verde Middle High School | NA | 33% |
| Ash Fork High School | 94% | 65% |
| Seligman High School | 46% | 75% |
| Mayer Junior/Senior High School | 64% | 77% |
| Chino Valley High School | 76% | 70% |
| Mingus Union High School | 81% | 71% |
| Juniper Canyon Alternative High School | NA | NA |

B. Theoretical Frameworks - Given the breadth of potential negative outcomes for children, it is not surprising that researchers have developed a number of theoretical frameworks for identifying and categorizing the risk factors contributing to these outcomes. For example, in their *Vulnerability Framework*, Peirson, Laurendeau, and Chamberland (2001)⁹¹ suggest that early childhood risk factors are best conceptualized as a series of concentric circles describing the vulnerabilities that a child may encounter that may ultimately lead to a host of negative outcomes. At the center of the model is the child, followed by family/parental vulnerabilities, community vulnerabilities, and finally social vulnerabilities. According to these authors, each of these levels is accompanied by a variety of specific vulnerabilities.

Vulnerability Framework

| Vulnerability Level | Associated Vulnerabilities |
|------------------------|---|
| Child | Prematurity/Low Birth Weight Poor Physical Health Poor Mental Health Difficult Behavior Gender Age Cultural Background |
| Family/Parental | Family Size and Structure Lack of Family Time Acute Stressors Spousal Violence Parent Maltreated as a Child Teen Parenthood Poor Parenting Skills |

⁹¹ Peirson, L., Laurendeau, M., and Chamberland, C. (2001). Context, contributing factors, and consequences. In Prilleltensky, I., Nelson, G., and Peirson, L. (Eds.) *Promoting Family Wellness and Preventing Child Maltreatment: Fundamentals for Thinking and Action* (pp. 41-123). Toronto, Canada: University of Toronto Press Incorporated.

| | |
|------------------|--|
| | Limited Education Addictions Personality Factors Poor Mental Health Biological Predispositions |
| Community | Impoverishment Lack of Child Care Lack of Family Resources Inadequate Housing Community Violence Lack of Social Cohesion |
| Societal | Poverty Unemployment Immigration Tolerance of Violence Extremes in Family Privacy Devaluing Caregivers Gender Stereotyping |

In contrast to the above model, Wise (2003)⁹² suggests that the most effective approach for understanding the potential negative impacts of risk factors on childhood development is through a *Risk and Resiliency Framework*. This framework differs from the vulnerability framework in two significant ways. First, the framework is based on Bronfenbrenner's ecological perspective and, as such, emphasizes the social and community impacts on child development and de-emphasizes the more individual impacts (i.e., those related to the child and parents). The second important way that this model differs from the vulnerability model is found in its inclusion of resiliency (or protective) factors within the framework. Unlike the vulnerability framework, this approach suggests that the most comprehensive perspective for examining risk factors is one that also identifies related protective (or resiliency) factors.

Risk and Resiliency Framework

| Impacting Factors | Risk Factors | Resiliency Factors |
|-----------------------------|---|---|
| Social Conditions | Isolation from extended family networks Inadequate Social Supports Lack of a Perception of Community | Social Support for Families Community-Based Programs |
| Socioeconomic Status | Low Parent Resources Poor Nutrition Inability to Obtain Proper Healthcare Crowded Housing Lack of Access to Cognitively Stimulating Materials | Food Assistance Programs Increased Medicare Resources Housing Programs Parenting Classes |

⁹² Wise, S. (2003). Family structure, child outcomes and environmental mediators. *Australian Institute of Family Studies, Research Paper #30*. Melbourne, Australia.

| | | |
|------------------------------|--|---|
| | Stress Parental Structure and Control | |
| Community Environment | Neighborhood Poverty Community Crime Rates Lack of Community Organizations/Opportunities | Increased Numbers of Community Resources Such as Libraries, Museums, Playgrounds, Sports Clubs, and Parks. Increased Crime Reduction Initiatives |

Although the Vulnerability Framework and the Risk and Resiliency Framework represent only two of a number of potential models for conceptualizing the risk factors associated with negative child development, it is suggested that they each provide insight for the development of the most effective framework for the needs of Yavapai County. Specifically, it is suggested that the most efficient framework for describing and responding to the risk factors in Yavapai County is through an amalgamation of the two frameworks which combines the breadth of the Vulnerability Framework with the inclusion of protective factors found in the Risk and Resiliency Framework. Adoption of this hybrid provides a framework which allows for the description of a variety of risk factors identified in the literature grouped in levels as well as a description of associated protective factors.

C. Hybrid Framework for the Identification of Risk and Protective Factors - As stated above, it is suggested that the most effective approach for conceptualizing the variety of risk factors identified in the literature is to categorize them in levels as well as to include the related protective factors identified in the literature. As such, it is suggested that the levels of analysis include: (1) the child, (2) parents, (3) family, and (4) community/societal. The following tables describe the risk and protective factors for each of these levels.

The Child (Risk and Protective Factors)

| |
|---|
| Risk Factors |
| Lack of Prenatal Care ⁹³ |
| Low Birth Weight ⁹⁴ |
| Preterm Birth ⁹⁵ |
| Poor Emotional Regulation Skills ⁹⁶ |
| Protective Factors |
| Nutritional & Psychosocial Counseling ⁹⁷ |
| Positive Maternal Parenting ⁹⁸ |

Parents (Risk and Protective Factors)

| |
|--|
| Risk Factors |
| Maternal Education Level ⁹⁹ |
| Maternal Alcohol Use ¹⁰⁰ |
| Maternal Smoking ¹⁰¹ |
| Maternal Stress ^{102 103} |
| Maternal Depression ^{104 105} |
| Maternal Race ¹⁰⁶ |

⁹³ Foley, D., Goldfield, S., McLoughlin, J., Nagorcka, J., Oberklaid, F., & Wake, M. (1999). *A review of early childhood literature*. The Centre for Community Child Health: Canberra, Australia

⁹⁴ Hediger, M.L., Overpeck, M.D., Ruan, W.J., & Troendle, J.F. (2002). Birthweight and gestational age effects on motor and social development. *Pediatric & Perinatal Epidemiology*, *16*, 33-46.

⁹⁵ Roberts, G., Bellinger, D., & McCormick, M. (2007). A cumulative risk factor model for early identification of academic difficulties in premature and low birth weight infants. *Maternal & Child Health Journal*, *11*, 161-172.

⁹⁶ Blandon, A.Y., Calkins, S.D., & Keane, S.P. (2010). Predicting emotional and social competence during early childhood from toddler risk and maternal behavior. *Development and Psychopathology*, *22*, 119-132

⁹⁷ Ricketts, S.A., Murray, E.K., & Schwalberg, R. (2005). Reducing low birthweight by resolving risks: Results from Colorado's Prenatal Plus Program. *American Journal of Public Health*, *95*, 1952-1957.

⁹⁸ Blandon, A.Y., Calkins, S.D., & Keane, S.P. (2010). Predicting emotional and social competence during early childhood from toddler risk and maternal behavior. *Development and Psychopathology*, *22*, 119-132.

⁹⁹ Guralnik, J.M., Butterworth, S., Wadsworth, M.E.J., & Kuh, D. (2006). Childhood socioeconomic status predicts physical functioning a half century later. *Journal of Gerontology Series A: Biological Sciences & Medical Sciences*, *61A*, 694-701.

¹⁰⁰ Knopik, V.S., Heath, A.C., Jacob, T., Slutske, W.S., Bucholz, K., Madden, P.A.F., Waldron, M., & Martin, N.G. (2006). Maternal alcohol use disorder and offspring ADHD: Disentangling genetic and environmental effects using a children-of-twins design. *Psychological Medicine*, *36*, 1461-1471.

¹⁰¹ Toshiro, I. (2010). Maternal smoking during pregnancy and offspring obesity: Meta-analysis. *Pediatrics International*, *52*, 94-96.

¹⁰² Essex, M.J., Klein, M.H., Slattery, M.J., Goldsmith, H.H., & Kahn, N.H. (2010). Early risk factors and developmental pathways to chronic high inhibition and social anxiety disorder in adolescence. *American Journal of Psychiatry*, *167*, 40-46.

¹⁰³ Robinson, M., Oddy, W.H., Jianghong, L., Kendall, G.E., de Klerk, N.H., Silburn, S.R., Zubrick, S.R., Newnham, J.P., Stanley, F.J., & Mattes, E. (2008). Pre- and postnatal influences on preschool mental health: A large-scale cohort study. *Journal of Child Psychology & Psychiatry*, *49*, 1118-1128.

¹⁰⁴ Hoffman, C., Crnic, K.A., & Baker, J.K. (2006). Maternal depression and Parenting: Implications for children's emergent emotion regulation and behavioral functioning. *Parenting: Science & Practice*, *6*, 271-295.

¹⁰⁵ Spence, S.H., Najman, J.K., Bor, W., O'Callaghan, M.J., & Williams, G.M. (2002). Maternal anxiety and depression, poverty and marital relationship factors during early childhood as predictors of anxiety and depressive symptoms in adolescence. *Journal of Child Psychology & Psychiatry & Allied Disciplines*, *43*, 13.

| |
|--|
| Maternal Age ¹⁰⁷ |
| Maternal History of Antisocial Behavior ¹⁰⁸ |
| Protective Factors |
| Opportunities for Supportive Relationships with Other Adults ¹⁰⁹ |
| Mother's Well-Being ¹¹⁰ |
| Home Visitation Programs ¹¹¹ |
| Identification of Maternal Psychological Health Impairments ¹¹² |
| Increased Education About Smoking and Drinking During Pregnancy ¹¹³ |

Family (Risk and Protective Factors)

| |
|---|
| Risk Factors |
| Parental Absence/Single-Parent ¹¹⁴ |
| Harsh or Inconsistent Discipline ¹¹⁵ |
| Abuse/Neglect ¹¹⁶ |
| Marital Stress/Disharmony ¹¹⁷ |
| Lack of Insurance/Medical Coverage ¹¹⁸ |
| Poverty ¹¹⁹ |

-
- ¹⁰⁶ Robinson, M., Oddy, W.H., Jianghong, L., Kendall, G.E., de Klerk, N.H., Silburn, S.R., Zubrick, S.R., Newnham, J.P., Stanley, F.J., & Mattes, E. (2008). Pre- and postnatal influences on preschool mental health: A large-scale cohort study. *Journal of Child Psychology & Psychiatry*, *49*, 1118-1128.
- ¹⁰⁷ Foley, D., Goldfield, S., McLoughlin, J., Nagorcka, J., Oberklaid, F., & Wake, M. (1999). A review of early childhood literature. The Centre for Community Child Health: Canberra, Australia.
- ¹⁰⁸ Petitclerc, A., Boivin, M., Dionne, G., Zoccolillo, M., & Tremblay, R.E. (2009). Disregard for rules: The early development and predictors of a specific dimension of disruptive behavior disorders. *Journal of Child Psychology & Psychiatry*, *50*, 1477-1484.
- ¹⁰⁹ Foley, D., Goldfield, S., McLoughlin, J., Nagorcka, J., Oberklaid, F., & Wake, M. (1999). A review of early childhood literature. The Centre for Community Child Health: Canberra, Australia.
- ¹¹⁰ Harrison, L.J., & McLeod, S. (2010). Risk and protective factors associated with speech and language impairment in a nationally representative sample of 4-to-5-year-old children. *Journal of Speech, Language & Hearing Research*, *53*, 508-529.
- ¹¹¹ Olds, D., Henderson, C., Eckenrode, J., Pettitt, L., Kitzman, H., Cole, B., Robinson, J., & Powers, J. (1998). Reducing risks for antisocial behavior with a program of prenatal and early childhood home visitation. *Journal of Community Psychology*, *26*, 65-83.
- ¹¹² Spence, S.H., Najman, J.K., Bor, W., O'Callaghan, M.J., & Williams, G.M. (2002). Maternal anxiety and depression, poverty and marital relationship factors during early childhood as predictors of anxiety and depressive symptoms in adolescence. *Journal of Child Psychology & Psychiatry & Allied Disciplines*, *43*, 13.
- ¹¹³ Toshiro, I. (2010). Maternal smoking during pregnancy and offspring obesity: Meta-analysis. *Pediatrics International*, *52*, 94-96.
- ¹¹⁴ O'Connor, T., Dunn, J., Jenkins, M., Pickering, K., & Rasbash, J. (2001). Family settings and children's adjustment: Differential adjustment within and across families. *British Journal of Psychiatry*, *197*, 110-115.
- ¹¹⁵ Foley, D., Goldfield, S., McLoughlin, J., Nagorcka, J., Oberklaid, F., & Wake, M. (1999). A review of early childhood literature. The Centre for Community Child Health: Canberra, Australia
- ¹¹⁶ Blankertz, L.E., Cnaan, R.A., & Freedman, E. (1993). Childhood risk factors in dually diagnosed homeless adults. *Social Work*, *38*, 587-596.
- ¹¹⁷ Wise, S. (2003). Family structure, child outcomes and environmental mediators. *Australian Institute of Family Studies, Research Paper #30*. Melbourne, Australia.
- ¹¹⁸ Clements, K.M., Barfield, W.D., Kotelchuk, M., & Wilbur, N. (2008). Maternal socio-economic and race/ethnic characteristics associated with early intervention participation. *Maternal & Child Health Journal*, *12*, 708-717.
- ¹¹⁹ Olds, D., Henderson, C., Eckenrode, J., Pettitt, L., Kitzman, H., Cole, B., Robinson, J., & Powers,

| |
|--|
| Homelessness ¹²⁰ |
| Protective Factors |
| In-Home Parental Support for Child Learning ¹²¹ |
| Stress Intervention Programs ¹²² |
| Increased Access to Food Programs etc. ¹²³ |

Community & Societal (Risk and Protective Factors)

| |
|--|
| Risk Factors |
| High Community Crime Rates ¹²⁴ |
| Lack of Community Activities/Resources ¹²⁵ |
| Neighborhood Poverty ¹²⁶ |
| Low Dissemination of Early Childhood Information ¹²⁷ |
| Lack of Child Care Facilities ¹²⁸ |
| Protective Factors |
| Increased Community Activities/Resources ¹²⁹ |
| Increased Programs for Dissemination of Information ¹³⁰ |

IV. Identification of Regional Risk Factors

The goal of this section of the report is to employ the information presented in Sections 1 and 2 (above) in order to identify the risk factors for poor early childhood outcomes that are most prevalent in Yavapai County. As such, this section of the report will compare the regional characteristics identified in Section 1 with the risk factors described in Section 2. This will allow

J. (1998). Reducing risks for antisocial behavior with a program of prenatal and early childhood home visitation. *Journal of Community Psychology*, 26, 65-83.

¹²⁰ Perlman, S., & Fantuzzo, J. (2010). Timing and influence of early experiences of child maltreatment and homelessness on children’s educational well-being. *Children and Youth Services Review*.

¹²¹ Harrison, L.J., & McLeod, S. (2010). Risk and protective factors associated with speech and language impairment in a nationally representative sample of 4-to-5-year-old children. *Journal of Speech, Language & Hearing Research*, 53, 508-529.

¹²² Lanza, S.T., Rhoades, B.L., Nix, R.L., Greenberg, M.T., & The Conduct Problems Prevention Research Group. (2010). Modeling the interplay of multilevel risk factors for future academic and behavior problems: A person-centered approach. *Development and Psychopathology*, 22, 313-335.

¹²³ Olds, D., Henderson, C., Eckenrode, J., Pettitt, L., Kitzman, H., Cole, B., Robinson, J., & Powers, J. (1998). Reducing risks for antisocial behavior with a program of prenatal and early childhood home visitation. *Journal of Community Psychology*, 26, 65-83.

¹²⁴ Wise, S. (2003). Family structure, child outcomes and environmental mediators. *Australian Institute of Family Studies, Research Paper #30*. Melbourne, Australia.

¹²⁵ Wise, S. (2003). Family structure, child outcomes and environmental mediators. *Australian Institute of Family Studies, Research Paper #30*. Melbourne, Australia.

¹²⁶ Wise, S. (2003). Family structure, child outcomes and environmental mediators. *Australian Institute of Family Studies, Research Paper #30*. Melbourne, Australia.

¹²⁷ Foley, D., Goldfield, S., McLoughlin, J., Nagorcka, J., Oberklaid, F., & Wake, M. (1999). *A review of early childhood literature*. The Centre for Community Child Health: Canberra, Australia.

¹²⁸ Foley, D., Goldfield, S., McLoughlin, J., Nagorcka, J., Oberklaid, F., & Wake, M. (1999). *A review of early childhood literature*. The Centre for Community Child Health: Canberra, Australia.

¹²⁹ Foley, D., Goldfield, S., McLoughlin, J., Nagorcka, J., Oberklaid, F., & Wake, M. (1999). *A review of early childhood literature*. The Centre for Community Child Health: Canberra, Australia.

¹³⁰ Foley, D., Goldfield, S., McLoughlin, J., Nagorcka, J., Oberklaid, F., & Wake, M. (1999). *A review of early childhood literature*. The Centre for Community Child Health: Canberra, Australia.

for the identification of early childhood outcome risk factors that are most prevalent in Yavapai County. It should be noted that although risk factors are presented as individual entities, research indicates that the level of threat to the healthy development of a child is directly related to the number of risk factors being experienced. Trentacosta et al. (2008)¹³¹, for example, found that the level of cumulative risk experienced by a child was related to the extent of subsequent negative developmental outcomes experienced by the child.^{132 133}

Based on the above information, Yavapai County (like most communities) has a number of regional characteristics that may be identified as risk factors in potentially negatively impacting the development of children. A review of the information presented in above indicates that attention may be warranted towards specific risk factors. These factors are categorized according to the levels described in the *Hybrid Framework* and identified below.

A. Regional Risk Factors

➤ **The Child**

- **Prenatal Care** – although the majority (70%) of pregnant females in Yavapai County initiates prenatal care during the 1st trimester, 28.1% of females do not initiate prenatal care until the 2nd or 3rd trimester and 1.9% do not initiate prenatal care at all. In addition, according to the research conducted by Ricketts et al (2005)¹³⁴, females who exhibit a number of prenatal risk factors (e.g., smoking, inadequate weight gain, and psychosocial challenges) are most likely to be positively impacted if they experience at least 10 prenatal visits with physicians or other professionals. This is an important finding given that at least 25% of pregnant females in Yavapai County report having less than 10 prenatal visits.
- **Birth Characteristics** – although the percentage of preterm births in Yavapai County is similar to the State average, data indicates that the percentage of challenging births in Yavapai County is significantly higher for a number of factors, including:
 - Complications with Labor and/or Delivery (Yavapai 48.9% - Arizona 27.4%)
 - Births with Abnormal Conditions (Yavapai 17.9% - Arizona 6.6%)
 - Births with Medical Risk Factors Reported (Yavapai 37.4% - Arizona 32.1%)
 - Primary and Repeat Caesarean Births (Yavapai 32.2% - Arizona 27.5%)
 - Admission to Newborn ICU's (Yavapai 7.9% - Arizona 6.0%)

¹³¹ Trentacosta, C.J., Hyde, L.W., Shaw, D.S., Dishion, T.J., Gradner, F., & Wilson, M. (2008). The relations among cumulative risk, parenting, and behavior problems during early childhood. *Journal of Child Psychology & Psychiatry*, 49, 1211-1219.

¹³² Burchinal, M.R., Roberts, J.E., Hooper, S., & Zeisal, S.A. (2000). Cumulative risk and early cognitive development: A comparison of statistical risk models. *Developmental Psychology*, 36, 793-809.

¹³³ Stevens, G. (2006). Gradients in the health status and developmental risks of young children: The combined influences of multiple social risk factors. *Maternal and Child Health Journal*, 10, 187-199.

¹³⁴ Ricketts, S.A., Murray, E.K., & Schwalberg, R. (2005). Reducing low birthweight by resolving risks: Results from Colorado's Prenatal Plus Program. *American Journal of Public Health*, 95, 1952-1957.

➤ **Parents**

- ***Mother's Educational Level*** – approximately 28% of mothers who gave birth in 2008 in Yavapai County do not have a high school diploma.
- ***Mother's Alcohol & Tobacco Use*** – although only 0.9% of mother's reported using alcohol during pregnancy, 11.1% reported tobacco use (this level is more than twice that reported across the State).
- ***Mother's Stress and Depression*** – although there is no data relating directly to this factor, it is suggested that it be considered a risk factor based on a number of elements. First, given the current economic climate, it is argued that more families than usual will be experiencing economic hardship and research indicates that this is related to both stress and depression in parents.¹³⁵ In addition, the data indicates a higher level of both SNAP and TANF assistance in Yavapai County during the past 2 years and, like economic hardship, there is a relationship between food assistance programs and potential negative child development.¹³⁶ Finally, according to data gathered from 2006-2008 for Yavapai County, 62% of female-headed households with no husband present and related children under the age of 5 were living below the poverty line.
- ***Mother's Age*** – According to the 2008 data, there were 300 (14%) teen births in Yavapai County. Comparable rates for Arizona and the United States are 12% and 10% respectively.

➤ **Family**

- ***Parental Absence/Single-Parent*** – Evidence for presenting this as a risk factor comes from two sources. First, according to 2008 data, 644 grandparents report that they are the primary caregiver for a child aged 4 years or younger. Second, of the 300 teen births in Yavapai County during 2008, 84% of mothers reported being unmarried.
- ***Marital Stress and Disharmony*** – as with maternal depression, it is suggested that there is a very good chance that levels of marital stress and disharmony are increasing given the current economic situation.
- ***Lack of Insurance/Medical Coverage*** – the 2008 data regarding insurance coverage indicates that a significant number of new parents in Yavapai County lack insurance coverage or have limited insurance coverage.
- ***Poverty*** – According to the data presented in the Demographic Overview, it is apparent that there has been a noticeable increase in poverty levels – especially in specific communities

¹³⁵ Spence, S.H., Najman, J.K., Bor, W., O'Callaghan, M.J., & Williams, G.M. (2002). Maternal anxiety and depression, poverty and marital relationship factors during early childhood as predictors of anxiety and depressive symptoms in adolescence. *Journal of Child Psychology & Psychiatry & Allied Disciplines*, 43, 13.

¹³⁶ Olds, D., Henderson, C., Eckenrode, J., Pettitt, L., Kitzman, H., Cole, B., Robinson, J., & Powers, J. (1998). Reducing risks for antisocial behavior with a program of prenatal and early childhood home visitation. *Journal of Community Psychology*, 26, 65-83.

within the County. For example, the unemployment rate for Ash Fork has increased by 15.4% over the last three years (12.1% in 2007; 27.5% in 2009). Similar trends may be found in a number of other communities including Bagdad, Cordes Lakes, Mayer, and Spring Valley.

➤ **Community & Societal**

- ***Low Dissemination of Early Childhood Information*** – Although there is evidence of the existence of effective programs related to the dissemination of early childhood information (e.g., the First Steps Program), it appears that these initiatives are limited to a few specific communities within the County.
- ***Lack of Child Care Facilities*** – as above, although there are a number of licensed child care facilities in Yavapai County, they appear to be concentrated in specific communities.

V. Identification of Best Practice/Services

The goal of this section of the report is to conduct a comprehensive review of the scientific literature in order to identify best practices/services that might effectively respond to the regional risk factors identified above. In order to accomplish this, this section of the report will comprise a review of the scientific literature in order to identify the best practices (inclusive of services and intervention strategies) for positively impacting poor early childhood outcome risk factors.

A review of the literature indicates that responses to the risk factors related to negative childhood outcomes may be grouped according to a number of specific categories of service. These are described below in detail.

A. Effective Services/Programs - A review of the literature on early childhood development indicates that there are a number of programs and services that have proven effective for responding to identified risk factors, including:

- ***Prenatal Services*** – these services are aimed at providing assistance for females in order to positively impact a number of identified risk factors that might occur during pregnancy including smoking, inadequate weight gain, and psychosocial problems. According to Ricketts, Murray & Schwalberg (2005)¹³⁷, a coordinated prenatal program aimed at target populations (e.g., Medicaid-eligible females) can positively lower a number of prenatal risk factors.
- ***Intervention Services*** – these services are aimed at providing intervention assistance for children, parents, and/or families who have been identified as needing assistance.¹³⁸
- ***Preschool Services*** – preschool services have taken an increasingly important role in the issue of early childhood development, especially given the higher proportion of mothers

¹³⁷ Ricketts, S.A., Murray, E.K., & Schwalberg, R. (2005). Reducing low birthweight by resolving risks: Results from Colorado's Prenatal Plus Program. *American Journal of Public Health*, 95, 1952-1957.

¹³⁸ Asawa, L.E., Hansen, D.J., & Flood, M.F. (2008). Early childhood intervention programs: Opportunities and Challenges for preventing child maltreatment. *Education & Treatment of Children*, 31, 38.

entering the workforce.¹³⁹ According to Boocock (1995)¹⁴⁰, effective preschool services can positively impact child development (including achievement in reading in math and socialization) and decrease a number of associated risk factors.¹⁴¹

- **Proactive Surveillance Services** – these services are designed to proactively identify children, parents, and/or families that are at risk (in terms of childhood development) based on a variety of socio-demographic characteristics (e.g., race, socioeconomic status, and immigrant status), psychological challenges (e.g., stress, depression), and/or health/nutrition concerns (e.g., obesity, eating habits). These programs have been shown to be an effective approach to identify individuals who may need future intervention services. For example, according to Foley et al. (1999, p.21)¹⁴², “child health surveillance activities provide an opportunity for the early identification of diseases or conditions and risk factors that put children at risk of adverse outcomes, and for facilitating appropriate [proactive] interventions.” It is important to note that although a number of services are proactive and others provide a surveillance aspect, it is the combination of these two factors that culminates in this service. Specifically, this type of service is one that identifies a population at risk through evidence-based data and then proactively watches the population and implements intervention services, even though the population may not be exhibiting symptoms. For example, in the health field, a proactive surveillance service may be applied to young American Indian females with regard to diabetes. In this program, a group of females would be identified as at risk (given research on diabetes and American Indian populations) and a program would be initiated for them, even though they do not show any indications of diabetes.

- **Home Visitation Services** – it is estimated that more than 500,000 families in the U.S. are enrolled in home visitation programs. For the most part these programs provide services to pregnant females and families with young children and seek to positively impact child health, development, and school readiness, promote the prevention of child abuse, and improve parenting skills.¹⁴³ Research on home visitation programs indicates that it is an effective response for a variety of risk factors including: maternal substance abuse during pregnancy, child maltreatment, and chronic welfare dependence.¹⁴⁴

- **Education Services** – these services seek to provide parents with information and education regarding a myriad of issues related to effective child-rearing through the

¹³⁹ Foley, D., Goldfield, S., McLoughlin, J., Nagorcka, J., Oberklaid, F., & Wake, M. (1999). A review of early childhood literature. The Centre for Community Child Health: Canberra, Australia.

¹⁴⁰ Boocock, S.S. (1995). Early childhood programs in other nations: Goals and outcomes. *Future of Children*, 5, 94-115.

¹⁴¹ Barnett, S.W. (1995). Long-term effects of early childhood programs on cognitive and school outcomes. *Future of Children*, 5, 25-50.

¹⁴² Foley, D., Goldfield, S., McLoughlin, J., Nagorcka, J., Oberklaid, F., & Wake, M. (1999). A review of early childhood literature. The Centre for Community Child Health: Canberra, Australia.

¹⁴³ Foley, D., Goldfield, S., McLoughlin, J., Nagorcka, J., Oberklaid, F., & Wake, M. (1999). A review of early childhood literature. The Centre for Community Child Health: Canberra, Australia.

¹⁴⁴ Olds, D., Henderson, C., Eckenrode, J., Pettitt, L., Kitzman, H., Cole, B., Robinson, J., & Powers, J. (1998). Reducing risks for antisocial behavior with a program of prenatal and early childhood home visitation. *Journal of Community Psychology*, 26, 65-83.

provision of materials and information, role-playing, and group discussion. According to research, parenting education programs can positively impact a variety of risk factors including disruptive child behavior, dysfunctional parenting, and parental competence.¹⁴⁵

- **Support Services** – these services are designed to bring parents together in a supportive environment in order to share information and provide mutual support. These programs have been found to be especially effective in communities that are traditionally underserved by other formal programs.¹⁴⁶
- **Information/Navigation Services** – these services consist mainly of telephone support, seeking to provide parents with information or navigational (referral) assistance for issues regarding early childhood development, parenting, and other programs.
- **Supplemental Resource Services** – these services supply parents and pregnant females with services and/or resources (e.g., diapers, pregnancy tests, etc.) as well as emergency shelter.

VI. Identification of Regional Assets

The goal of this section of the report is to identify the regional services and programs available to address the risk factors identified in Section 3 and to subsequently identify any potential gaps in service. As per the original work plan, information regarding services revolves around identifying the numbers served and geographic boundaries for each program. The information provided in this section was culled from three main sources: (1) the Home Visiting Program Matrix (provided by First Things First Regional Office), (2) The Little Kids Book for 2009-1010, and (3) the result of a telephone survey of various services located in Yavapai County.

A. Description of Regional Services and Programs - A description of the regional services and programs available in Yavapai County is presented below. Information for each program is presented in terms of:

- **Program Name** – identifies the name of the specific program as well as the agency responsible (e.g., Arizona Children’s Association – Bright Start).
- **Type of Service** – in order to better assess the breadth of resources available in Yavapai County, each program was categorized by the type of service it provides. Categories were created based on the list of *Effective Services and Programs* identified by the literature and include: prenatal programs, intervention programs, preschool/child care programs, health surveillance programs, home visitation programs, education programs, mentoring and support programs, information/navigation programs, and supplemental resource programs.

¹⁴⁵ Sanders, M.R. (1999). The Triple-P Positive Parenting Program: Towards an empirically validated multi-level parenting and family support strategy for the prevention and treatment of child behavior and emotional problems. *Clinical Child and Family Psychology Review*, 2, 71-90.

¹⁴⁶ Barrera, M., & Prelow, H. (2000). Interventions to promote social support systems in children and adolescents. In D. Cicchetti, J. Rappaport, I. Sandler, & R.P. Weissberg (Eds.), *The promotion of wellness in children and adolescents* (pp. 309-339). Child Welfare League of America Press: Washington, D.C.

- ***Level of Service*** – according to Osher and Huff (2006)¹⁴⁷, one approach that is effective for identifying and assessing programs is to employ the *Level of Service Strategy*. This suggestion is premised upon the concept that it is useful to know the level of service that is being provided in addition to knowing who receives program services. This knowledge may then be employed to better assess whether the population is not only being provided with service but that the service is specific to the need. In order to accomplish this, the *Level of Service Strategy* involves identifying whether the service provided is universal, selective, or intensive. Universal strategies are those that are offered to all families or individuals within the scope of service (e.g., pregnant females, females with young children) which include basic general information and services. Examples of universal strategies include 24-hour information hotlines, education programs, and preschool/child care programs. Selective strategies are those that are offered to families or individuals who require additional support beyond basic, general information or services. Examples of selective strategies include education programs for specific needs (e.g., parenting programs for parents with a disabled or developmentally delayed child), shelter for mothers who are victims of domestic violence or homeless, and programs for families who are uninsured or underinsured. Intensive strategies are those that are offered to a small number of families or individuals who are experiencing either serious situations or multiple moderate challenges. Examples of intensive strategies include therapeutic interventions for mothers suffering from post-partum depression, individual counseling for young children with behavioral or emotional disorders, and medical services for pregnant females with medical complications.
- ***Specific Services Provided & Population Served*** – summarizes the exact services provided as well as describing the specific population served (e.g., homeless mothers, children with disabilities).
- ***Numbers Served*** – identifies the number of individuals or families that are able to be served by the program.
- ***Geographic Boundary*** – identifies the areas of Yavapai County that are served by the program.

¹⁴⁷ Osher, T.W., & Huff, B. (2006). Spotlight: Strategies to engage families. National Evaluation and Technical Assistance Center for the Education of Children and Youth Who Are Neglected, Delinquent, or At-Risk. www.neglected-delinquent.org/nd/resources/spotlight

| Program Name | Type of Service | Level of Service | Specific Services Provided & Population Served | Numbers Served | Geographic Boundary |
|---|--|-------------------------|---|------------------------------------|----------------------------|
| Arizona Postpartum Wellness Coalition – Quad Cities | Information/Navigation Service | Universal | Warmline telephone support for mothers with postpartum depression | All calls served | County |
| Arizona Support Services and Intensive Skill Training (ASSIST) | Intervention Service | Selective | Support services and skills training for children from birth to 5 (and their families) with special needs | No limit (currently serving 40-45) | West Yavapai |
| Arizona Children’s Association – Child Haven | Intervention Service | Selective | Nursery placement for children from birth to 6 whose families are facing a crisis | No limit | County |
| Arizona Children’s Association – Bright Start | Home Visitation Program Prenatal Service | Universal | Home visitation service for those who are pregnant and families with children under the age of 6 | 167 families | County |
| Arizona Children’s Association – Kare Kinship Program | Information/Navigation Service | Selective | Information and referral service for kinship families (i.e., family members raising another family members children) | No limit | County |
| Arizona Children’s Association – Parents as Teachers | Home Visitation Program Prenatal Service | Universal | Home visitation service for pregnant females and families with children up to the age of 3 | 16-20 families | Verde Valley |
| Arizona State School for the Deaf & the Blind | Information/Navigation Service Support Program | Selective | Provides information, support and navigation services for the families of children from birth to 3 years of age who have hearing or vision loss | No limit | County |

| Program Name | Type of Service | Level of Service | Specific Services Provided & Population Served | Numbers Served | Geographic Boundary |
|---|---|-------------------------------------|--|------------------------------------|--|
| Birthline | Supplemental Resource Program | Universal | Provides assistance (including baby supplies and pregnancy testing) to females who are pregnant and new mothers | No limit | Prescott, Prescott Valley, Chino Valley, Paulden |
| The Caring Presence | Supplemental Resource Program | Universal | Provides assistance for new mothers needing supplies and/or services | No limit | Prescott, Prescott Valley, Chino Valley |
| Catholic Charities Community Services | Intervention Service | Universal | Provides social services for families and young children in crisis | No limit | County |
| Chino Area Partnership | Support Program | Selective | Parent-based program providing information and support for families of children with disabilities and/or special health care needs | No limit | Chino Valley |
| Chino Valley School District – Cougar Lane Preschool | Preschool Service | Selective | Special needs preschoolers aged 3-5 | 60 children (currently serving 62) | Chino Valley |
| Community Health Center of Yavapai (includes Reproductive Health, Prenatal Care, and Primary Care) | Prenatal Service Intervention Service | Universal Selective Intensive | Provides comprehensive health care for pregnant women and children, including: primary care, prenatal care, and dental | No limit | County |
| Community Pregnancy Center of Prescott | Prenatal Service Supplemental Resource Program Information/Navigation Service | Universal | Provides support (e.g., clothing and accessories, pregnancy counseling) and information for pregnant females and mothers of young children | No limit | Verde Valley |

| Program Name | Type of Service | Level of Service | Specific Services Provided & Population Served | Numbers Served | Geographic Boundary |
|--|--|-------------------------|---|--|------------------------------|
| | | | experiencing a crisis | | |
| Developmental Education and Research | Education Program | Selective | Provides education programs for parents of children with disabilities | ? | County |
| Early Head Start | Home Visitation Program | Selective | Home visitation service for income eligible teen parents; 1 st time parents; parents under 24 years of age | 11 families | County |
| Family Support Services – Prescott and Humboldt Unified School Districts (includes Common Sense Parenting, Support Connections, and Becoming a Loving and Logic Parent) | Education Program Information/Navigation Service Support Program | Universal | Provides education, information, and support for parents | ? | Prescott and Prescott Valley |
| Hannah’s Home (Changing Name to Hannah’s Haven of Hope) | Supplemental Resource Program | Selective | Provides shelter for pregnant teens who are homeless or in a crisis situation | 5 teens | County |
| High Country Early Intervention (includes Early Intervention Services and Developmental Play Groups) | Intervention Service | Selective | Home visitation service for families of children birth to 3 who have developmental delays or disabilities | Unsure of limit but currently serving 100 families | County |
| Mothers of Preschoolers (MOPS) | Support Program | Universal | Provides support and mentoring for mothers of preschoolers | 80+ mothers | Prescott |
| Northern Arizona Council of Governments Head Start – Ash Fork | Information/Navigation Service Education Program | Selective | Community-based education, information and support program for low | ? | Ash Fork |

| Program Name | Type of Service | Level of Service | Specific Services Provided & Population Served | Numbers Served | Geographic Boundary |
|---|--|-------------------------|---|-----------------------|----------------------------|
| | | | income families with young children and pregnant females | | |
| Northern Arizona Council of Governments Head Start – Black Canyon City | Information/Navigation Service Education Program | Selective | Community-based education, information and support program for low income families with young children and pregnant females | ? | Black Canyon City |
| Northern Arizona Council of Governments Head Start – Chino Valley | Information/Navigation Service Education Program | Selective | Community-based education, information and support program for low income families with young children and pregnant females | 74 families | Chino Valley |
| Northern Arizona Council of Governments Head Start – Prescott | Information/Navigation Service Education Program | Selective | Community-based education, information and support program for low income families with young children and pregnant females | 83 families | Prescott |
| Northern Arizona Council of Governments Head Start – Prescott Valley | Information/Navigation Service Education Program | Selective | Community-based education, information and support program for low income families with young children and pregnant females | 107 families | Prescott Valley |
| Planned Parenthood | Information/Navigation Service Supplemental Resource Program | Universal | Provides information and services (e.g., birth control and pregnancy testing) for females | No limit | County |

| Program Name | Type of Service | Level of Service | Specific Services Provided & Population Served | Numbers Served | Geographic Boundary |
|--|--|-------------------------|---|-----------------------|---|
| Preschool of Christian Academy | Preschool Service | Universal | 3-5 year olds | 240 children | Prescott, Prescott Valley, Chino Valley |
| Prescott Area Women's Shelter (PAWS) | Supplemental Resource Service | Selective | Provides emergency shelter for females and their children | ? | Prescott, Prescott Valley, Chino Valley |
| Prescott High School Teen Parents | Preschool Service | Selective | Pre-school service for children of mothers attending Prescott High School | ? | Prescott |
| Prescott Unified School District – Discovery Gardens Preschool | Preschool Service | Universal | Preschool service for 3-5 year olds | 150 children | Prescott |
| Prevent Child Abuse Arizona – Adults and Children Together Against Violence | Education Program | Universal | Education program for people who raise, care for, or teach children from birth to 9 years of age. | No limit | Prescott, Prescott Valley, Chino Valley |
| Prevent Child Abuse Arizona – Best for Babies | Information/Navigation Service | Universal | Provides information regarding support services for vulnerable young children | No limit | County |
| Prevent Child Abuse Arizona – Never Shake a Baby | Information/Navigation Service | Universal | Provides web-based information about how to soothe a crying baby. | No limit | County |
| Prevent Child Abuse Arizona – Yavapai Family Advocacy Center | Information/Navigation Service Support Program | Selective | Provides information and support to victims of violent crimes and family violence | No limit | County |
| Stepping Stones Agency | Supplemental Resource Program | Selective | Provides emergency shelter for females victimized by domestic | 16 females | County |

| Program Name | Type of Service | Level of Service | Specific Services Provided & Population Served | Numbers Served | Geographic Boundary |
|---|---|---------------------|---|----------------|---|
| | | | violence and their children | | |
| St. Luke's School | Preschool Service | Universal | Preschool service for children 3-6 years old | ? | Prescott, Prescott Valley, Chino Valley |
| Tri-City Partnership for Special Children and Families | Information/Navigation Service Support Program | Selective | Provides information and support for parents and children with special needs | No limit | Prescott, Prescott valley, Chino Valley |
| United Way Information Network | Information/Navigation Service | Universal | Provides information and navigation services to parents | No limit | County |
| Verde Valley Medical Center – Healthy Babies | Home Visitation Program | Universal | Home visitation service for new mothers | No limit | Verde Valley |
| Verde Valley Medical Center – Parenting Partnership | Home Visitation Program Prenatal Service | Universal | Home visitation service for pregnant females and families with children up to the age of 3 years | 100 families | Verde Valley |
| West Yavapai Guidance Clinic | Intervention Service | Selective Intensive | Provides intervention and counseling services for children with mild, moderate or severe behavioral health problems | No limit | West Yavapai |
| CASA for Kids, Inc. | Supplemental Resource Program | Selective | Provides assistance in recruiting Court Appointed Special Advocates for children in foster care | No limit | County |
| Yavapai College (Del E. Webb Family Enrichment Center) | Education Program Preschool Service Support Program | Universal | Provides support and education for parents of children from birth to 5 years of age | No limit | Prescott, Prescott Valley, Chino Valley |
| Yavapai Communities for Young Children | Information/Navigation Service Support Program | Universal | Provides support and information for parents of | No limit | Prescott, Prescott Valley, |

| Program Name | Type of Service | Level of Service | Specific Services Provided & Population Served | Numbers Served | Geographic Boundary |
|--|--|-------------------------|---|-----------------------|--|
| | | | young children | | Chino Valley |
| Yavapai County Community Health Services – Health Start | Home Visitation Program Prenatal Service | Universal | Home visitation service for females who are pregnant or who have young children | 300 families | County |
| Yavapai County Community Health Services – Newborn Intensive Care Program | Home Visitation Program | Selective | Home visitation service for children who have spent time in a Newborn Intensive Care Unit | 300 families | County |
| Yavapai County Community Health Services – Nurse Family Partnership | Home Visitation Program Prenatal Service | Universal | Home visitation service for pregnant females and mothers of newborns | 100 females | County |
| Yavapai County Community Health Services – Nurse Home Visitation for Children in Foster Care | Home Visitation Program | Selective | Home visitation service for children up to 3 years of age in foster care | 30 families | County |
| Yavapai County Community Health Services – WIC (Women, Infants and Children) Supplemental Nutrition Program | Education Program Supplemental Resource Program | Universal | Provides education on nutrition, healthy eating, and breastfeeding | No limit | County |
| Yavapai Regional Medical Center – Childbirth Classes | Education Program | Universal | Provides educational programs for expectant parents | No limit | Prescott, Prescott Valley, Chino Valley, Dewey |
| Yavapai Regional Medical Center – Partners for Healthy Students | Intervention Service | Selective | Provides basic medical and dental services for uninsured and underinsured children | No limit | Prescott, Prescott Valley, Chino Valley, Dewey |

| Program Name | Type of Service | Level of Service | Specific Services Provided & Population Served | Numbers Served | Geographic Boundary |
|---|--|-------------------------|---|-----------------------|---|
| Yavapai Regional Medical Center – First Steps | Proactive Surveillance Program Education Program Information/Navigation Service Telephone Follow-up | Universal | Provides education, information and support for mothers of all children born at YRMC | All births at YRMC | West Yavapai County |
| Yavapai Regional Medical Center – Healthy Families | Home Visitation Program Prenatal Service | Selective | Home visitation service that provides support and education to pregnant females and families with children up to the age of 5 | 160 families | Prescott, Prescott Valley, Chino Valley, Dewey, Humboldt, Mayer |

Notes:

The following programs/services could not be contacted due to the fact that the listed telephone number was disconnected: Arizona Early Intervention Program (AzEIP FIRST), Child and Family Support Services, New Life Pregnancy Center.

The following programs/services were not included in the above due to the fact that they are state-based and provide information either on-line or through telephone communication: Arizona Dental Foundation, Arizona DES, Arizona Department of Health, Arizona Health Care Cost Containment System (AHCCCS), Arizona Poison & Drug Information Center, Arizona Self Help, Birth to Five Helpline, Child Care Resource & Referral, Community Information & Referral, Pregnancy Riskline, and Raising Special Kids.

B. Summary of Regional Services and Programs - The following represents a summary of the information presented above. Descriptions have been provided based on the categories identified above.

- **Programs** – It appears that 35 organizations in Yavapai County are currently offering programs related to prenatal and early childhood development. A number of these organizations provide multiple programs (e.g., the Yavapai Regional Medical Center offers four different programs) resulting in a total of 54 programs.
- **Type of Service** – A review of the information presented in Appendix A indicates that there are a number of services being offered in Yavapai County.

Distribution of Types of Services Provided in Yavapai County

| Type of Service | Number |
|--|--------|
| Prenatal Services | 12 |
| Intervention Services | 4 |
| Preschool/Child Care Services | 6 |
| Proactive Surveillance Services | 1 |
| Home Visitation Services | 12 |
| Education Services | 12 |
| Support Services | 9 |
| Information/Navigation Services | 18 |
| Supplemental Resource Services | 8 |

- **Level of Service** – According to the information presented in the Program Matrix, the following distribution of Level of Service is found in Yavapai County:

Distribution of Level of Service Provided in Yavapai County

| Level of Service | Number |
|---------------------------|--------|
| Universal Services | 28 |
| Selective Services | 27 |
| Intensive Services | 2 |

- **Specific Services Provided and Populations Served** – The 54 programs found in Yavapai County provide a variety of specific services including: warmline and live telephone assistance, skills training and education, child care, home visits, medical & dental assistance, psychological assistance, information and navigation assistance, and emotional

and resource support. In addition, a review of the programs indicates that a number of specific populations are served, including the following:

Specific Populations Served by Programs

| Population | Number of Programs |
|---|---------------------------|
| Mothers with postpartum depression | 1 |
| Children (and their families) with special needs | 7 |
| Mothers/Children/Families in Crisis* | 7 |
| Kinship Families | 1 |
| Low Income ** | 8 |
| Mothers Attending High School | 1 |
| Children at Risk of Child Abuse/Maltreatment | 1 |
| Children With behavioral Health Problems | 1 |
| Children in Foster Care | 2 |
| Children Who Spent Time in Intensive Care Units | 1 |
| Children Who Are Uninsured or Underinsured | 1 |

*Four of these programs are specifically designed to serve victims of domestic violence.

**Of the XX programs listed as providing services for low income individuals, six are part of the Northern Arizona Council of Governments Head Start Program.

- ***Numbers Served*** – Of the services reporting information on capacity and/or limits on the number of clients able to be served, 28 indicate that there is no limit and 19 indicate that they have a ceiling on the number of individuals/families they can serve.
- ***Geographic Boundary*** – Information regarding the geographic boundaries for the 54 programs in Yavapai County is described below.

Geographic Boundaries for Programs in Yavapai County

| Geographic Boundary | Number |
|--|---------------|
| County Wide | 24 |
| West Yavapai | 2 |
| Verde Valley | 4 |
| Prescott, Prescott Valley & Chino Valley Area | 14 |
| Chino Valley | 3 |
| Prescott & Prescott Valley | 1 |
| Prescott | 3 |
| Prescott Valley | 1 |
| Ash Fork | 1 |
| Black Canyon City | 1 |

C. Observations

As a result of this additional regionally-assigned task, a number of recommendations were developed about the types of services that would best address the particular needs of the families and children in the region. These recommendations take into consideration: 1) the predominant risk factors experienced by families and young children in the Yavapai region as identified in this Needs and Assets report, 2) an analytical review of the risk factors that impact healthy childhood development and the practices that are most effective in ameliorating the impact of the risk factors, and 3) the supports and services currently available in the region. It is suggested that attention to the following components will strengthen the system of services in the Yavapai region that are needed for children and families to experience success.

- **Key Indicator Data** – Early childhood development may be assessed through a variety of factors including academic achievement, behavioral issues at school, impaired social-cognitive skills, aggression, and delinquency. Although it is often difficult to amass quantified information relating to these factors, one source for which data is available is the AIMS Scores for 3rd grade. Debate regarding the validity of this measure as an indicator of childhood development aside, the information reported above on this factor appears to provide some insight into the geographic variation across the county. A review of the scores indicates that, of the 15 reported districts, 7 fell below the State average in math, reading and writing. In addition, high school graduation rates across the county range from 33% - 87%. This information, in combination with other data (e.g., unemployment rates and assistance program rates) may provide guidance with regard to the level of need for specific communities within the county, especially when correlated with the current services available for these communities.

- **Implementation of Proactive Surveillance Services** – As with other community-based initiatives (e.g., policing), due to the current level of need, there is often an emphasis on providing reactive/responsive services and programs and, given resource issues, this often leads to an inability to provide additional preventative services. According to Foley, (1999)¹⁴⁸ in order to go beyond simply meeting the current need of those at risk for negative early childhood outcomes, communities must develop and implement specific preventative surveillance programs. As indicated above, the implementation of proactive surveillance services has its genesis in the field of health and has yet to be expanded to other areas such as early childhood development. As such, it is suggested that attention be given to the development and implementation of these services in the Yavapai region. For example, these services may be designed to specifically identify parents, children, and families who are most *likely* to portray negative early childhood outcomes if not provided with assistance (based on research and data). A program may then be developed to provide services to this population even though they are not currently exhibiting any key indicators. Expanding this model outside of the field of health may provide Yavapai County with significant attention.

¹⁴⁸ Foley, D., Goldfield, S., McLoughlin, J., Nagorcka, J., Oberklaid, F., & Wake, M. (1999). *A review of early childhood literature*. The Centre for Community Child Health: Canberra, Australia.

- **Coordination of Information/Navigation Services** – Of the 54 identified services in Yavapai County, 18 of them provide information and/or navigation services. Given the relatively large number of those providing information, it may be helpful to discuss the possibility of developing and implementing a coordinated program for the distribution of up-to-date information on the services available to pregnant females, families of young children, and the children themselves. The publication of resources such as *The Little Kids Book* and other similar initiatives are certainly helpful navigational tools for mothers and families, but they may be less useful for those responsible for providing current information or navigation (e.g., attempts to contact three of the services listed in *The Little Kids Book* were unsuccessful due to the telephone number being disconnected). However, there is a need to ensure that those who are directly responsible for providing people with information and navigational assistance are updated regularly on new services/programs, alterations to programs, and the cessation of programs. This is especially important given the potential impact on services and programs under the current economic climate.

- **Level of Service** – According to Osher and Huff (2006)¹⁴⁹ one of the most effective community-wide strategies for engaging families is to ensure that the level of services provided are reflective of the universal, selective, and intensive needs of the community. According to these authors, the highest level of need in any community is for universal services (i.e., those that provide general information and assistance), followed by selective services (i.e., those that provide services to specialized populations), and intensive services (i.e., those that provide services to the relatively low number of individuals requiring very specialized attention). Employing this model, suggests that the three services comprise a pyramid of delivery in which there are a high number of universal services, a moderate number of selective services, and a small number of intensive services. Although it is clear that the implementation of this model has a number of challenges for Yavapai County given its geographic diversity and population distribution, it is suggested that consideration be given to using the model as a framework to assess level of service. A review of the current level of service distribution for Yavapai County as a whole indicates that there are 28 universal services, 27 selective services, and 2 intensive services.

- **Increased Attention for Low Income Families** – There is certainly an argument to be made that additional attention should be paid to developing, implementing, and enhancing programs targeting low income families and economically disadvantaged individuals (including those dropping insurance coverage due to economic hardship). Direction regarding allocation of these programs may be found in the data presented in this report describing the economic indicators for the various communities in Yavapai County (e.g., the unemployment rate for Ash Fork has increased by 15.4% over the last three years from 12.1% in 2007 to 27.5% in 2009 - similar trends may be found in a number of other communities including Bagdad, Cordes Lakes, Mayer, and Spring Valley).

¹⁴⁹ Osher, T.W., & Huff, B. (2006). Spotlight: Strategies to engage families. National Evaluation and Technical Assistance Center for the Education of Children and Youth Who Are Neglected, Delinquent, or At-Risk. www.neglected-delinquent.org/nd/resources/spotlight

- ***Geographic Distribution of Services*** – It is suggested that a variety of information presented in this report may be employed to inform discussions regarding the effective geographic distribution of services in Yavapai County (i.e., level of service, type of service, and geographic boundary information). Although it is understood that programs are often dependent upon local funding and initiative, it is suggested that the information and data found in this report may be employed to increase interest and ownership in the development of initiatives across the region. Not surprisingly, there is currently a concentration of services in Prescott, Prescott Valley, and Chino Valley. This may be partially be the basis for the 64% of Yavapai respondents to the FTF 2008 Survey who agreed or strongly agreed that services were not available at convenient times or locations.
- ***Child Care Need*** – It is clear that given the current economic situation, attention should be played to developing and implementing a system for identifying the child care needs of Yavapai residents. Cuts to government subsidy programs as well as unemployment rates and other economic changes suggest that accurate assessments of child care need in Yavapai County are likely to be unavailable from either state or federal agencies. As such, it is suggested that identification of need, as well as eligibility (given changes to guidelines) for child care be addressed. Development of this system would allow for a more accurate determination of whether the need for child care is being addressed in Yavapai County.
- ***Child Care Teachers and Assistants*** – It is recommended that an assessment be made of child care teachers and assistants in order to determine how to increase a variety of issues including: retention, wages, and education. This is especially important given research on the impact that child care has on the positive development of young children. As such, any process designed to address these issues should be informed by the evidence-based literature on this subject.

SUMMARY & CONCLUSION

I. Summary

This report details findings from the second Needs and Assets Assessment completed in 2010 for the Yavapai Regional Partnership Council. This assessment will be used to help guide strategic planning and funding decisions of the Regional Council for the next year. While much of this report includes pertinent comparisons with data from previous years, the 2008 Needs and Assets Report for Yavapai can be used to provide additional longitudinal perspectives and background information on this region. The report itself covers a variety of areas related to positively impacting early childhood development. These areas are summarized below.

A. Demographic & Regional Overview – The Yavapai region is located in north central Arizona and encompasses all of Yavapai County with the addition of a portion of the City of Sedona that is in Coconino County. It is approximately 8,125 square miles. Included within the region are two centers of population (i.e., Central Yavapai and Verde Valley) as well as a number of major cities and towns (i.e., Prescott, Prescott Valley, Chino Valley, Dewey-Humboldt, Camp Verde, Clarkdale, Cottonwood, Jerome, and Sedona).

- **Population & Births** - Yavapai County has a current population of 215,503 and has experienced a 30% growth in population since 2000. This growth was paralleled by a similar increase (38%) in the number of children aged 0-5 living in the region. According to 2008 records, 2,216 births were recorded in Yavapai County. Almost two-thirds (66%) of the births were to mothers who identified as White, Non-Hispanic. Another 29% were to mothers who were Hispanic or Latino. In addition, 14% of births were to teen mothers (2% higher than the State average of 12%). The families who make up this region are also diverse with 66% being married couple households, 23% being female-headed with no husband present households, and 11% being male-headed with no wife present households. Although most children in Yavapai County live in these three household types, data indicate that a noticeable number of grandparents are also responsible for their grandchildren.
- **Economic Circumstances** – In regard to economic circumstances, 9% of families in Yavapai County lived below the poverty line in 2008 and this percent increased dramatically to 32% for single parent, female-headed households and to 62% for single-parent, female-headed households with children under the age of 5. The median income for female-headed households in Yavapai County was \$20,067 in 2007 compared to \$62,365 for married couples in the region. This suggests female-headed households with children constitute a high need population in the region. It is important to consider the current national economic climate when assessing the needs and assets of local regions. Data regarding net job flows, new hires, separations, and total employment exhibit noticeable trends in 2008 and 2009. Total employment numbers provide the clearest picture of economic trends in Yavapai County in 2008-2009. These numbers shows an almost steady decrease from 61,949 in the first quarter of 2008 to 54,329 in the third quarter of 2009. This amounts to an 11% decrease in employment over the seven reported quarters of 2008-2009. Many families rely on benefits to help them survive unemployment or low income levels. The number of children 0-5 receiving nutrition assistance benefits in Yavapai

County increased by 11% from January 2009 to June 2009, and saw an additional 8% increase between June 2009 and January 2010. The overall number of children enrolled increased from 2,692 to 4,985 over this one year time period. In addition, the number of women and children enrolled in the Women, Infant, and Children (WIC) program, increased from 2005 to 2009 in most communities.

- **Educational Indicators** - Research suggests that a mother's education level can have important implications for the educational progress of her child. From 2004 to 2008 Yavapai Region experienced a modest but noticeable increase in the educational level of mothers. The percentage of women giving birth who had not graduated high school decreased from 31% in 2004 to 28% in 2008. Over the same period the percent of mothers who were high school graduates increased from 32% to 34% and those who had attended or graduated from college increased from 36% to 38%. The region's percentage of mothers without a high school diploma is slightly higher than the state rate of 26%, while its percentage of mothers who have attended or graduated high school is noticeably lower than that of the state as a whole (43%). Other important educational indicators to consider include assessments of standardized test scores and graduation rates. In 2009, there was great variation by school district in the performance of the Yavapai region's 3rd grade students on the AIMS mathematics, reading, and writing exams. Of the 15 districts for which 2009 AIMS data are available, 40% or more of the students failed the mathematics exam in five districts, the reading exam in five districts, and the writing exam in four districts. Yavapai's high school graduation rates vary widely both longitudinally within schools and between schools. For example, in 2007, high school graduation rates in the Yavapai region ranged from 33% for South Verde Middle High School to 87% for Bagdad High School.

B. Early Care and Education

A majority of children aged birth to six years in the United States participate in out-of-home child care suggesting its importance to early childhood development. In addition, quality of care has shown to affect many childhood outcomes. There are seven nationally accredited early care and education centers in the Yavapai region, an increase of one from 2008. This represents 8.8% of the region's 80 licensed centers, somewhat lower than the statewide rate (10.7%). Four of the accredited centers are in Prescott and five of the accredited centers are Head Starts. With many of the accredited centers located in Prescott and an income-based eligibility requirement for Head Start, it is likely that many of the region's families do not have access to accredited centers. Fifty-seven of the 80 licensed facilities were child care centers, with a capacity of 3,906 children. Fourteen of the licensed facilities were child care centers located in public schools and together had a capacity of 1,420 children. Nine of the licensed facilities were small group homes, with a capacity of 100 children. The region's licensed facilities had a combined capacity of 5,426 children. The largest percentage (38%) of this capacity was in Prescott. The number of families in Yavapai County eligible for child care assistance has decreased 46% from 617 in January 2009 to 333 in January 2010. The number of families receiving child care assistance has decreased by 30% over the same period, from 617 in January 2009 to 333 in January 2010. The number of children in those families receiving child care assistance dropped 45%. This compares with a 39% decrease in both the number of families and the number of children receiving child care assistance statewide over that period of time.

It is suggested that these numbers may be a reflection of cuts to programming rather than an actual decrease in need. The educational credentials of the region's early childhood teachers compares favorably with those of the State as a whole. A greater percentage of Yavapai early childhood teachers have an Associate's Degree or a Bachelor's Degree and more assistants have a Child Development Associate (CDA) Credential or and Associate's Degree, than do those in the State as a whole. However, the percentage of the region's teaching assistants that have a Bachelor's Degree lags behind the State rate as does the region's percentage of teachers and teaching assistants with an Associate's Degree. A number of institutes of higher education and social service agencies offer a range of early childhood degree programs, certifications, and trainings in the region. The average wages and benefits of child care professionals in Yavapai region grew moderately from 2004 to 2007. Other important factors related to early care and education includes family support programs and issues related to child maltreatment and juvenile justice.

- ***Family Support Programs*** – Family Support encompasses a broad system of programs, services, and collaborations designed to help families function more effectively. Data from the First Things First 2008 Family and Community Survey of Yavapai parents provide insight into parents' perception of services currently available in the region and their knowledge of child development. For example, 39% of parents expressed moderate or strong dissatisfaction with how agencies that serve young children and their families work together and communicate. Although 70% of parents agree or strongly agree that is easy to locate the services they need and feel that the services they receive are of a high quality and culturally appropriate, 64% agreed or strongly agreed that services were not available at convenient times or location. Additionally, 50% of the parents felt that the services they were able to access filled only a portion of their families needs, with 40% noting a particular lack in preventive services. Larger percentages of the region's parents answered correctly on 15 of 22 questions concerning child development on the survey than did parents statewide. However, the relatively low level of some scores indicates that continued efforts are still needed in the Yavapai region to educate parents about child development.

- ***Child Abuse/Neglect, Foster Care, and Juvenile Justice*** – The number of reports and substantiations of child abuse can indicate an increased need for family support. The number of reports of child abuse fluctuated slightly from October 2007 to September 2009, ranging from 509 to 480 for each six month period in Yavapai County. The number of reports substantiated witnessed a steady decline over that same period. Foster care families and youth in the juvenile justice system may also require specific services or supports. According to the Arizona Department of Economic Security's most recent reporting, the percent of children entering foster care who had another instance of removal in the prior 12 months was 11.5%, slightly higher than the state rate of 10.5%. The percent of Yavapai children entering foster care who had been removed on another occasion in the prior 24 months was 5.2%, double the 2.6% rate of the state as a whole. According to the Administrative Office of the Courts, of the 1,630 Yavapai juveniles referred to Arizona's court system, 45% filed petitions requesting that the court assume jurisdiction. The number of a region's children who are in the juvenile justice system may to some degree be taken as a measure of the efficacy of early child development programs in a region.

C. Health

The health and safety of children is of the utmost importance to parents. With the high costs associated with health care, most families are dependent on health insurance to cover the needed services. Data from 2008 indicate that in Verde Valley, Central Yavapai, and other census-designated communities of the region, 16% of children under the age of 18 lack health insurance coverage. In addition, KidsCare enrollment dropped by 33% from February 2008 to February 2010 in Yavapai County, in part due to the state freeze on new enrollment starting in January 2010 in response to state fiscal problems. A number of other issues related to health are described below.

- **Healthy Births** – A mother’s lifestyle while pregnant as well as her access to and utilization of prenatal and perinatal care have important short-term and long-term implications for the health of her child. It is recommended that a woman have monthly medical care from the beginning of her pregnancy. Arizona Department of Health Services data from 2006 to 2008 show that the region paralleled the State as a whole in terms of the number of prenatal visits by pregnant women. However, in a number of measures of prenatal practices of pregnant women and characteristics of births, 2008 data from Yavapai region compares unfavorably with that of the State as a whole. For example, compared to the statewide average more than twice as many women in the region use tobacco during pregnancy while alcohol use is 80% higher. In addition, births in the region are almost twice as likely to have reported complications with labor and/or delivery reported, while abnormalities are almost three times as common. Low birth weight babies are at risk for serious health problems as newborns that may affect their health throughout their lives. In 2006, the region’s low birth weight ratio (71.8) was slightly higher than that of the State as a whole (71.2). In 2007, the region’s low birth weight ratio rose to 78.4 while the state’s decreased to 70.9. The region’s low birth weight ratio made a dramatic drop to 65.9 in 2008, in contrast to 75.4 statewide.
- **Immunizations** – Immunizations are health measures shown to be one of the most important contributions to public health in the past century. Data for Yavapai region zip codes for 2005, 2007, and 2009 shows a disturbing recent trend in the number of children 19-35 months old receiving two common series of vaccinations. In almost all zip codes from 2005 to 2007 there was an increase in the percentage of children receiving both the 4:3:1:3:3:1 and 4:3:1:3:3:1:4 series of immunizations. However, in 2009, there was a decrease in both immunization percentages in most zip codes. In many cases, the decreases were quite large. The decrease in immunizations rates noted may be due to a combination of factors, including reductions in state services and the reduced incomes of families.
- **Developmental Screening** – Developmental screening is another family health practice essential for ensuring optimal child development. Yavapai region surpasses Arizona in some measures of family access to early intervention services but remains behind it in others. One useful indicator of such access is the percent of infants and toddlers who have developmental delays and have been referred to early intervention services and who received evaluation/assessment within 45 days of referral. In fiscal years 2005-2007, significantly higher percentages of infants and toddlers were screened within 45 days in the region than in the state. The region has fluctuated below and above the state rate in the number of children ages 0-3 and 0-1 who had individual family service plans. The percent

of infants and toddlers with an IFSP who receive services in their home or within programs is another area in which Yavapai region's rates have surpassed statewide averages during fiscal years 2005-2007.

- ***Mortality & Injury Rates*** –The leading causes of infant death in the Yavapai region reflects the influence of both health and social factors (i.e., congenital malformations followed by conditions originating in the perinatal care period). The leading causes of deaths among children ages 1-14 in the region varied from 2004 to 2008, though the most consistent cause of death was motor vehicle accidents, with one or two reported each year since 2004. In regard to injuries, the number of Yavapai youth under 19 years of age with in-patient discharges with injury and poisoning as a first-listed diagnosis increased from 2006 to 2007, but decreased from 2007 to 2008. There were a total of 10 pre-term newborns admitted to intensive care units in Yavapai County in 2008 and another 69 newborns admitted who were born after 37 weeks (not pre-term). Details are not available on the reasons these youth were admitted.

D. Yavapai Regional Partnership Council Special Request

The Yavapai Regional Partnership Council requested that additional local information be obtained to complement the FTF Regional Needs and Assets Report. The following specific objectives were addressed:

- Compiling a comprehensive list of the characteristics of parents and children born in a 12-month period in the region
- Compiling research that identifies risk factors related to poor early childhood outcomes
- Compiling research that identifies best practices for effectively reducing risk factors
- Identifying local assets that are available to assist families in the region
- Identifying gaps in local service related to reducing the risk of poor early childhood outcomes

As a result of this additional regionally-assigned task, a number of recommendations were developed about the types of services that would best address the particular needs of the families and children in the region. These recommendations take into consideration: 1) the predominant risk factors experienced by families and young children in the Yavapai region as identified in this Needs and Assets report, 2) an analytical review of the risk factors that impact healthy childhood development and the practices that are most effective in ameliorating the impact of the risk factors, and 3) the supports and services currently available in the region. It is suggested that attention to the following components will strengthen the system of services in the Yavapai region that are needed for children and families to experience success.

- ***Key Indicator Data*** – Early childhood development may be assessed through a variety of factors. Two available data sources in Yavapai County are the AIMS Scores for 3rd grade and high school graduation rates. This information may help provide guidance with regard to the level of need for specific communities within the county, especially when correlated with the current services available.

- ***Preventative vs. Reactive Programs/Services*** – Reactive/responsive services are an important part of the service continuum in a region, as they meet the immediate need of struggling families. Preventive services, however, are also considered crucial to the ability of a community to meet the need of those at risk for negative early childhood outcomes. There is currently only one preventative surveillance program located in Yavapai County and parents in the region have noted a lack of preventative services.
- ***Coordination of Information/Navigation Services*** – There are 54 identified services in Yavapai County and 18 of them provide information and/or navigation services. Given the relatively large number of those providing information, it may be helpful to discuss the possibility of developing and implementing a coordinated program for the distribution of up-to-date information on the services available.
- ***Level of Service*** – Research suggests that one of the most effective community-wide strategies for engaging families is to ensure that the level of services provided are reflective of the universal, selective, and intensive needs of the community. A review of the current level of service distribution for Yavapai County indicates that there are 28 universal services, 27 selective services, and 2 intensive services.
- ***Increased Attention for Low Income Families*** – Additional attention should be paid to developing, implementing, and enhancing programs targeting low income families and economically disadvantaged individuals during these economic times. Direction regarding allocation of these programs may be found in the data presented describing the economic indicators for the various communities in Yavapai County in this report.
- ***Geographic Distribution of Services*** – A variety of information presented in this report may be employed to inform discussions regarding the effective geographic distribution of services in Yavapai County. There is currently a concentration of services in the Prescott, Prescott Valley, and Chino Valley, and many Yavapai families noted that services they needed were not available at convenient times or locations.

II. Current Support Strategies

During the fiscal year 2010, the Yavapai Regional Partnership Council allocated \$3,249,000 to fund a number of strategies to support young children and their families. These strategies include:

- Quality First expansion
- Increasing availability of child care health consultation
- Increasing availability of mental health consultation
- Professional development scholarships to child care professionals
- Child care scholarships to low-income families
- Matching funding for a Head Start building purchase
- Parenting Education programs
- Home Visitation programs
- Court Teams for infants and toddlers/Child Welfare Coordinator

- Nurse home visitation for high risk infants and toddlers in foster care
- Publication of *The Little Kids Book* resource directory
- Diaper drive to benefit low-income families
- Support of collaboration amongst early childhood family support programs
- Emergency food boxes
- Emergency child care scholarships

Council funding is being used by a partnership of Valley of the Sun United Way, Southwest Human Development, and Association for Supportive Child Care to increase regional participation in Quality First beyond state funded numbers by seven child care centers and three child care homes. Another council initiative to improve early childhood education has been the provision of T.E.A.C.H. professional development scholarships to 19 early childhood professionals. In addition, the council provided matching funds to the Northern Arizona Council of Governments (NACOG) Head Start for a building purchase in order to ensure the availability of Head Start services in Chino Valley.

Home visitation programs, which improve the circumstances for young children and their families, have received the council's largest funding allocation. Research and evidence-based home visitation services are provided to 415 families through contractual arrangements with Arizona Children's Association, Verde Valley Medical Center, and Yavapai Regional Medical Center. A nurse home visitation program being implemented by the Yavapai County Community Health Services is designed to improve outcomes for 30 maltreated infants and toddlers in foster care. In total the home visitation programs will receive \$1,035,000, which is 32% of the council's total allocations.

Several of the council's initiatives have funded programs that provide economic or other material resources directly to families with young children. Through an agreement with Valley of the Sun United Way in partnership with United Way of Northern Arizona, 136 child care scholarships per month are being provided to low-income families for 8 months and 187 emergency child care scholarships per month are being provided for 6 months to families impacted by the state's economic downturn. The Council is also addressing the negative impact of the economic recession on families with young children through the funding of approximately 2,084 emergency food boxes being distributed by the Central Arizona Food Bank and the Coalition for Compassion and Justice – Open Door. A council-funded diaper drive has also benefitted low-income families in the region.

Another important strategy of the Yavapai Regional Partnership Council in 2010 is increasing the availability and quality of services for young children. Yavapai County Community Health Services has received funding to hire two child care health consultants to serve up to 60 child care centers and child care homes not enrolled in Quality First. A similar initiative involving the hiring of two mental health consultants to serve up to 60 child care centers and child care homes not enrolled in Quality First will be carried out by Southwest Human Development in partnership with Prevent Child Abuse Arizona.

Systemic improvement is the goal of two other council strategies. Prevent Child Abuse Arizona has been funded to improve services to approximately 75 infants and toddlers in the child welfare system through service coordination and implementation of system improvement measures. The Yavapai Regional Office of First Things First will sponsor activities such as networking events to foster greater collaboration among early childhood family support programs in the region.

The already substantial degree of collaboration among early childhood programs in the region is evidenced by the broad partnership of organizations that has been funded by the council to conduct parenting skills programs throughout the Yavapai Region. Arizona's Children Association and Youth Count, Adults and Children Together Against Violence, Prescott Unified School District, and the Del E. Webb Family Enrichment Center are collaborating to provide parenting education classes and workshops to 732 parents across the region. The council is also attempting to expand parents' access to local services for young children through the development and distribution of *The Little Kids Book* resource directory.

III. Next Steps

It is suggested that the observations provided in the Special Request section of the report are examined in order to assess which of the report's recommendations are viable given resources and other considerations. It is suggested that a plan of action then be developed to pursue the observations that merit prioritized attention.

APPENDICES

Appendix A: Table of Regional Assets

| Program Name | Type of Service | Level of Service | Specific Services Provided & Population Served | Numbers Served | Geographic Boundary |
|---|--|-------------------------|---|------------------------------------|----------------------------|
| Arizona Postpartum Wellness Coalition – Quad Cities | Information/Navigation Service | Universal | Warmline telephone support for mothers with postpartum depression | All calls served | County |
| Arizona Support Services and Intensive Skill Training (ASSIST) | Intervention Service | Selective | Support services and skills training for children from birth to 5 (and their families) with special needs | No limit (currently serving 40-45) | West Yavapai |
| Arizona Children’s Association – Child Haven | Preschool Service | Selective | Nursery placement for children from birth to 6 whose families are facing a crisis | No limit | County |
| Arizona Children’s Association – Bright Start | Home Visitation Program Prenatal Service | Universal | Home visitation service for those who are pregnant and families with children under the age of 6 | 167 families | County |
| Arizona Children’s Association – Kare Kinship Program | Information/Navigation Service | Selective | Information and referral service for kinship families (i.e., family members raising another family members children) | No limit | County |
| Arizona Children’s Association – Parents as Teachers | Home Visitation Program Prenatal Service | Universal | Home visitation service for pregnant females and families with children up to the age of 3 | 16-20 families | Verde Valley |
| Arizona State School for the Deaf & the Blind | Information/Navigation Service Support Program | Selective | Provides information, support and navigation services for the families of children from birth to 3 years of age who have hearing or vision loss | No limit | County |

| Program Name | Type of Service | Level of Service | Specific Services Provided & Population Served | Numbers Served | Geographic Boundary |
|---|---|-------------------------------------|--|------------------------------------|--|
| Birthline | Supplemental Resource Program | Universal | Provides assistance (including baby supplies and pregnancy testing) to females who are pregnant and new mothers | No limit | Prescott, Prescott Valley, Chino Valley, Paulden |
| The Caring Presence | Supplemental Resource Program | Universal | Provides assistance for new mothers needing supplies and/or services | No limit | Prescott, Prescott Valley, Chino Valley |
| Catholic Charities Community Services | Intervention Service | Universal | Provides social services for families and young children in crisis | No limit | County |
| Chino Area Partnership | Support Program | Selective | Parent-based program providing information and support for families of children with disabilities and/or special health care needs | No limit | Chino Valley |
| Chino Valley School District – Cougar Lane Preschool | Preschool Service | Selective | Special needs preschoolers aged 3-5 | 60 children (currently serving 62) | Chino Valley |
| Community Health Center of Yavapai (includes Reproductive Health, Prenatal Care, and Primary Care) | Prenatal Service Intervention Service | Universal Selective Intensive | Provides medical and health services for pregnant females and newborns | No limit | County |
| Crisis Pregnancy Center of Prescott | Prenatal Service Supplemental Resource Program Information/Navigation Service | Universal | Provides support (e.g., clothing and accessories, pregnancy counseling) and information for pregnant females and mothers of young children | No limit | Verde Valley |

| Program Name | Type of Service | Level of Service | Specific Services Provided & Population Served | Numbers Served | Geographic Boundary |
|--|---|-------------------------|---|--|------------------------------|
| | | | experiencing a crisis | | |
| Developmental Education and Research | Education Program | Selective | Provides education programs for parents of children with disabilities | ? | County |
| Early Head Start | Home Visitation Program | Selective | Home visitation service for income eligible teen parents; 1 st time parents; parents under 24 years of age | 11 families | County |
| Family Support Services – Prescott and Humboldt Unified School Districts (includes Common Sense Parenting, Support Connections, and Becoming a Loving and Logic Parent) | Education Program Information/Navigation Service Support Program | Universal | Provides education, information, and support for parents | ? | Prescott and Prescott Valley |
| Hannah’s Home (Changing Name to Hannah’s Haven of Hope) | Supplemental Resource Program | Selective | Provides shelter for pregnant teens who are homeless or in a crisis situation | 5 teens | County |
| High Country Early Intervention (includes Early Intervention Services and Developmental Play Groups) | Home Visitation Program | Selective | Home visitation service for families of children birth to 3 who have developmental delays or disabilities | Unsure of limit but currently serving 100 families | County |
| Mothers of Preschoolers (MOPS) | Support Program | Universal | Provides support and mentoring for mothers of preschoolers | 80+ mothers | Prescott |
| Northern Arizona Council of Governments Head Start – Ash Fork | Prenatal Service Information/Navigation Service Education Program | Selective | Community-based education, information and support program for low | ? | Ash Fork |

| Program Name | Type of Service | Level of Service | Specific Services Provided & Population Served | Numbers Served | Geographic Boundary |
|---|---|-------------------------|---|-----------------------|----------------------------|
| | | | income families with young children and pregnant females | | |
| Northern Arizona Council of Governments Head Start – Black Canyon City | Prenatal Service Information/Navigation Service Education Program | Selective | Community-based education, information and support program for low income families with young children and pregnant females | ? | Black Canyon City |
| Northern Arizona Council of Governments Head Start – Chino Valley | Prenatal Service Information/Navigation Service Education Program | Selective | Community-based education, information and support program for low income families with young children and pregnant females | 74 families | Chino Valley |
| Northern Arizona Council of Governments Head Start – Prescott | Prenatal Service Information/Navigation Service Education Program | Selective | Community-based education, information and support program for low income families with young children and pregnant females | 83 families | Prescott |
| Northern Arizona Council of Governments Head Start – Prescott Valley | Prenatal Service Information/Navigation Service Education Program | Selective | Community-based education, information and support program for low income families with young children and pregnant females | 107 families | Prescott Valley |
| Planned Parenthood | Information/Navigation Service Supplemental Resource Program | Universal | Provides information and services (e.g., birth control and pregnancy testing) for females | No limit | County |

| Program Name | Type of Service | Level of Service | Specific Services Provided & Population Served | Numbers Served | Geographic Boundary |
|---|--|-------------------------|---|-----------------------|---|
| Preschool of Christian Academy | Preschool Service | Universal | 3-5 year olds | 240 children | Prescott, Prescott Valley, Chino Valley |
| Prescott Area Women's Shelter (PAWS) | Supplemental Resource Service | Selective | Provides emergency shelter for females and their children | ? | Prescott, Prescott Valley, Chino Valley |
| Prescott High School Teen Parents | Preschool Service | Selective | Pre-school service for children of mothers attending Prescott High School | ? | Prescott |
| Prescott Unified School District – Discovery Gardens Preschool | Preschool Service | Universal | Preschool service for 3-5 year olds | 150 children | Prescott, Prescott Valley, Chino Valley |
| Prevent Child Abuse Arizona – Adults and Children Together Against Violence | Education Program | Universal | Education program for people who raise, care for, or teach children from birth to 9 years of age. | No limit | Prescott, Prescott Valley, Chino Valley |
| Prevent Child Abuse Arizona – Best for Babies | Information/Navigation Service | Universal | Provides information regarding support services for vulnerable young children | No limit | County |
| Prevent Child Abuse Arizona – Never Shake a Baby | Information/Navigation Service | Universal | Provides web-based information about how to soothe a crying baby. | No limit | County |
| Prevent Child Abuse Arizona – Prescott Valley Domestic Violence Prevention Program | Information/Navigation Service Support Program | Selective | Provides information and support to victims of domestic violence and their children | No limit | County |
| Prevent Child Abuse Arizona – Yavapai Family Advocacy Center | Information/Navigation Service Support Program | Selective | Provides information and support to victims of violent crimes and family | No limit | County |

| Program Name | Type of Service | Level of Service | Specific Services Provided & Population Served | Numbers Served | Geographic Boundary |
|---|--|-------------------------|---|-----------------------|---|
| | | | violence | | |
| Stepping Stones Agency | Supplemental Resource Program | Selective | Provides emergency shelter for females victimized by domestic violence and their children | 16 females | County |
| St. Luke's School | Preschool Service | Universal | Preschool service for children 3-6 years old | ? | Prescott, Prescott Valley, Chino Valley |
| Tri-City Partnership for Special Children and Families | Information/Navigation Service Support Program | Selective | Provides information and support for parents and children with special needs | No limit | Prescott, Prescott valley, Chino Valley |
| United Way Information Network | Information/Navigation Service | Universal | Provides information and navigation services to parents | No limit | County |
| Verde Valley Medical Center – Healthy Babies | Home Visitation Program | Universal | Home visitation service for new mothers | No limit | Verde Valley |
| Verde Valley Medical Center – Parenting Partnership | Home Visitation Program Prenatal Service | Universal | Home visitation service for pregnant females and families with children up to the age of 3 months | 100 families | Verde Valley |
| West Yavapai Guidance Clinic | Intervention Service | Selective Intensive | Provides intervention and counseling services for children with mild, moderate or severe behavioral health problems | No limit | West Yavapai |
| Yavapai CASA for Kids, Inc. | Supplemental Resource Program | Selective | Provides assistance in recruiting Court Appointed Special Advocates for children in foster care | No limit | County |
| Yavapai College (Del E. Webb Family Enrichment | Education Program Support Program | Universal | Provides support and education for parents of | No limit | Prescott, Prescott Valley, |

| Program Name | Type of Service | Level of Service | Specific Services Provided & Population Served | Numbers Served | Geographic Boundary |
|--|--|-------------------------|---|-----------------------|--|
| Center) | | | children from birth to 5 years of age | | Chino Valley |
| Yavapai Communities for Young Children | Information/Navigation Service Support Program | Universal | Provides support and information for parents of young children | No limit | Prescott, Prescott Valley, Chino Valley |
| Yavapai County Community Health Services – Health Start | Home Visitation Program Prenatal Service | Universal | Home visitation service for females who are pregnant or who have young children | 300 families | County |
| Yavapai County Community Health Services – Newborn Intensive Care Program | Home Visitation Program | Selective | Home visitation service for children who have spent time in a Newborn Intensive Care Unit | 300 families | County |
| Yavapai County Community Health Services – Nurse Family Partnership | Home Visitation Program Prenatal Service | Universal | Home visitation service for pregnant females and mothers of newborns | 100 females | County |
| Yavapai County Community Health Services – Nurse Home Visitation for Children in Foster Care | Home Visitation Program | Selective | Home visitation service for children up to 3 years of age in foster care | 30 families | County |
| Yavapai County Community Health Services – WIC (Women, Infants and Children) Supplemental Nutrition Program | Education Program | Universal | Provides education on nutrition, healthy eating, and breastfeeding | No limit | County |
| Yavapai Regional Medical Center – Childbirth Classes | Education Program | Universal | Provides educational programs for expectant parents | No limit | Prescott, Prescott Valley, Chino Valley, Dewey |
| Yavapai Regional Medical | Intervention Service | Selective | Provides basic medical and | No limit | Prescott, |

| Program Name | Type of Service | Level of Service | Specific Services Provided & Population Served | Numbers Served | Geographic Boundary |
|---|--|-------------------------|---|-----------------------|--|
| Center – Partners for Healthy Students | | | dental services for uninsured and underinsured children | | Prescott Valley, Chino Valley, Dewey |
| Yavapai Regional Medical Center – First Steps | Proactive Surveillance Program Education Program Information/Navigation Service Home Visitation Program | Universal | Provides education, information and support for mothers of all children born at YRMC | No limit | Prescott, Prescott Valley, Chino Valley, Dewey |
| Yavapai Regional Medical Center – Healthy Families | Home Visitation Program Prenatal Service | Universal | Home visitation service that provides support and education to pregnant females and families with children up to the age of 5 | 160 families | Prescott, Prescott Valley, Chino Valley, Dewey |

Notes:

The following programs/services could not be contacted due to the fact that the listed telephone number was disconnected: Arizona Early Intervention Program (AzEIP FIRST), Child and Family Support Services, New Life Pregnancy Center.

The following programs/services were not included in the above due to the fact that they are state-based and provide information either on-line or through telephone communication: Arizona Dental Foundation, Arizona DES, Arizona Department of Health, Arizona Health Care Cost Containment System (AHCCCS), Arizona Poison & Drug Information Center, Arizona Self Help, Birth to Five Helpline, Child Care Resource & Referral, Community Information & Referral, Pregnancy Riskline, and Raising Special Kids.

Appendix B: References and Citations

- Aber, M.S., Nieto, M. (2000). Suggestions for the investigation of psychological wellness in the neighborhood context: Toward a pluralistic neighborhood theory. In D. Cicchetti, J. Rappaport, I. Sandler, & R.P. Weissberg (Eds.), *The promotion of wellness in children and adolescents* (pp.185-219). CWLA Press: Washington DC.
- Arterberry, M., Bornstein, M., Midgett, C., Putnick, D., & Bornsteinm M. (2007). Early attention and literacy experiences predict adaptive communication. *First Language*, 27,175-189.
- Asawa, L.E., Hansen, D.J., & Flood, M.F. (2008). Early childhood intervention programs: Opportunities and Challenges for preventing child maltreatment. *Education & Treatment of Children*, 31, 38.
- Barnett, S.W. (1995). Long-term effects of early childhood programs on cognitive and school outcomes. *Future of Children*, 5, 25-50.
- Barrera, M., & Prelow, H. (2000). Interventions to promote social support systems in children and adolescents. In D. Cicchetti, J. Rappaport, I. Sandler, & R.P. Weissberg (Eds.), *The promotion of wellness in children and adolescents* (pp. 309-339). Child Welfare League of America Press: Washington, D.C.
- Berger, L.M., Brooks-Gunn, J. (2005). Socioeconomic status, parenting knowledge and behaviors, and perceived maltreatment of young low-birth-weight children. *Social Service Review* 79 (2), 237-267.
- Blandon, A.Y., Calkins, S.D., & Keane, S.P. (2010). Predicting emotional and social competence during early childhood from toddler risk and maternal behavior. *Development and Psychopathology*, 22, 119-132.
- Blankertz, L.E., Cnaan, R.A., & Freedman, E. (1993). Childhood risk factors in dually diagnosed homeless adults. *Social Work*, 38, 587-596.
- Boocock, S.S. (1995). Early childhood programs in other nations: Goals and outcomes. *Future of Children*, 5, 94-115.
- Boushey, H. (2007). Understanding Low-Wage Work in the United State. The Mobility Agenda, March 2007. As cited in *Straining the Safety Net: Is Joblessness Overwhelming Aid Programs?* (2009, July 31). *CQResearcher*. Volume 19, Number 27. Retrieved from www.cqresearcher.com.
- Burchinal, M.R., Roberts, J.E., Hooper, S., & Zeisal, S.A. (2000). Cumulative risk and early cognitive development: A comparison of statistical risk models. *Developmental Psychology*, 36, 793-809.
- Burchinal, M.R., Roberts, J.E., Zeisal, S.A., Hennon, E.A., & Hooper, S. (2006). Social Risk and protective child, parenting, and child care factors in early elementary school years. *Parenting: Science & Practice*, 6, 79-113.

- Campbell, F. A., Pungello, E. P., Miller-Johnson, S., Burchinal, M., & Ramey, C.T. The development of cognitive and academic abilities; Growth curves from an early childhood educational experiment. *Developmental Psychology*, 37, 2001, 231-242.
- Carlson, M.J., & Corcoran, M.E. (2001). Family structure and children's behavioral and cognitive outcomes. *Journal of Marriage and family*, 63, 779-792.
- Canadian Medical Association. (2009). Recession stresses mental health system (2009, August 4). *Canadian Medical Association Journal*, 181, 3-4
- Department of Health and Human Services, Centers for Disease Control and Prevention. (n.d.). *How Vaccines Prevent Disease*. Retrieved from www.cdc.gov/vaccines/vac-gen/howvdpd.htm#why
- Center for Public Education. (2000). *Top Five Languages By State*. Retrieved from http://www.centerforpubliceducation.org/site/c.lvIXIiN0JwE/b.5057603/k.86EA/Top_five_languages_by_state.htm
- Cheng, T.C. (2010). Factors associated with reunification: A longitudinal analysis of long-term foster care. *Children and Youth Services Review* doi:10.1016/j.childyouth.2010.
- Cicchetti, D. (1993). Developmental psychopathology: Reactions, reflections, projections. *Developmental Review*, 13, 471-502.
- Clements, K.M., Barfield, W.D., Kotelchuk, M., & Wilbur, N. (2008). Maternal socio-economic and race/ethnic characteristics associated with early intervention participation. *Maternal & Child Health Journal*, 12, 708-717.
- Cohen, R.A., & Martinez, M.M. (2009, June 5). Health insurance coverage: Early release of estimates from the National Health Interview Survey, 2008. Retrieved 10/13/2009 from <http://www.cdrc.gov/nchs/data/nhis/earlyrelease/insur200906.htm>.
- Cornelius, M.D., Goldschmidt, L., Willford, J.A., Leech, S.L., Larksby, C., and Day, N.L. (2009). Body size and intelligence in 6-year-olds: Are offspring of teenage mothers at risk? *Maternal Health Journal* 13, 847-856. DOI 10.1007/s10995-008-0399-0.
- CQ Researcher (2009). Straining the Safety Net: Is Joblessness Overwhelming Aid Programs? *CQ Researcher*. Volume 19, Number 27. Retrieved from www.cqresearcher.com.
- DeVoe, J.E., Tillotson, C.J., Wallace, L. (2009). Children's receipt of health care services and family health insurance patterns. *Annals of Family Medicine*. Vol.7, No. 5.
- Dodge, K.A., Bates, J.E., & Pettit, G.S. (1990). Mechanism is the cycle of violence. *Science* 250, 1678-1683.

- Davis-Kean, P. (2005). The influence of parental education and family income on child achievement: the indirect role of parent expectations and the home environment. *Journal of Family Psychology* 19(2), 294-304
- Edwards, O.W. & Taub, G.E. *A conceptual pathways model to promote positive youth development in children raised by their grandparents. School Psychology Quarterly*, 24(3), 160-172.
- Eggleston, E.P., & Laub, J.H.(2002). The onset of adult offending: A neglected dimension of the criminal career. *Journal of Criminal Justice*, 30(6), 603-622. Doi:10.1016/S0047-2352(02)00193-9
- Essex, M.J., Klein, M.H., Slattery, M.J., Goldsmith, H.H., & Kahn, N.H. (2010). Early risk factors and developmental pathways to chronic high inhibition and social anxiety disorder in adolescence. *American Journal of Psychiatry*, 167, 40-46.
- Farrington, D., & Welsh, B.C. (2002). Family-based crime prevention. In L.W. Sherman, D. Farrington, B.C. Welsh, & D. Layton MacKenzie (Eds.), *Evidence-based crime prevention* (pp. 22-55). London: Routledge. As cited in Manning, M., Homel, R., & Smith, C. (2010). A meta-analysis of the effects of early developmental prevention programs in at-risk populations on non-health outcomes in adolescence. *Children and Youth Services Review*, 32, 506-510.
- Federal Interagency Forum on Child and Family Statistics. (2002) *America's Children: Key National Indicators of Well-Being, 2002*. Federal Interagency Forum on Child and Family Statistics, Washington, DC: U.S. Government Printing Office.
- Fewell, R. & Deutscher, B. (2003) Contributions of early language and maternal facilitation variables to later language and reading abilities. *Journal of Early Intervention*, 26, 1322-145.
- Foley, D., Goldfield, S., McLoughlin, J., Nagorcka, J., Oberklaid, F., & Wake, M. (1999). A review of early childhood literature. The Centre for Community Child Health: Canberra, Australia.
- Garland, C., Stone, N. W., Swanson, J., & Woodruff, G. (eds.). (1981) *Early intervention for children with special needs and their families: Findings and recommendations*. Westat Series Paper 11, Seattle: University of Washington.
- General OneFile Web. 22 June 2010. House Democrats Hold an Ad Hoc Hearing on the Arizona Immigration Law's Impact on Women and Children (2010). Political/Congressional Transcript Wire 11 June 2010.
- General OneFile Web. 23 June 2010. "Many pre-k teachers fall short on salaries, education levels." *Report on Preschool Programs* 37.10 (2005): 77.
- Glasford, A., and Huang, P. (2008). Immigrant women's health a casualty in the immigrant policy war. *The Women's Health Activist*, Mar/April 2008.
- Gormley, W.T. (2007). Early childhood care and education: Lessons and puzzles. In Besharov, D.J. (Ed.) *Journal of Policy Analysis and Management*. (Policy Retrospectives), 26(3), 633-671.

- Gumora, G., & Arsenio, W.F. (2002). Emotionality, emotion regulation, and school performance in middle school children. *Journal of School Psychology, 40*, 395-413.
- Guralnik, J.M., Butterworth, S., Wadsworth, M.E.J., & Kuh, D. (2006). Childhood socioeconomic status predicts physical functioning a half century later. *Journal of Gerontology Series A: Biological Sciences & Medical Sciences, 61A*, 694-701.
- Harrison, L.J., & McLeod, S. (2010). Risk and protective factors associated with speech and language impairment in a nationally representative sample of 4-to-5-year-old children. *Journal of Speech, Language & Hearing Research, 53*, 508-529.
- Heaviside, S., & Farris, E. (1993). *Public school kindergarten teacher's views of children's readiness for school*. Washington, DC: U.S. Department of Education, National Center for Education Statistics.
- Hediger, M.L., Overpeck, M.D., Ruan, W.J., & Troendle, J.F. (2002). Birthweight and gestational age effects on motor and social development. *Pediatric & Perinatal Epidemiology, 16*, 33-46.
- Hinshaw, S.P. (1992). Externalizing behavior problems and academic under-achievement in childhood and adolescence: causal relationships and underlying mechanisms. *Psychological Bulletin, 111*, 127-155.
- Hoffman, C., Crnic, K.A., & Baker, J.K. (2006). Maternal depression and Parenting: Implications for children's emergent emotion regulation and behavioral functioning. *Parenting: Science & Practice, 6*, 271-295.
- Ingoldsby, E.M., & Shaw, D.S. (2002). The role of neighborhood contextual factors on early-starting antisocial behavior. *Clinical Child and Family Psychology Review, 6*, 21-65.
- Jackson, A.P., Brooks-Gunn, J., Huang, C., & Glassman, M. (2000). Single mothers in low-wage jobs: Financial strain, parenting, and preschooler's outcomes. *Child Development, 71*(5), 1409-1423.
- Justice, L., Bowles, R., Pence Turnbull, K., & Skibbe, L. (2009). School readiness among children with varying histories of language difficulties. *Developmental Psychology, 45*(2), 460-476.
- Keating, D.P., & Hertzman, C. (1999). *Developmental Health and the wealth of nations: Social, biological, and educational dynamics*. New York: Guilford Press.
- Kenney, G. (2007). The impacts of the State Children's Health Insurance Program on children who enroll: Findings from 10 states. *Health Services Research, 42*(4), 1520-1543.
- King, T.M. Tandon, D. Macias, M.M., Healy, J.A., Duncan, P.M., Swigonski, N.L., Skipper, S.M., and Lipkin, P.H. (2010). Implementing developmental screening and referrals: Lessons learned from a national project. *Official Journal of the American Academy of Pediatrics, 125*(2)

- Knopik, V.S., Heath, A.C., Jacob, T., Slutske, W.S., Bucholz, K., Madden, P.A.F., Waldron, M., & Martin, N.G. (2006). Maternal alcohol use disorder and offspring ADHD: Disentangling genetic and environmental effects using a children-of-twins design. *Psychological Medicine*, 36, 1461-1471.
- Kowalski-Jones, L., & Duncan, G.J. (2002). Effects of participation in the WIC program on birth weight: Evidence from the National Longitudinal Survey of Youth. *American Journal of Public Health*, 92(5), 799-804.
- Lamb, M. (1998). Nonparental child care: Context, quality, correlates, and consequences. In I. Sigel & A. Renninger (Eds.), W. Damon (Series Ed.), *Handbook of child psychology: Vol 4. Child psychology in practice* (5th ed.) (pp.73-133). New York: Wiley.
- Land, K.C. (2009). The 2009 Foundation for Child Development Child and Youth Well-being Index (CWI) Report. Retrieved 6/23/09 from http://www.fcd-us.org/usr_doc/Final-2009CWIRreport.
- Lanza, S.T., Rhoades, B.L., Nix, R.L., Greenberg, M.T., & The Conduct Problems Prevention Research Group. (2010). Modeling the interplay of multilevel risk factors for future academic and behavior problems: A person-centered approach. *Development and Psychopathology*, 22, 313-335.
- Larson, K., & Halfon, N. (2009). Family income gradients in the health and health care access of US children. *Maternal and Child Health Journal* June 5 [Electronic publication ahead of print].
- Larson, K. & Halfon, N. (2010). Family income gradients in the health and health care access of US children. *Maternal Child Health Journal*. 14:332-342. DOI 10.1007/s10995-009-0477-y.
- Lee, V. E., Brooks-Gunn, J., Shnur, E., & Liaw, F. R. Are Head Start effects sustained? A longitudinal follow-up comparison of disadvantaged children attending Head Start, no preschool, and other preschool programs. *Child Development*, 61, 1990, 495-5071
- Leech, S.L., Day, N.L., Richardson, G.A., & Goldschmidt, L. (2003). Predictors of self-reported delinquent behavior in a sample of young adolescents. *Journal of Early Adolescence*, 23, 78-106.
- Maisto, A. A., German, M. L. Variables related to progress in a parent-infant training program for high-risk infants. 1979, *Journal of Pediatric Psychology*, 4, 409-419.
- Manning, M., Homel, R., & Smith, C. (2010). A meta-analysis of the effects of early developmental prevention programs in at-risk populations on non-health outcomes in adolescence. *Children and Youth Services Review* 32 (2010) 506-510.
- Martin, J.A., Kung, H.C., Matthews, T.J., Hoyert, D.L., Strobino, D.M., Guyer, B., et al. (2008). Annual summary of vital statistics, 2006. *Pediatrics*, 121(4), 788-801. Cited in Russ, S., et. al., Meeting children's basic health needs: From patchwork to tapestry, *Children and Youth Services Review* (2010), doi:10.1016/j.chilyouth.2010.03.007.

- Maschi, T., Hatcher, S.S., Schwalbe, C.S., & Rosato, N.S. (2008). Mapping the social service pathways of youth to and through the juvenile justice system: a comprehensive review. *Children and Youth Services Review, 30*, 1376-1385.
- Mohan, E., Reef, G., & Sarkar, M. (2006). Breaking the piggy bank—Parents and the high price of child care. Arlington, VA: National Association of Child Care Resources and Referral Agencies.
- Montague, M., Enders, C., & Castro, M. (2005). Academic and behavioral outcomes for students at risk for emotional and behavioral disorders. *Behavioral Disorders, 31*, 84-94.
- Murphy, David E. (2005). Improving Literacy in America: Guidelines for Research. New Have: Yale University Press.
- National Association of Early Childhood Teacher Educators (NAECTE) position statement on early childhood certification for teachers of children 8 years old and younger in public school settings (2010, June 23). *Journal of Early Childhood Teacher Education, 30*(2), 188-191.
- National Center for Education Statistics (2006). *Conditions of Education 2006*. Washington, DC: U.S. Department of Education.
- National Center for Health Statistics (2009). *Health, United States, 2008*. Hyattsville, MD: National Center for Health Statistics
- National Institute of Child Health and Human Development Early Child Care Research Network and Duncan, G. J. (2003, Sept/Oct). Modeling the impacts of child care quality on children's preschool cognitive development. *Child Development, 74*(5), 1454-1475.
- O'Connor, T., Dunn, J., Jenkins, M., Pickering, K., & Rasbash, J. (2001). Family settings and children's adjustment: Differential adjustment within and across families, *British Journal of Psychiatry, 197*, 110-115.
- Olds, D., Henderson, C., Eckenrode, J., Pettitt, L., Kitzman, H., Cole, B., Robinson, J., & Powers, J. (1998). Reducing risks for antisocial behavior with a program of prenatal and early childhood home visitation. *Journal of community Psychology, 26*, 65-83.
- Osher, T.W., & Huff, B. (2006). Spotlight: Strategies to engage families. National Evaluation and Technical Assistance Center for the Education of Children and Youth Who Are Neglected, Delinquent, or At-Risk. Retrieved from www.neglected-delinquent.org/nd/resources/spotlight.
- Peirson, L., Laurendeau, M., and Chamberland, C. (2001). Context, contributing factors, and consequences. In Prilleltensky, I., Nelson, G., and Peirson, L. (Eds.) *Promoting Family Wellness and Preventing Child Maltreatment: Fundamentals for Thinking and Action* (pp. 41-123). Toronto, Canada: University of Toronto Press Incorporated.

- Peisner-Feinberg, E. S., Burchinal, M. R., Clifford, R. M., Culkin, M. L., Howes, C., Kagan, S. L., et al (2000). *The children of the cost, quality, and outcomes study go to school: Technical report*. University of North Carolina at Chapel Hill, Frank Porter Graham Child Development Center.
- Perlman, S., & Fantuzzo, J. (2010). Timing and influence of early experiences of child maltreatment and homelessness on children's educational well-being. *Children and Youth Services Review*.
- Petitclerc, A., Boivin, M., Dionne, G., Zoccolillo, M., & Trembley, R.E. (2009). Disregard for rules: The early development and predictors of a specific dimension of disruptive behavior disorders. *Journal of Child Psychology & Psychiatry*, 50, 1477-1484.
- Pruitt, R.H., Kline, P.M. & Kovaz, R.B. (1995). Perceived barriers to childhood immunization among rural areas of the United States. *Journal of Community Health Nursing*. 12(2), 65-72.
- Public Policy Forum (2008). Child-care provider survey reveals cost constrains quality. *Public Policy Forum Research Brief*, 96(5)
- Reardon, S.F. & Galindo, C. (2006) *Patterns of Hispanic students' math and English literacy test scores in the early elementary grades*. Tempe, AZ: National Task Form on Early Childhood Education for Hispanics
- Reynolds, A. J. Effects of a preschool plus follow up intervention for children at risk. *Developmental Psychology*, 30, 1994, 787-804.
- Ricketts, S.A., Murray, E.K., & Schwalberg, R. (2005). Reducing low birthweight by resolving risks: Results from Colorado's Prenatal Plus Program. *American Journal of Public Health*, 95, 1952-1957.
- Rimm-Kaufman, S.E., Pianta, R. & Cox, M. (2000). Teacher's judgments of success in the transition to kindergarten. *Early Childhood Research Quarterly*, 15, 147-166.
- Roberts, G., Bellinger, D., & McCormick, M. (2007). A cumulative risk factor model for early identification of academic difficulties in premature and low birth weight infants. *Maternal & Child Health Journal*, 11, 161-172.
- Robinson, M., Oddy, W.H., Jianghong, L., Kendall, G.E., de Klerk, N.H., Silburn, S.R., Zubrick, S.R., Newnham, J.P., Stanley, F.J., & Mattes, E. (2008). Pre- and postnatal influences on preschool mental health: A large-scale cohort study. *Journal of Child Psychology & Psychiatry*, 49, 1118-1128.
- Russ, S., et. al. (2010). Meeting children's basic health needs: From patchwork to tapestry, *Children and Youth Services Review*. doi:10.1016/j.childyouth.2010.03.007.
- Sanders, M.R. (1999). The Triple-P Positive Parenting Program: Towards an empirically validated multi-level parenting and family support strategy for the prevention and treatment of child behavior and emotional problems. *Clinical Child and Family Psychology Review*, 2(2), 71-90.

- Selden, T.M., & Hudson, J.L. (2006). Access to care and utilization among children: Estimating the effects of public and private coverage. *Medical care trends in medical care costs, coverage, use and access: Research findings from the Medical Expenditure Panel Survey*, 44(5), I-19-I-26.
- Shonkoff, Jack P., and Phillips, Deborah A. (Eds.). (2000). *From neurons to neighborhoods: The science of early childhood development*. Washington, D.C.: National Academy Press.
- Sigelman, C. K., & Rider, E. A. (2003). *Life-span human development*. Pacific Grove, CA: Wadsworth.
- Shields, A., Dickstein, S., Seifer, R., Giusti, L., Magee, K.D., & Spritz, B. (2001). Emotional competence and early school adjustment: A study of preschoolers at risk. *Early Education and Development*, 12, 73-96.
- Singh, G. K., & Yu, S.M. (1996). US childhood mortality, 1950 through 1993: Trends and socioeconomic differentials. *American Journal of Public Health*, 97, 1658-1665. Cited in Russ, S., et. al. (2010). Meeting children's basic health needs: From patchwork to tapestry, *Children and Youth Services Review* doi:10.1016/j.chilyouth.2010.03.007.
- Spence, S.H., Najman, J.K., Bor, W., O'Callaghan, M.J., & Williams, G.M. (2002). Maternal anxiety and depression, poverty and marital relationship factors during early childhood as predictors of anxiety and depressive symptoms in adolescence. *Journal of Child Psychology & Psychiatry & Allied Disciplines*, 43(4): 457-469.
- Sroufe, L. A. (1996). *Emotional development: The organization of emotional life in the early years*. Cambridge: Cambridge University Press.
- Starfield, B., Robertson, J., & Riley, A.W. (2002). Social class gradients and health in childhood. *Ambulatory Pediatrics*, 2(4), 238-246.
- Stevens, G. (2006). Gradients in the health status and developmental risks of youngchildren: The combined influences of multiple social risk factors. *Maternal and Child Health Journal*, 10, 187-199.
- Stott, T., & Gustavsson, N. (2010). Balancing permanency and stability for youth in foster care. *Children and Youth Services Review* 32, 619-625.
- Szabo, Liz. (2010, June 8). More than 1 in 5 kids in poverty; U.S. rate is highest in two decades, analyses show. *USA Today*. News Section, Pg. 1.
- Toshiro, I. (2010). Maternal smoking during pregnancy and offspring obesity: Meta-analysis. *Pediatrics International*, 52, 94-96.
- Trentacosta, C.J., Hyde, L.W., Shaw, D.S., Dishion, T.J., Gradner, F., & Wilson, M. (2008). The relations among cumulative risk, parenting, and behavior problems during early childhood. *Journal of Child Psychology & Psychiatry*, 49, 1211-1219.

- Tronick, E. (1989). Emotions and emotional communication in infants. *American Psychologist*, 44, 112-119.
- U.S. Department of Health and Human Services (2006). *Foster care FY2002-FY2006 entries, exits, and number of children in care on the last day of each federal fiscal year*. Washington, DC: U.S. Department of Health and Human Services.
- U.S. Department of Labor. (2003). *So you're thinking of dropping out of high school*. Retrieved December 6, 2006 from <http://www.dol.gov/asp/fibre/dropout.htm>.
- U.S. Census Bureau, American Community Survey Subject Definitions (n.d.). Retrieved May 18, 2010 from <http://www.census.gov/acs/www/UseData/Def.htm>.
- Wang, Y., Beydoun, M.A., Liang, L. Caballero, B., & Kumanyika, S.K. (2008). Will all Americans become overweight or obese? Estimating the progression and cost of the US obesity epidemic. *Obesity*, 16(10), 2323-2330.
- Weissman, A. (2003). Community characteristics associated with child abuse in Iowa. *Child Abuse and Neglect*, 27, 1145-1159.
- Wise, S. (2003). Family structure, child outcomes and environmental mediators. Australian Institute of Family Studies, Research Paper #30. Melbourne, Australia.
- Wise, P.H. (2007). The future pediatrician: The challenge of chronic illness. *Journal of Pediatrics*, 151 (5 Suppl), S6-S10. Cited in Russ, S., et. al., Meeting children's basic health needs: From patchwork to tapestry, *Children and Youth Services Review* (2010), doi:10.1016/j.childyouth.2010.03.007.
- Zeanah, C. H.(2000). *Handbook of infant mental health*. New York: The Guildford Press.

Appendix C: Yavapai County Home Visiting Matrix

| Program | Healthy Babies | First Steps | Healthy Families | Parents as Teachers | Bright Start | Verde Valley Parenting Partnership | Health Start | Nurse Family Partnership | NICP | Nurse Home Visitation for Children in Foster Care | AzEIP | Early Head Start |
|------------------|--|--|--|--|--|---|---|--|---|--|---|--|
| Organization | VVMC | YRMC | YRMC | AzCA | AzCA | VVMC | YCCHS | YCCHS | YCCHS | YCCHS | High County Early Intervention | NACOG |
| Service Area | Verde Valley | All YRMC births | Prescott, PV, Chino, Paulden, Dewey, Humboldt, Mayer. | Verde Valley | Yavapai County | Verde Valley | Yavapai County | Yavapai County | Yavapai County | Yavapai County | Yavapai County | Yavapai County |
| Eligibility | <ul style="list-style-type: none"> All new mothers. | <ul style="list-style-type: none"> All births eligible. | <ul style="list-style-type: none"> Prenatally and children up to 3 months. A score of >25 on Assessment Survey. | <ul style="list-style-type: none"> All VV families pregnant -age 3. | Children prenatally up to age 6. | <ul style="list-style-type: none"> Prenatally-3 months. A score of >25 on Assessment Survey. | <ul style="list-style-type: none"> Children prenatal-2 of families w/ risk factors such as: <ul style="list-style-type: none"> Low income High risk pregnancy Previous preterm birth Alcohol/drug use Lack of social support | <ul style="list-style-type: none"> Low income First-time mothers Enrolled by 28th week of pregnancy. | <ul style="list-style-type: none"> Newborns requiring a 5-day stay at level 2 or 3 NICU. | <ul style="list-style-type: none"> Children up to age 3 in foster care. | <ul style="list-style-type: none"> Children up to age 3 w/: <ul style="list-style-type: none"> <50% dev. milestones. Conditions w/ high probability of future delay. | <ul style="list-style-type: none"> Infants and toddlers w/: Income eligible teen parents. 1st time parents. Parents under age 24. |
| Capacity | All families referred. | All families referred. | 160 families | 16-20 families | 167 families | 100 families | 300 families | 100 women | 300 families | 30 families | All families referred. | 11 families/ home visitor. |
| Service Duration | Up to 30 days postpartum. | Up to 3 months postpartum. | Up to five years. | Up to age 3. | Up to age 6. Average service duration: 3-12 months | Up to age 6. | Up to age 2. | Up to age 2. | Up to age 3. | Up to Age 3 -or- Until child no longer meets eligibility. | Up to Age 3 -or- Until child no longer meets eligibility. | Up to Age 3, provided alt. placement is established. |