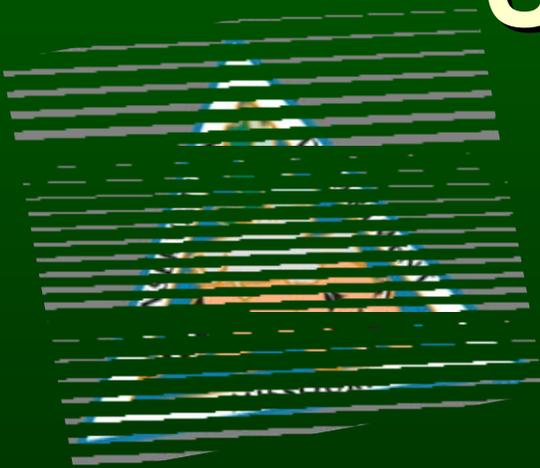


The Changing Perceptions and Attitudes of Missouri Citizens and Resource Users



David H. Thorne

Missouri Department of Conservation

Three Objectives...

- Why you should consider the “human dimensions” of management;
- Facts, about perception, attitudes, and outdoor participation of Missourians;
- Highlight some future trends, in Missouri and across the United States.

Approach: Like Starting a Fire...

- Not a lightning strike;
- Carefully and methodically assemble tinder and fuel and light it with a match or lighter.



Or, Auctioneering...



- Not going for the quick, single super high bid;
- Start small and work up higher and higher until you attain a level higher than possible with a single super high bid.

Three Thoughts



3
Future
Trends

1 2

Facts About
Perceptions
and
Participation

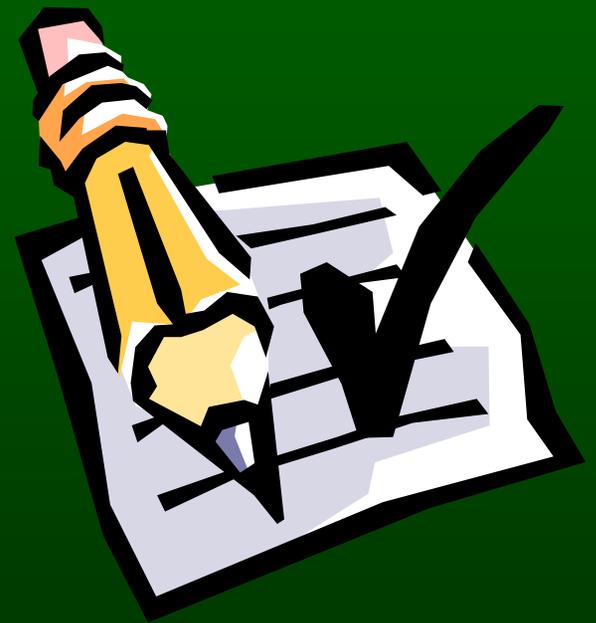
Human Dimensions

First Thought...

Human Dimensions

1

- Human Dimensions has a long history in the Department with over three decades of focused endeavor. Information about people provides accountability and clues for informed management decisions.



These Human Dimensions...

- **You must use information to *act*. A truly great performance requires action.**

Second Thought...

Facts About Perceptions and Participation in Outdoor Activities

2

- Missourians do value fish, forest, wildlife, and outdoor experiences. They indicate just how much through their opinions in support of conservation activities in Missouri and their participation in outdoor recreation.

These Human Dimensions...

- **In the future, you will need to seek the *support and awareness* of citizens about forestry and conservation activities, and only then, or not at all, their participation. Large numbers don't know how to be involved, won't take the time, or are not informed about traditional outdoor pursuits. Many want more varied activities.**

Third Thought...

Future Trends

3

- People are increasing in number in Missouri and are moving to suburban areas from the truly urban and rural areas. They seek quality of life and amenities often unique to Missouri.

These Human Dimensions...

- **You must seek ways to be relevant to an increasingly urban population. Using economic information and linking management activities to quality of life issues may be one way to create emotional connections.**

Three Thoughts

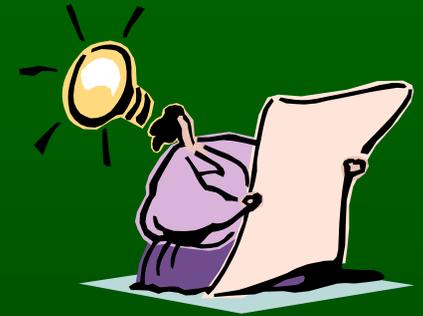


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Human Dimensions

What is “Human Dimensions?”

1



■ “Human Dimensions”

= Social and economic information.

= Market information.

= Customer satisfaction and public involvement.

It is Information-About People



It is People-Missourians

- Their ***NEEDS*** (requirements).
- Their ***WANTS*** (requests).
- Their ***DEMANDS*** (what they are willing to pay for or take action for).

Interesting Quote 1

- First get your facts; then you can distort them at your leisure.

Mark Twain

Examples: Opinion and Participation Surveys

- **Conservation Monitor Survey.**
 - 5 times in last 10 years; currently about every 3 years; preparing for 2006-2007.
- **Conservation Opinion Survey (Seven City and Outstate Survey, Three-City Survey).**
 - Every 10 years since 1980; conducted third version in 2003.
- **Harvest and creel participation and attitude surveys.**
 - 10 to 30 surveys or public involvement efforts each year.
- **Public use surveys.**
 - Missouri River Recreation Study; White River Basin Recreation Study at 3 reservoir systems; 14 other public use studies in last two decades.

Examples: Economics and Participation Information...

- National Survey of Fishing, Hunting, and Wildlife-Associated Recreation.
- Single best source of participation and expenditure information.
- “Conservation Pays Its Way in Missouri” since sales tax revenue generated each year from fish and wildlife recreation alone is about the same amount as the Conservation Sales Tax. Including forest products, 133 million of sales tax is generated each year.

Examples: Other Human Dimensions Data...

- Census and demographics data.
- Focus groups.
- Permit sales data.
- Conservation forums and other public meetings.
- Public input and involvement.
- Information to answer questions and provide insight about issues.

Interesting Quote 2

- All surveys have error, but some surveys are useful.

Steve Sheriff

How Is Information Used?

- Accountability for intuition.
- Learn new insights.
- Performance measures.
- Develop programs and services.
- Quality improvement.



Interesting Quote 3

- It is easy to lie with statistics, but it is easier to lie without them.

Frederick Mosteller

Obstacles?

- Time

- Time

- Time

- Time

- Managers need specific information now!



Interesting Quote 4

- We don't know a millionth of one percent about anything.

Thomas Alva Edison



Overwhelmed with Information?

Management Reality = Social Reality

Managers complain of:

- Lack of time to develop appropriate vision, goals, and planning;
- Too much bureaucracy or uncertain leadership;
- Lack of improvement framework or criteria;
- Too much uncertainty;
- Being stuck in the past, or unwilling to embrace innovative and bold solutions.

Political Reality



This Social and Political Reality is Pervasive...

- Just because we have information does not guarantee an expected outcome.



Human Dimensions

- The data and information do not tell us what management decisions to make;
- but do provide accountability and important clues to guide decisions.



Interesting Quote 5

- The only useful function of a statistician is to make predictions, and thus to provide a basis for action.

William Edwards Deming

Timeline

- 1970s-1980s: A Social Researcher.

Survey for tax preference

Dr. Dan Witter

- 1990s: “The Missouri Model.”

Additional staff throughout Department

- Today: Recipe for Success!

Collaboration, and the Human Dimensions Working Group

The Department has Changed!

- The 1936 Constitutional Amendment made the Department responsible to all Missourians and future generations

But not everyone expected services or actions.

- The 1976 Constitutional Amendment that provided funding changed our approach and the expectations of Missourians.

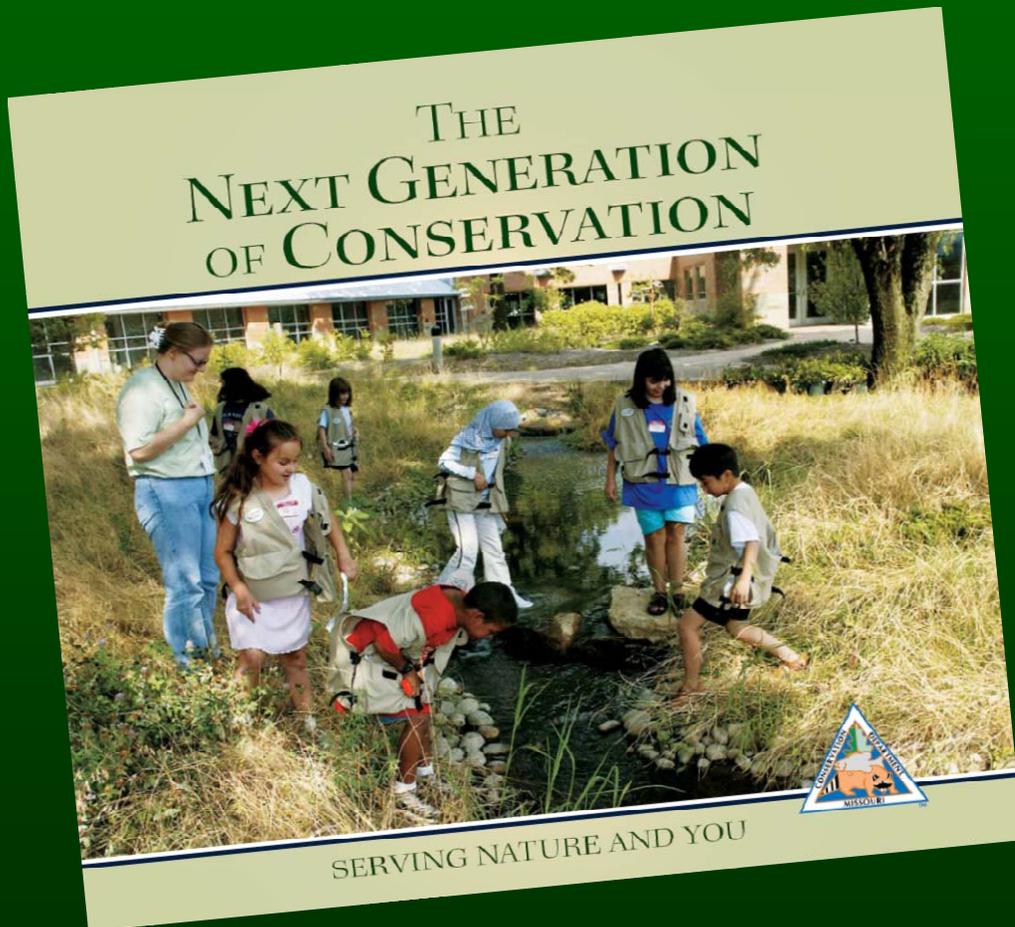
Have It Your Way, and Now

- Handfishing legislation proposed.
- Atlatl allowed in Wildlife Code.
- Legislation proposed to protect hunting and fishing.
- Do more with less money.
- Reduce government but provide more services.

Philosophy of Using These Human Dimensions...

- 1. You need vision, goals, and planning.
- 2. You must demonstrate leadership; “Be, Know, Do” with emphasis on the “*Do.*”
- 3. Conduct non-prescriptive evaluation.
- 4. Understand time, with a sense of urgency and the need for decisions.
- 5. Be mindful of the past, but willing to embrace innovative and bold solutions.

The Next Generation of Conservation



- Strategic Plan with no overall endpoint.
- “What We Will Do” statements focus on results with a specific timeframe.

The Next Generation of Conservation

- Explains the Missouri Department of Conservation's goals and commitments for the future;
- Reminds us that each generation determines the relative health of the natural resources left to their children;
- Sets a theme of conservation success through partnerships with individual citizens, local communities and conservation-minded organizations.

Our Vision

- To have healthy, sustainable plant and animal communities throughout the state of Missouri for future generations to use and enjoy, and to have fish, forest and wildlife resources in appreciably better condition tomorrow than they are today.
- To have all Missourians understand the relationship and value of plant and animal communities to our social and economic well-being.
- To have citizens and government agencies work together to protect, sustain, enhance, restore or create sustainable plant and animal communities of local, state and national significance.

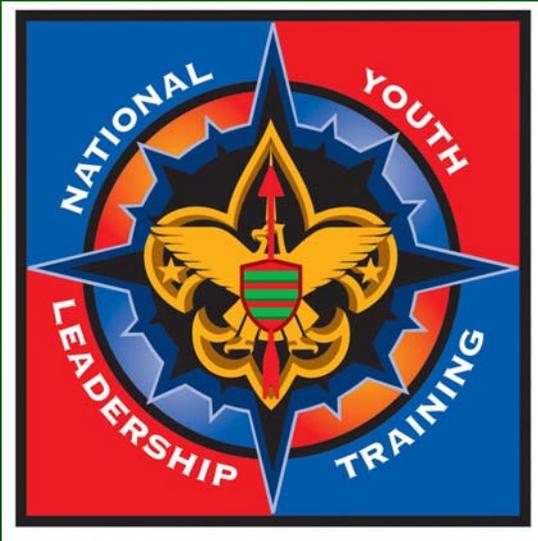


These Human Dimensions...

You need vision, goals, and planning.

- **You must use information to act. A truly great performance requires action.**

National Youth Leadership Training



- Be, Know, *Do*.
- “If you can see it, you can be it.”
- A toolbox of leadership skills.

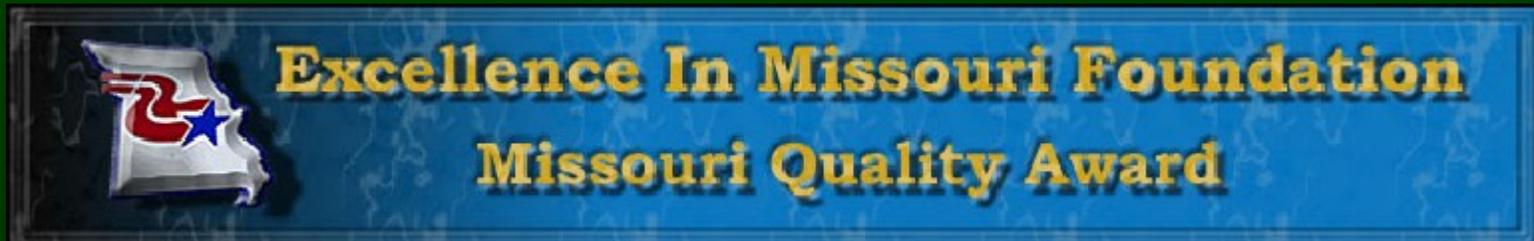
These Human Dimensions...

You must demonstrate leadership; “Be, Know, Do” with emphasis on the “Do.”

- **You must use information to act. A truly great performance requires action.**

The Missouri Quality Award

- Uses National Baldrige criteria.
- Missouri Quality Award is considered one of the top two state award programs in the quality of feedback and evaluation.
- Public sector evaluation includes a wide-variety of human dimensions information.



These Human Dimensions...

Conduct non-prescriptive evaluation using some kind of quality improvement criteria.

- **You must use information to act. A truly great performance requires action.**

Choosing A Treatment Option for Cancer or Disease

- Uncertainty in decision-making.
- Choosing treatment options with limited information about outcomes.
- You must choose, be ready to evaluate, and move on.
- Much like resource management.

These Human Dimensions...

Understand time, with a sense of urgency and the need for decisions.

- **You must use information to act. A truly great performance requires action.**

Experience Helps and Limits



- 15 years with the Department of Conservation in human dimensions.
- 25 years of research and analysis experience.



- Some things are the same; although I've learned a few things. I still don't know everything. How many use an iPod?



- Why use information to change?
- After all, this is the Show-Me State!
- Why should anything be different?
- Missourians are skeptical of government...but want services.
- Strong frontier roots.

These Human Dimensions...

Be mindful of the past, but willing to embrace innovative and bold solutions.

- **You must use information to act. A truly great performance requires action.**

These Human Dimensions...



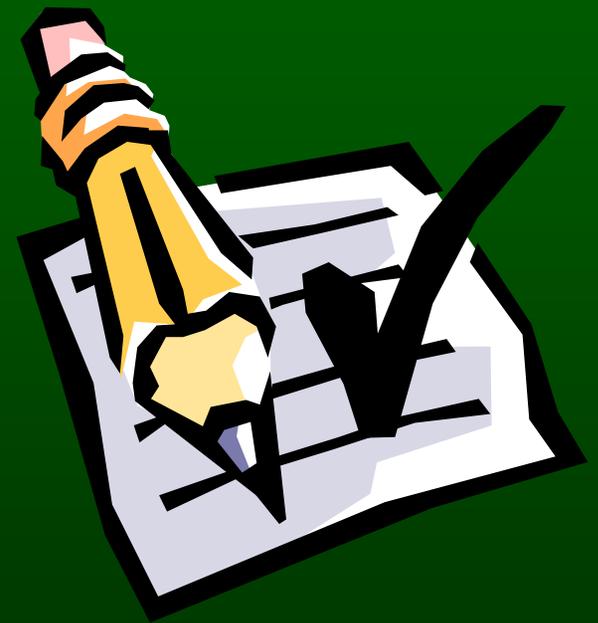
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Human Dimensions

First Thought...

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These Human Dimensions...

- **You must use information to act. A truly great performance requires action.**

Three Thoughts



2

Facts About
Perceptions
and
Participation

Missourians Participate in Outdoor Recreation and Indicate What They Value With Their Support



Indicating Value with Participation and Support

- Statewide vote in 1936 to create the Missouri Department of Conservation.
- Really, this was support to ensure sustainable fish, forest, and wildlife resources and to improve Missourians quality of life.



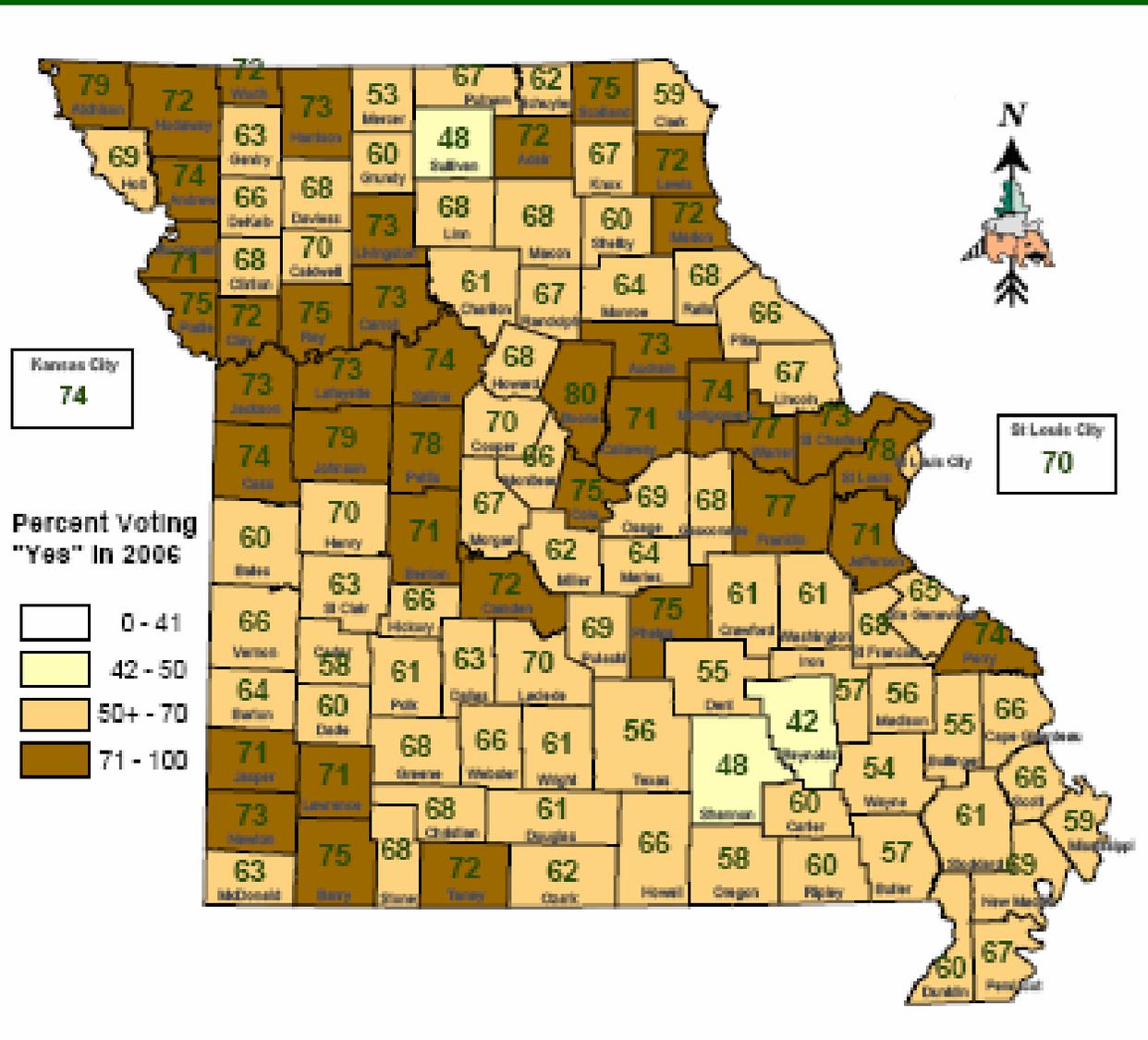
Indicating Value with Participation and Support-continued

- Statewide vote in 1976 to establish funding in addition to permit sales to hunters and anglers.
- Really, support to increase and expand fish, forest, and wildlife efforts.



Indicating Value with Participation and Support-continued

- Volunteer participation and membership in conservation organizations.
- Individuals “vote” with their time, money, and endeavor.
- Don't forget support for the Parks and Soils Tax, four times, at the ballot box.



Parks-and-Soils Sales Tax Election, August, 2006

How Many Participate in Fish and Wildlife Activities?

- 489,000 hunters.
- 1.2 million anglers.
- 1.8 million wildlife-watchers.
- Over 92,000 youth of age 6-15 years.

489,000 Hunters

- Fill Arrowhead Stadium in Kansas City six times.

6



1.2 Million Anglers

- Fill Arrowhead Stadium 15 times.



15

1.8 Million Wildlife-Viewers

■ Fill Arrowhead Stadium 23 times.

23



Trends?

- Stable to slightly declining numbers in fishing, hunting, and wildlife-related recreation in Missouri.
- Missouri has not experienced the more dramatic declines in participation observed in eastern and the far western states.

Participation as an Indication of Value

- Participation “field guide.”
- I need 10 volunteers to help demonstrate participation in outdoor activities.
- Come on up and choose your favorite color of water bottle.

Outdoor Activities in 2003

(Two-thirds or more)

-
- Watching outdoors TV (80%)
 - Walking in neighborhood (76%)
 - Driving to view scenery (75%)
-
- Reading-nature and wildlife (73%)
 - Watching birds or wildlife (69%)
-

8

7

Outdoor Activities

(One-half to two-thirds)

-
- Gardening (62%)
 - Feeding birds/wildlife near home (61%)
 - Observing wildflowers (59%)
-
- Fishing (51%) 9th
 - Hiking in the outdoors (50%)

6

5

Outdoor Activities

(One-third to one-half)

■ Visiting a museum (47%)

■ Visiting a zoo (46%)

■ Photographing wildlife, flowers,
or nature (40%)

■ Camping (38%)

■ Observing rivers (37%)

■ Boating/sailing/motorboating (35%)

■ Visiting a botanical garden/park (34%)

5

4

3

Outdoor Activities

(One-quarter to one-third)

- Using a public boat launch ramp (28%)
 - Jogging/Running (27%)
 - Bicycling (30%)
 - Pistol/rifle target shooting (30%)
 - Hunting (26%) *22nd*
 - Gather nuts/berries/herbs/greens (25%)
-

3

Outdoor Activities

(One-quarter or less)

- Gathering mushrooms (24%)
- Canoeing/kayaking/rafting (22%)
- Riding all-terrain vehicles (22%)

- Archery target shooting (15%)
- Backpacking (9%)
- Trapping (5%)

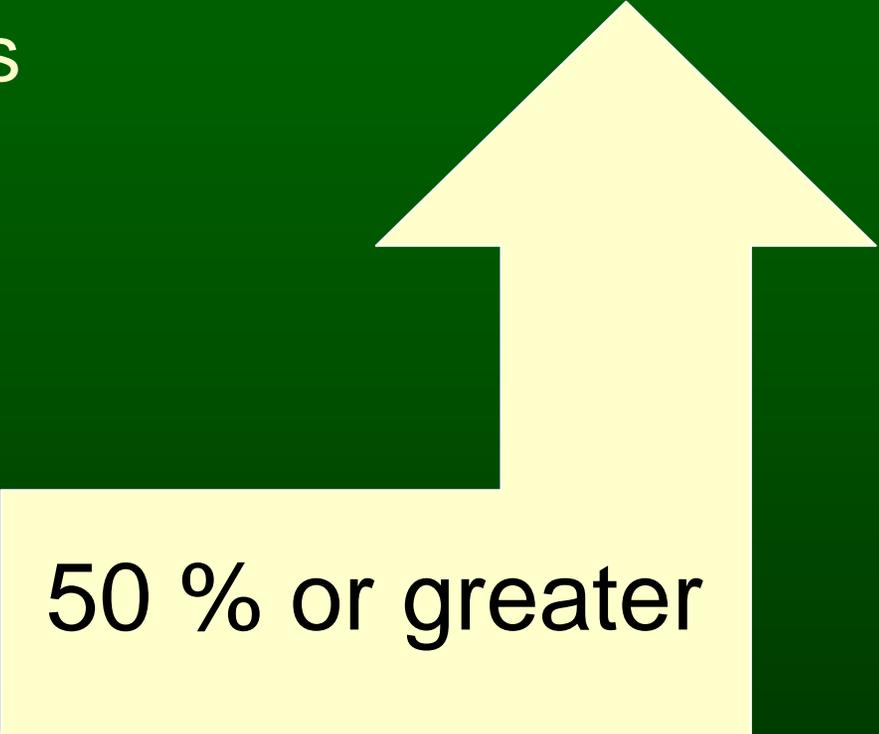
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1

Thanks!

What Conservation Services are Desired Close to Home?

- Hiking and walking trails
- Picnicking
- Nature Centers
- Nature viewing
- Boating and canoeing
- Fishing or Camping
- Bicycling
- Horseback riding trails
- Hunting
- Birding



50 % or greater

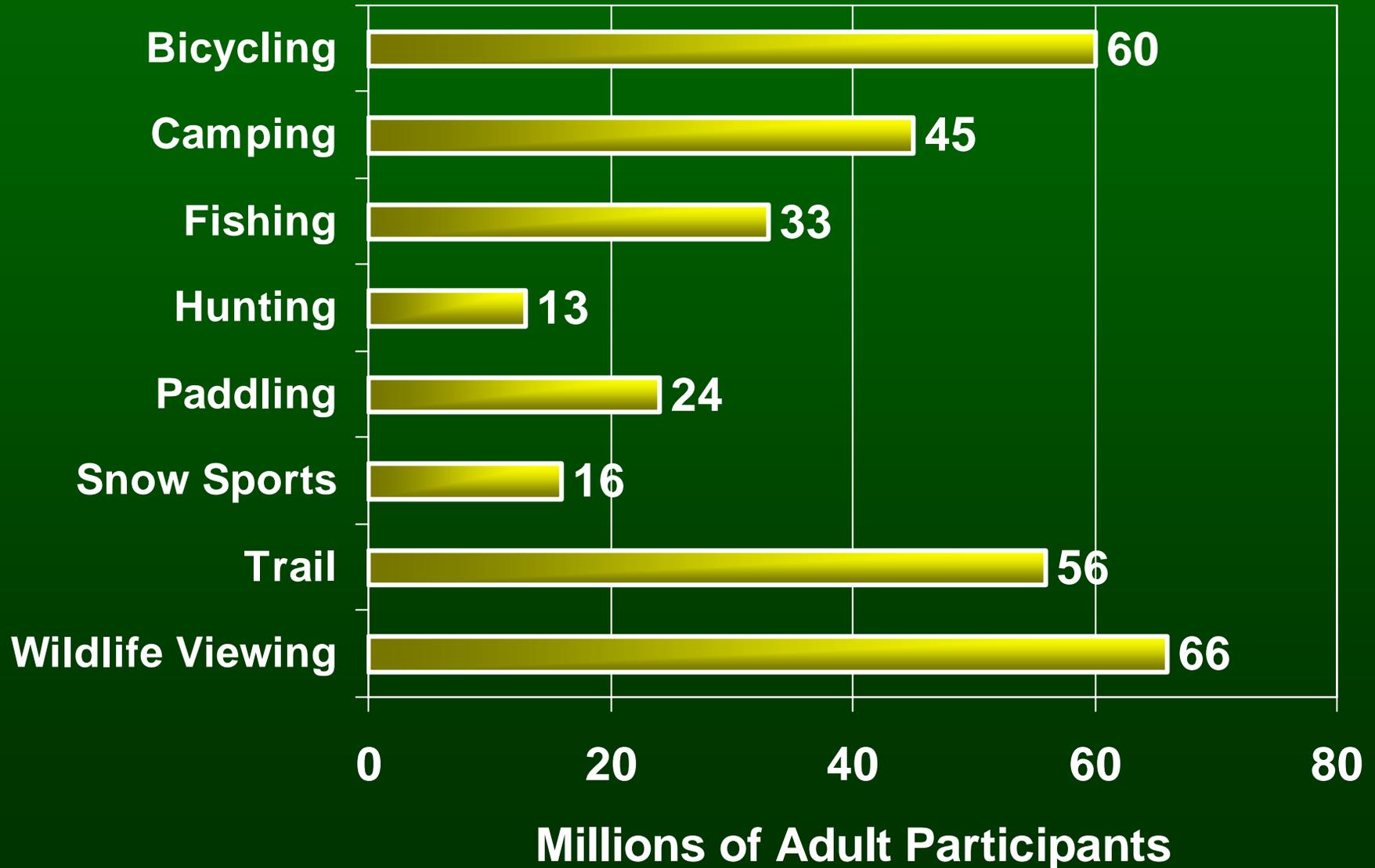
Activities-Summary

- Increased participation in aesthetic activities.
- Activities are desired close to home.
- Continued interest in traditional activities.

Participation Indicates Value



U.S. Recreation Participation



U.S. Recreation Facts

- More Americans camp than play basketball.
- More Americans paddle (kayak, canoe, raft) than play soccer.
- More Americans owe their jobs to bicycle-based recreation than there are people employed as lawyers.

Economic Impacts Indicate Value



Economic Impacts

- Easy to understand and uses a standard we are all familiar with-money.
- An accountable method to examine value.

Priceless Value?

- Outdoor resources and recreation experiences are often described as “priceless.”
- You may recall the series of television commercials that use dollar figures and costs and then end by describing the emotion or experience as “priceless.”

Priceless = Worthless

- In the “balance sheet” but not to YOU.



Priceless = Worthless

- We each make our own emotional connections.



Priceless = Worthless

- Each of you places value on experiences, that may not have a numerical value, that are mighty important and meaningful to you.



Priceless = Worthless

- What about your memories of specific outdoor experiences, or expectations for future experiences?



Can You See the Problem?

- We can easily say we place a value on resources or experiences.
- But establishing a standard way for you to compare your feelings or value assignment with my feelings is difficult.
- We often fall back to financial values and rely on economic impacts using money as the standard.

Economic Impacts Can Be Calculated

- Economic impacts are measured by the dollars spent by fish and wildlife recreationists.
- Expenditures are a concrete and easy way to understand and measure the money placed into the economy.

The National Survey of Fishing, Hunting, and Wildlife-Associated Recreation

- Conducted about every five years since 1955.
- Single best source of participation and expenditure information for fishing, hunting, and wildlife-related recreation.

National Survey-continued

- Paid from administrative funds from the Sport Fish and Wildlife Restoration money that is from excise taxes collected on fishing and hunting equipment.

National Survey-continued

- Conducted at the request of the 50 states through the International Association of Fish and Wildlife Agencies.
- Conducted by the Census Bureau for the U.S. Fish and Wildlife Service.

Hunters and Anglers

- Total expenditures of \$1.209 Billion dollars.
- Total business impact of \$2.415 Billion dollars.
- Support 21,877 jobs.
- Generate \$531 Million in earnings.



Hunters and Anglers-continued

- Generate \$57 Million in state sales taxes.
- Generate a total of \$77 Million in state sales and income taxes.
- Generate \$84 Million in federal income taxes.

Wildlife Viewers

- Total expenditures of \$449 Million dollars.
- Total business impact of \$938 Million dollars.
- Support 7,850 jobs.
- Generate \$200 Million in earnings.



Wildlife Viewers-continued

- Generate \$22 Million in state sales taxes.
- Generate a total of \$30 Million in state sales and income taxes.
- Generate \$32 Million in federal income taxes.

Fish and Wildlife Recreation Combined

- Total expenditures of \$1.7 Billion dollars.
- Total business impact of \$3.4 Billion dollars.
- Support 29,727 jobs.
- Generate \$732 Million in earnings.

Fish and Wildlife Combined-continued

- Generate \$79 Million in state sales taxes.
- Generate a total of \$108 Million in state sales and income taxes.
- Generate \$117 Million in federal income taxes.

Forest Economics

- Missouri forest products industry is a \$4.4 billion dollar industry.
- 32,250 Missourians are employed in the forest industry with earnings of \$1.1 billion.
- In Missouri, forestry business generates \$54 million in sales tax annually.

What Do The Numbers Mean?

- *Conservation pays its way in Missouri.*
- The amount of state sales tax revenue generated from fish and wildlife recreation spending and forest products is more than the sales tax revenue received by the Department from the Conservation Sales Tax.

What Do The Numbers Mean- continued

- Adjusted for 2005 dollars, the total business impact would be over 7 Billion dollars.
- Using the Department of Conservation annual budget this means that every public dollar spent on conservation results in over 46 dollars of business impact in the Missouri economy.

Other Facts About the Numbers

- The Department's budget is less than one percent of the State of the Missouri budget (0.7 percent).
- Total business impact of fish and wildlife spending and forest products results in about 3.2 percent of the Missouri Gross State Product.

Other Facts-continued

- If fish and wildlife recreation spending were a “business” it would be a Fortune 500 company.
- Fish and wildlife recreation supports more jobs in Missouri than all 11 of the Missouri Fortune 500 companies combined.

ABC's of Fish, Forest, and Wildlife Recreation

- A is for Archers, Hunters, Viewers, and Anglers
- B is for BILLIONS of bucks, dollars, that are spent.
- C is for Cash, Check, or Credit Card?

A...B...C...

Nationwide...

- A hunter's best friend-Hunters spend \$605 million on hunting dogs, well more than the \$513 million skiers spend on equipment.
- Each year hunters spend more money on food for hunting trips than Americans spend on Domino's pizza.

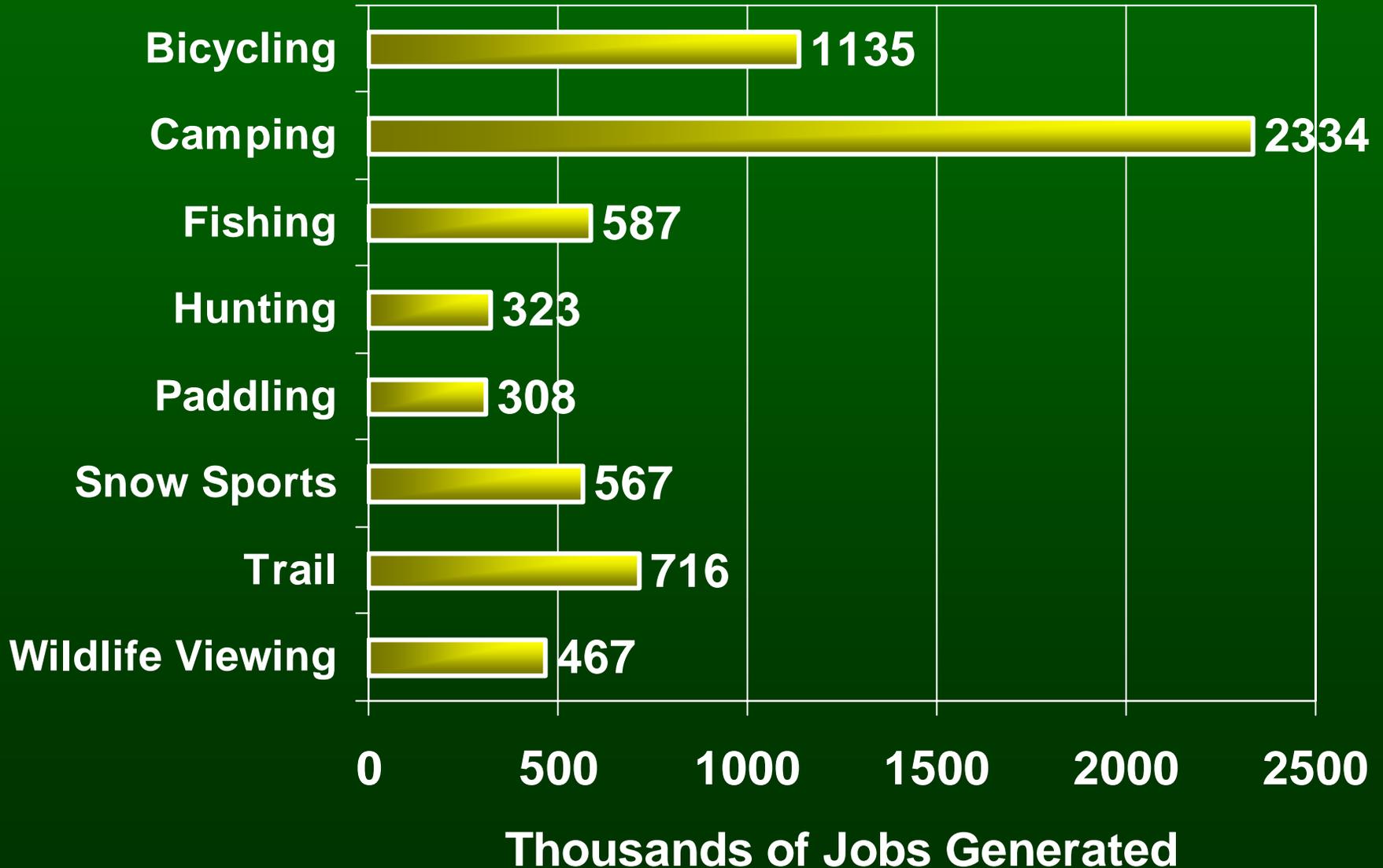
Nationwide-continued

- Over a half million jobs in America are supported by hunters. That's more jobs than the employees of all the top U.S. airlines.
- The \$2.4 billion in annual federal income tax generated from hunters' spending could cover the annual paychecks of 100,000 troops.

Nationwide-continued

- If wildlife viewing were a company, the sales of \$38 Billion would rank it 33rd in the Forbes 500 list (2001) placing it ahead of Motorola.
- Overall, outdoor recreation contributes \$730 Billion annually to the U.S. economy.

Jobs Generated by Activity



So, More is Good?

- An abuse of resource valuation is to equate expenditures and impact with social value.
- Expenditures are the cost of doing business.
- If an activity were justified only on cost, then any activity could be justified, and the more costly the more justifiable.

What Missourians Say About Conservation Indicates Value

■ Attitudes

■ Opinions

■ Perceptions

■ Satisfaction

How Interested in Missouri's Fish, Forests, and Wildlife

- Most Missourians report they are interested in Missouri's fish, forests, and wildlife (93%).
- Only 7% indicate they are "Not at all" interested.

Land Acquisition

- When asked about the less than two percent of Missouri's acres that are owned or managed by the Department, 49% reported this is "Not enough."
- Only 2% said "Too much."

Land Acquisition-continued

- Almost three-quarters agree that “Land should be acquired for fish, forest, and wildlife conservation” (73%).

When Visiting an Area

- Have clean drinking water (82%)
- Have a restroom available (82%)
- Have signs with information about area features (69%)
- Have printed information (67%)
- Have parking lots (65%)

Missourians Support Conservation Activities

- Most Missourians agree that “It is important for outdoor places to be protected even if you don’t plan to visit the area” (91%).

Missourians Support Conservation Activities-continued

- Most Missourians agree that the Department should “help private landowners who want to restore native communities of plants and animals” (82%).

Missourians Support Conservation Activities-continued

- Over three-quarters agree that the Department “should make an effort to restore animals that once lived or are currently very rare in Missouri (79%).

Missourians Support Conservation Activities-continued

- Over three-quarters agree that the Department “should assist communities that want to include trees and green spaces in housing, business, and shopping developments” (79%).

Missourians Support Nature

- These human dimensions suggest that Missourians do value the enhanced quality of life that outdoor activities provide and they value outdoor opportunities and recreation.

2003 Conservation Opinion Survey

3

Missouri Department of Conservation
"Your Ideas Count!" Conservation Opinion Survey

PLEASE USE A PENCIL OR BLUE/BLACK PEN TO COMPLETELY FILL EACH CIRCLE.

1. How familiar are you with the Missouri Department of Conservation? (Mark one circle.)

- Not at all familiar
- Somewhat familiar
- Very familiar
- Don't know

2. Please rate the job the Missouri Department of Conservation is doing in providing services for:
(Mark one circle for each item.)

How	How	How	How	How
Poor	Fair	Good	Excellent	Don't know
<input type="radio"/>				
<input type="radio"/>				
<input type="radio"/>				
<input type="radio"/>				

Services for:
 You
 Your family
 Your community
 The State of Missouri

- Conducted in 2003 for the Department by the University of Missouri.
- Similar to questions in previous surveys in 1990 and 1980.
- Urban and Outstate comparisons.

Urban and Outstate

- Urban:

Cape Girardeau, Columbia, Joplin,
Kansas City, Springfield, St. Joseph,
and St. Louis.

- Outstate:

All other places in Missouri.

Conservation Opinion Survey

- Mail survey.
- Random sample in seven cities and all outstate areas throughout Missouri.
- Sample allows regional comparisons.
- Contacted 16,319 households and received 6,352 completed forms.

How Familiar with Department-Statewide

- Most Missourians report being “Somewhat” or “Very” familiar with the Department (86%).
- A few were “Not at all” familiar (13%).
- Only 1% indicated “Don’t know.”

How Familiar with Department-Urban

	1980	1990	2003
Very	15%	8%	19%
Somewhat	48	58	62
Not at all	37	30	18

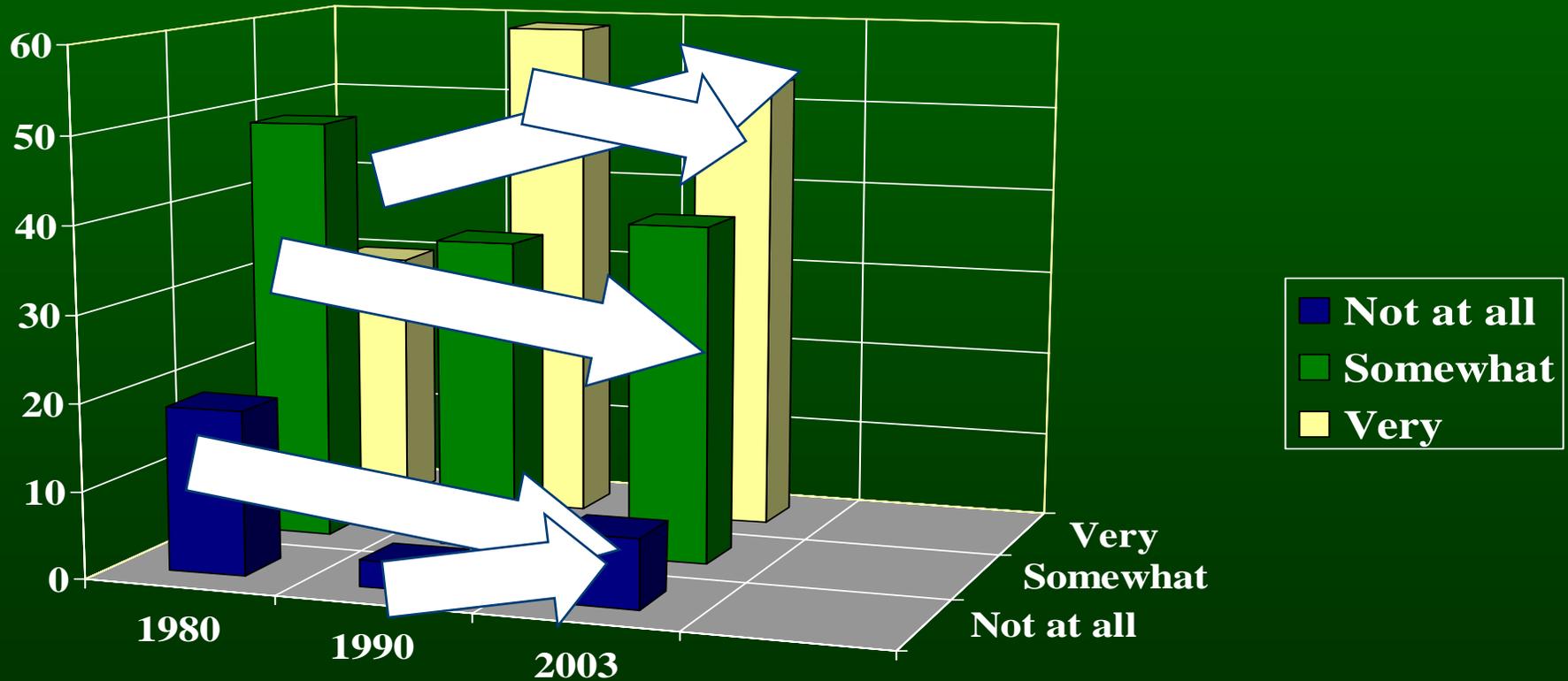
The table displays the percentage of respondents who are 'Very', 'Somewhat', or 'Not at all' familiar with Department-Urban in 1980, 1990, and 2003. The 'Somewhat' category shows a significant increase from 48% in 1990 to 62% in 2003, which is highlighted with a white circle. Arrows indicate the direction of change: 'Very' increases from 15% to 19%, 'Somewhat' increases from 48% to 62%, and 'Not at all' decreases from 37% to 18%.

How Familiar with Department-Outstate

	1980	1990	2003
Very	---	13%	23%
Somewhat	---	68	68
Not at all	---	16	7

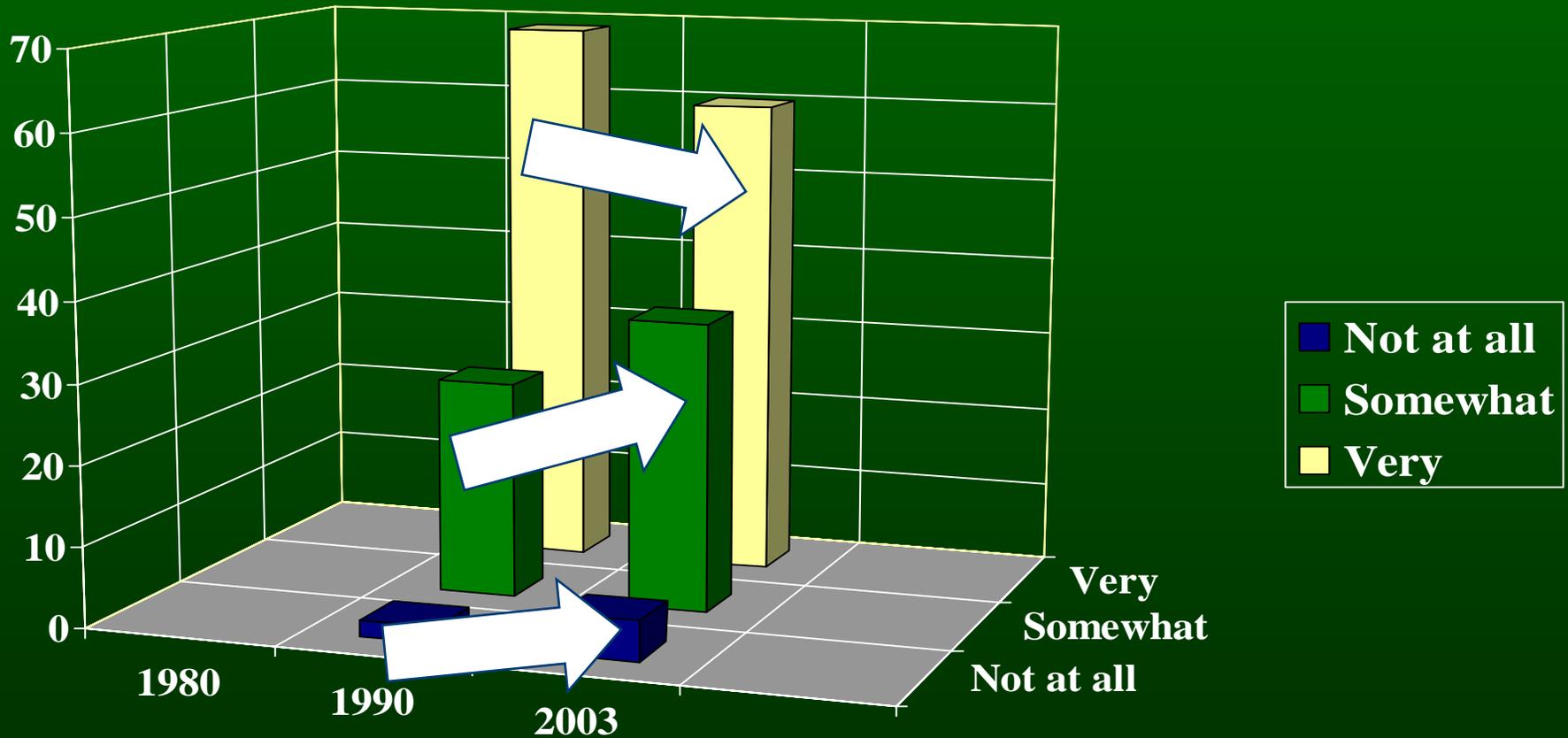
How Interested in Missouri's Fish, Forests, and Wildlife-Urban

Percent



How Interested in Missouri's Fish, Forests, and Wildlife-Outstate

Percent



Rate the Job of the Department

- 64% believe that the Department is doing a good job of providing services to themselves;
- 63%, to their family;
- 61%, to their community;
- 67%, to the state of Missouri.

Rate the Job of the Department- Don't Know

- Overall, about one-quarter of Missourians indicate they “Don’t know” about the job the Department is doing.
- Urban residents are about twice as likely to respond “Don’t know.”



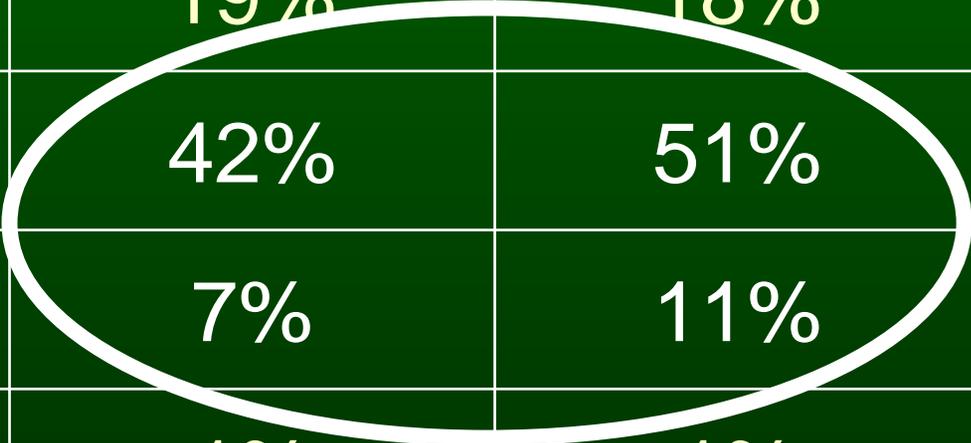
Rate the Job of the Department- Don't Know



“Don't Know?”	Urban	Outstate
You	32%	19%
Your Family	33	19
Your Community	32	18
The State	30	17

Rate the Job of the Department-Urban and Outstate

	Urban	Outstate
Excellent	19%	18%
Good	42%	51%
Fair	7%	11%
Poor	1%	1%



Rate the Job of the Department- Trends

“Excellent” or “Good”	1980	1990	2003
You; Your Family	---	64% 	64/63%
Your Community	---	60 	61
The State	---	70 	67

Rate the Job of the Department- Trends

- Over time, the satisfaction rating has stayed about the same.
- Relatively similar results were reported in 1994-1997 and 2000 in the Conservation Monitor Survey conducted for the Department by the Gallup Organization.

Missourians and Conservation Involvement:

	Urban	Outstate
Consider Angler?	33%	40% 
Consider Hunter?	20	37 
Environmentalism?	50	47 
<i>Conservationist?</i>	24	37 
Agent Contact?	32	51 

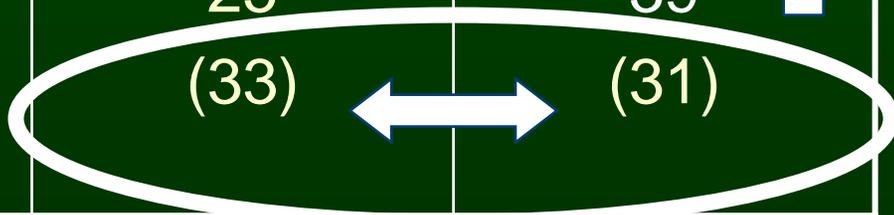
One-Half

Missourians and Conservation Involvement-continued:

	Urban	Outstate
My family has little interest in nature?	 15%	10%
“Enjoy” wildlife around home?	54	64 
Do you worry about “urban sprawl?”	 73	63

Missourians and Conservation Involvement-continued:

	Urban	Outstate
Approve of cutting trees to make lumber and wood products?	46%	59% 
Approve of cutting trees to produce income? (No Opinion)	25 (33)	39 (31) 

Missourians and Conservation Involvement-continued:

	Urban	Outstate
Approve of cutting trees to provide places for wildlife to live?	69	67
Approve of cutting trees to improve forest health or condition?	90	91

Missourians and Conservation Involvement-continued:

	Urban	Outstate
Approve of hunting for food?	85%	93% 
Approve of fishing for food?	93 	96

Missourians and Conservation Involvement-continued:

	Urban	Outstate
Have seen, heard, and used <i>Conservationist</i> ?	59%	75% 
Aware but not seen <i>Conservationist</i> ?	21 	17
“Not aware” of <i>Conservationist</i> ?	 20	9

Missourians and Conservation Involvement-continued:

	Urban	Outstate
I wish I had more time to enjoy nature.	87%	87%
“Not enough time” is a major obstacle to outdoor activities?	 43	38

Missourians and Conservation Involvement-continued:

	Urban	Outstate
“Not enough information” is an obstacle to outdoor activities?	 53%	40%
“Not close to areas to participate?”	 48	40

Urban and Outstate Trend...

- Urban residents seem to have less contact and awareness of the Department of Conservation than outstate residents yet still indicate a strong interest in fish, forests, and wildlife.

Outdoor Participation-Urban

	1980	1990	2003
Outdoors TV	80%	80	77
Museums-Zoos	78	67/70	56/56
Pleasure Drive	69	80	73
Walk	66	73	79
Feed wildlife	59	60	56

The table displays participation percentages for six activities in urban areas across three years: 1980, 1990, and 2003. The 'Museums-Zoos' row shows a decrease from 78% in 1980 to 56% in 2003, with a blue arrow pointing left from the 1980 value to the 1990 value. The 'Walk' row shows an increase from 66% in 1980 to 79% in 2003, with a blue arrow pointing right from the 1980 value to the 2003 value.

Missourians and Conservation Law Enforcement



Enforcing Fish and Wildlife Laws...

- A majority of Missourians agree that “The Missouri Department of Conservation is doing a good job of enforcing fish and wildlife laws” (59%).

Enforcing Fish and Wildlife Laws- continued

- Over one-third had “No opinion” (37%).
- Only a few indicated “Mildly disagree” (3%) or “Strongly disagree” (1%).

Enforcing Fish and Wildlife Laws- continued

Good job enforcing laws?	2000*	2003
Agree	81%	59% 
Disagree	9	4 
Don't know	10	37 

*Conservation Monitor Survey with response change

Contact with a Conservation Agent

- Fewer than one-half reported they “ever had contact with a Missouri Department of Conservation law enforcement agent” (40%).

Contact with a Conservation Agent-continued

Conservation Monitor Survey	2000
Agent Contact?	33% 

Contact with a Conservation Agent-continued

2003 Opinion Survey	Urban	Outstate
Agent Contact?	32% 	51%

Remember the Urban and Outstate Trends?

- Urban residents seem to have less contact and awareness of the Department of Conservation...
- Perhaps fewer urban residents have contact with conservation and conservation agents than in the past?

Do you own a farm or rural land in Missouri?

- Just over one-third of Missourians reported yes to the question “Do you or does anyone in your household own a farm or rural land in Missouri?” (36%).

Do you own a farm or rural land in Missouri-continued

	Urban	Outstate
Yes	22%	54% 
No	78 	45

If You Asked for Help with Your Land, Who did You Contact?



Who did you contact?	Statewide
Conservation Agent	38%
Department Office	29
Forester	22
Fisheries Biologist	16
Other Department staff	12
Private Lands Biologist	10
Don't remember	10
Wildlife Biologist	6

Who did you contact?	Urban	Outstate
Conservation Agent	43%	35%
Department Office	28	29
Forester	11	27
Fisheries Biologist	19	14
Other Department staff	10	13
Private Lands Biologist	8	11
Don't remember	16	6
Wildlife Biologist	9	5

Deer-Vehicle Incidents

- About 1 in 20 reported they “have hit a deer while driving in Missouri” (5%).



Deer-Vehicle Incidents-continued

- Nearly 1 in 10 reported someone in their household had hit a deer (8%).



Trees and Forests

- More than three-quarters of Missourians feel that it is very important that “Forests improve the quality of waters in rivers, streams and lakes” (79 percent) and that “Forests provide habitat for wildlife” (84 percent).

Trees and Forests-continued

- Almost all Missourians approve of cutting trees “to improve forest health or condition” (91 percent) and to “remove diseased or dying trees” (94 percent).

Trees and Forests-continued

- A majority of Missourians approve of cutting trees “to provide places for wildlife to live” (68 percent) and “to make lumber or other wood products” (51 percent).

Trees and Forests-continued

- Missourians feel it is very important that “Forests provide scenic beauty” (55 percent), that “Forests provide lumber and other wood products” (55 percent) and that “Forests provide a place for recreation” (50 percent).

Trees and Forests-continued

- Sixty-three percent of Missourians report that they could use information from the Missouri Department of Conservation about planting and caring for trees and shrubs, and 56 percent wanted information about landscaping with native plants.

Trees and Forests-continued

- Fifty-seven percent of urban and community officials responsible for urban tree care say that their communities are not adequately addressing tree loss during development, and 54 percent say that their communities are not providing enough resources to manage and maintain publicly owned trees.

Trees and Forests-continued

- Only a few communities in Missouri have a full-time person employed for urban forestry work (25 percent), and even fewer employ someone with forestry training (7 percent).

Volunteer Activity for Conservation Organizations

- Less than one in five (20 percent) of individuals, and 23 percent of households, report that they belonged to an organization interested in the outdoors in the last 12 months.

Volunteer Activity-continued

- Only 11 percent of individuals and 16 percent of households volunteer for an organization interested in the outdoors in the last 12 months.

Three Thoughts



2

Facts About
Perceptions
and
Participation

Second Thought...

Facts About Perceptions and Participation in Outdoor Activities

2

- Missourians do value fish, forest, wildlife, and outdoor experiences. They indicate just how much through their opinions in support of conservation activities in Missouri and their participation in outdoor recreation.

These Human Dimensions...

- **In the future, you will need to seek the *support and awareness* of citizens about forestry and conservation activities, and only then, or not at all, their participation. Large numbers don't know how to be involved, won't take the time, or are not informed about traditional outdoor pursuits. Many want more varied activities.**

Three Thoughts

3
Future
Trends



Population and Trends in Missouri

2

- Current population estimate is 5.8 million Missourians;
- 69.4 percent live in or near an urban area;
- There are seven major areas of urban influence and many smaller areas of dense population.

Population-continued

2000 Census Data	Population
Missouri	5,595,211
Urban	3,881,133
Rural	1,714,078
Farm	141,155

Population-continued (2000 Census Data)

Female	51%
Male	49%

Population-continued

(2000 Census Data)

Race alone or in combination with one or more races:

White	86%
Black or African-American	12%
Other race	4%

Hispanic or Latino	2%
--------------------	----

Population-continued

(2000 Census Data)

	Number	Percent
Total Households	2,194,594	100%
Family Households	1,476,516	67%
With under 18	762,492	35%
With 65 years or older	525,811	24%

Important Trends

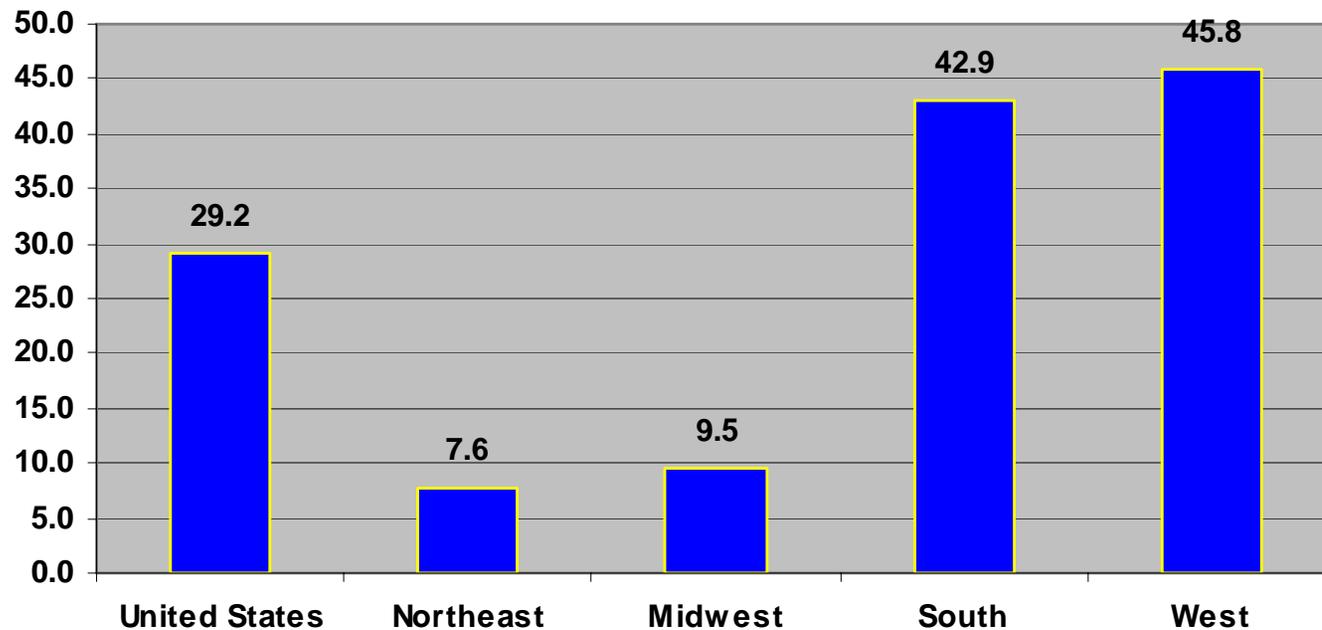
- Missouri population is growing relatively slowly at about one-half of the national average.
- Projections suggest an increase of about 500,000 or more over the next 30 years.

Trends--Continued

- “Urban” is moving to the rural areas.
- “Decentralization” according to the Brookings Institute.
- Net effect to increase “urban settings.”

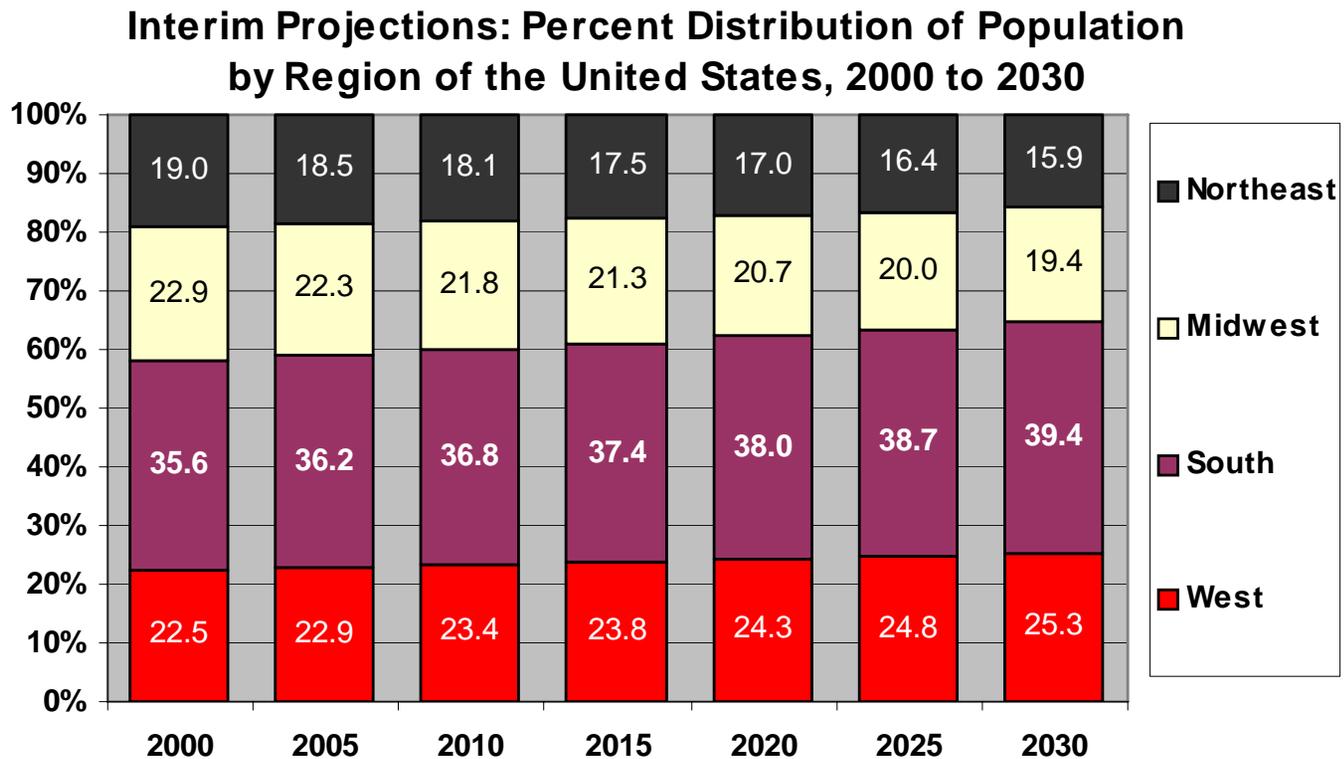
Population Projections: Regions of the United States

Interim Projections: Percent Change in Population
by Region of the United States, 2000 to 2030



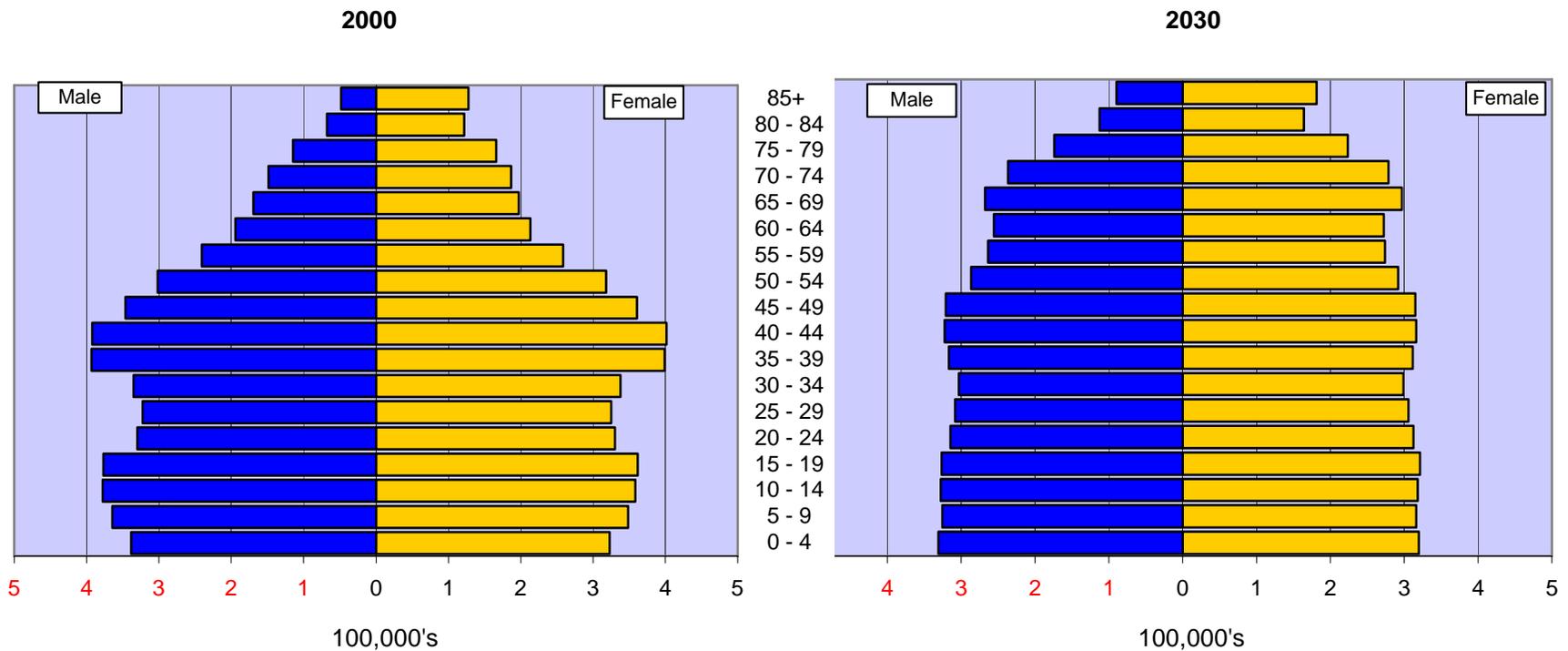
Source: U.S. Census Bureau, Population Division, Interim State Population Projections, 2005

Population Projections: Regions from 2000 to 2030



Source: U.S. Census Bureau, Population Division, Interim State Population Projections, 2005

Population Projections: Population Pyramids for Missouri for 2000 to 2030



More Trends...

- Baby boomers will swell upper age groups.
- Currently about 1 of every 3 Missourians is in the age group 25-44; this group will decline to about 25 percent by 2020.

More trends—continued...

- Elderly population over 65 will grow an additional 42 percent by 2020.
- Elderly will represent about 20 percent of population.

More trends—continued...

- Most other age groups will stay about the same or will decline.
- School age and younger children will decline in number.

More trends—continued...

- Nationwide, Missouri is no exception to most demographic trends.

Futurists discuss:

- Overall decreased rate of growth.
- Aging population.
- Increase in minority populations.
- Changes in household composition.

Missouri specifically...

- One-half of counties reached population peak at the turn of the century.
- Move from densely populated areas to more suburban and rural communities.

Why an “urban increase”?

- Mostly economic.
- Farm number is declining.
- Farms employ fewer people.
- Mining and natural resource-related jobs have declined.

Why an “urban increase”— continued...

- Increase in service-related employment.
- Reduction in manufacturing employment.

Why an “urban increase”— continued...

- In 2000, per capita income in St. Louis County was \$39,457--highest in Missouri.
- Lowest income per capita was in Hickory County at \$15,230.

Why an “urban increase”— continued...

- Most low per capita income counties are in southern Missouri in the east and west Ozarks.

Quality of Life

- The trend for moving out of cities and out of really rural areas reflects a desire for quality of life.

Amenities...

- Recreation.
- Homes.
- Lifestyles.
- Surroundings.
- Technology.

“Country Living”

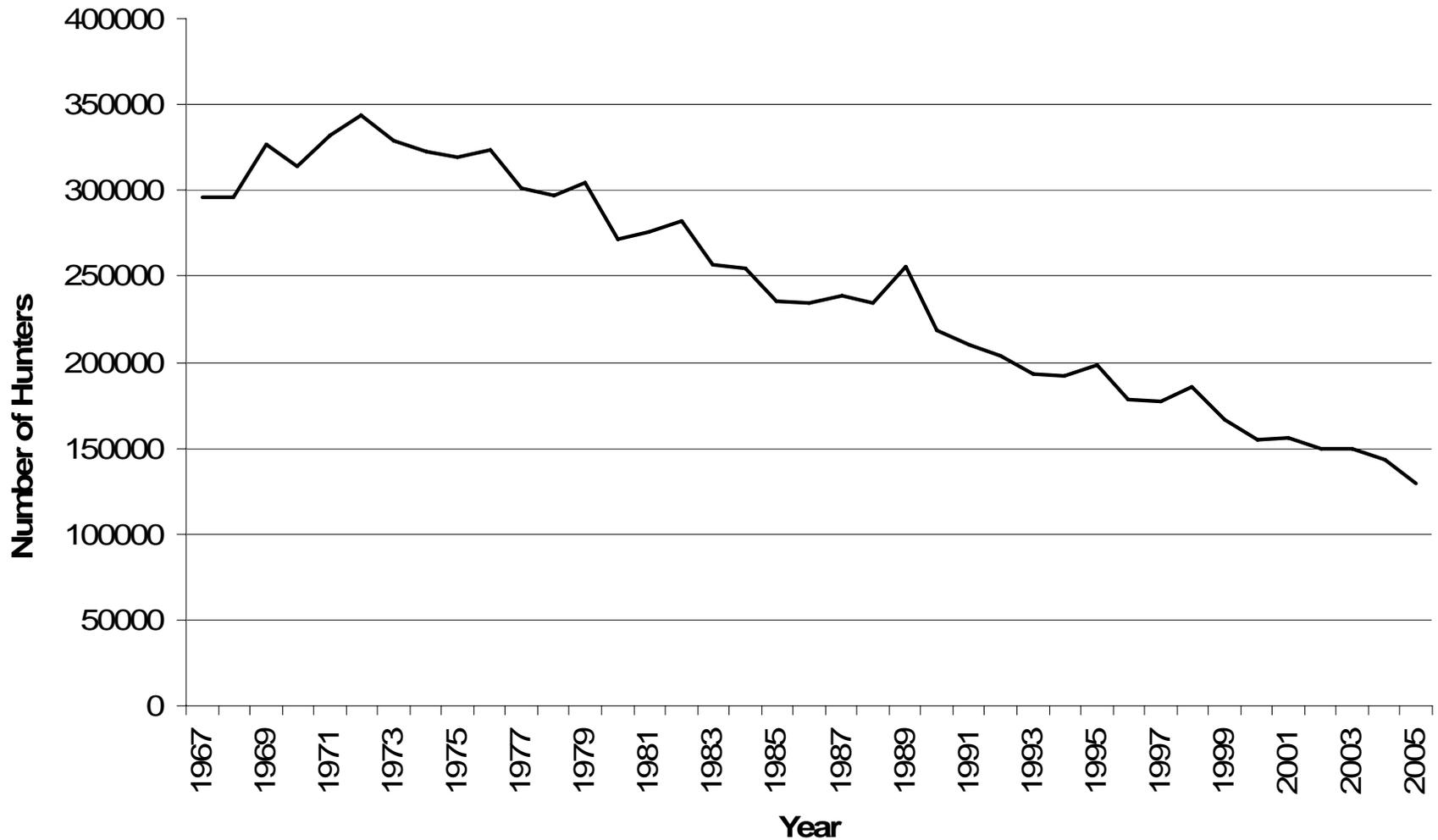
- City jobs, city ways, city expectations, and “rural” surroundings.



Who Fishes or Hunts?

- Families Afield: Missouri has the highest hunter “replacement ratio.”
- More youth entering hunting than are leaving.
- Biggest problem is that fewer individuals, percentage-wise, are beginning to hunt or fish.

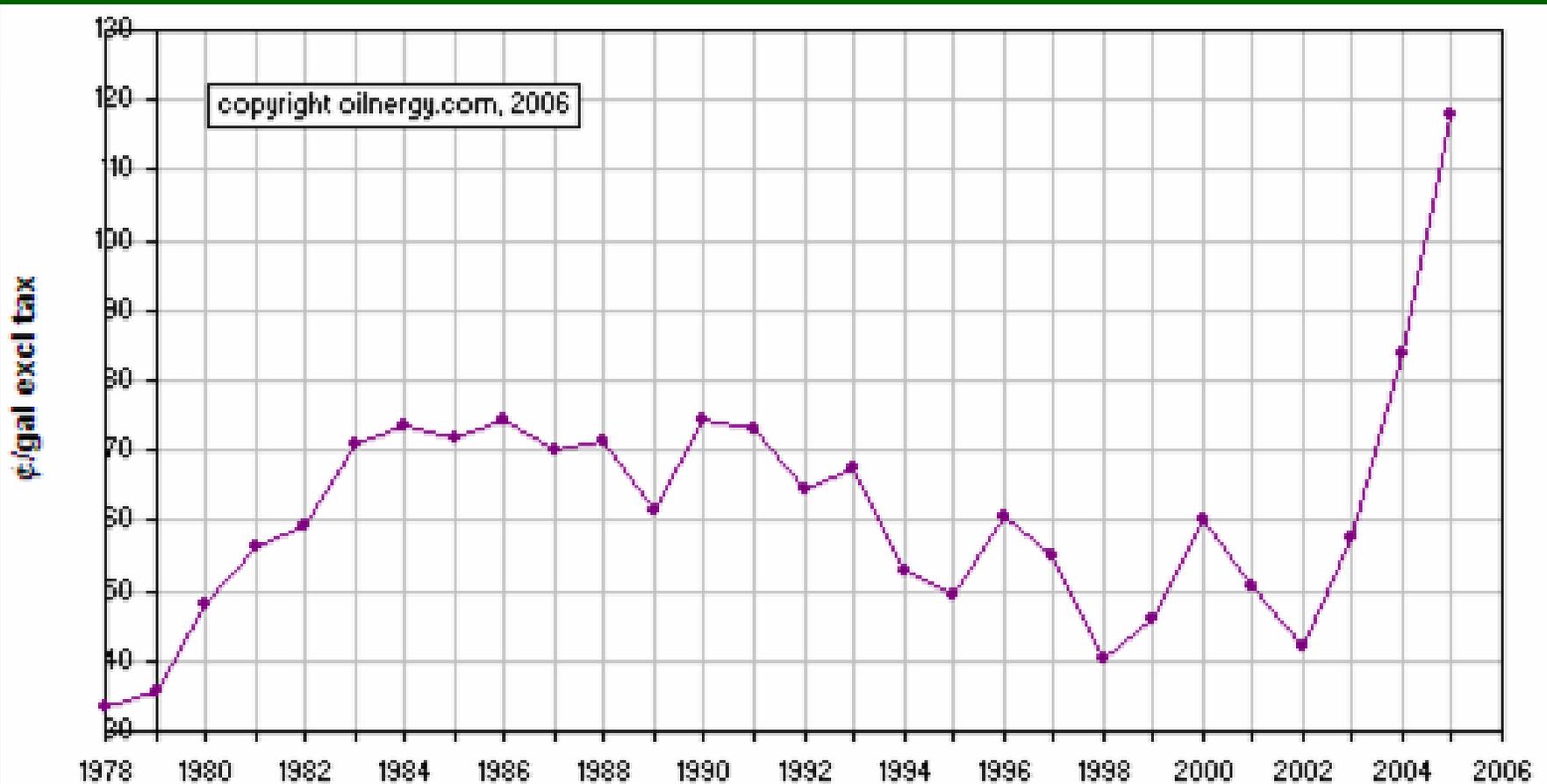
But, Fewer Small Game Hunters in Missouri



What are the Obstacles?

- Time.
- Knowledge.
- Money.
- Competing needs.
- Competing activities.

Propane Price to Residences

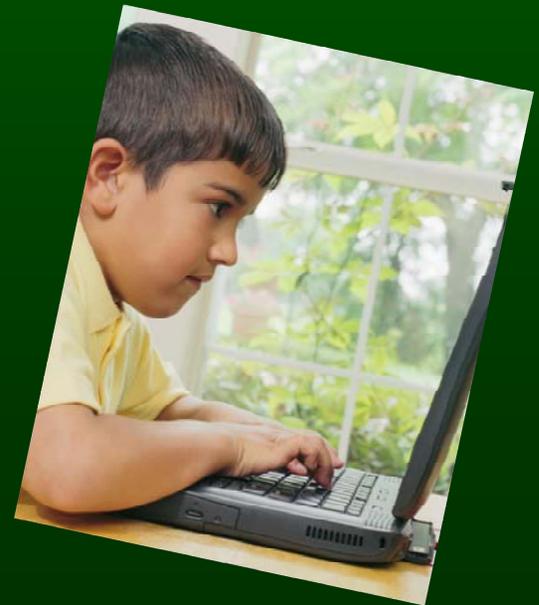


Knowledge is an Obstacle



Desired Amenities?

- Some Missouri Parks have “Wireless Internet” access.



I'd Rather Do...

Entertainment Software Association reports that:

- Fifty percent of all Americans play video games;
- Ninety-three percent who make the actual purchase of video games are over 18;

I'd Rather Do-continued

- Forty-nine percent of parents say they play computer and video games with their children at least once a month;
- The top four reasons parents play video games with their children are: because they are asked; its fun; socialize with the child; and ability to monitor content.

I'd Rather Do-continued

The National Sporting Goods Association reports that Missouri households are:

- 1.8 times as likely as other activities to play volleyball;
- 1.6 times basketball;
- 1.6 times backpacking/wilderness camping;
- 1.5 times fishing;
- 1.4 times camping.

Cool Stuff To Do...



2000s Family... Not Into Dutch Ovens?



And Who Pays For All That Outdoor Stuff?



Minority Participation



- Fear of racial intimidation.
- Fear of random violence.
- Fear of the outdoors.

Urban Residents Participation



- Fear of racial intimidation.
- Fear of random violence.
- Fear of the outdoors.

Outdoor Industry Foundation

- Invest in recruiting participants at a young age and they will be life-long participants.
- Target hiking, biking, and camping, that are popular, easily accessible, affordable, and are entrance activities to other, less accessible activities.

Outdoor Industry Foundation- continued

- “Hiking, biking, and camping have stood the test of time. They have the greatest longevity of any of the human powered outdoor sports. In addition, participators in these activities are more likely to try and participate in other sports.”

Three Thoughts

3
Future
Trends



Third Thought...

Future Trends

3

- People are increasing in number in Missouri and are moving to suburban areas from the truly urban and rural areas. They seek quality of life and amenities often unique to Missouri.

These Human Dimensions...

- **You must seek ways to be relevant to an increasingly urban population. Using economic information and linking management activities to quality of life issues may be one way to create emotional connections.**

Conclusions



3
Future
Trends

1 2

Facts About
Perceptions
and
Participation

Human Dimensions

Three Objectives...

- Why you should consider the “human dimensions” of management;
- Facts, about perception, attitudes, and outdoor participation of Missourians;
- Highlight some future trends, in Missouri and across the United States.

Three Thoughts



3
Future
Trends

1 2

Facts About
Perceptions
and
Participation

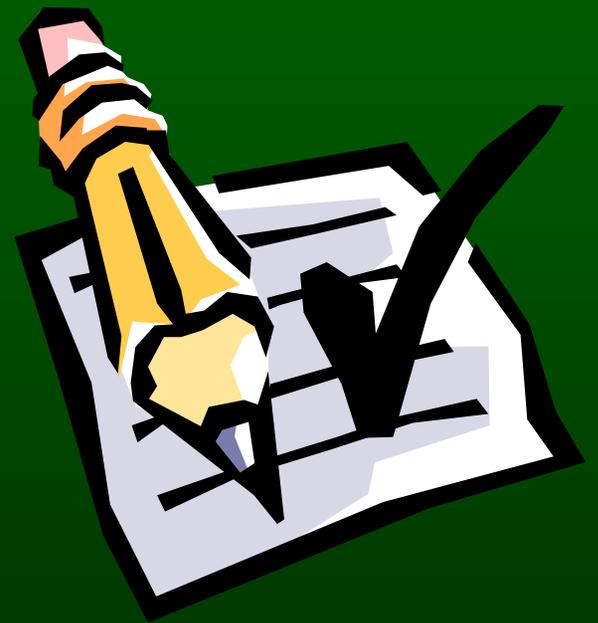
Human Dimensions

First Thought...

Human Dimensions

1

- Human Dimensions has a long history in the Department with over three decades of focused endeavor. Information about people provides accountability and clues for informed management decisions.



These Human Dimensions...

- **You must use information to *act*. A truly great performance requires action.**

Second Thought...

Facts About Perceptions and Participation in Outdoor Activities

2

- Missourians do value fish, forest, wildlife, and outdoor experiences. They indicate just how much through their opinions in support of conservation activities in Missouri and their participation in outdoor recreation.

These Human Dimensions...

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TM





Missouri Gross State Product 2004

(millions of current dollars)

Industry	GSP (Current \$M)	% of Total GSP
Total Gross State Product	205,847	--
Private industries	181,565	88.2%
Agriculture, forestry, fishing, and hunting	3,308	1.6%
Mining	728	0.4%
Utilities	3,516	1.7%
Construction	9,616	4.7%
Manufacturing	31,155	15.1%
Wholesale trade	13,231	6.4%
Retail trade	14,427	7.0%
Transportation and warehousing	7,235	3.5%
Information	9,517	4.6%
Finance and insurance	12,437	6.0%
Real estate, rental, and leasing	21,240	10.3%
Professional and technical services	11,444	5.6%
Management of companies and enterprises	7,305	3.5%
Administrative and waste services	5,535	2.7%
Educational services	2,399	1.2%
Health care and social assistance	15,226	7.4%
Arts, entertainment, and recreation	2,762	1.3%
Accommodation and food services	5,327	2.6%
Other services, except government	5,158	2.5%
Government	24,281	11.8%