Preliminary Observations and Findings from Comprehensive Analysis of Arkansas Higher Education Attainment

December 16, 2010

The following is a summary of preliminary observations and from the comprehensive analysis of Arkansas higher education attainment conducted by the National Center for Higher Education Management Systems (NCHEMS). The study is being undertaken in conjunction with Arkansas' participation in Complete College America and is funded in part by the Winthrop Rockefeller Foundation.

In conducting this analysis, NCHEMS:

- Analyzed data on Arkansas educational attainment, economy, and higher education performance
- Reviewed existing statutes and policies
- Reviewed previous studies and task force reports
- Conducted regional meetings or individual interviews with:
  - The presidents and chancellors and senior officials of all Arkansas public two-year and four-year colleges and universities and university systems and representatives of independent institutions
  - Legislative leaders and the Bureau of Legislative Research
  - Members of the Governor's Workforce Cabinet: Education, Career and Technical Education, Workforce Services, Arkansas Science and Technology Authority, Economic Development Commission, and Arkansas Association of Two-Year Colleges
  - Director and senior staff of the Arkansas Department of Higher Education and members of the Coordinating Board
  - The Arkansas Chamber of Commerce
  - Accelerate Arkansas
  - The Winthrop Rockefeller Foundation

Observations and Findings

1. Arkansas has already taken impressive actions to increase the global competitiveness of its workforce and economy toward the goal of increasing Arkansas' per capita income through creation of high-skill, high wage jobs.
   - Governor Beebe's goal to increase the average per capita income to national average
   - Task Force on Higher Education Remediation, Retention, and Graduation Rates
   - Legislation enacted in past five years
   - Institutional actions

2. Despite many well-intention state laws and policies, a significant gap remains between **policy intent** and **the realities of implementation** at the classroom level—both school and college. As a result, there are great variation in what students are actually learning and whether they are making progress through the educational pipeline depending on students' socio-economic status and across different regions and different schools and colleges.
   - K-12 preparation: Students taking "Smart Core", implementation of ACT Plan and Explore, multiple assessment and reporting requirements
   - Higher Education: Act 971 and other legislation enacted in follow up to "Access to Success Report."
3. Arkansas has a number of promising initiatives intended to improve college and career readiness and student success leading to a certificate or degree. But the state faces major challenges in moving from isolated good practice to system-wide implementation and sustainability:
   - Many initiatives depend on federal or foundation funding (e.g., "Achieving the Dream," Career Pathways, Career Coaches, Arkansas Delta Training and Education Consortium)
   - Lack of core state support (e.g., incentives in state funding policy) for initiatives makes scalability and sustainability problematic
4. Arkansas collects extensive information on multiple dimensions of the state's higher education system. The Comprehensive Arkansas Higher Education Report as mandated by Act 416 of 2009 documents the scope of current reporting requirements. The Arkansas Longitudinal Data System will expand available data even further.
   - The scope of reporting requirements, some of which date back a decade or more, can lead to a blurring of a sense of priorities—and ultimately to lack of accountability
   - A lack of capacity to use the available data and multiple reports exists at every level of the system
   - The institutional effort to report data is driving out focus on actual use of the data for decision-making at the levels that it could be most useful (department, college, university and system)
   - Many of the two-year institutions lack institutional research capacity to make use of information to improve student outcomes
5. Arkansas needs a clear statement of long-term goals for competitiveness in educational attainment that are (1) linked to the future competitiveness of the state's economy, (2) reflect the realities of the current workforce.
   - Arkansas currently produces associate degrees and bachelor's degrees at a rate far below that needed to reach even modest goals by 2025.
   - Arkansas cannot reach competitive levels of educational attainment only by educating recent high school graduates. It must get more of the adult population to complete postsecondary education.

- Producing more degrees is not enough. Arkansas must develop an economy that will attract and retain an educated, high-skill workforce. The initiatives in the state's Strategic Plan for Economic Development and promoted by Accelerate Arkansas to build a high skill, high-wage economy are critical complements to the efforts to improve college completion

6. No entity exists in Arkansas that has the capacity, authority and responsibility to provide statewide coordination and policy leadership for the state's postsecondary education system. What is needed is a capacity to:
   - Articulate and build consensus behind a state goal for increasing postsecondary educational attainment
   - Develop and implement a strategic plan for achieving long-term goals
   - Ensure clear differentiation of institutional missions and alignment of these missions with state priorities
   - Ensure that state resources (state appropriations to institutions and student financial aid and lottery funds) are utilized to advance this agenda
   - Implement systemic change in critical areas such as remedial education.
7. State finance policies (the actual allocation of state appropriations to institutions and student financial aid, including the lottery) are not fully aligned with state priorities and provide few incentives for increased degree production and college completion.
8. Arkansas must intensify its efforts to increase college and career readiness for both youth and adults. Arkansas has not defined college and career readiness in an actionable fashion.
   - Multiple, well-intentioned-- but often conflicting and over-lapping--testing and assessment mandates for secondary education, college admission, and college placement send mixed signals to students, teachers and parents about what it means to be college and career ready.
   - Disagreements about the rigor of assessments for career readiness are hindering statewide implementation (CRC, WAGE, GED, etc.) and higher education is often left out of critical decisions related to standards and cut-off scores for college readiness.
   - The state's commitment to the new Common Core State Standards and new assessments provides an opportunity for promising solutions to these issues. But pressures to lower standards and cut-off scores could undermine these initiatives' potential.
9. Despite recent well-intentioned legislation, Arkansas still needs to explore alternative assessments of college readiness and models for delivering remedial/development education to address the needs of significantly different student populations (recent high school graduates, returning adults, students lacking basic skills, students who are college-ready but needing remediation in specific areas, etc.).
10. Arkansas' two-year institutions represent a critical resource to increase the educational attainment of the state's population and prepare the current and future workforce, but the state lacks the benefits of a comprehensive community and technical college *system* available in many other states.

Factors That Affect Implementation of State Policies Intended to Improve Student Learning

This was developed to illustrate the challenges of implementing state P-12 reform but the same basic points are relevant to implementing state higher education policy.

Focus	'Outside' Factors that Affect Learning	The Context in Which Learning Takes Place	The Content of Learning	The Outcomes of Learning: What can be Evaluated?
System level	Laws, system design and [social] conditions	Institutional settings and finance	Intended curriculum: the desired situation; policy, 'standards'	System outcomes: indicators of access, equity, student flow, efficiency
School/College level	Community, school, and teaching conditions	School and classroom conditions	Delivered curriculum: classroom teaching, textbooks, hours	School or classroom outcomes: school quality, teaching quality
Student level	Student background and social/individual factors	Student motivation, interest and behaviour	Attained curriculum: what the student actually learns	Student learning outcomes: *e.g.*, as measured by tests/exams related to state standards

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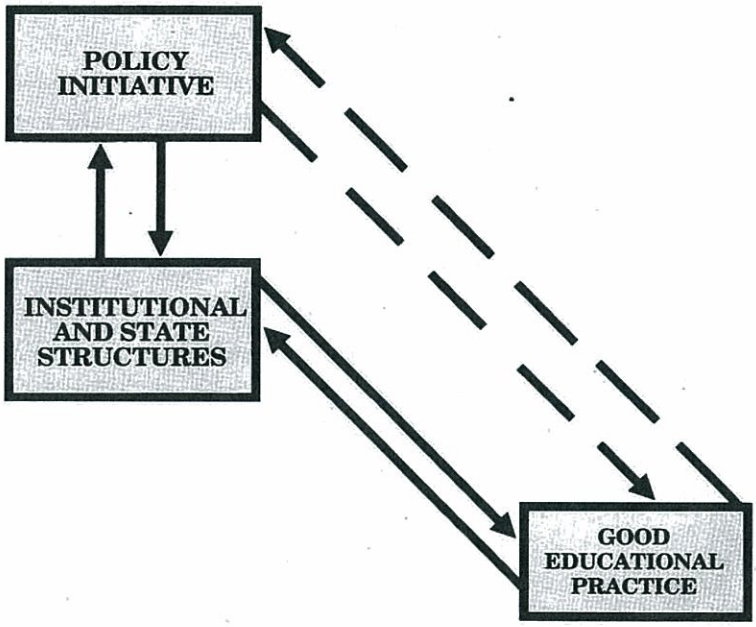
State Policy and Institutional Change

The following diagram represents the basic relationships among policy initiatives at the state level, good educational practice in colleges or universities, and the mediating influences of state and institutional structure and culture. As the diagram suggests, state policy may have some direct impact on educational practices, but could more strongly affect these practices indirectly by the way it shapes institutions and their behaviors. Finance policy is the strongest state lever for affect institutional behavior.



NCHEMS: 2010

Criteria for New Financing Policy

1. Integrates within a single policy framework all state policies that govern financing of higher education
   - The funding formula allocating general operating funds to institutions
   - State funded scholarships and grants [including the lottery funding]
   - Tuition and other student fees
2. Aligns allocation of state resources to both institutions and students with the goals stated in the higher education strategic plan
3. Sharpens and reinforces mission differentiation. Rewards different kinds of institutions – research universities, four-year teaching institutions, community colleges – for making different kinds of contributions to goals stated in the plan.
4. Is based on outcomes achieved rather than enrollments of other measures of institutional activity. The outcomes to be rewarded should include (but need not be limited to) the following:
   - Course completions
   - Increase in the number of program completions – degrees and high value certificates
   - For community colleges, intermediate measures of success
     - Students completing remedial education and enrolling in subsequent college-level courses
     - Completion of 30 credits
     - Transfer after accumulating at least 30 credits
     - For research universities, increases in the levels of funding from federal, corporate, and philanthropic sources
5. Is fully implemented over a period of time not to exceed five years
6. The criteria for the student aid portions of the funding model are:
   - Promote student participation in PSE
   - Promote student success/completion
   - Serve to maintain affordability
7. The funding model should be developed
   - With extensive consultation with (but not consensus of) the institutions (requires a change in the 1997 statute)
   - In time for formal adoption by the legislature in the 2012 session

PUBLIC CHAPTER NO. 3

FIRST EXTRAORDINARY SESSION

SENATE BILL NO. 7006

By Kyle, Woodson, Gresham, McNally, Berke, Yager, Bunch, Herron, Tate, Finney, Norris

Substituted for: House Bill No. 7008

By Michael Turner, Ferguson, Lois DeBerry, Harry Brooks, Naifeh, Fitzhugh, Harwell, Hackworth, Maddox, Montgomery, Yokley, Dunn, Shaw, Coley, Hardaway

AN ACT to amend Tennessee Code Annotated, Title 49, Chapter 7, Chapter 8, Chapter 9, relative to higher education.

BE IT ENACTED BY THE GENERAL ASSEMBLY OF THE STATE OF TENNESSEE:

SECTION 1. This act shall be known and may be cited as the "Complete College Tennessee Act of 2010".

SECTION 2. Tennessee Code Annotated, Section 49-7-202, is amended by deleting subdivision (c)(3)(C) in its entirety.

SECTION 3. Tennessee Code Annotated, Section 49-7-202, is amended by deleting subdivisions (c)(1) and (c)(2) in their entireties and by substituting instead the following language:

(1) Develop a statewide master plan for future development of public universities, community colleges and technology centers with input from the board of regents and the University of Tennessee board of trustees. The commission shall engage public universities, community colleges and technology centers for input during the creation of the master plan. The commission shall construct a statewide master plan that directs higher education to be accountable for increasing the educational attainment levels of Tennesseans. This master plan shall be reviewed and revised as deemed appropriate by the commission. This plan shall include, but not be limited to, the consideration of the following provisions:

(A) Addressing the state's economic development, workforce development and research needs;

(B) Ensuring increased degree production within the state's capacity to support higher education; and

(C) Using institutional mission differentiation to realize statewide efficiencies through institutional collaboration and minimized redundancy in degree offerings, instructional locations and competitive research;

(2) In consultation with the respective governing boards, approve institutional mission statements concurrent with the adoption of each revised statewide master plan. An institutional mission statement shall characterize the institution by stating its distinctiveness in degree offerings by level and focus and student characteristics including, but not limited to, non-traditional students and part-time students, and shall address institutional accountability for the quality of instruction, student learning and, where applicable, research and public service to benefit Tennessee citizens. Nothing contained in this act shall prohibit any institution from pursuing research and related activities that are consistent with the institution's mission;

(3) Make recommendations to the governing boards of the various institutions and the governor, as well as the general assembly, through the Education Committees of the Senate and the House of Representatives on the implementation of the master plan. Funding recommendations made by the commission shall reflect the priorities of the approved master plan. In developing the master plan, the commission shall engage regional and statewide constituencies to ensure that the document supports the development of a public agenda to provide higher education opportunities to benefit Tennessee citizens. In doing so, the commission shall establish a master plan that requires a broad degree of regional cooperation between postsecondary institutions with secondary institutions and business, civic and community leaders;

(4) Develop, after consultation with the board of regents and the University of Tennessee board of trustees, policies and formulae or guidelines for fair and equitable distribution and use of public funds among the state's institutions of higher learning that are consistent with and further the goals of the statewide master plan. The policies and formulae or guidelines shall result in an outcomes-based model. In developing an outcomes-based model, the commission shall consider factors unique to community colleges. This model shall emphasize outcomes across a range of variables that shall be weighted to reinforce each institution's mission and provide incentives for productivity improvements consistent with the state's higher education master plan. These outcomes shall include end of term enrollment for each term, student retention, timely progress toward degree completion and degree production and may also include, but not necessarily be limited to, student transfer activity, research, and student success, as well as compliance with transfer and articulation principles in subsection (e) of this section;

(A) The policies and formulae or guidelines as are developed by the commission shall include provisions for capital outlay programs and operating expenses, and shall be utilized to determine the higher education appropriations recommendation. The commission shall submit the revised higher education funding formula to the office of legislative budget analysis and the comptroller of the treasury no later than December 1 of each year. The commission shall also report any projected tuition increases for the next academic year to the office of legislative

budget analysis and the comptroller of the treasury no later than December 1 of each year. The office of legislative budget analysis and the comptroller of the treasury shall each provide comments on the higher education funding formula to the chairs of the education and finance, ways and means committees of both houses of the general assembly;

(c) Notwithstanding any provision of law to the contrary, the board of regents, in consultation with the Tennessee Higher Education Commission, shall establish a comprehensive statewide community college system of coordinated programs and services to be known as the Tennessee community college system.

(1) It is the legislative intent that the Tennessee community college system operate as a unified system with individual campuses, teaching centers and teaching sites as necessary to maximize the effectiveness of the system in enhancing student success and increasing the numbers of college degrees held by Tennesseans.

SECTION 9. Tennessee Code Annotated, Title 49, Chapter 9, is amended by adding the following language as a new part:

Section 49-9-1501. The purpose of this part is to accomplish the following:

(1) Foster economic growth by significantly increasing the number of science, technology, engineering and mathematics doctoral students produced at the University of Tennessee, Knoxville and other state universities;

(2) Accelerate the state's economic and workforce development efforts in the field of energy sciences and engineering;

(3) Support the continued development of clean energy technologies and jobs in Tennessee;

(4) Leverage for the purposes set forth herein the existing capabilities of the University of Tennessee, Knoxville and Oak Ridge National Laboratory;

(5) Elevate the status of the University of Tennessee, Knoxville as a top tier national research institution through expanded collaboration with the Laboratory;

(6) Encourage and facilitate the development of an interdisciplinary program in energy science and engineering at the University of Tennessee, Knoxville that shall provide students an opportunity to undertake transformative research activities;

(7) Promote and develop support for collaborative research and development by interdisciplinary teams of University of Tennessee, Knoxville, and other state university faculties and the Oak Ridge National Laboratory in energy-related fields;

(8) Foster and promote research in science, technology, engineering and mathematics that encourages entrepreneurial opportunities in Tennessee; and

(9) Expand the number of University of Tennessee, Knoxville graduate students conducting their graduate research and education at the Oak Ridge National Laboratory working with laboratory scientific staff and using the unique facilities of the laboratory

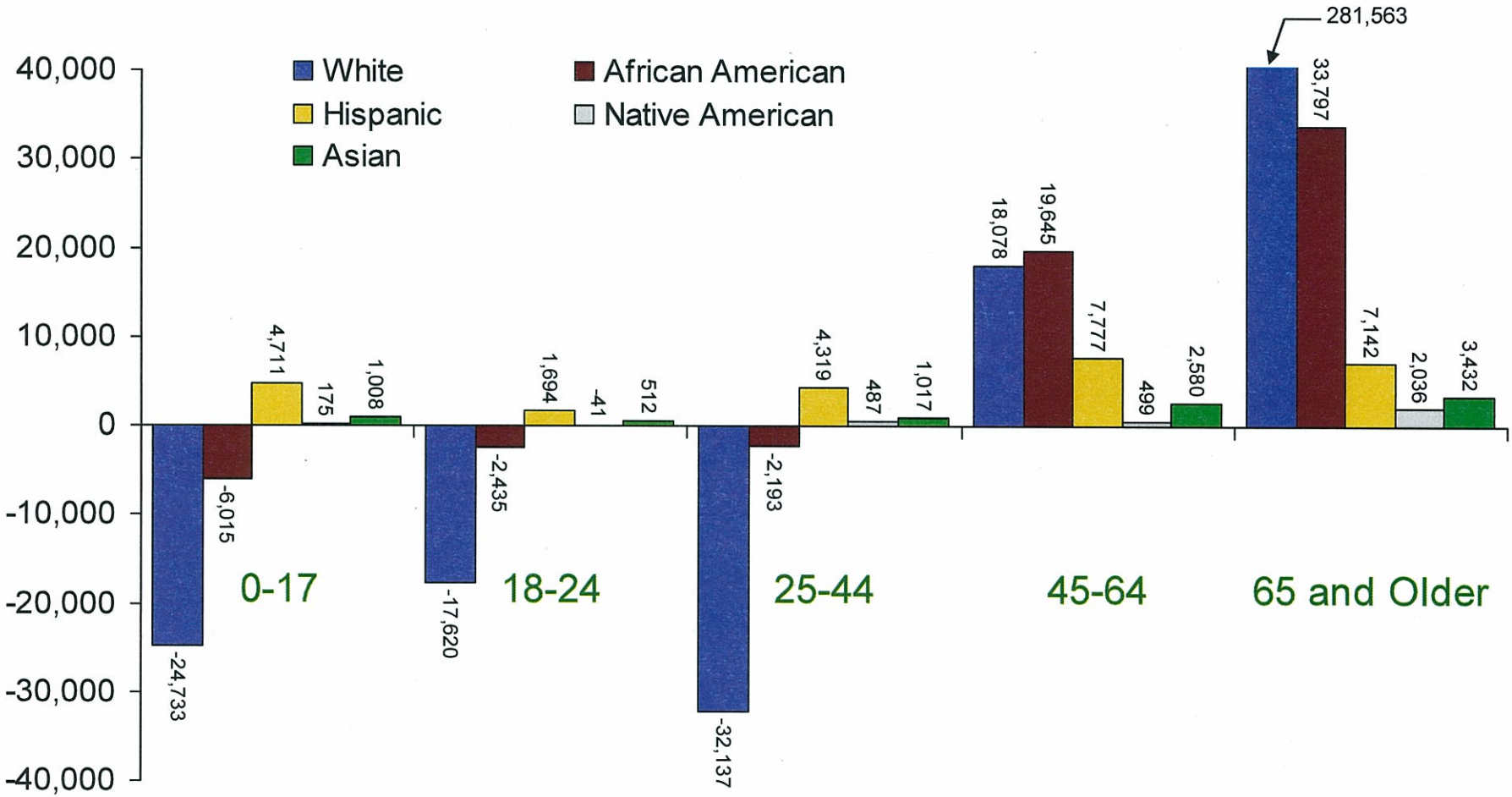
Background Illustrations

Presentation on

NCHEMS Policy Audit

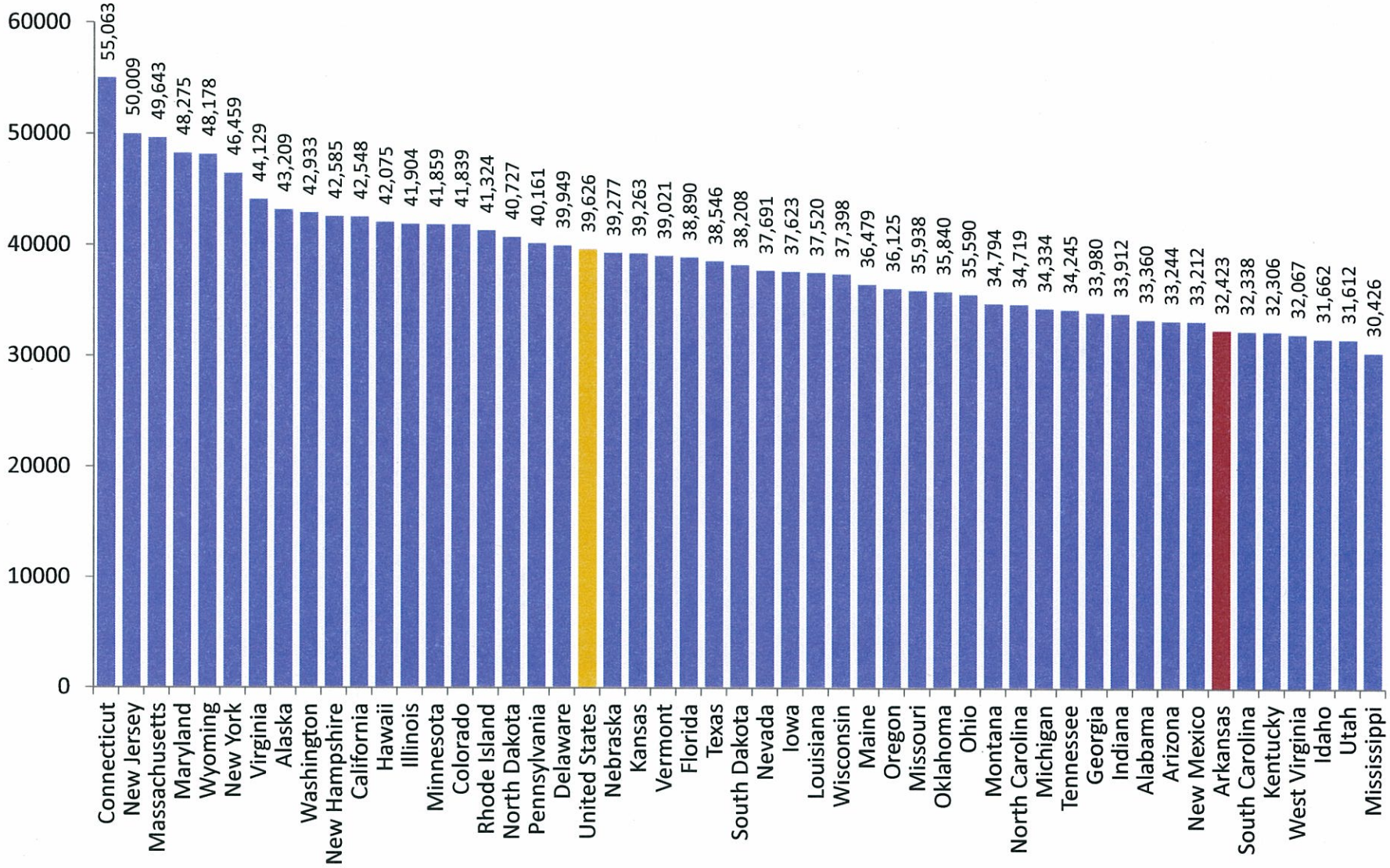
16 December 2010

Projected Change in Arkansas Population By Age and Race/Ethnicity, 2006-25



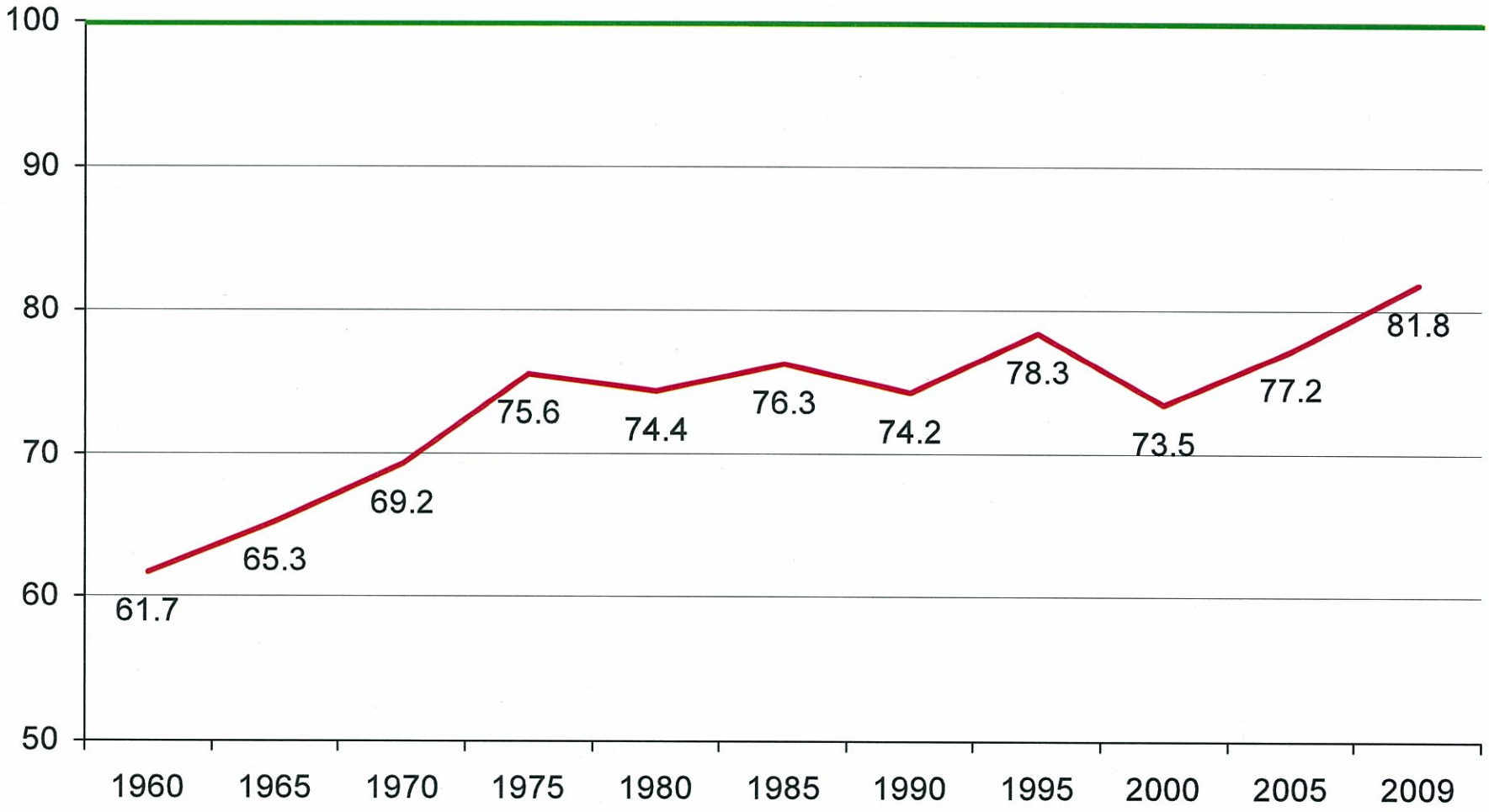
Source: Arkansas Department of Economic Security and Commerce

Personal Income per Capita (2009)



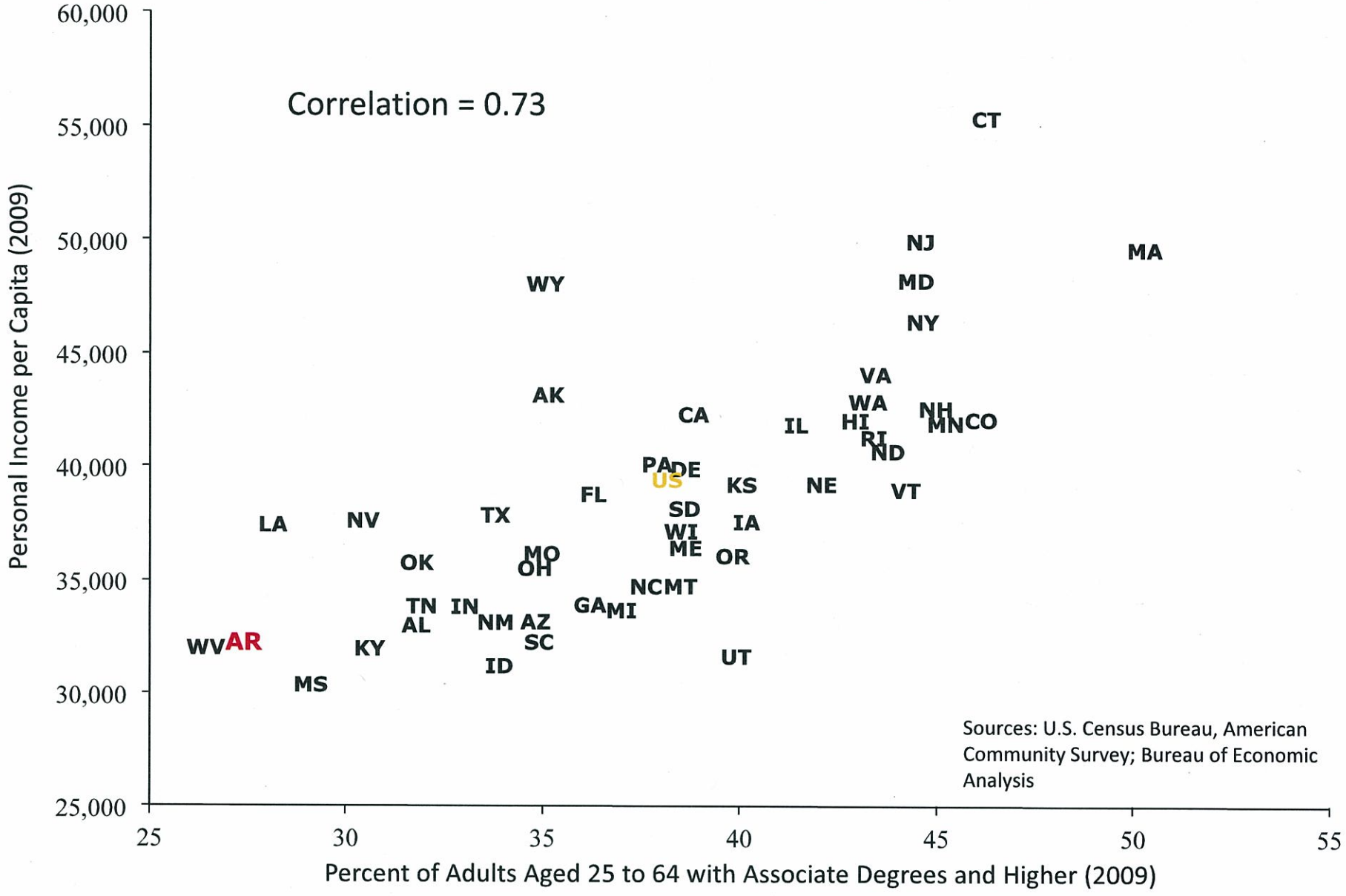
Source: Bureau of Economic Analysis

Per Capita Personal Income as a Percent of U.S. Average—Arkansas, 1960-2005

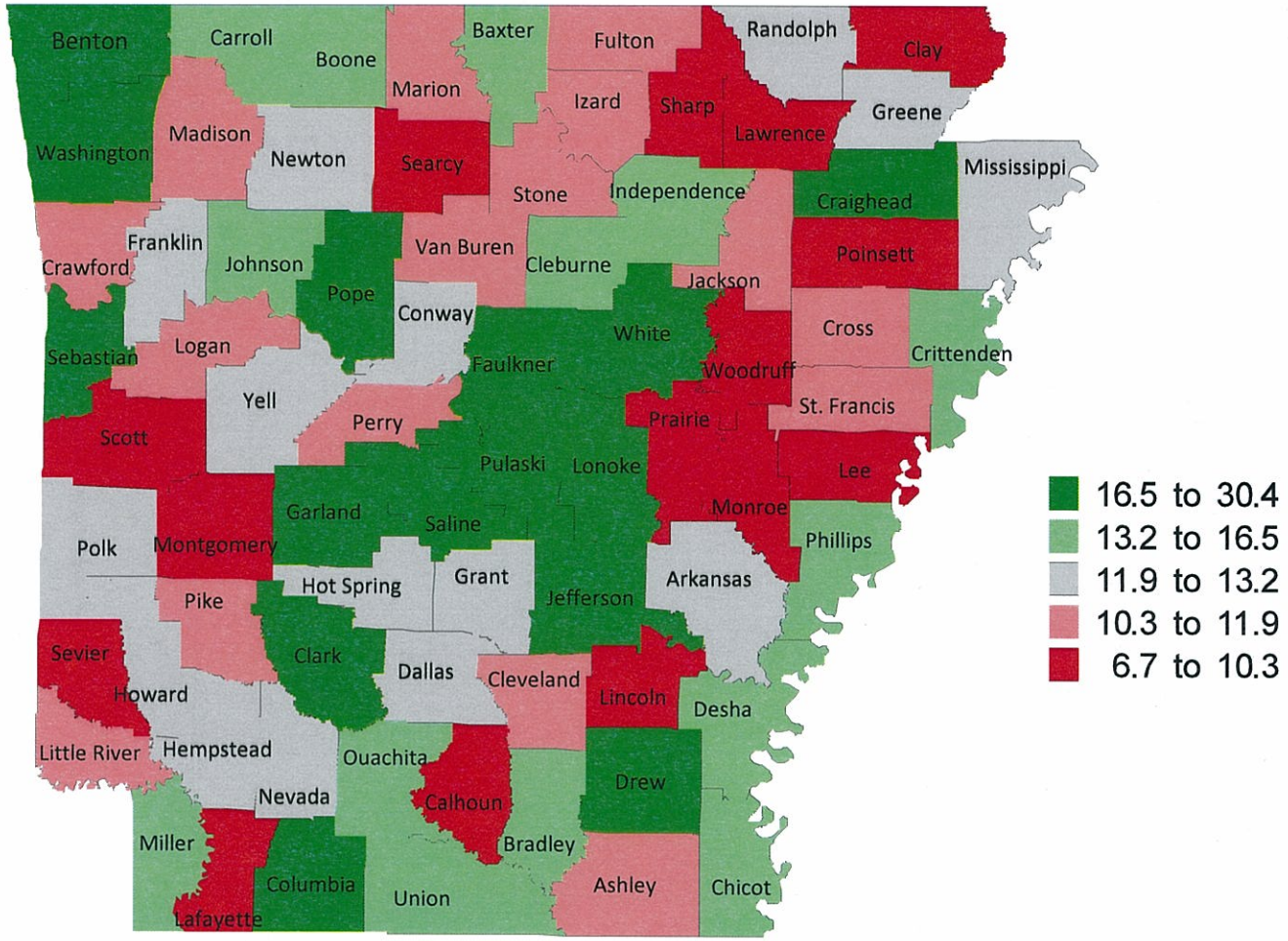


Source: Regional Economic Information System, Bureau of Economic Analysis, U.S. Department of Commerce

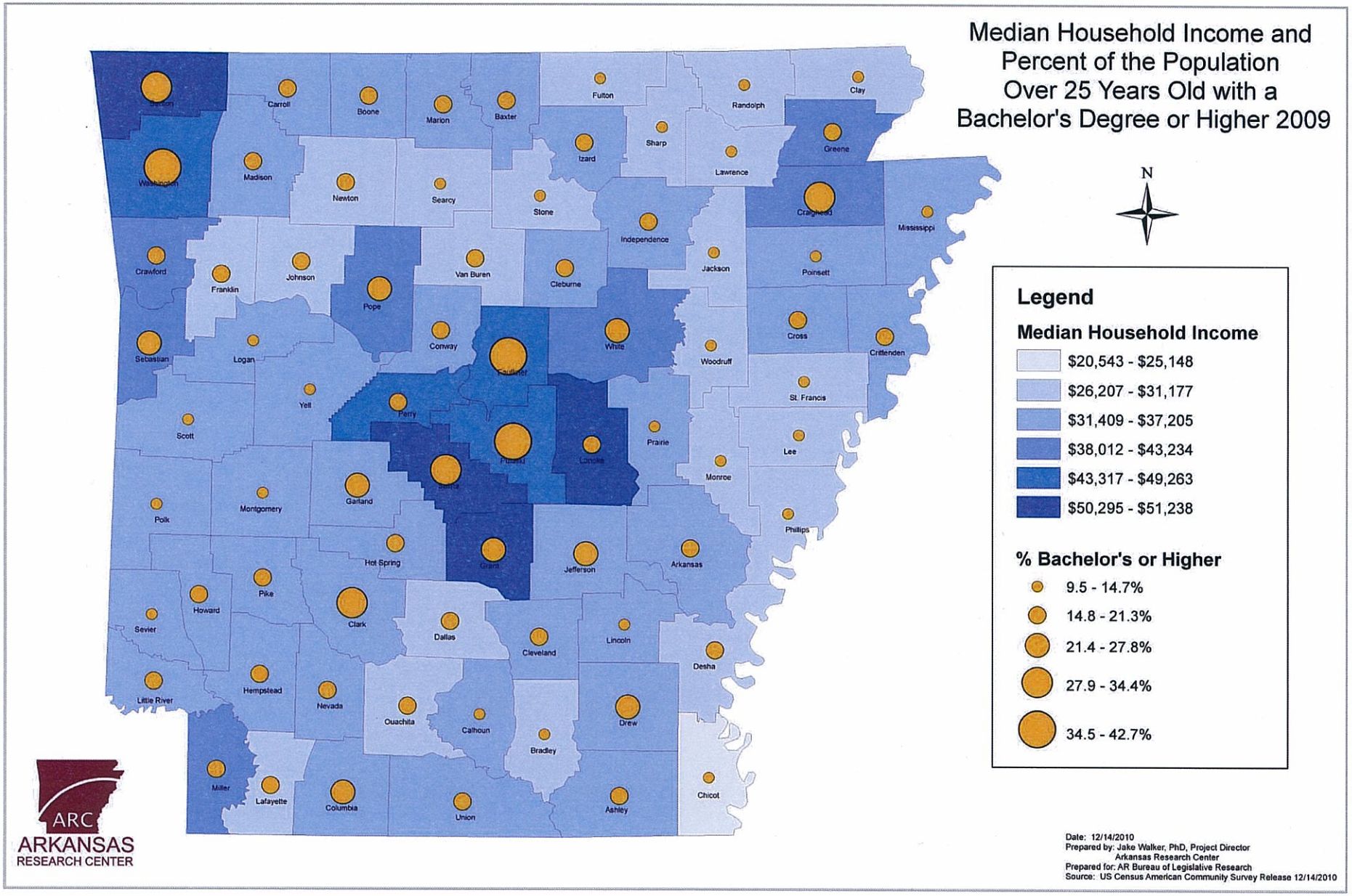
Relationship Between College Attainment and Personal Income per Capita (2009)



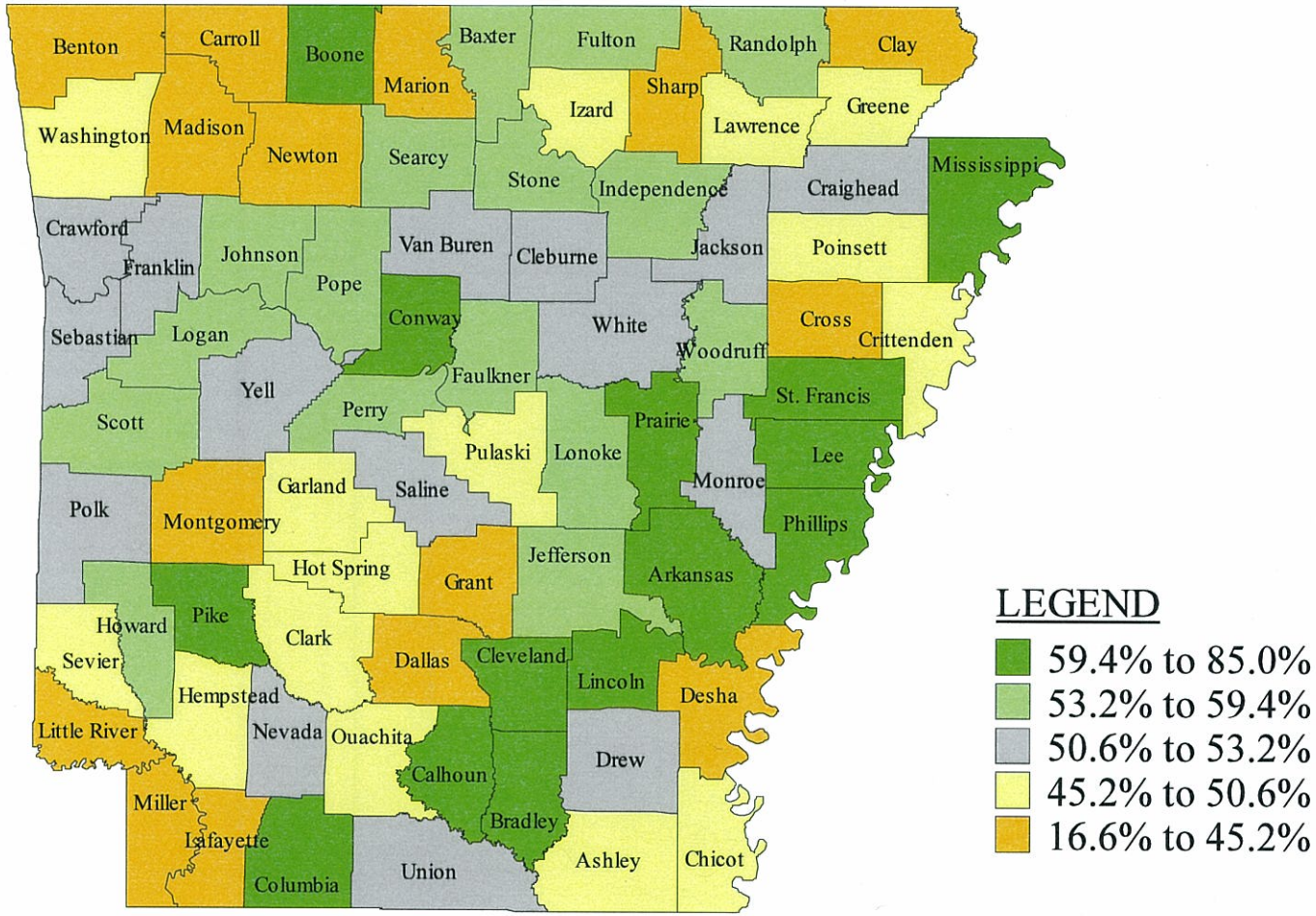
Percent of Population Age 25-64 with a Bachelor's Degree or Higher, 2000



Arkansas = 18.2%
Source: U.S. Census Bureau


Median Household Income and Percent of the Population Over 25 Years Old with a Bachelor's Degree or Higher 2009
N
Legend
Median Household Income
$20,543 - $25,148
$26,207 - $31,177
$31,409 - $37,205
$38,012 - $43,234
$43,317 - $49,263
$50,295 - $51,238
% Bachelor's or Higher
9.5 - 14.7%
14.8 - 21.3%
21.4 - 27.8%
27.9 - 34.4%
34.5 - 42.7%
Carroll
Boone
Marion
Baxter
Fulton
Randolph
Clay
Madison
Newton
Searcy
Stone
Izard
Sharp
Lawrence
Greene
Crawford
Franklin
Johnson
Pope
Van Buren
Cleburne
Independence
Jackson
Craighead
Poinsett
Mississippi
Sebastian
Logan
Conway
White
Woodruff
Cross
Crittenden
Yell
Perry
St. Francis
Scott
Prairie
Lee
Monroe
Polk
Montgomery
Garland
Hot Spring
Jefferson
Arkansas
Phillips
Pike
Howard
Sevier
Clark
Dallas
Cleveland
Lincoln
Desha
Little River
Hempstead
Nevada
Ouachita
Calhoun
Bradley
Drew
Miller
Lafayette
Columbia
Union
Ashley
Chicot
ARC
ARKANSAS
RESEARCH CENTER
Date: 12/14/2010
Prepared by: Jake Walker, PhD, Project Director
Arkansas Research Center
Prepared for: AR Bureau of Legislative Research
Source: US Census American Community Survey Release 12/14/2010

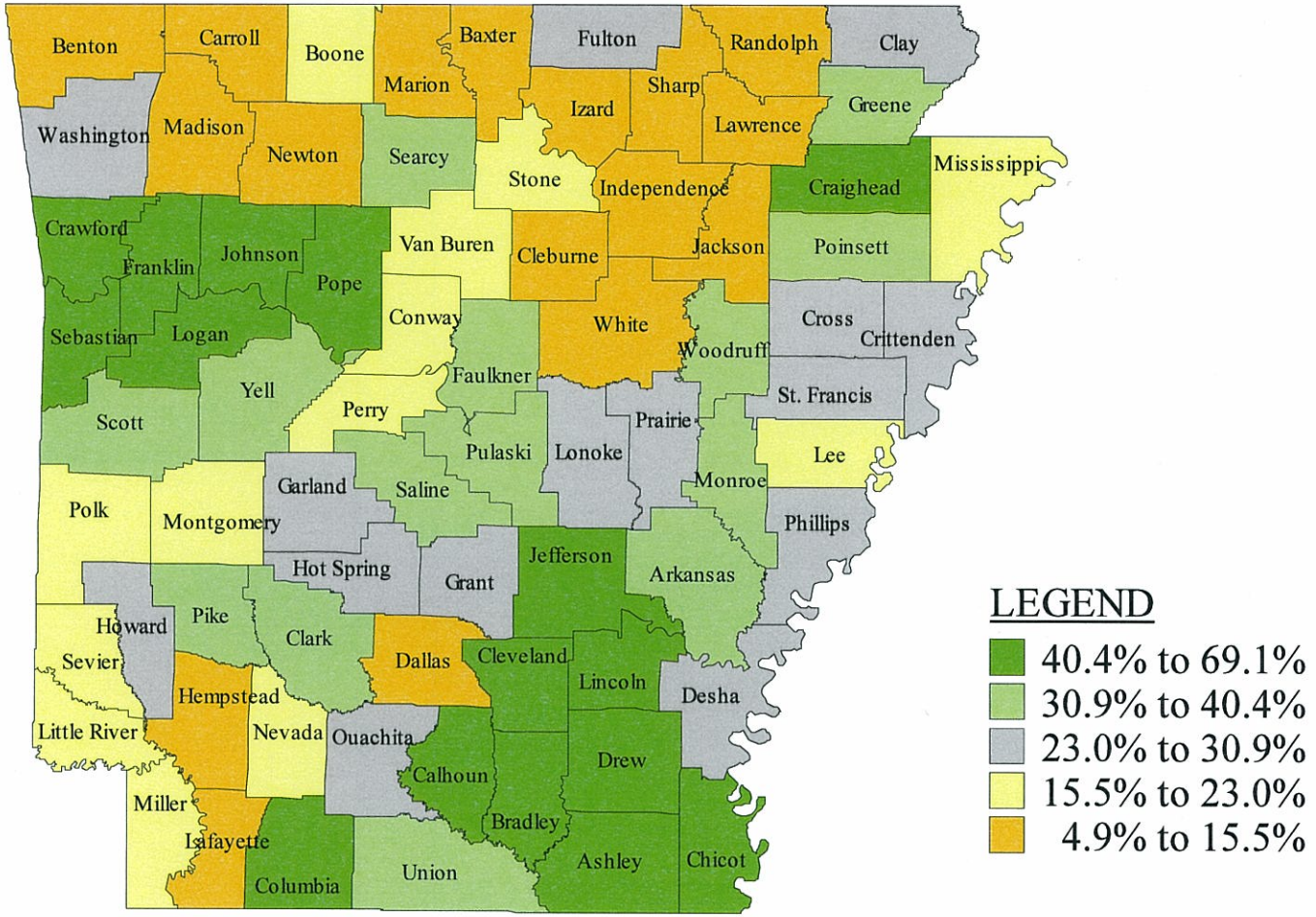
First-Time Freshman Directly from High School Attending Public Colleges as a Percent of Public High School Graduates, Fall 2010



Arkansas = 48.7%

Source: Arkansas Department of Higher Education.

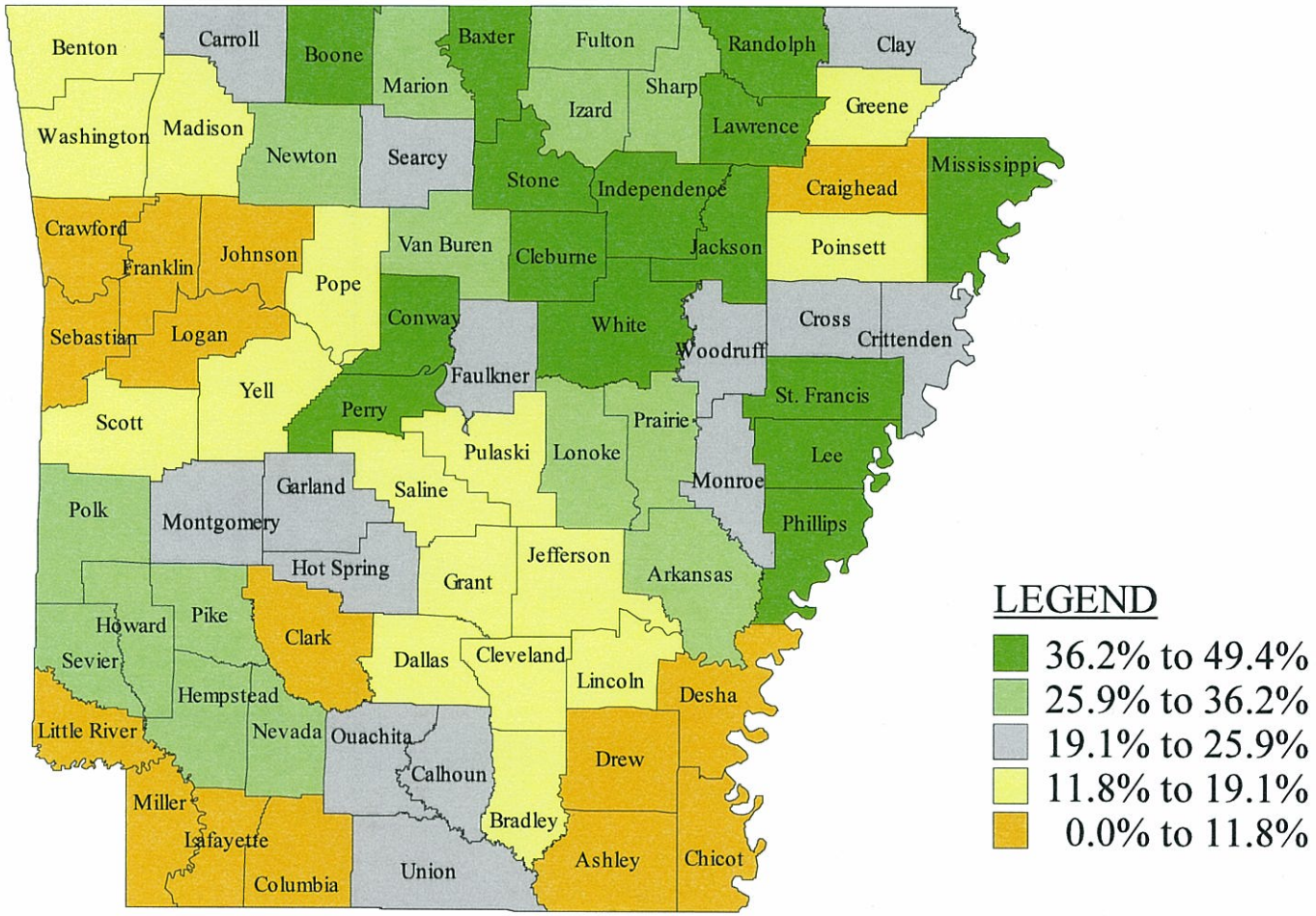
First-Time Freshman Directly from High School Attending Public Four-Year Colleges as a Percent of Public High School Graduates, Fall 2010



Arkansas = 29.0%

Source: Arkansas Department of Higher Education.

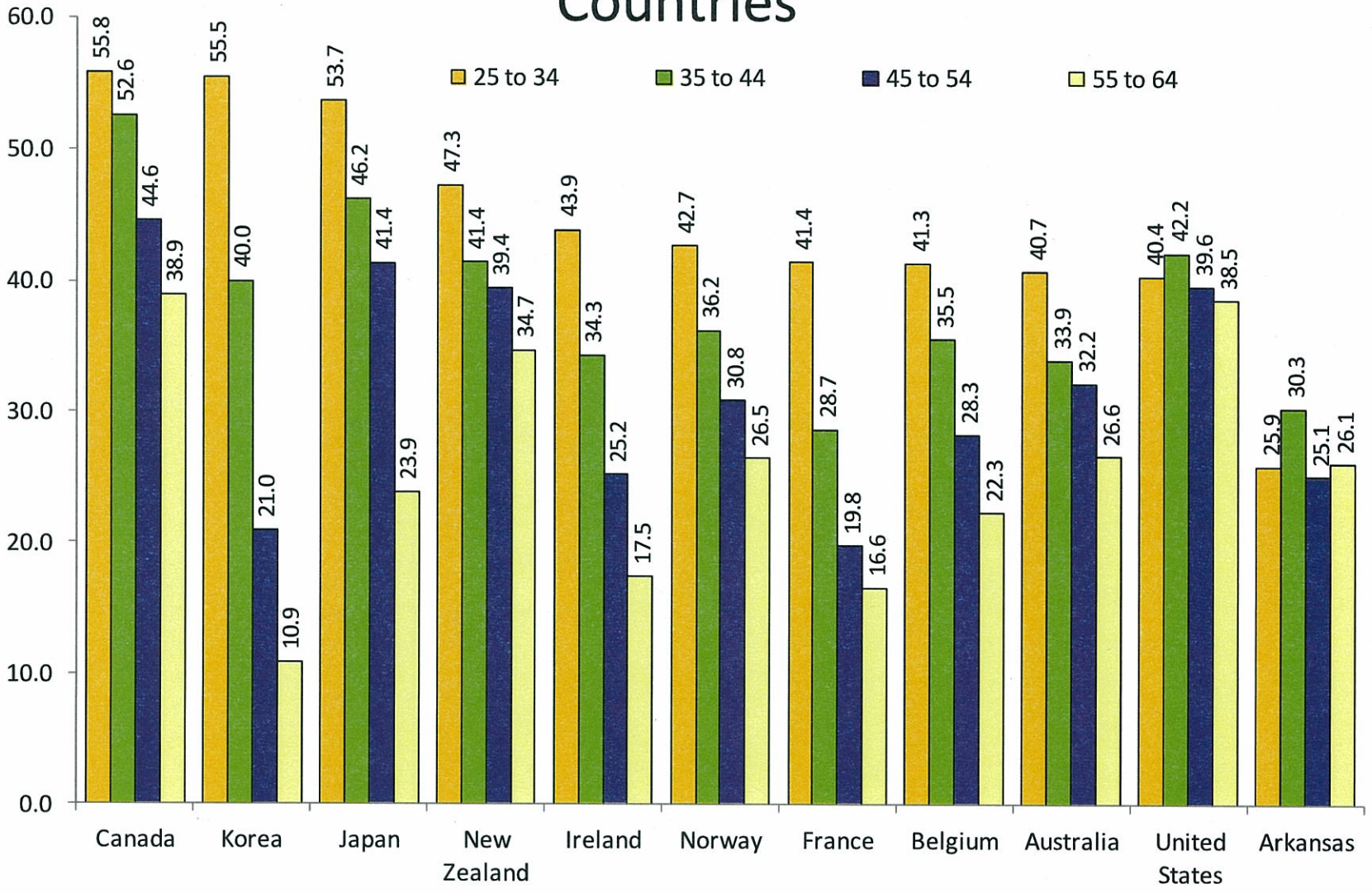
First-Time Freshman Directly from High School Attending Public Two-Year Colleges as a Percent of Public High School Graduates, Fall 2010



Arkansas = 19.7%

Source: Arkansas Department of Higher Education.

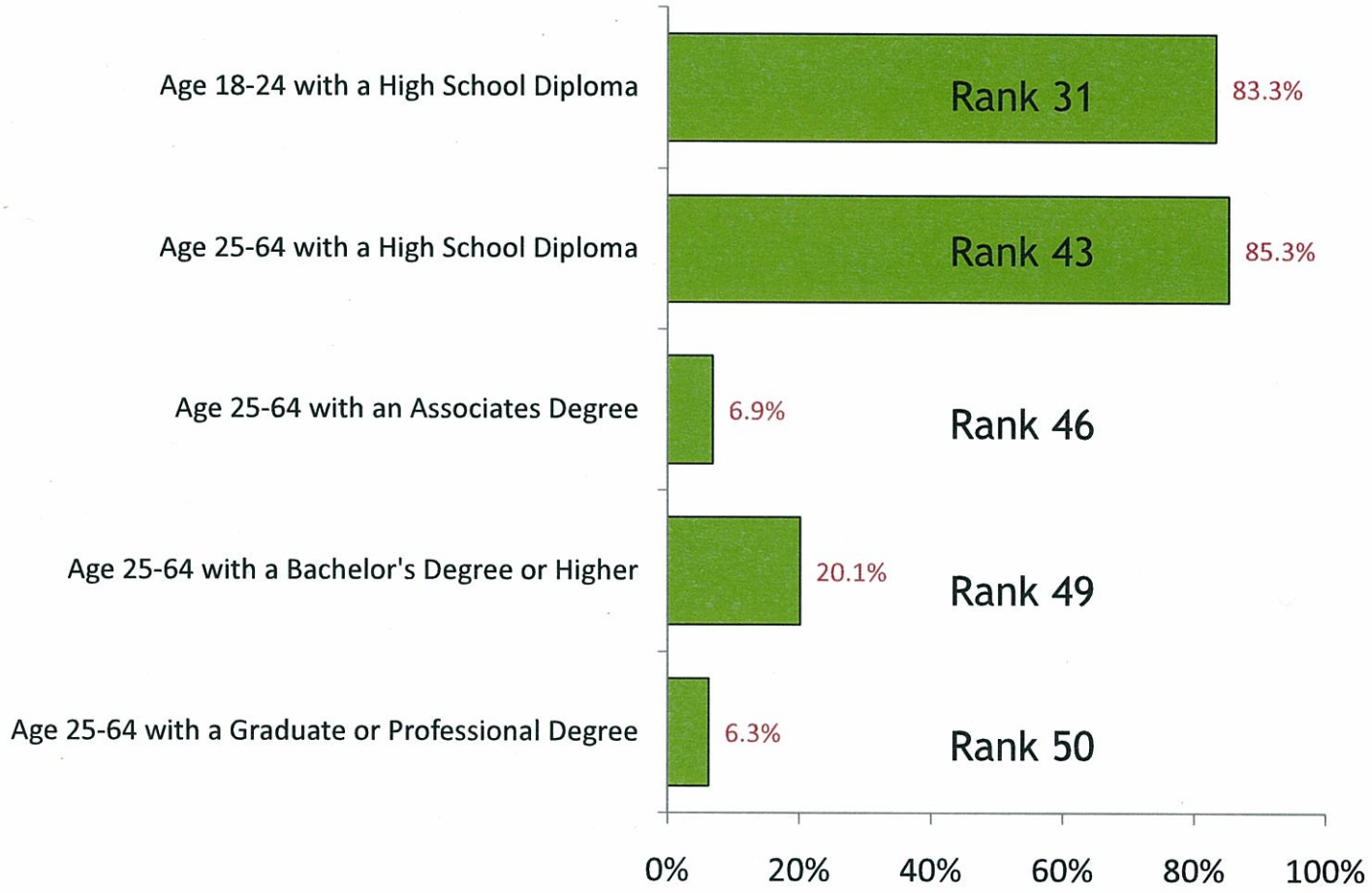
Percent of Adults with an Associate Degree or Higher by Age Group – Arkansas, U.S. & Leading OECD Countries



Source: OECD, Education at a Glance 2009

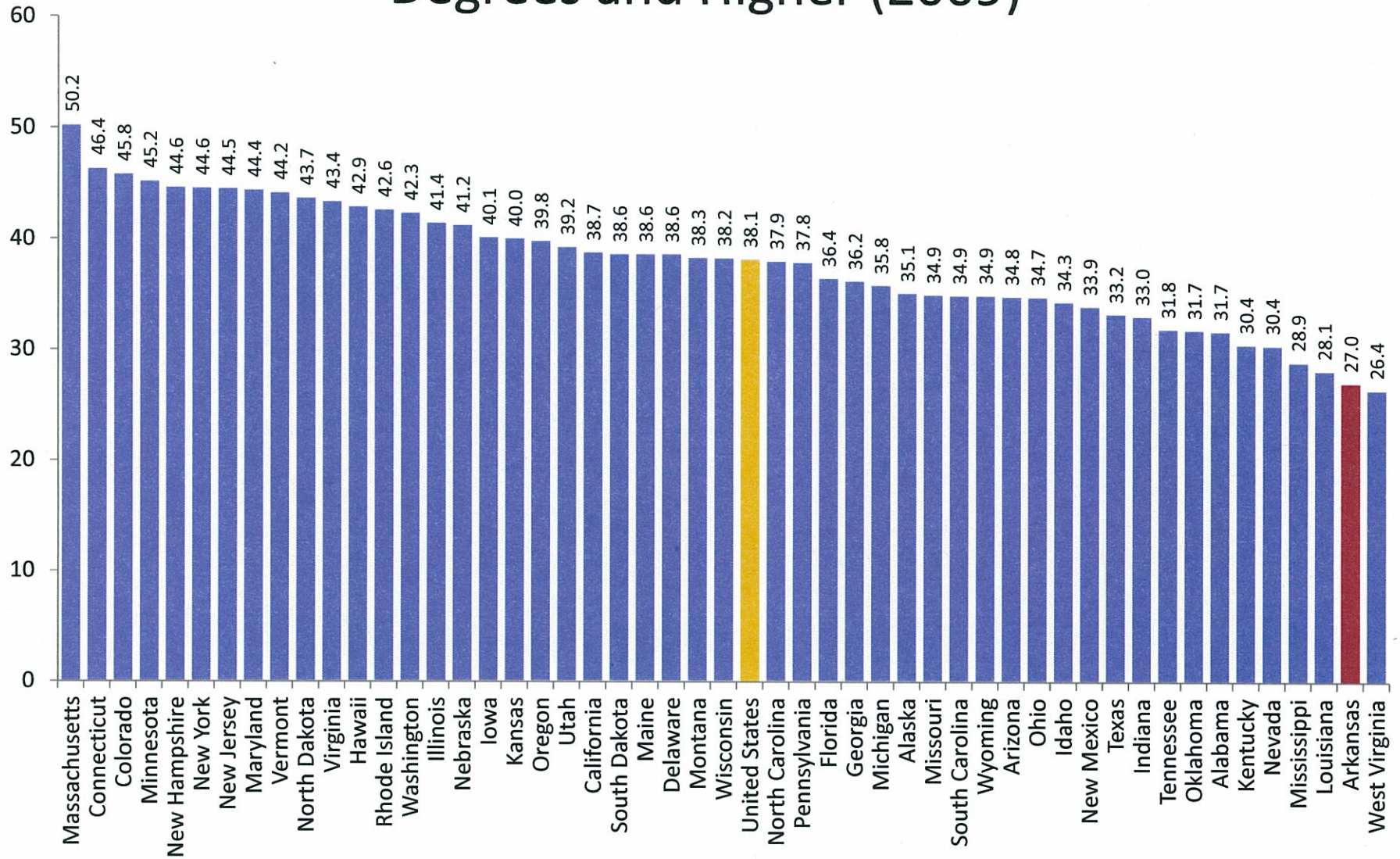
Educational Attainment and Rank Among States

Arkansas, 2009



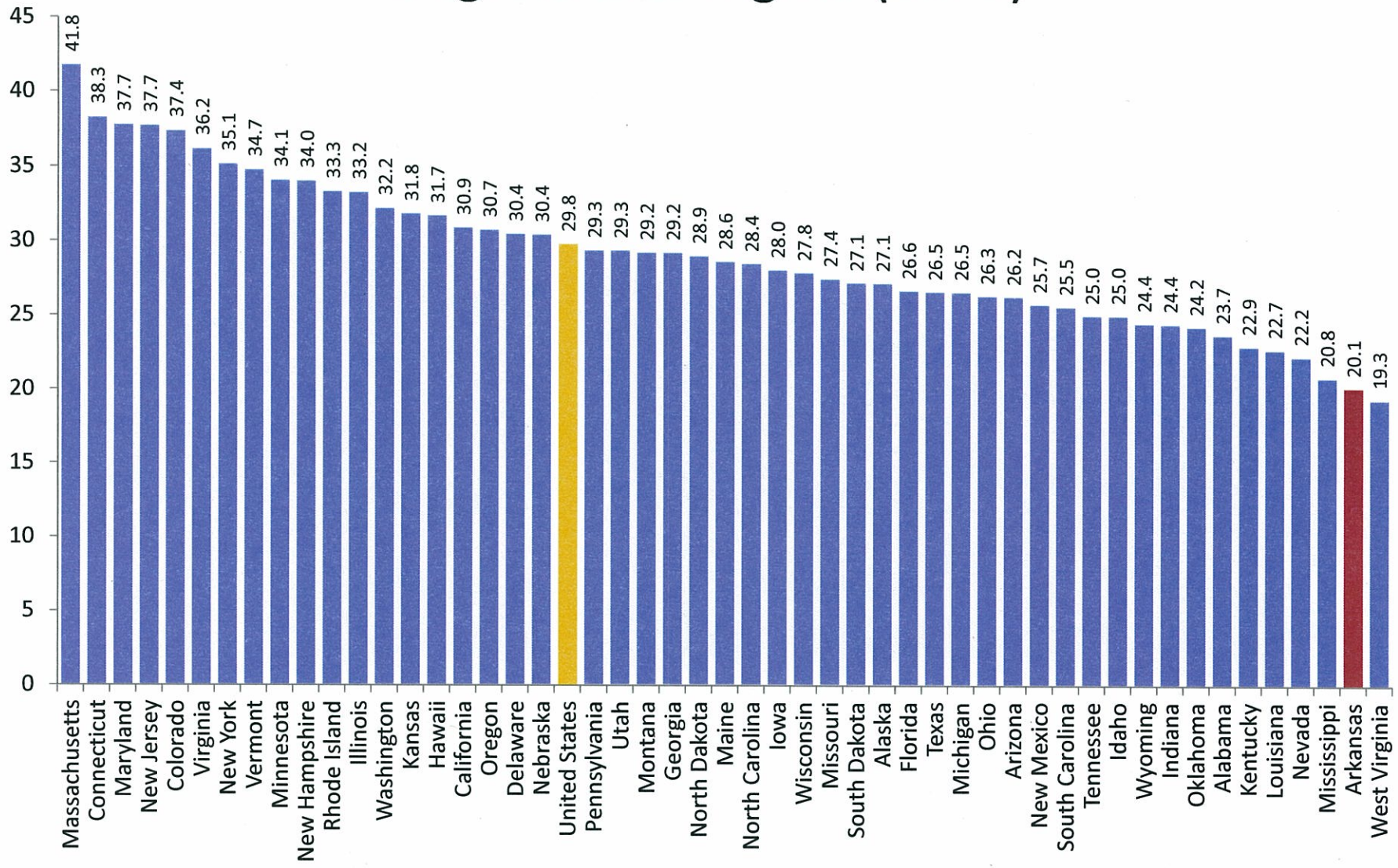
Source: U.S. Census Bureau, 2009 American Community Survey.

Percent of Adults Aged 25 to 64 with Associates Degrees and Higher (2009)



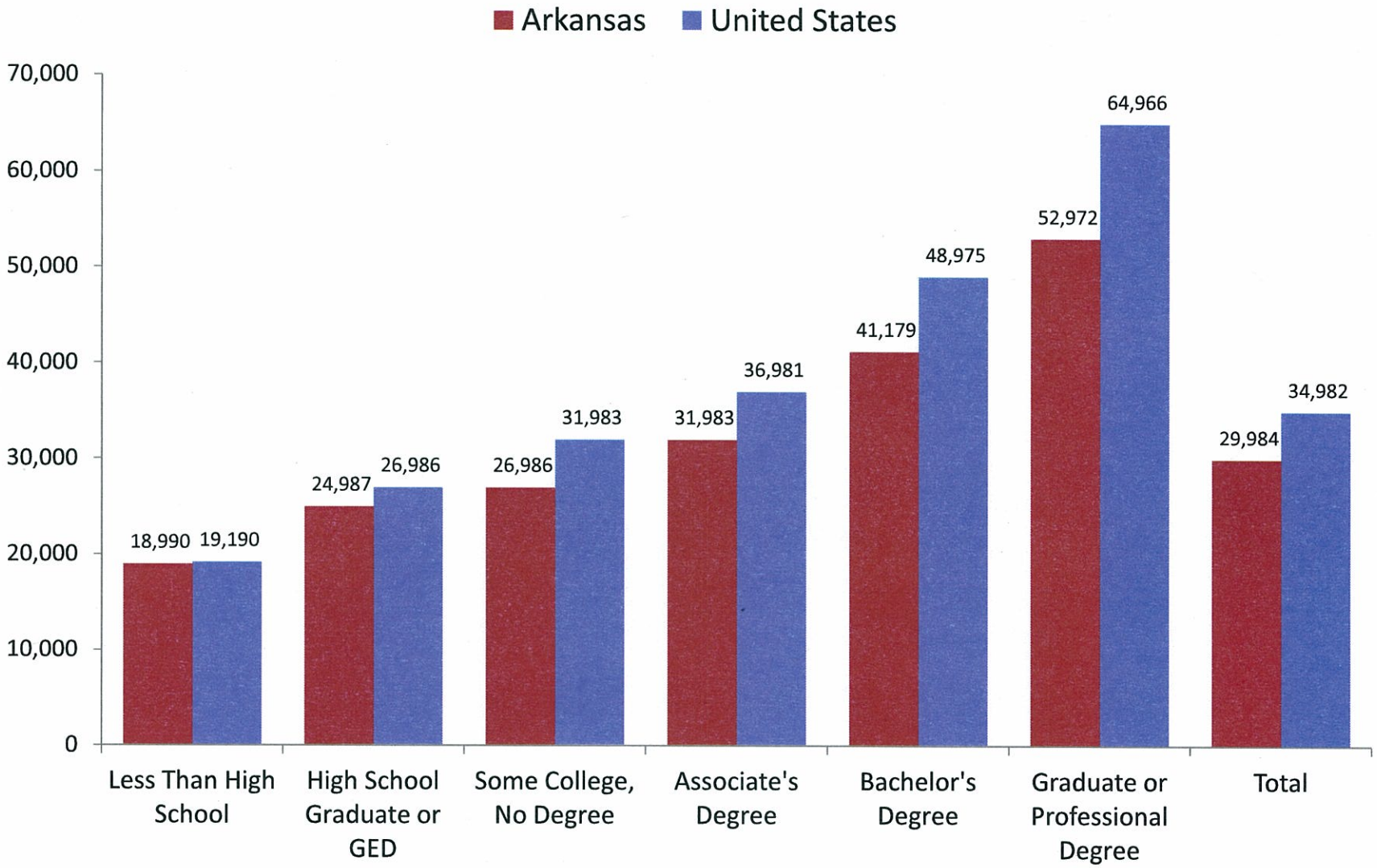
Source: U.S. Census Bureau, 2009 American Community Survey

Percent of Adults Aged 25 to 64 with Bachelor's Degrees and Higher (2009)



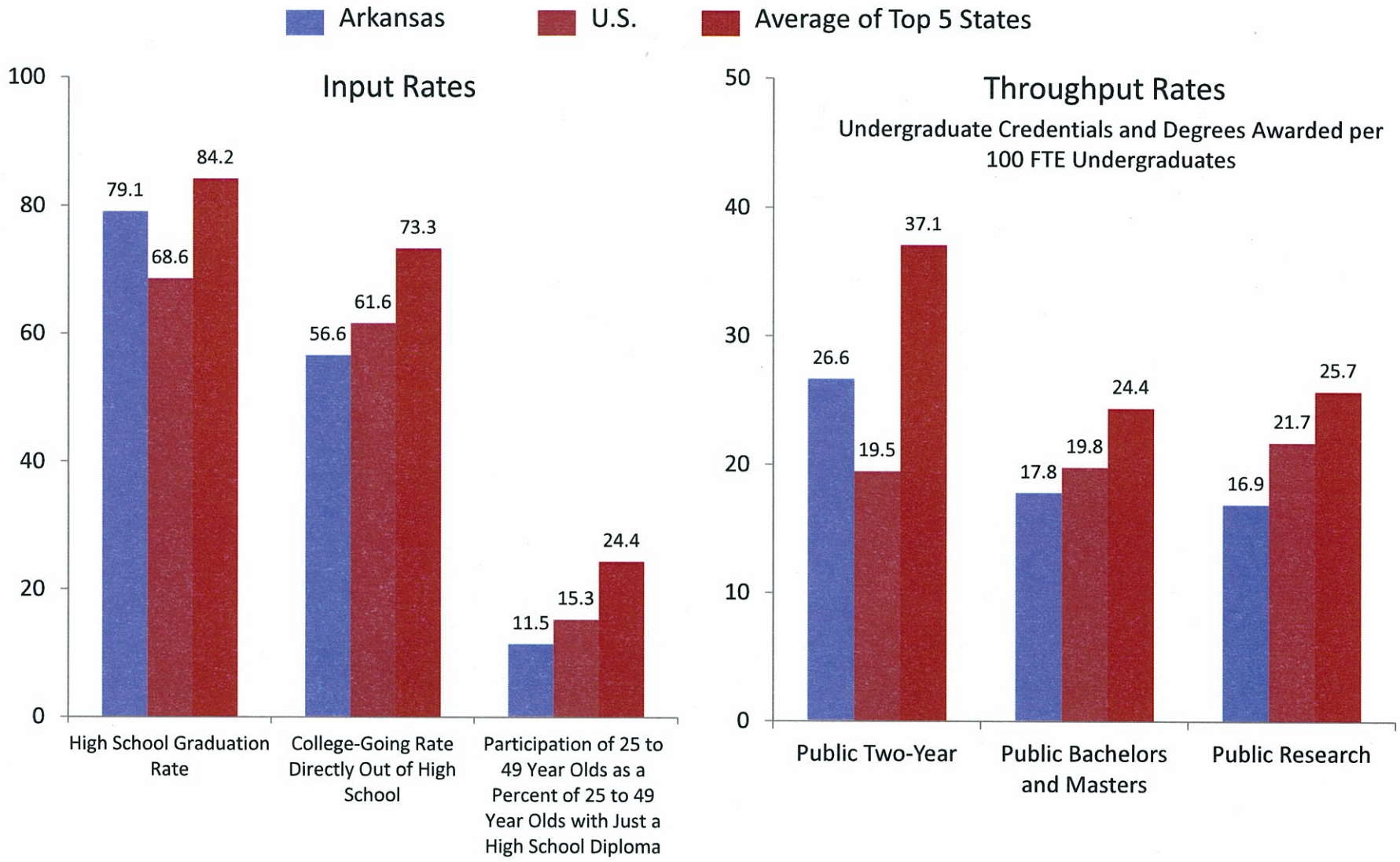
Source: U.S. Census Bureau, 2009 American Community Survey

Median Annual Earnings of 25 to 64 Year Olds by Level of Education Attained (2009)



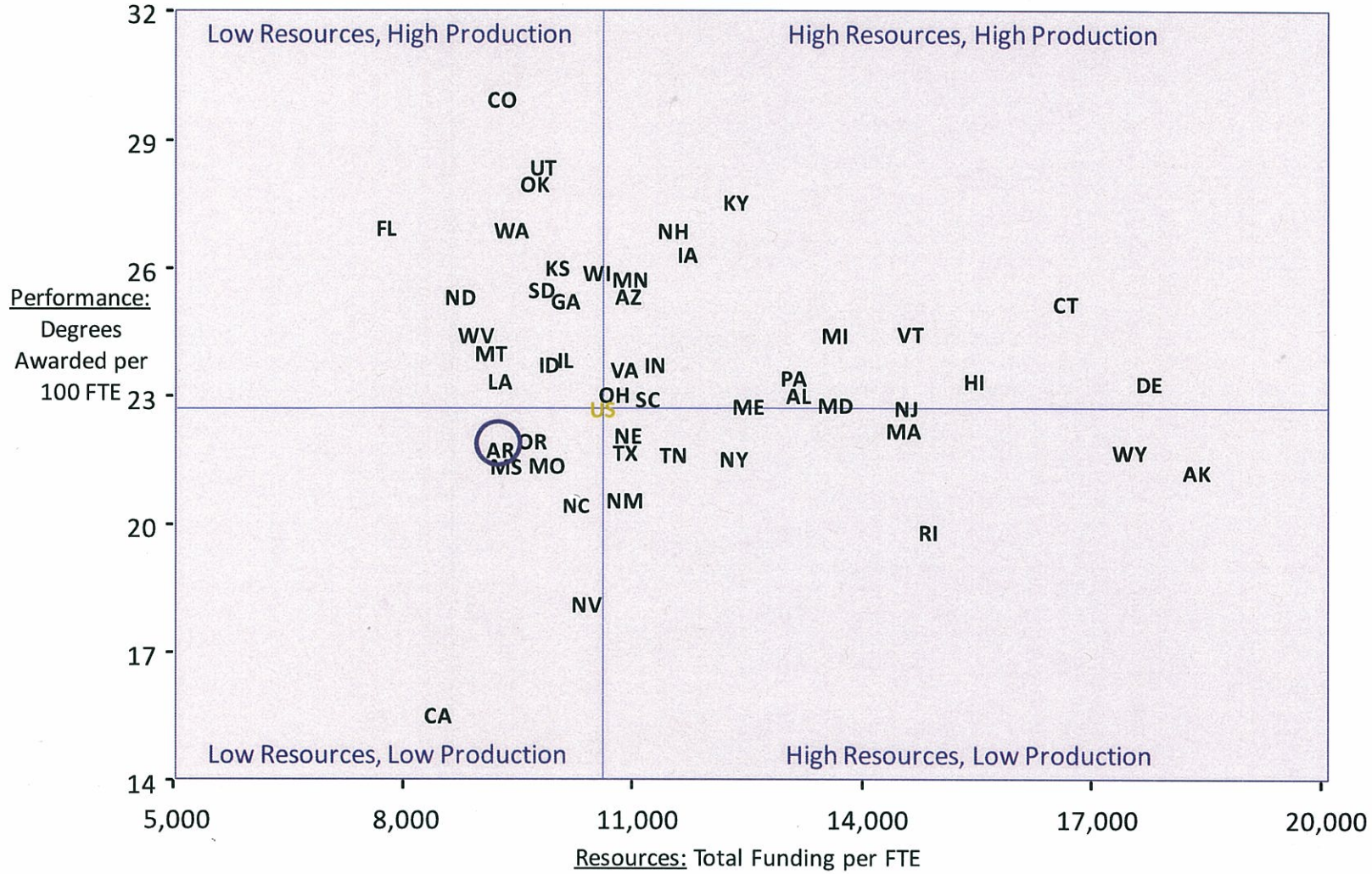
Source: U.S. Census Bureau, 2009 American Community Survey

High School Graduation, College Participation and Completion (2008)



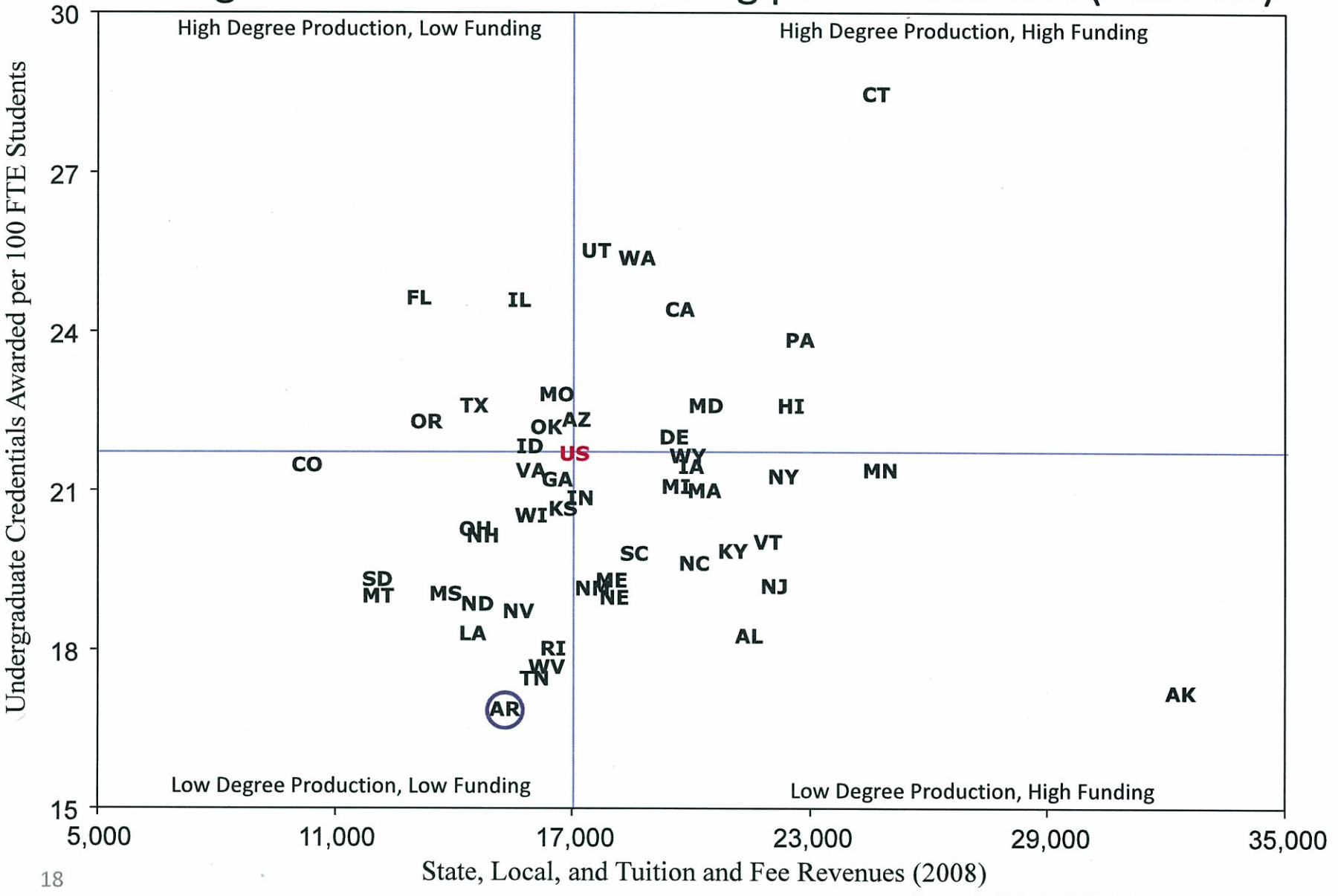
Source: NCES; Common Core Data, IPEDS Completions and Enrollment Surveys

Degrees & Certificates awarded per FTE vs. Total Funding per FTE (2006-2007)



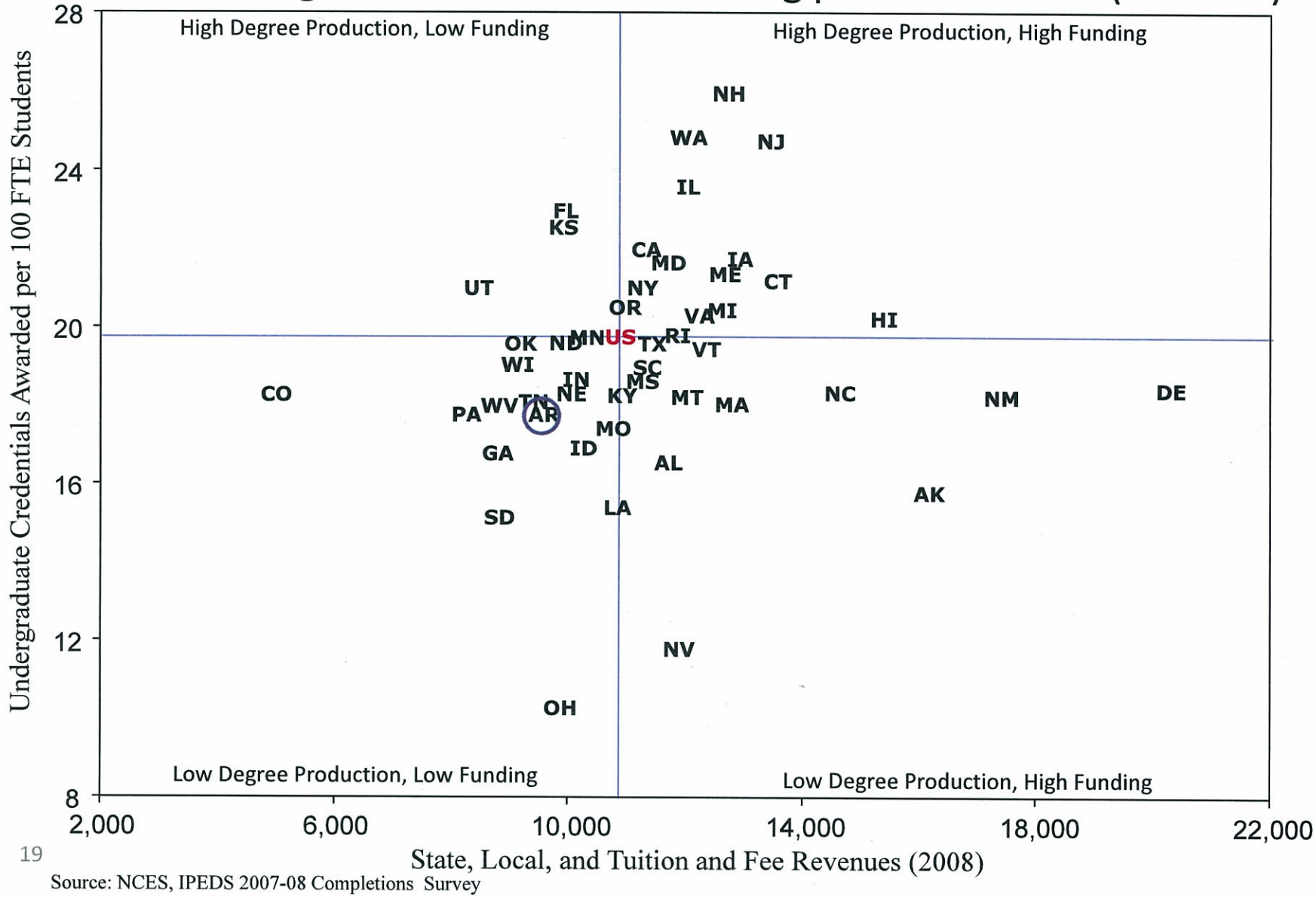
Source: SHEEO State Higher Education Finance Survey 2008: NCES IPEDS Completions Survey

Public Research Institutions: Undergraduate Credentials per 100 FTE Undergraduates and Total Funding per FTE Student (2007-08)



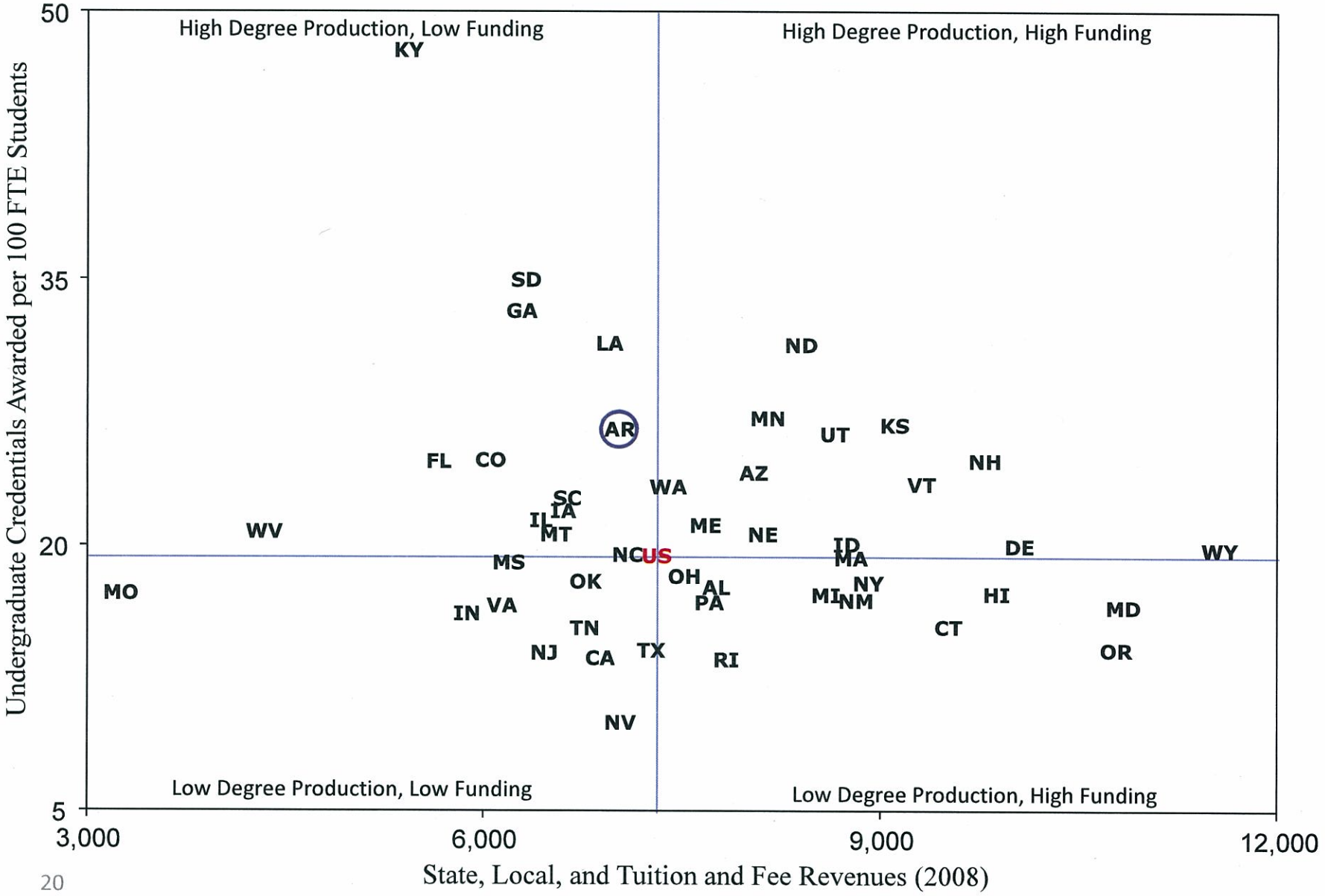
Source: NCES, IPEDS 2007-08 Completions Survey

Public Bachelors and Masters Institutions: Undergraduate Credentials per 100 FTE Undergraduates and Total Funding per FTE Student (2007-08)



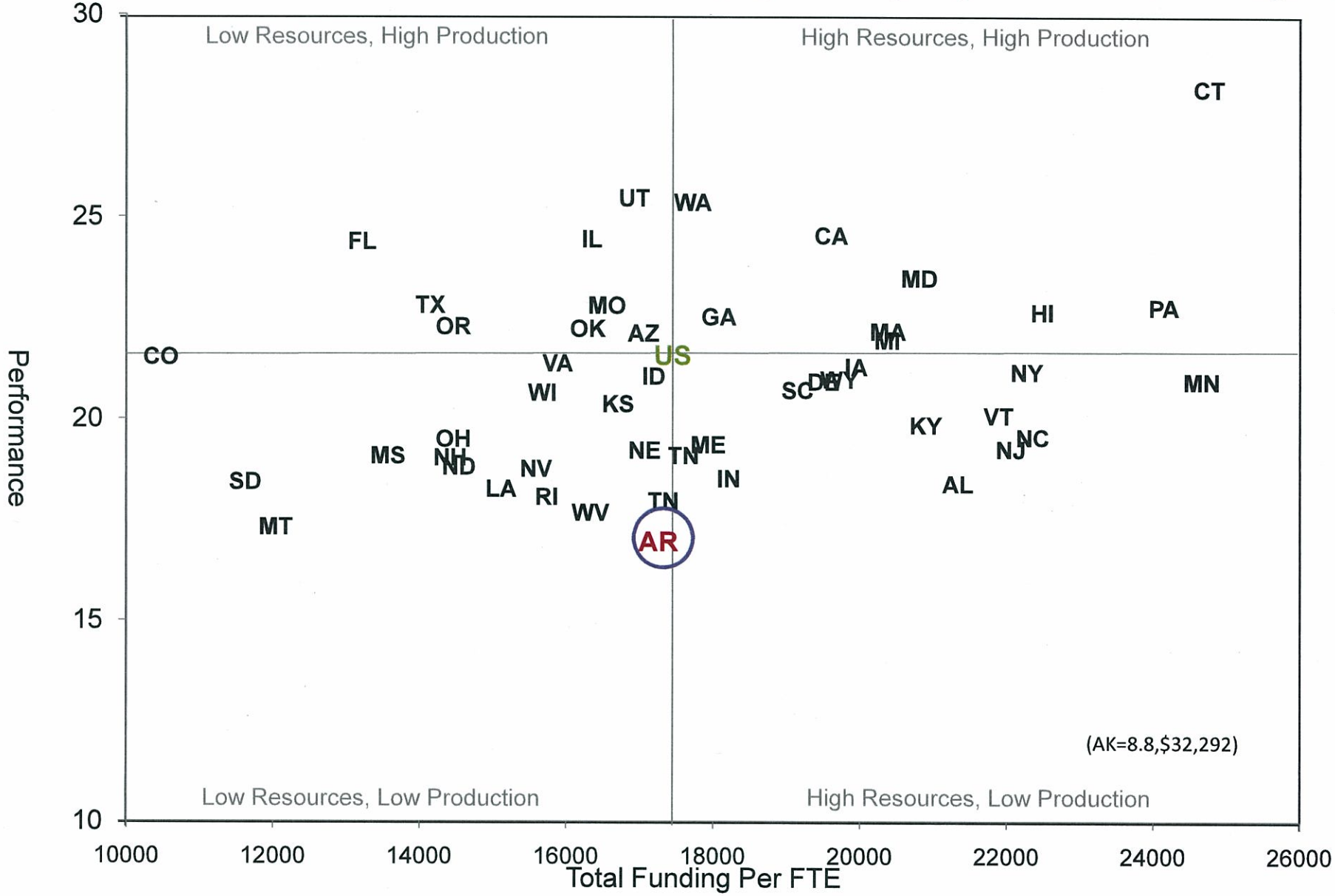
Source: NCES, IPEDS 2007-08 Completions Survey

Public Two-Year Institutions: Undergraduate Credentials per 100 FTE Undergraduates and Total Funding per FTE Student (2007-08)



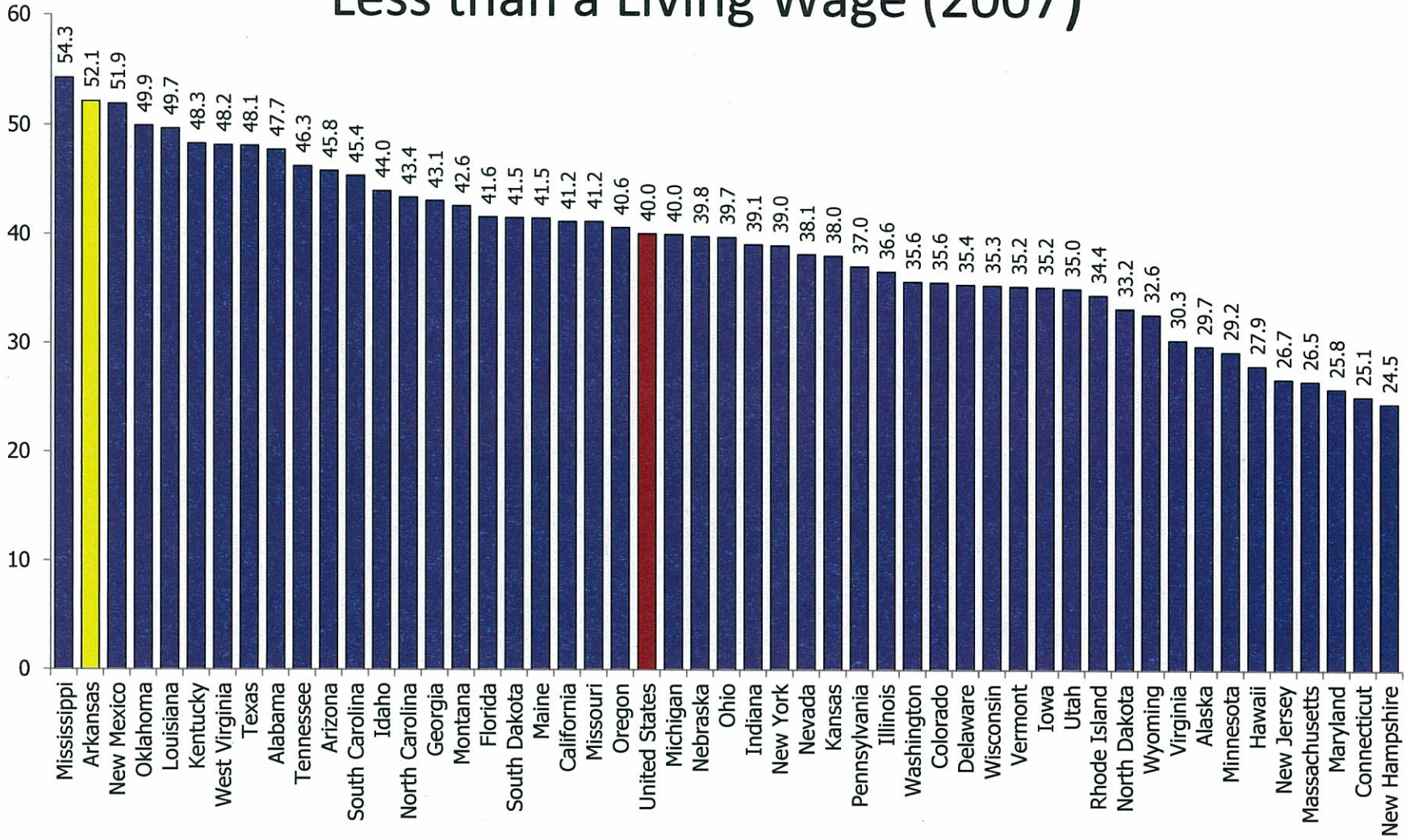
Source: NCES, IPEDS 2007-08 Completions Survey

Performance Relative to Funding: Bachelor's Degrees Awarded per FTE vs. Total Funding per FTE, Public Research Institutions (High & Very High Research, Carnegie 2005)



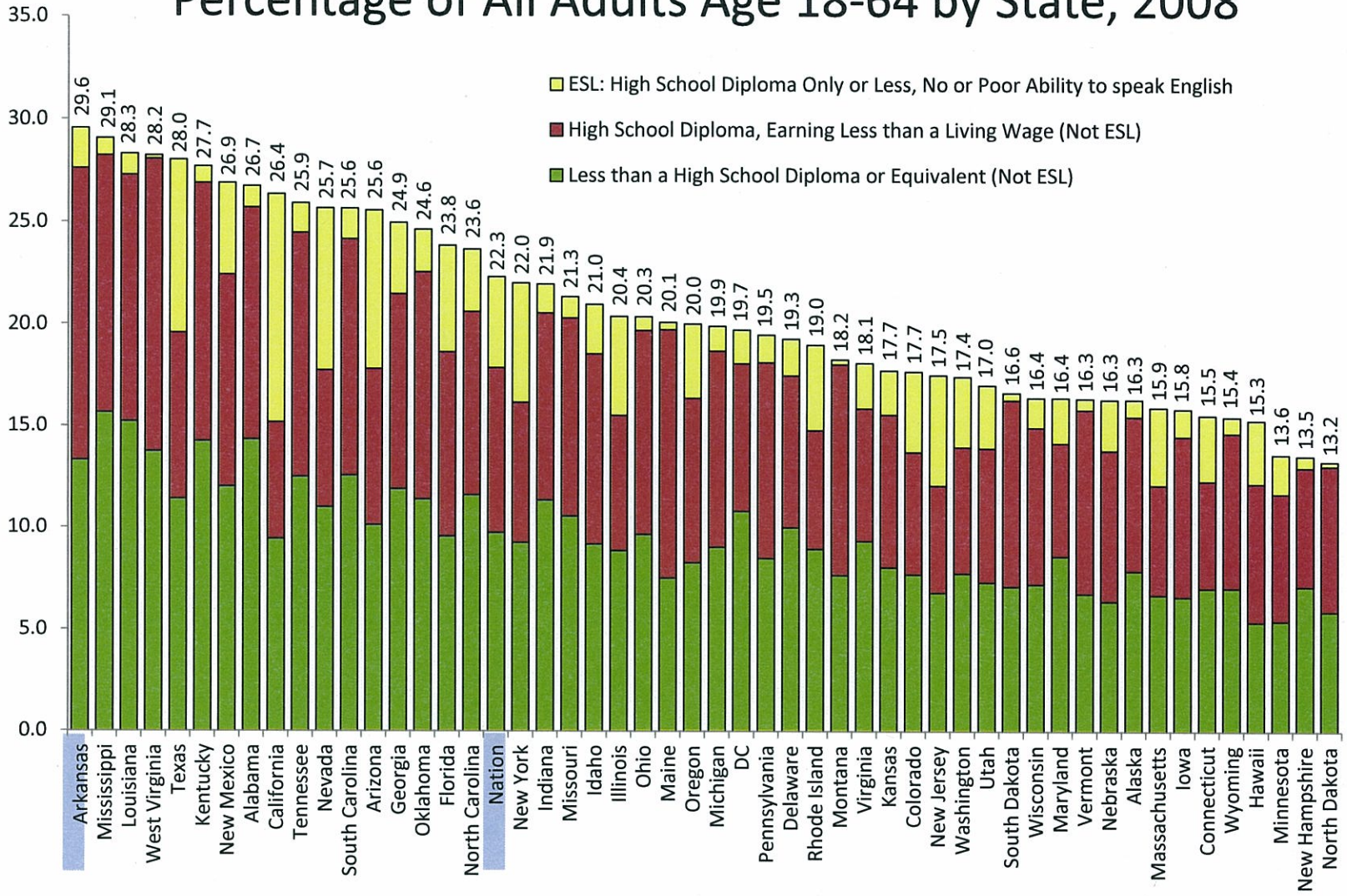
Source: NCES, IPEDS 2007-08 Completions File; c2008_a final release data file. NCES, IPEDS AY 2007-08 enrollment files; efia2008 and effy2008 final release data files. NCES, IPEDS Fall 2007 enrollment file; ef2007a final release data file.

Percent of Children Ages 0 to 17 Living in Families with Less than a Living Wage (2007)



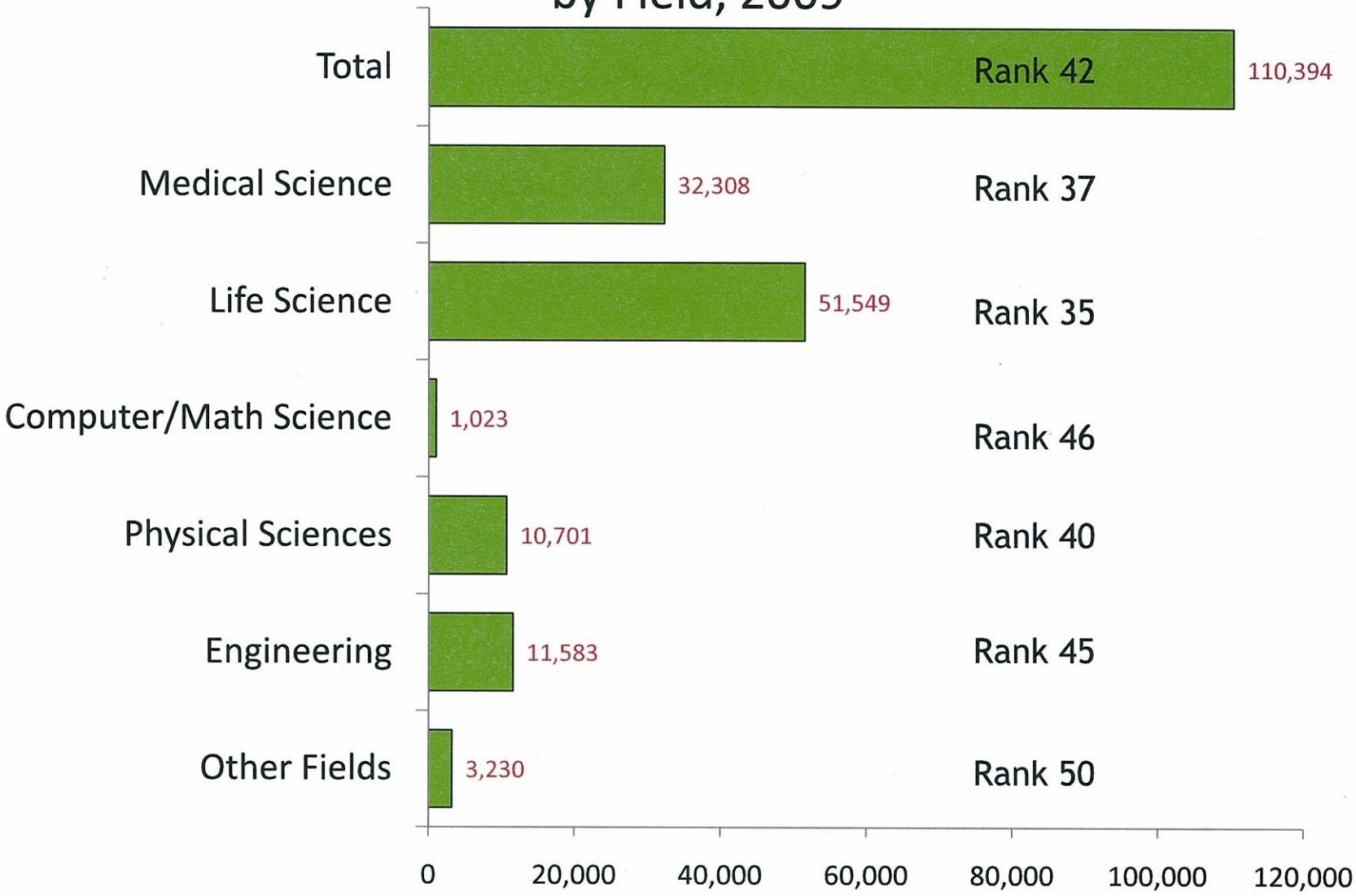
Source: 2007 American Community Survey (Public Use Microdata Samples)

Adult Education and Literacy – Target Populations as a Percentage of All Adults Age 18-64 by State, 2008



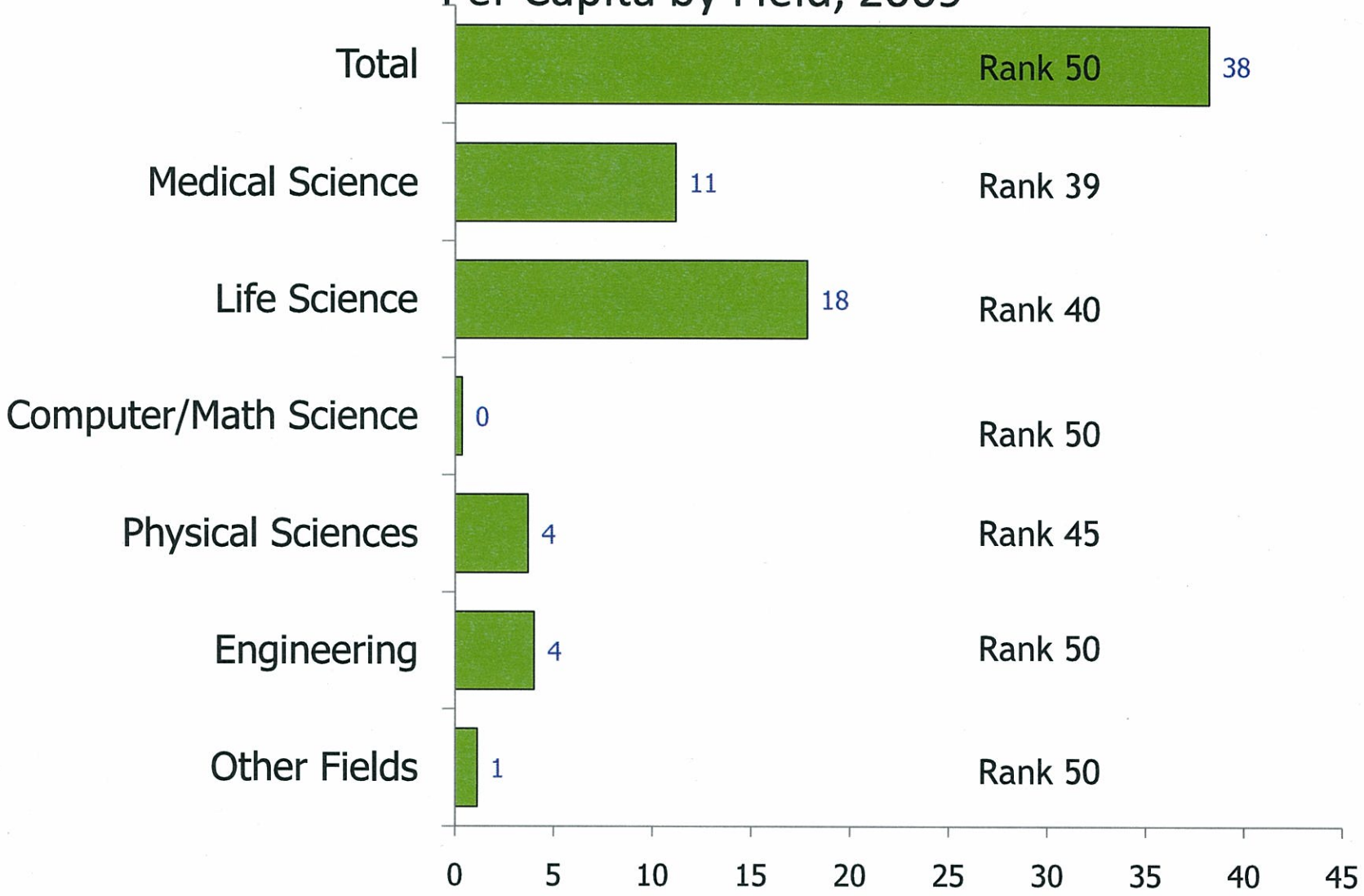
Note: Incarcerated population not separated out.
Source: U.S. Census Bureau, 2008 American Community Survey PUMS File.

Arkansas Rank – Federal Research & Development Expenditures by Field, 2009



Source: National Science Foundation

Arkansas Rank – Federal Research & Development Expenditures Per Capita by Field, 2009



Source: National Science Foundation