

National Park Service
U.S. Department of the Interior

Fire Management Program Center
Boise, Idaho



Fire Management Program Center FY2002 Fire Report



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National Park Service Regions



The map pictured above depicts the National Park Service regions. The following list identifies the corresponding park clusters serviced by Support Offices (SOs). Not all SOs are staffed with fire management personnel. Support Office fire management staff may support parks from other clusters.

Alaska Region (AKR)

Alaska Support Office (AKSO)

Intermountain Region (IMR)

Intermountain Support Office - Denver (IMSO-DE)

Intermountain Support Office - Santa Fe (IMSO-SF)

Midwest Region (MWR)

Midwest Support Office (MWSO)

National Capital Region (NCR)

National Capital Support Office (NCSO)

Northeast Region (NER)

Allegheny Support Office (ALSO)

Chesapeake Support Office (CHSO)

Boston Support Office (NESO)

Pacific West Region (PWR)

Columbia Cascades Support Office (CCSO)

Pacific Great Basin Support Office (PGSO)

Pacific Islands Support Office (PISO)

Southeast Region (SER)

Appalachian Support Office (APSO)

Atlantic Coast Support Office (ATSO)

Gulf Coast Support Office (GCSO)

WILDLAND FIRE ACTIVITY SUMMARY

Alaska Region

Alaska region experienced an unusual fire season in 2002. The season began earlier than usual with significant activity that moderated during the midseason but again increased to high levels later in the season. On May 19, 2002 a lightning fire started in Denali National Park and Preserve across the river from the gateway community of McKinley Village. Due to the early date, the initial dispatch of forces was delayed. This fire had potential to threaten McKinley Village and Denali front country. The fire was directly across the river from the Princess Lodge in McKinley Village. Guests watched suppression efforts. Denali fire management personnel responded to two additional suppression fires since they were the nearest resources.

Intermountain Region

The level of activity the Intermountain Region (IMR) experienced during 2002 was unprecedented. Significant workload was associated with Program Management, Preparedness, Fuels, Wildland Fire Activity, Fire Ecology and Aviation. During the peak of activity, all four geographic area Multi-agency Coordination (MAC) groups that the IMR coordinates with, were functional and required substantial participation by agency representatives.

In 2002, lack of burn windows resulting from widespread drought, and delays in project compliance precluded parks from accomplishing planned projects and reaching their targets. Arizona, New Mexico, Utah, and Colorado all experienced exceptionally active fire seasons. Within most of the Region, fire restrictions were in place by April, so most parks did not have a spring burning season. The drought, which began in fall 2001 did not abate until fall 2002.

Midwest Region

The severity of the 2002 fire season across the country was unparalleled in recent history. It started early and continued across most of the country until mid-September. The Midwest supported the national call for firefighters and support personnel by sending out 575 individual park employees on off-park assignments. Most of the assignments were 14 days in length with 14 hours worked per day for approximately 142,000 hours spent on fire assignments. This was in addition to the 44 fires that were managed on park property in the Midwest.

National Capital Region

National Capital added to their 160 fire fighters and single resources by sponsoring 2 Basic Wildland Fire academies during which 25 new NPS and 25 new Americorps firefighters were trained. Wildland firefighters supported other regions with suppression in the Southeast Region, Pacific West Region, and the Intermountain Region. A prescribed fire program has begun in NCR. It is still in its infancy with pre burn monitoring currently taking place. Next year 3 burns are planned.

Northeast Region

Although the 2002 fire season in the Northeast was marked by the third year of a Region-wide drought, fire activity was light. Parks within the Northeast region responded to 63 fires that required suppression, nine that were declared natural outs and 83 support actions. During the final three months of 2002, the Region received significant precipitation to relieve the long-term drought.

The Northeast Region filled a total of 1,264 resource orders during the past season. 1,055 of the resource ordered filled were for large fire support and 209 resources were sent to all-risk events. The Region continues to utilize the 24-hour dispatch capabilities of the Eastern Dispatch Center at Shenandoah National Park.

Pacific West Region

The severity and length of the 2002 fire season produced an extraordinary demand for firefighting resources. The parks and other units in the Pacific West Region responded to the national fire situation by making fire qualified personnel available from all units to assist in the national effort.

The fire danger was high to extreme in most of the Pacific Northwest, Southern California and Nevada throughout the fire season. Most NPS units experienced a higher than normal number of ignitions. Initial attack forces controlled all but a few of these fires.

Yosemite and Sequoia and Kings Canyon National Parks were able to successfully manage a large number of lightning fires as wildland fire use projects. The assistance of all the fire use modules was an essential part of the effort.

Crater Lake National Park had a higher than average number of fires within the park. No serious injuries or accidents were reported. All of the fires were suppressed at the initial or extended attack stage using contract hand crews, aviation modules, smokejumpers, and interagency engine crews.

Golden Gate National Recreation Area had five human caused fires, all of which were controlled during initial attack. The largest fire, the Whitegate Fire, located adjacent to the North Tower of the Golden Gate Bridge, was controlled with an engine and hand crew.

Kilauea in the Hawaii Volcanoes National Park (HAVO) completed its 19th year of eruption and is currently producing approximately 1,000,000 cubic meters of lava per day, exceeding the average flow of 300,000 cubic meters per day. A new lava flow heading in a westerly direction into vegetated areas started eight wildland fires, the largest of which was the Kupukupu Incident. The Kupukupu fire was the first recorded wildland fire in a closed canopy ohi'a rain forest during a normal rainfall year.

In 2001 an initial attack vehicle was purchased for use along the Kaloko Honokohau National Historical Park's trail system. This year HAVO fire personnel re-worked the plumbing to make it user friendly, and to increase the capability of this unit. It is now ready for use.

Joshua Tree National Park is in the third year of drought, with less than one inch of precipitation recorded at the Los Horse Remote Access Weather Station (RAWS) from January through September. The majority of the 27 fire responses from the Black Rock Interagency Fire Center were outside the Joshua Tree Fire Management zone. Fire activity was minimal throughout the California Desert due to lack of fine fuels.

No wildfires occurred in Lava Beds, though the summer of 2002 was very busy for fire personnel at Lava Beds. Lava Beds assembled a 20-person hand crew with Fish & Wildlife and the Forest Service for two 14-day assignments. The Type III Interagency Forest Service engine went on several 14-day fire assignments and responded to 9 medical assists.

Park resources at Lake Mead suppressed 10 fires in or threatening park property, five fires on adjoining cooperator protection and supported 88 other fires nationwide. Lake Mead resources traveled the western states on rotation supporting the national fire emergency.

There were 27 fires at Lake Roosevelt in 2002. The largest fire was six acres in size. The park assisted with 14 other fires on adjacent jurisdictions.

Lassen Volcanic National Park had five wildland fires in 2002. Two were human caused, and the other three started by lightning. Each of the natural starts was located in the Fire Use Zone; Stage one WFIPs were initiated, but in each case, the decision was made to suppress.



The Wild Horse #2 fire burned 650 acres in pinyon-juniper and sage fuels in July at the Mojave National Park. This natural ignition was close to developed areas and private lands and was being actively suppressed at 20 acres by engine crews when it was struck by a downdraft from a thunderstorm. It escaped control lines and made a major run. The fire exhibited extreme fire behavior with 50-100 foot flame lengths and the rate of spread was approximately 150 ch/hr. The fire was successfully contained during the next burning period, under a local Type 3 organization.

Ten fires were suppressed in the North Cascades (NOCA), five human and five lightning caused for a total of less than two acres burned. Fire season began with a few lightning fires in mid to late August and ended with a human caused fire on Halloween day, the latest recorded wildfire start west of the Cascade Crest at NOCA. No fires were managed for resource benefit due to the busy fire season and shortage of personnel and equipment nationwide, although one fire was managed with a confine strategy.

Fire activity within Olympic National Park was light to moderate in 2002, in spite of an unusually dry and prolonged fire season. Fire personnel were kept very busy, however, with many dispatches out-of-park, and continued work on hazard fuel reduction projects. There were 18 human-caused fires in the park, totaling 4.1 acres.

Redwood National Park had three wildland fires none of which escaped initial attack. The park had 35 red-carded firefighters, and five overhead qualified staff members during the 2002 fire season. Three employees maintained positions or became members of overhead teams.

Santa Monica Mountains suppressed eight wildfires for 18.6 acres. The largest fire was 15 acres. The RAWS stations indicated that the park was in very high to extreme fire danger conditions through most of the summer and fall.

Southeast Region

The year 2002 brought an end, at least temporarily; to the several-year drought that Great Smoky Mountains National Park has been experiencing. While the winter and spring were more normal in terms of precipitation, the summer was marked by significantly below normal rainfall. The Parks had an unprecedented dry fall fire season.

In calendar year 2002, Everglades National Park had 45 fires totaling 20,069 acres within the Park. The Park also provided assistance to the Florida Division of Forestry with 32 fires in or near the cooperative mutual threat zone along the eastern park boundary.

Forty-one external support actions for fire assignments began in May in Georgia and extended through the western summer fire season. In September the last of the park resources returned from fires in Oregon.

Natchez Trace Parkway experienced 12 wildfires during 2002 with a total acreage of 20.9 acres burned in the Park and an additional 301.8 acres burned within the protection zone. The number of wildfires increased 20% and acreage increased 863%.



PROGRAM ACCOMPLISHMENTS

Fire Management Program Center

In response to direction provided by the Office of Management and Budget (OMB) and a need identified by the five federal wildland fire agencies (NPS, BLM, BIA, FWS, USDA-FS) an interagency group gathered in Boise during the fall of 2001 to begin the process of replacing the aging fire program analysis systems currently in use by the various agencies. The result of the 2001 meeting was a report titled "Developing an Interagency, Landscape-Scale Fire Planning Analysis and Budget Tool".

The primary finding of the report was that a common fire program analysis across the agencies based on land management objectives was both possible and desirable. Consequently OMB accepted the report findings, and the Fire Program Analysis (FPA) System project was launched.

The first priority of the project team is to develop an initial attack budget planning and analysis module by September 2004. Additional modules to aid in planning and budget preparation for fire use, fuels management, and large fire support are envisioned for the future. For further information visit the project website at <http://fpa.nifc.gov>.

The Fire Management Program Center (FMPC) staff continued to support the National Interagency Fire Use Management Teams (FUMT) through Command and General Staff assignments. The 2002 wildland fire season was somewhat different than past years in that the FUMTs' assignments were primarily the management of low to moderate complexity confinement fires, and their season started much earlier than in past years as a result of assignments in Georgia in early May. FUMT assistance was provided to the Blackjack Bay Complex (Okefenokee NWR) - two team assignments; Cub Fire (Gila NF); Burn Ridge Fire (Routt NF); and the Little Horse Complex (Salmon/Challis NF).

Assistance was provided to the Intermountain and Northeast Region Fire Management Offices in conducting FIREPRO audits at Big Thicket National Preserve, and Acadia National Park.

The FIREPRO Steering Committee worked closely with fire effects program managers from all organizational levels to modify and improve analysis logic that is now applied to fire effects and ecologist staffing in the annual FIREPRO analysis.

The ROSS Project has several accomplishments for 2002:

- Approximately 200 offices are using ROSS for Data Admin and Resource Status.
- Training sessions for resource ordering with ROSS continue.
- Geographic areas are conducting sessions on the practice server. Students can become proficient before they have an incident--practice is critical for success.
- Other development continues for additional functionality.
- Geographic areas will conduct readiness reviews to insure they are ready to use ROSS in a production mode.
- The contracted helpdesk is doing a good job in assisting users.

The Fire Management Mentoring Program continued successfully in 2002. In Mentoring Generation III seventeen mentees were selected representing the Southeast, Midwest, Intermountain, and Pacific West regions. The mentees were primarily from fire management but other divisions within the NPS were represented also. Selections were made for Mentoring Generation IV, which will receive orientation in FY03.

Rick Gale officially retired January 3, 2002 from the Deputy Chief Ranger position with the National Park Service. The position has been advertised as a GS-0401-14/15 Chief, Division of Fire and Aviation Management and will be located in Washington, DC.

During 2002, program accomplishments for Fire Science & Ecology were dominated by the occurrence of significant unplanned events but also included recurrent work activities and accomplishments. The major emphasis was associated with fuel treatment and National Fire Plan implementation. One additional position, a Fuels Treatment Specialist, was added to the Fire Science and Ecology staff at Ft. Collins, CO.

Program Center staff continued to serve in support of work groups that addressed action plan items identified in the Implementation Action Plan for the Federal Wildland Fire Management Policy and Program Review, chartered by the Secretaries of the Interior and Agriculture. Staff members presented numerous presentations describing policy description, status, and implementation. Staff also worked on implementation of the National Fire Plan. Fuel treatment proposal, planning, and documentation were an important component of this activity. To fully track and document fuel treatment activities, the Fuel Analysis Smoke Tracking & Remote Access Computer System (FASTRACS) software program was adopted by NPS and utilized during 2002. Staff members were instrumental in development of this program, managed its use, and provided support to regions and field units.

The Department of the Interior developed a national tracking and storage database, the National Fire Plan Operating and Reporting System (NFPORS). The NPS also utilized this system and will place much greater reliance on it in the future.

Now in its second year, the National Park Service Fire Communications and Education Program continued to grow and develop since the program was implemented in FY'01. The past two years have been extremely busy and successful for the program servicewide. The overall focus has been on developing, expanding, and implementing the internal and external fire communication programs, which has resulted in enhancing the knowledge and understanding of NPS Fire Management within the various disciplines of the NPS and with our interagency partners.

Coordinating communications with departmental, national, regional, and field offices, along with the various interagency partners, the national communications and education program reached a wide variety of audiences and strengthened ties with internal and external partners.

Fire communications throughout the NPS continued to expand during FY '02 with the efforts of the Fire Communications and Education staff at FMPC and that of field staff. The program, though young, achieved many successes during 2002.

Publications and reports produced by the FMPC staff members wholly or in part include:

Refinement of Interdepartmental (USDA-USDI) Cohesive Strategy for Reducing Catastrophic Wildland Fire in cooperation with USDA-FS, BLM, and USDI department-level staff (Tim Sexton).

Assisted in development of Fire Regime Condition Class field guide (with USDA-FS, BLM, and TNC) (Tim Sexton).

Developed white paper and executive summary for NPS Director on NPS implementation of the President's Healthy Forest Initiative (Tim Sexton).

Zimmerman, G.T. 2002. Federal Agency Needs – National Park Service. P. 4. (in): Coffelt, J.L., and R.K. Livingston. 2002. U.S. Geological Survey Second Wildland Fire Workshop. Los Alamos, NM. October 31 – November 3, 2002. U.S. Geological Survey, Denver, CO. Open-File Report 02-11. 109p

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Zimmerman, G.T. In press. Fire as a management tool. Proceedings, Fifteenth Biennial High Altitude Revegetation Workshop. Colorado State University, Fort Collins, CO. March 2002.

Zimmerman, G.T. In press. Fire, fuel treatments, and ecological restoration: proper place, appropriate time, closing comments. Conference Proceedings, Fire, Fuel Treatments and Ecological Restoration: Proper Place, Appropriate Time. Colorado State University, USDA Forest Service, Rocky Mountain Research Station, Fort Collins, CO.

Zimmerman, G.T. In press. Fire Management in National Parks in the United States, Past, Present, and Future Issues. Conference Proceedings. Global Challenges of Parks and Protected Area Management Symposium, International Symposia on Society and Resource Management, Simposio ISSRM, Dipartimento di Botanica ed Ecologia Vegetale, Università degli Studi di Sassari, Sassari, Italia.

Alaska Region

This is the second year of a four-year project to document and finalize fire protection priorities for cultural resources. Projects were completed in Lake Clark National Park and Preserve, Denali National Park and Preserve and Yukon-Charley Rivers National Preserve. Fire funded term Cultural Resource Specialists are directing the field data collection effort under the guidance of area Fire Management Officers (FMOs).

The Rural Fire Assistance Program provided about \$44,600 to four local Volunteer Fire Departments within or adjacent to NPS units. The environmental assessment for the Denali Front Country Hazard Fuel Reduction Project continued to work its way through the compliance process and is anticipated to be completed in early 2003.

Wrangell-St. Elias National Park and Preserve has occupied all new park facilities. They include administration, visitor center, theater, museum, water treatment plant, and comfort station. These facilities are equipped with fire suppression and detection systems.

Completion of park-specific fire management plans continues to be a high priority. The Wrangell-St. Elias Wildland Fire Management Plan was completed and drafts are underway at several parks.

Jennifer Allen was hired as the Regional Fire Ecologist in September. Jennifer will represent Alaska in NPS fire ecology/monitoring efforts. Since existing monitoring programs are not applicable to Alaska, she will concentrate on the development of fire effects monitoring methods/protocols for Alaska with interagency partners.

Intermountain Region

The Long Mesa Fire Review was conducted October 22-24, 2002. This review resulted in the recognition of NPS and local fire department employees for their over-the-top level of performance that saved most of Mesa Verde National Park's infrastructure.

Personnel changes within the Branch of Fire and Aviation included moving Eva Long out of the regional compliance staff to the Branch of Fire and Aviation and replacing her with a second position that was converted from contracting. This was done in response to a shift in program workload.

The Intermountain Region (IMR) fielded a Fire and Aviation Safety Team (FAST) to visit five parks during this fire season to evaluate how parks were complying with work/rest guidelines and fatigue management, readiness, initial attack effectiveness and staffing, severity funding expenditures, qualifications, readiness review deficiency corrections and support to area parks. The findings of the FAST team were essentially that the reviewed parks were doing everything they could, given the level of funding and staffing they received. The most significant finding the team identified is the Area FMO concept is not working. There is too much non-discretionary work to do at area parks for current staffing to manage.

Over 4,000 hours of flight time were recorded within the region with over 1,200 hours in direct support of wildland fire activities. There were no accidents within the region. SAFECOM submissions were up as a result of improved employee training and an increase in the number of flight hours/exposure. As in previous years, personal protection equipment violations were the number one issue reported.



The Palisade Fire, Kings Canyon

The Mesa Verde helicopter program successfully converted from fleet owned to a contract helicopter, staffed by a standard helitack module, flying over 300 hours of support to interagency fire activities. The Zion fairshare helitack modules moved into new facilities jointly operated with BLM and now have a permanent home. Regional office staff were active in several aviation related fire assignments and were instrumental in developing the first ever FAST team criteria and coordination in Region 2.

Regional aviation program reviews were conducted at Saguaro, Glacier, Carlsbad Caverns, Curecanti/Black Canyon, and Big Thicket. Additionally, all other significant aviation facilities within the region were successfully self-inspected under the region's new aviation facility review program. Six employees received Airwards under the region's newly adopted recognition program. Two employees received Department valor awards for their actions in a helicopter crash on an eastern fire.

IMR parks were involved in the national implementation of FASTRACS as a data management system for the fuels program in 2002, replacing SACS. Implementation of this system mid-course during a very active fire season was difficult. Internet-based training sessions were well attended. Feedback on project development and input to reinforce the training was inadequate. This has contributed to problems attaining clean data.

Further development of fuels business rules and standard practices, accompanied by user handbooks and better quality training will greatly improve the data collected in the future. Further FASTRACS or NFORS implementation should take advantage of lessons learned in 2002. Development of Regional verification and approval modules for those systems is critical to success.

The Intermountain Region expended over \$2.4 million in severity funding to support local, zone and geographic area extended staffing needs. Resources utilized to meet extended staffing included extending exclusive use helicopters and modules, pre-positioning Type 2 crews and engine companies.

National Capital Region

National Capital filled an Assistant Fire Management Officer position. This position assists the Regional Fire and Emergency Management Program Manager with Wildland Fire Management planning, conducts interagency evaluations of WUI communities and works with parks to develop and Hazard Fuel Reduction projects.

Northeast Region

The parks within the Northeast Region supported over 40 Volunteer Fire Departments with equipment and supplies and by conducting basic firefighter training in the evenings and on weekends. \$200,000 was spent on personnel protective equipment and other equipment and it provided to the rural fire departments.

The Northeast Region had several new employees complete their first full season in the Region. These included Shenandoah Fire Management Officer Allen Biller, New River Gorge Fire Management Officer Bruce Miller, Northeast Region Education and Information Specialist Barb Stewart and several subject-to-furlough positions in the parks. These additions to the Northeast Region will continue to allow them to move forward in achieving the goals set out in the National Fire Plan.

The major emphasis of the fire management program during 2002 was to accomplish the goals of the National Fire Plan. This past year there was a strong push to upgrade the public information aspects of the National Fire Plan. The NPS was instrumental in the formulization of the Virginia Interagency Prevention and Education Team.

A Joint Fire Science Proposal (JFSP) was developed and submitted to the JFSP board and accepted. The proposal, Yellow Pine Population Dynamics in The Central Appalachians, involves the cooperative efforts of Shenandoah National Park, the George Washington and Jefferson National Forest, and research personnel from the University of Tennessee, Texas A&M, and the University of Arizona. The three-year study will focus on the stand dynamics of Table Mountain and Pitch Pine associations that are rapidly disappearing from forest habitats in the Central Appalachians.

Pacific West Region

The Pacific West Region (PWR) fire ecology program strives to assure that the region's fire management activities are implemented in an ecologically appropriate manner to meet park goals and objectives. This year, the fire ecology and cultural resource staff continued to be heavily involved in the fire management planning process. The use of long-term fire effects monitoring data as input to the planning process also continues to be a major goal of the fire ecology program.

All of the fire ecologists in the region assisted with park fire management plan (FMP) revisions this year. The amount of ecologist involvement in developing fire management plans and associated environmental compliance documents varied among parks depending on staff size and organization. Fire ecologists are responsible for developing the fire-monitoring plan, an appendix to the fire management plan. Only a few fire-monitoring plans have been completed to date in the region. The fire ecology staff will continue to support the fire and resource management staff as the NPS fire management plan completion date approaches.

Another area where significant progress was made this year is the integration of the NPS Inventory and Monitoring (I&M) program and the fire ecology program. Following years of limited coordination, the recent growth of the I&M program has provided us an opportunity to work together. Park fire ecologists in the region are now working with their respective I&M network coordinator which allows for better integration. Networks and parks are finding it useful to include fire ecologists in their I&M scoping sessions, where their input and experience is helpful for developing network-wide objectives and monitoring programs. Efficiencies will be gained through increased program coordination, joint planning and the sharing of program resources will gain efficiencies, and therefore we will be able to manage NPS natural resources more effectively.

This year Brian Twedt was hired as the new park fire ecologist at Point Reyes National Seashore (PORE) to oversee the quality of fire effects data and provide a bridge between monitoring and management. At Sequoia and Kings Canyon National Park, Karen Webster was hired as the lead fire effects monitor.

Southeast Region

Great Smokey Mountains National Park conducted five burns for a total of 838 acres in 2002. The Park also cooperated with the National Prescribed Fire Training Center to host a team of trainees to help conduct the burns. Summer burning opportunities were missed due to the moratorium imposed by the Fish and Wildlife Service due to potential impacts to the federally endangered Indiana Bat; formal consultation is continuing to clarify burning constraints.

This was the second year for the Rural Fire Assistance program. The emphasis this year was on purchasing items that the departments identified as needs. Ten fire departments received a total of \$30,000 worth of equipment.

The largest single prescribed burn in Everglads National Park was the Broad River. It was ignited on June 1; burned 8,052 acres over the course of several days. This fire was a unit of the “Coastal Prairies” prescribed fire project, which is follow-up fire treatments of areas that have been aerially herbicided for Old World Climbing Fern abatement. The Old World Climbing Fern is a tremendously aggressive exotic plant species that has been invading shrubby areas embedded in large, tall grass prairies in some of the most remote parts of the Everglades.

Overall the recruitment and staffing situation in Everglades F&A was quite successful this year. They are closing out 2002 at near full staffing in all areas of the program.

Under the Rural Fire Assistance initiative for Natchez Trace Parkway additional personal protective equipment and training materials were purchased for eight additional cooperating volunteer fire departments. The total number of cooperators benefiting from this initiative increased to 51.



Grand Teton National Park; Wolff Ridge Prescribed Fire

Wildland Fire Use for Resource Benefits

This was the fifth year for the **Great Smoky Mountains Fire Use Module** and they had a successful season (Jan 6 – Jul 6). Projects were completed in their assigned parks and in support of the **Cumberland Gap Fire Use Module**. Their interagency assists were balanced with the effort to attain NPS fuels targets. They started the season at Eglin Air Force Base in northern Florida.

The 2002 fire season proved to be another busy one for the **Zion Fire Use Module**. The season saw changes in personnel and leadership on the module. The crew participated in prescribed burning, hazard fuels reduction, wildland fire suppression and wildland fire use on National Park Service, USDA Forest Service, Bureau of Land Management, Fish and Wildlife Service, and Utah State lands.

Fire use season began in August and the **Zion Fire Use Module** responded to the White River/ Routt National Forests for the Big Fish and Lost Lakes Wildland Fire Use for Resource Benefits (WFURB). The module monitored both fires for two weeks and participated in hazard tree falling around Trapper's Lake. In September the module staffed the Pinto Ridge WFURB on the Wasatch-Cache NF in the High Uintas Wilderness Area.

Fall prescribed fire season took the **Zion module** north to Glacier NP for the Big Prairie burn, south to Saguaro NP for the Mica Bowl burn, then west to Lassen Volcanic NP for the Hole burn. Overall 1,210 acres were treated this fall. The Clear Trap RX burn planned at Zion NP was cancelled due to unfavorable weather. In between assignments this season the module participated in four hazard fuels reduction projects. This module had a successful year demonstrating the diversity and flexibility of each individual.

Whiskeytown Fire Use Module personnel were critical to fire use activities in eight National Park Service units for 128 days on both prescribed and wildland fire use for resource benefit fires (WFURB). Additionally, Whiskeytown assisted one National Forest and one California Division of Forestry and Fire protection unit with fire use and prescribed fires for 20 days. Total days spent on assignment (overlapping assignments are not counted) were 148, all without a single negative evaluation or lost time accident. These figures alone demonstrate the significant change in the Whiskeytown module structure, professionalism and overall management.

Fiscal Year 2002 saw the **Whiskeytown FUM** start over with existing module personnel (FY01) taking different positions within the National Park Service and with other agencies.

The **Bandelier Fire Use Module** accomplished a variety of projects throughout the country during the 2002 fire season. The module served as the core overhead for two type-2 handcrew assignments in July and August during national preparedness level five. The module took a wildfire assignment in late August and did a variety of monitoring, lookout, operational and field observer assignments working for the situation unit on the Biscuit Fire in Oregon. A busy fall included eight prescribed fire assignments and four weeks of training. The module went to the Pacific West Region for a burning assignment at Lassen Volcanic National Park. The module ended the season by completing a ten-acre wildland urban interface fuels project for Pecos National Historical Site.

Saguaro Fire Use Module helped to burn 2,860 acres in seven different states on one mid-west tour. The FUM was assigned to suppression support on the Bullock fire. There were a total of 12 NPS assists totaling 3,456 burned acres.



Hawaii Volcanoes National Park

FIRE EFFECTS MONITORING

The Fire Effects Monitoring program continued throughout the year, establishing numerous new plots in the park and monitoring others post-burn. The Fire Effects crew traveled to Gulf Islands National Seashore to monitor plots post-burn that had been established last year and to install additional plots. Plots in Canaveral National Seashore were installed and photo points in Timucuan Preserve near Jacksonville, FL were established.

Fire effects monitoring and prescribed fire support were provided to Gulf Islands National Seashore in Mississippi and Florida; Little River National Preserve in Alabama; and Mammoth Cave National Park in Kentucky.

The Pacific West Region (PWR) fire ecology program strives to assure that the region's fire management activities are carried out in an ecologically appropriate manner to meet park goals and objectives. This year, the fire ecology and cultural resource staff continued to be heavily involved in the fire management planning process. The use of long-term fire effects monitoring data as input to the planning process also continues to be a major goal of the fire ecology program. Both region and park fire ecologists have committed considerable time towards the development of site fire management plans and their associated compliance documents.

The PWR has continued to participate in burn severity mapping developed jointly by the USGS and the NPS. This effort is designed to determine burn severity across the landscape using remote imagery, specifically LANDSAT Thematic Mapper (TM) imagery.

A comprehensive vegetation map and attendant fuel loading study has begun in Shenandoah National Park. This is a cooperative effort involving the USGS, Virginia Department of Conservation and Recreation, The Nature Conservancy, and Shenandoah National Park.

A widespread vegetation mapping and fuel loading study is underway for certain National Parks in the State of Virginia (Mountains-to-the-Sea Cluster Parks). The field support staff at North Carolina State University is providing the lead in the development of this project along with project oversight and assistance from the Fire Ecologist, GIS Specialist, and other Shenandoah National Park staff. The use of the Burgan and Rothermel Occular Estimation Method for development of dynamic fuel models, particularly in those areas of the Parks where gypsy moth mortality has created a fuel complex that cannot be adequately modeled with any of the current 13 NFFL fuel models, is a critical segment of the project.

INTERAGENCY HOTSHOT CREWS

The 2002 fire season was also the 22nd season for the Arrowhead Hotshots. The crew started on May 5th and terminated on November 7th with 111 days committed to wildland fire assignments. The crew worked 15 Interagency suppression fires for a total of 28,808 work hours. The crew supported three NPS prescribed fires for a total of 4,608 work hours. In 2002 the crew worked a total of 33,416 work hours in wildland fire operations. The following agencies were supported by the crew on these fire assignments: NPS-Pacific West Region (HAVO, SEKI, and YOSE), BIA-Arizona, USDA-FS-Regions 2, 4, and 5, and the California Department of Forestry. Due to the large amount of time spent committed to fire assignments in 2002 there were very few opportunities for any other project work.

Arrowhead Hotshot Crew - Wildland Fire Assignments <u>2002</u>			
<u>FIRE NAME</u>	<u>LOCATION</u>	<u>ACRES</u>	<u>DATES</u>
Bouquet	Angeles NF	4,975	5/11-14
SEKI AB Misc	Sequoia NP	2 fires	6/01
Kupukupu	Hawaii Volcanoes NP	3,660	6/02-18
Chediski	Fort Apache BIA	469,320	6/23-7/07
Big Spring	Fort Apache BIA	.10	7/03
Inyo Complex	Inyo NF	6,400	7/12-15
Lost Cabin	Humbolt-Toiyabe NF	4,300	7/16-22
Sequoia	Dixie NF	8,060	7/22-28
Pines	Monte Vista RU CDF	62,000	7/31-8/09
Peak	Cleveland NF	295	8/10-13
Sugar Loaf	Routt NF	20	8/23-27
Mt. Zirkel	Routt NF	31,015	8/28-9/09
Pierce	Sequoia NF	3	9/17
Williams	Angeles NF	36,530	9/24-30
Yucca	Sequoia NP	10	10/10-12
Sunset D – Rx	Kings Canyon NP	147	9/16
PW-03 – Rx	Yosemite NP	2,820	10/16-19
Tar Gap – Rx	Sequoia NP	1,200	10/21-30

During the 2002 fire season the Alpine Hotshots spent the majority of their time on wildland fire suppression assignments. They also served on one WFURB assignment and one major prescribed fire assignment. In 2002 the Alpine Hotshots safely and effectively performed fire suppression duties on wildland fires in Colorado, California, Idaho, Oregon and Wyoming. In October they assisted with the implementation of the Gin Flat Prescribed Burn in Yosemite NP. Despite a busy fire season the Alpine Hotshots also accomplished some fire and resource management projects for their home unit, Rocky Mountain National Park. These projects included debris pile burning; prescribed fire unit preparation, hazard tree removal and hazard fuels mitigation.

Alpine Hotshot Crew Wildland Fire Assignments

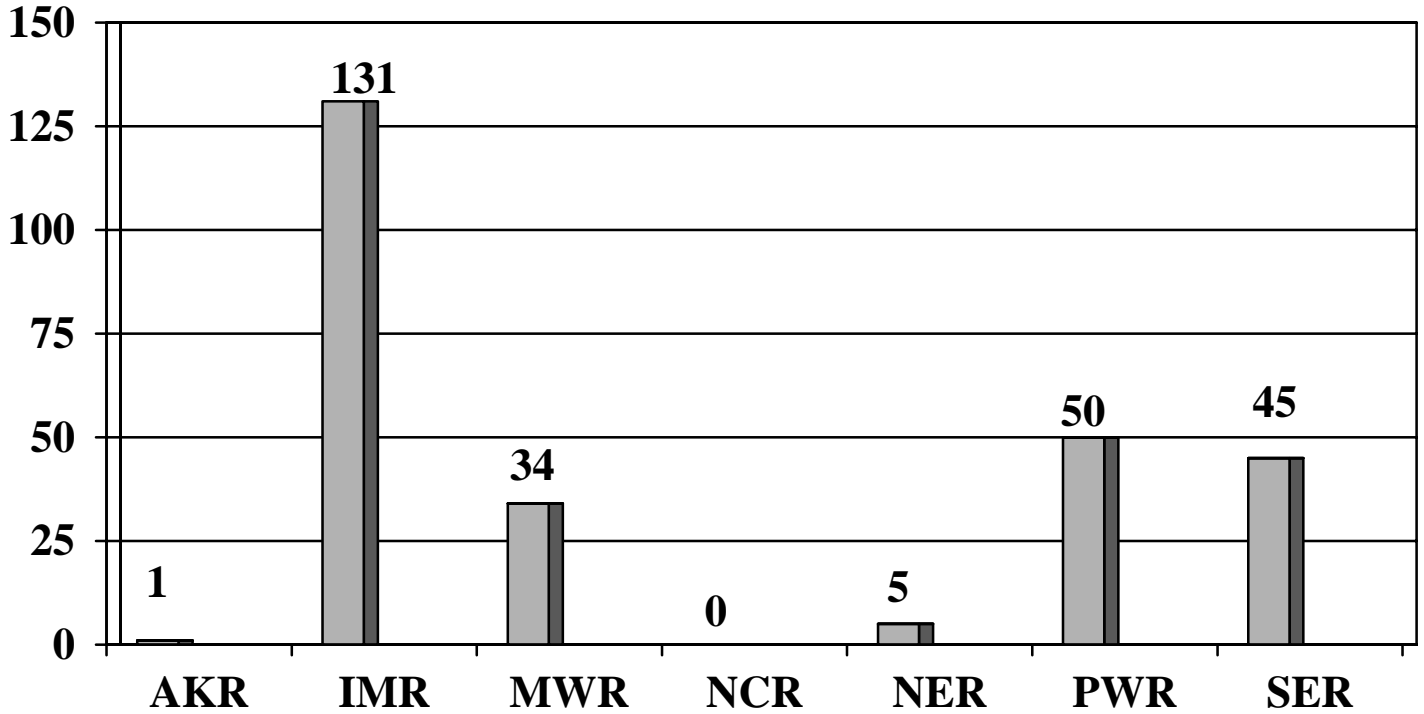
Fire Name	Location/Agency	Dates
Mesa Verde Severity	Mesa Verde NP, Colorado	May 15 – 20
Cow Camp	San Juan NF, CO	May 20 – 22
Schoonover	Pike-San Isabel NF, CO	May 23 – 26
ABC Miscellaneous	Pike-San Isabel NF, CO	June 1
Poncha Pass	Pike-San Isabel NF, CO	June 2 – 3
IA Standby	Pike-San Isabel NF, CO	June 4
Coolbroth	Rio Grande NF, CO	June 4 – 5
Rio Grande Complex (IA)	Rio Grande NF, CO	June 6 – 8
Hayman	Pike-San Isabel NF, CO	June 9 – 16
North Hayman	Pike-San Isabel NF, CO	June 21 – 23
Hayman	Pike-San Isabel NF, CO	June 24 – 30
Spring Creek	White River NF, CO	June 30 – July 5
Lookout	Rawlins District BLM, WY	July 9 – 10
Spring Creek	White River NF, CO	July 11 – 14
East Meadow Creek	White River NF, CO	July 15 – 22
Long Mesa	Mesa Verde NP, CO	July 30 – August 3
Garden Valley Complex	Boise NF, Idaho	August 3 – 8
West Florence Fire	Siskiyou NF, OR	August 8 – 11
Biscuit	Siskiyou NF, OR	August 12 – 31
Big Fish (WFURB)	White River NF, CO	September 5 – 13
Gin Flat Prescribed Burn	Yosemite NP, CA	Sept. 28 – Oct. 10
T-Grove	Yosemite NP, CA	October 10
Gin Flat Prescribed Burn	Yosemite NP, CA	October 11 - 12

2002 SERVICEWIDE FIRE STATISTICS



Gulf Islands National Seashore

2002 MUTAL AID RESPONSES BY REGION
Number of Responses



KEY:

AKR = Alaska Region

IMR = Intermountain Region

MWR = Midwest Region

NCR = National Capital Region

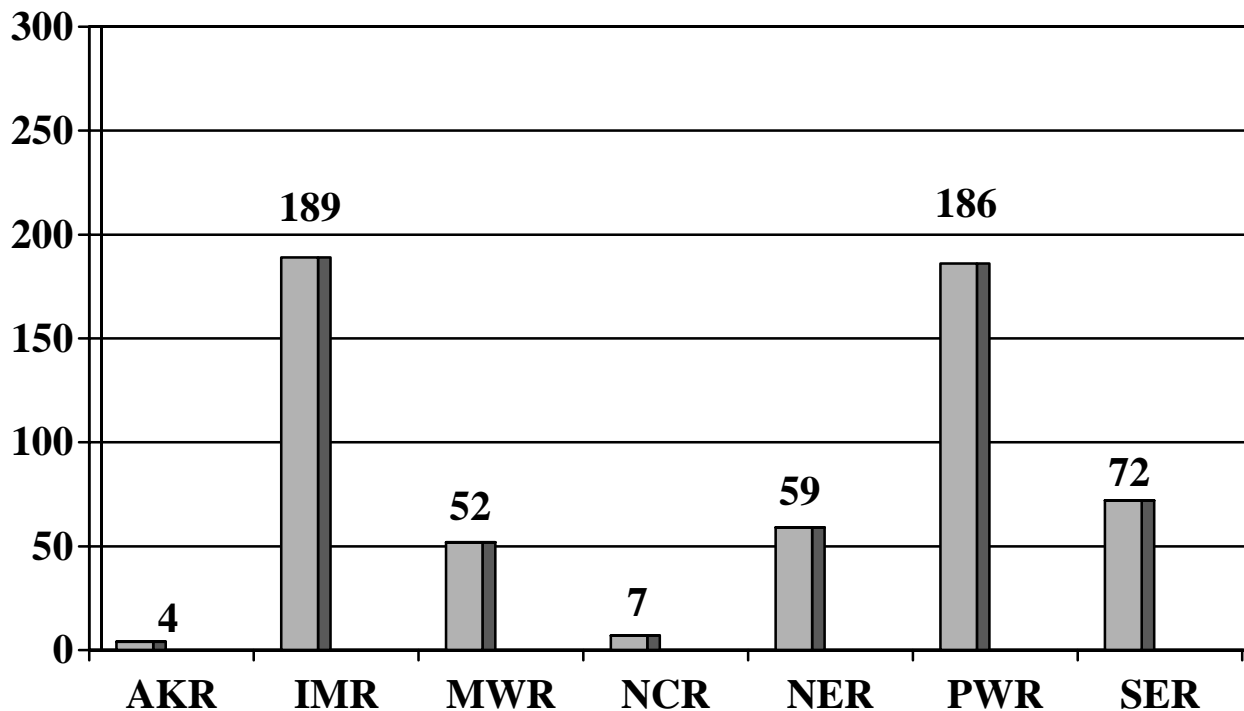
NER = Northeast Region

PWR = Pacific West Region

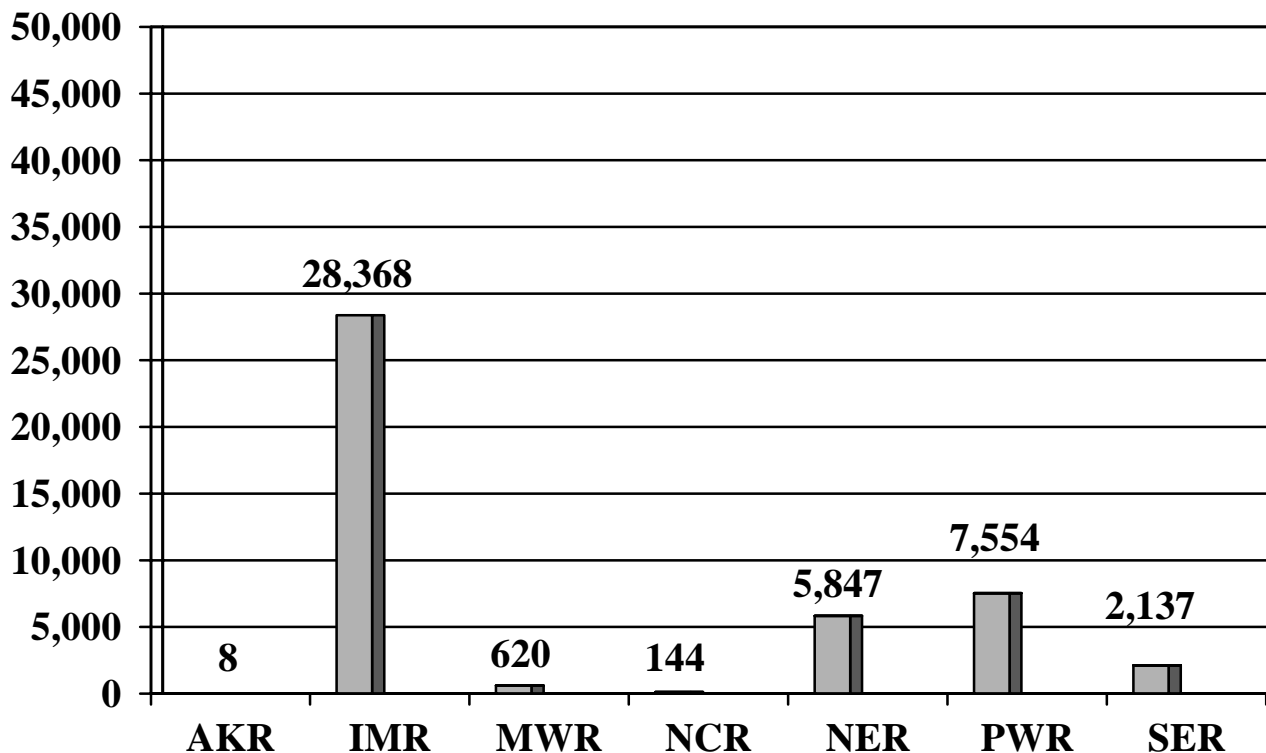
SER = Southeast Region

2002 WILDLAND FIRES BY REGION

Number of Fires

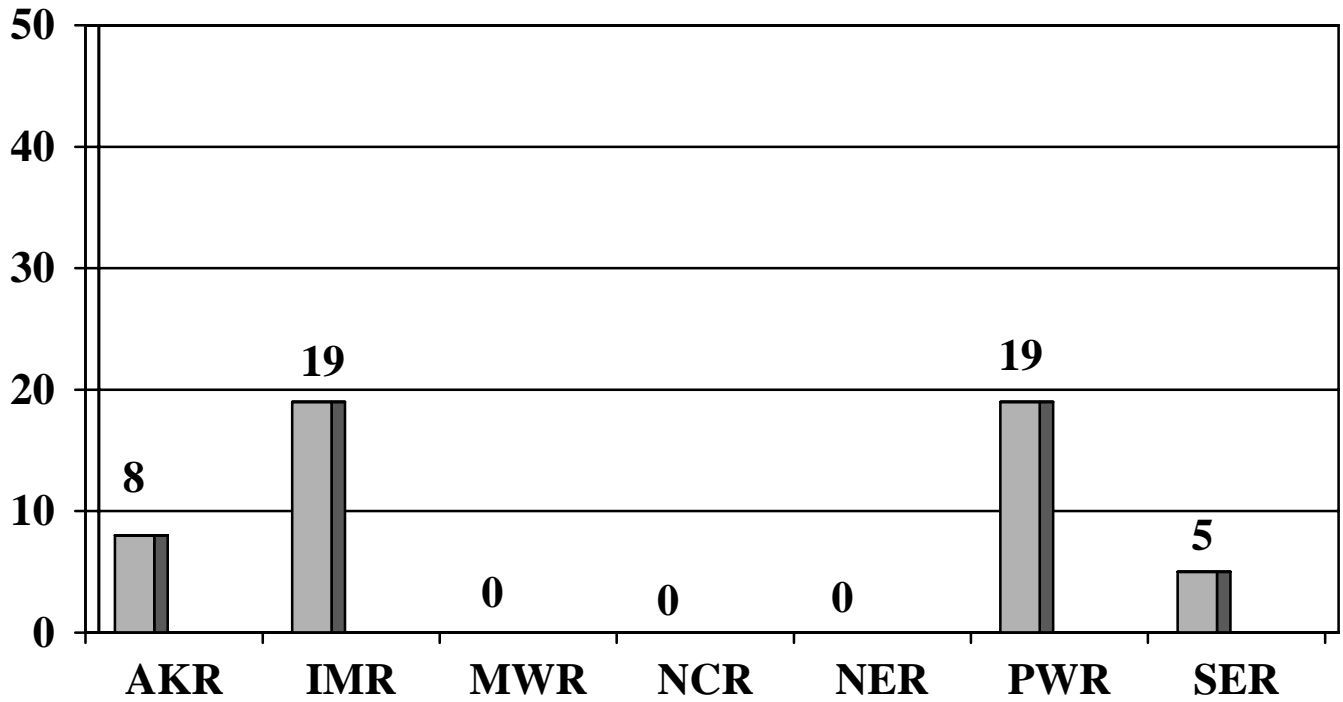


Number of Acres

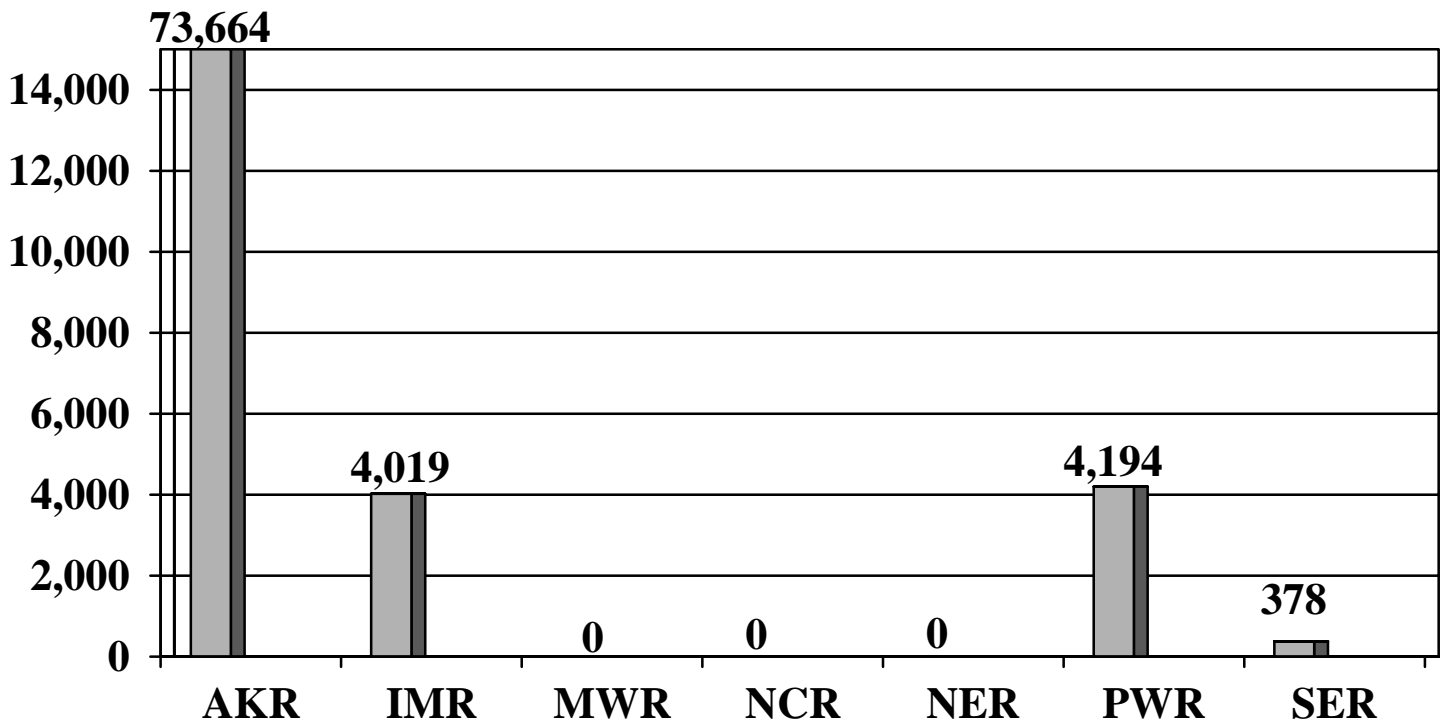


2002 WILDLAND FIRE USE BY REGION

Number of Fires

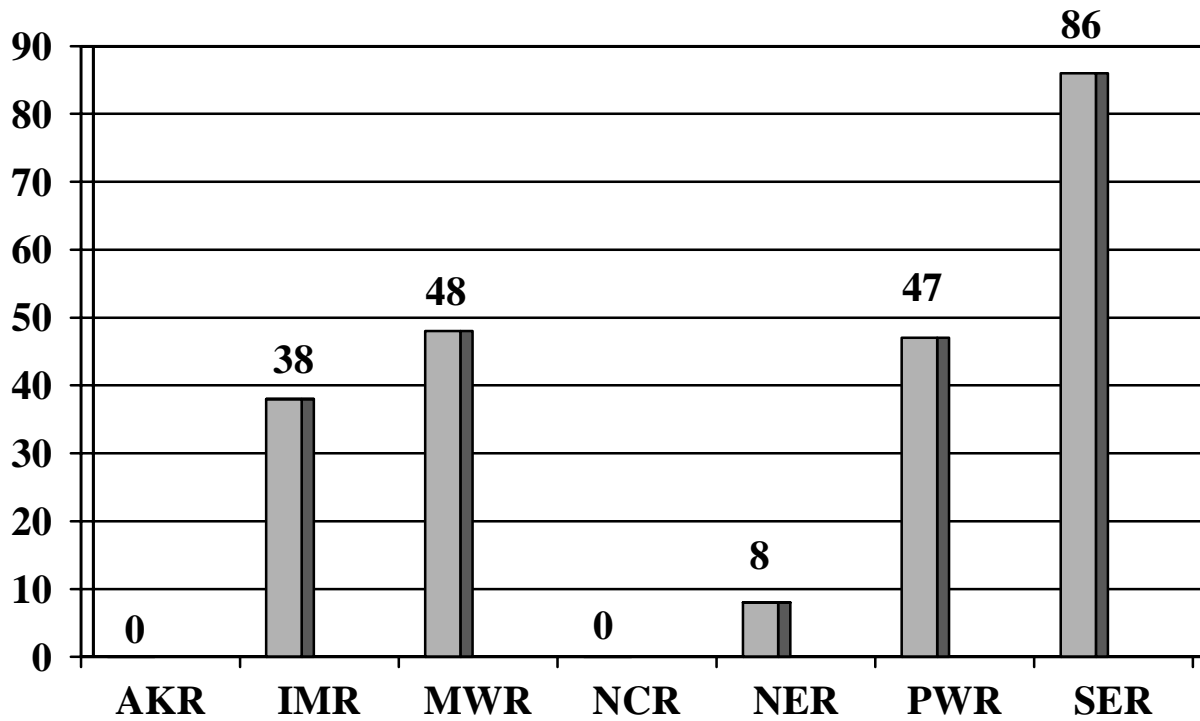


Number of Acres

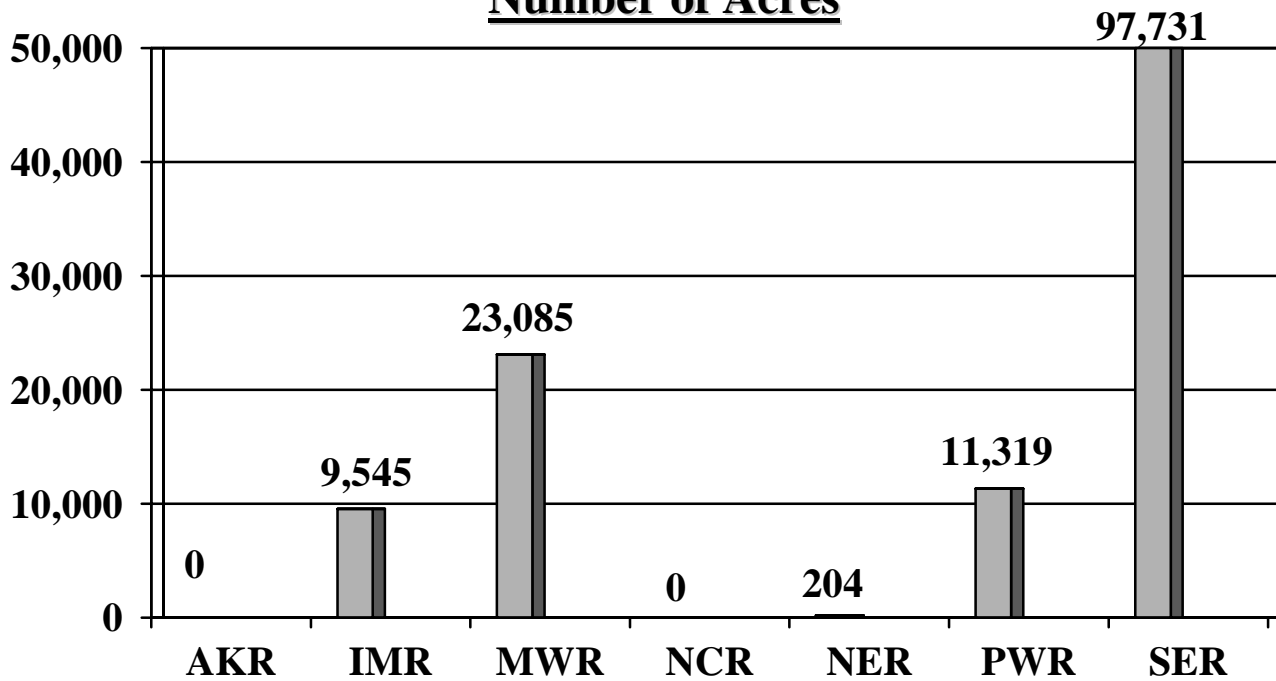


2002 PRESCRIBED FIRES BY REGION

Number of Fires

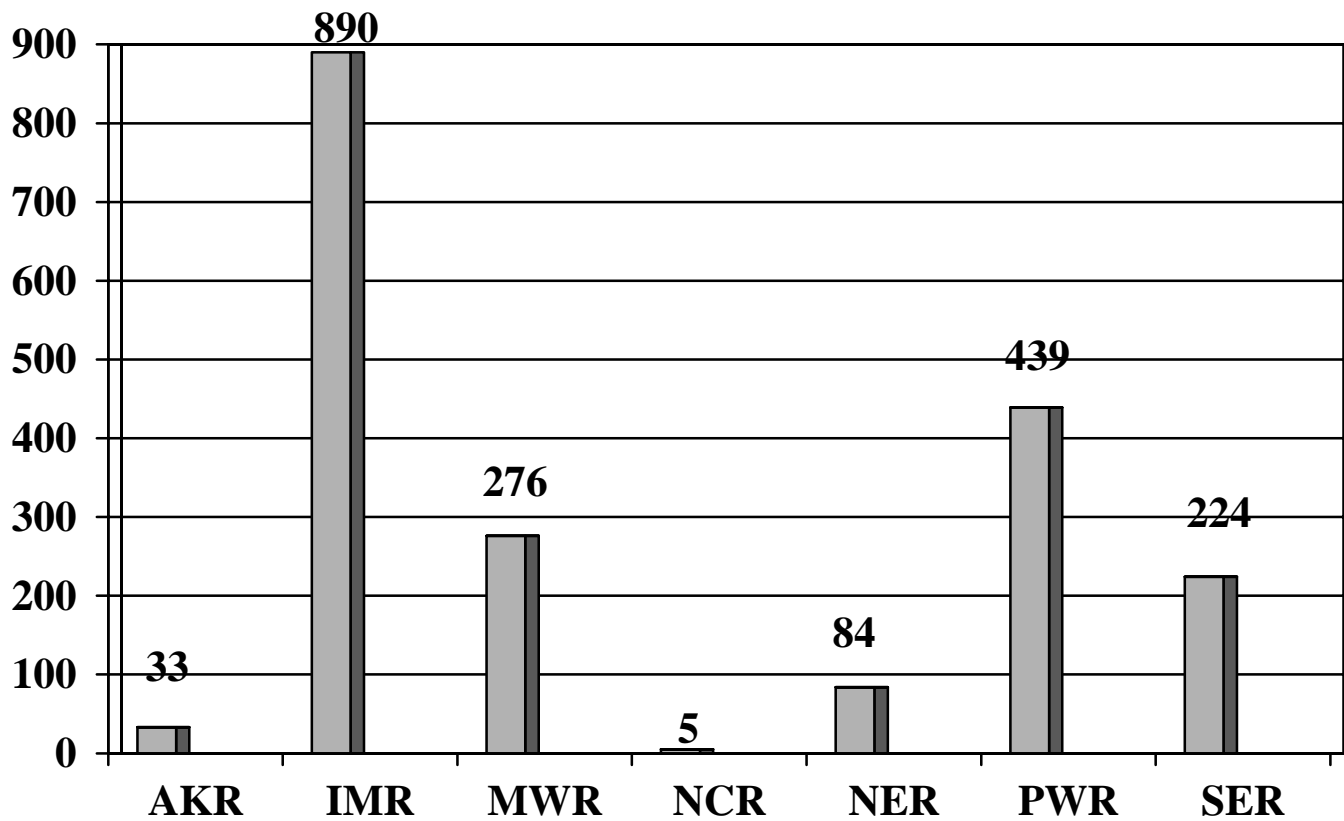


Number of Acres



2002 SUPPORT ACTIONS BY REGION

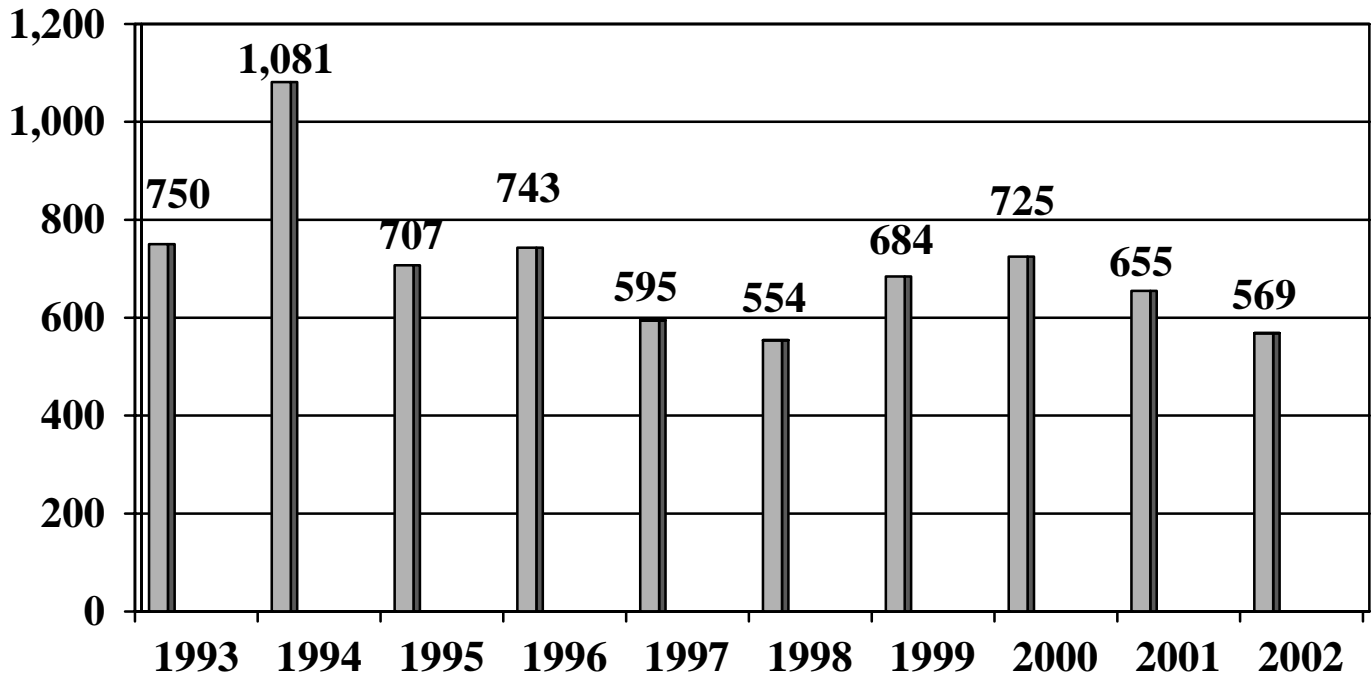
Number of Support Action



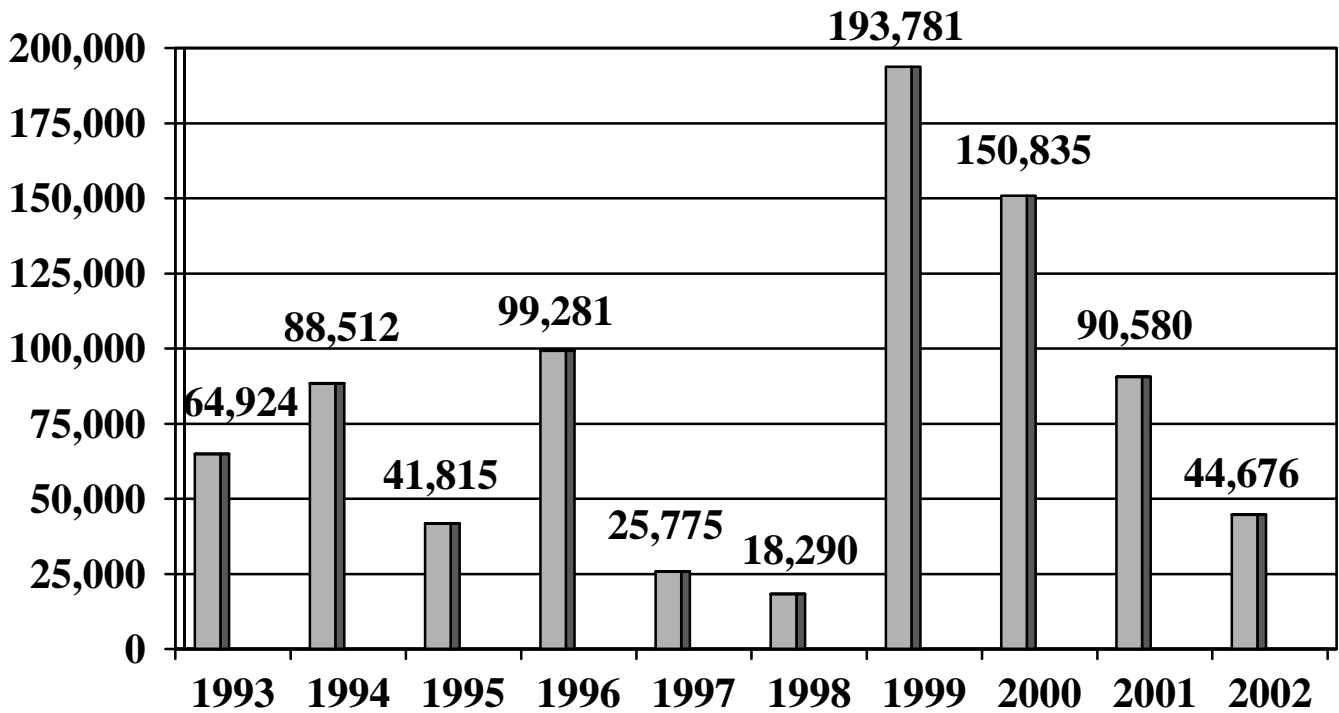
1993-2002 FIRE STATISTICS SERVICEWIDE



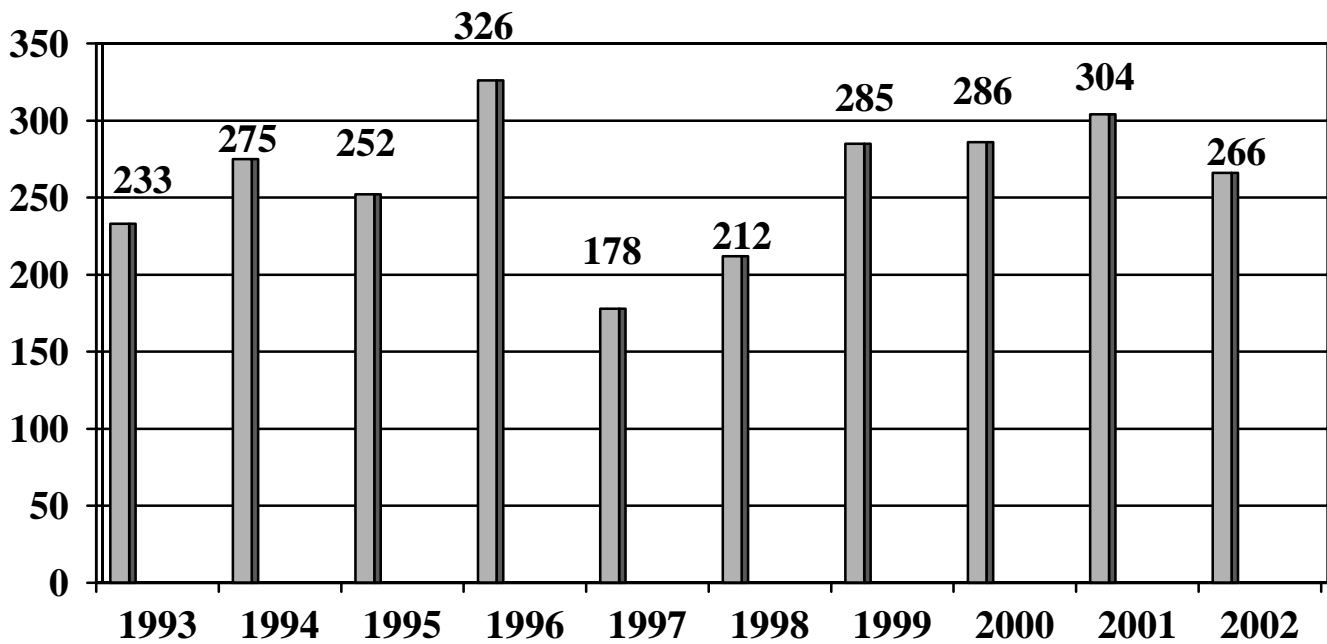
**NPS WILDLAND FIRES,
1993-2002
Number of Fires**



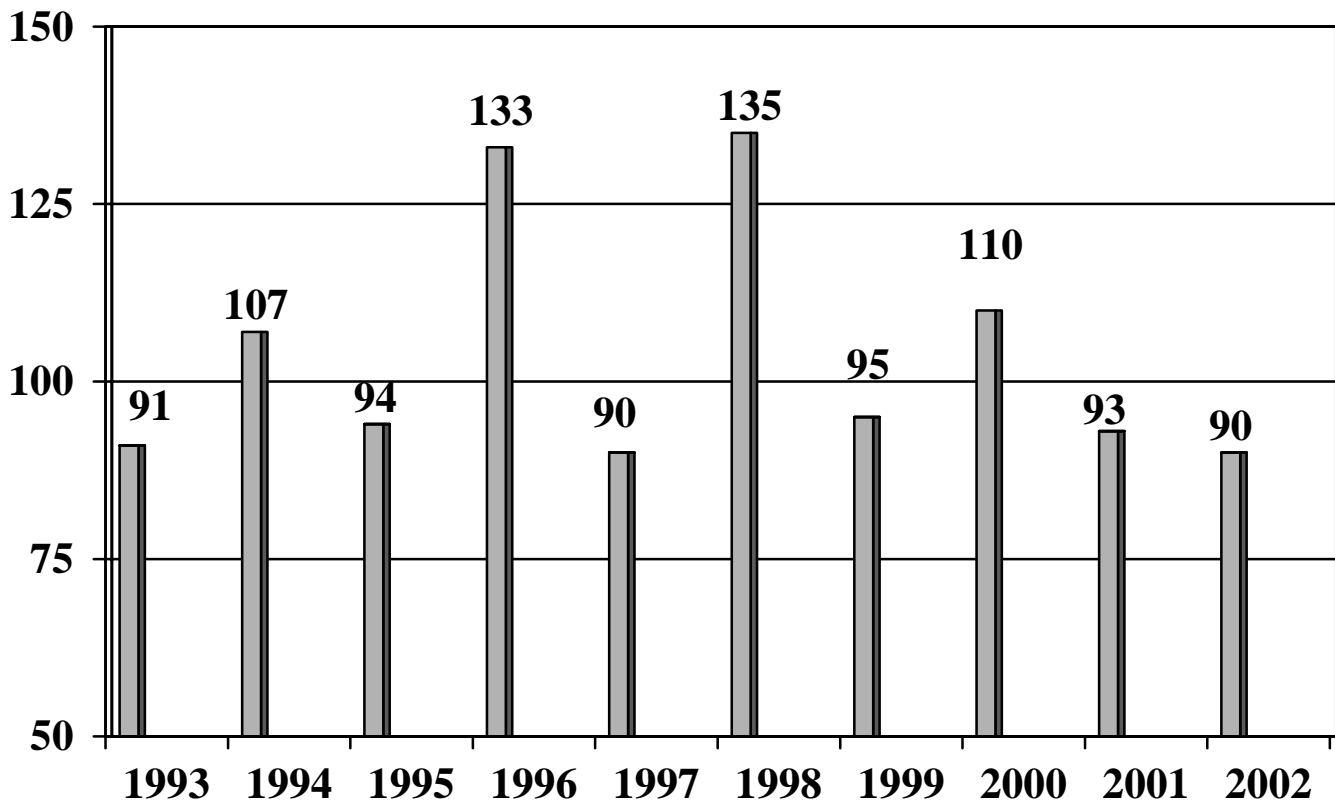
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NPS MUTUAL AID RESPONSES, 1993-2002
Number of Responses

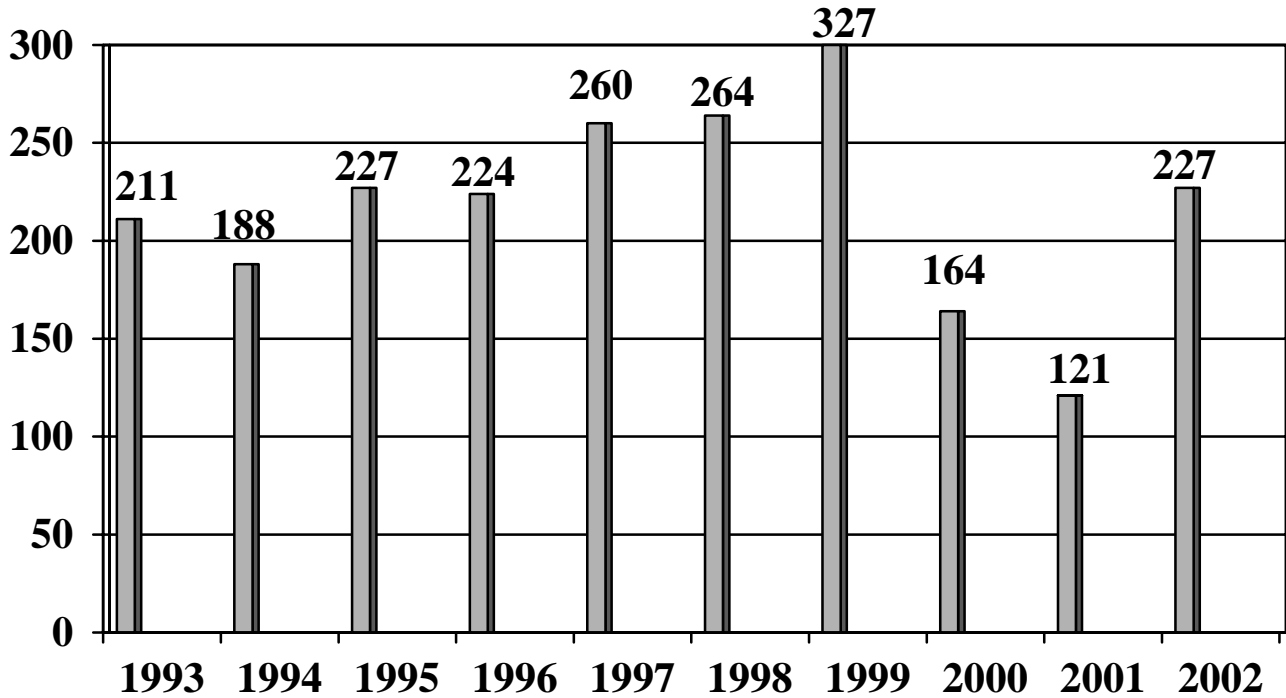


NPS False Alarms, 1993-2002

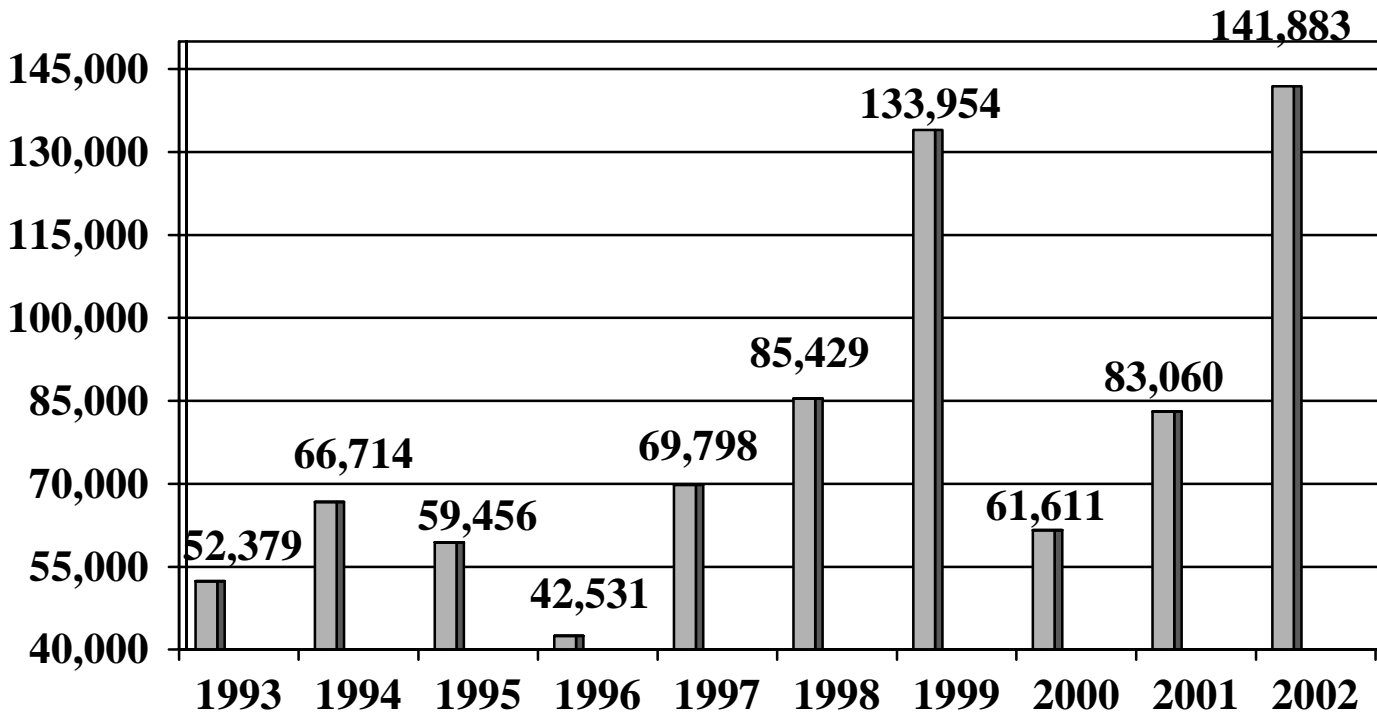


NPS PRESCRIBED FIRE, 1993-2002

Number of Fires

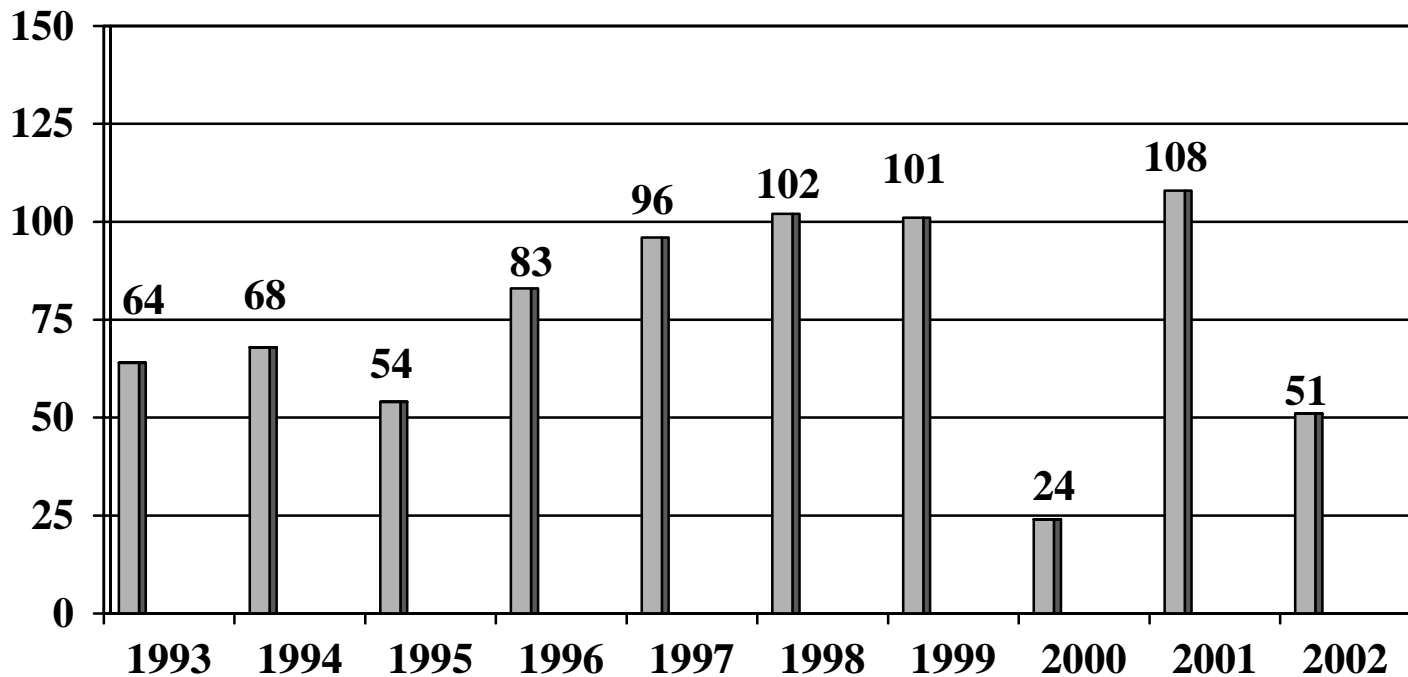


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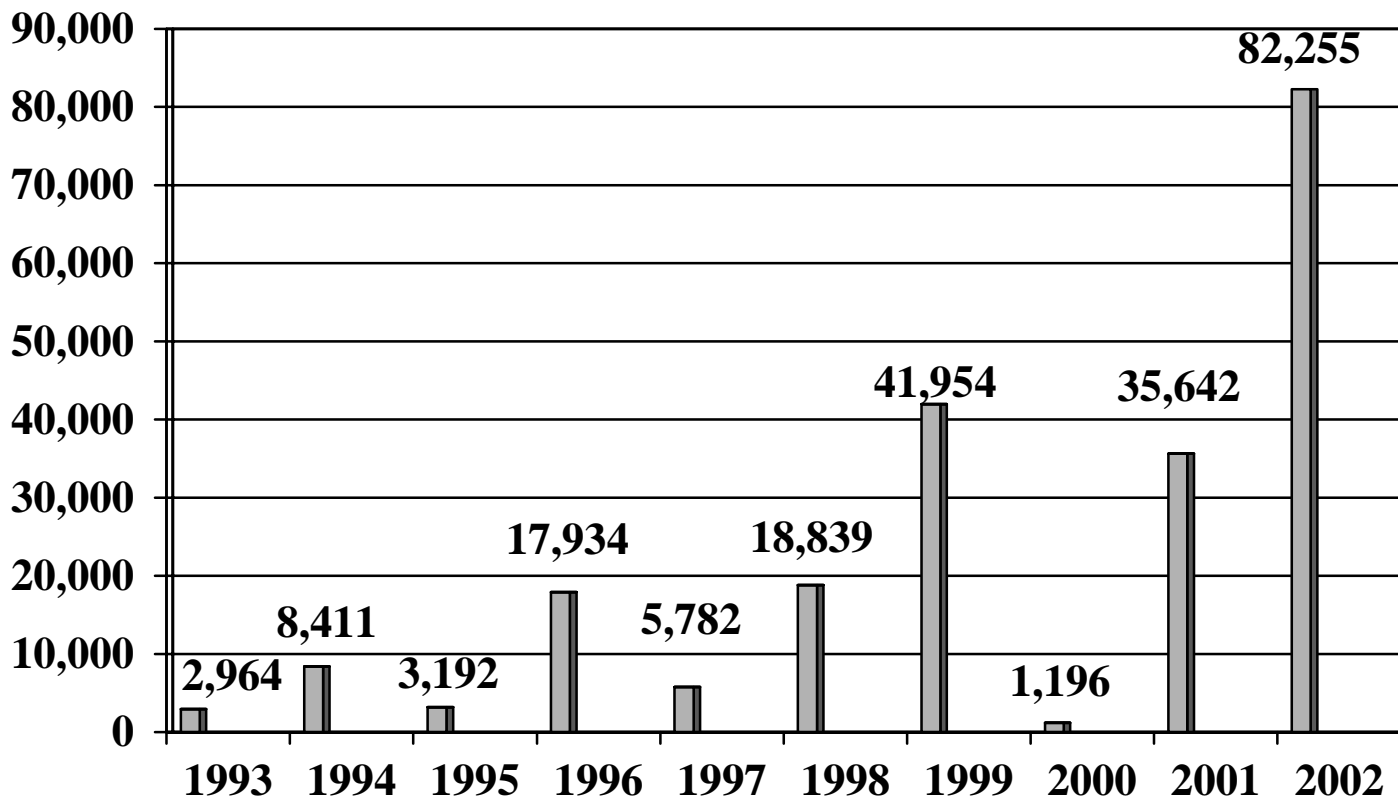


NPS WILDLAND FIRE USE, 1993-2002

Number of Fires

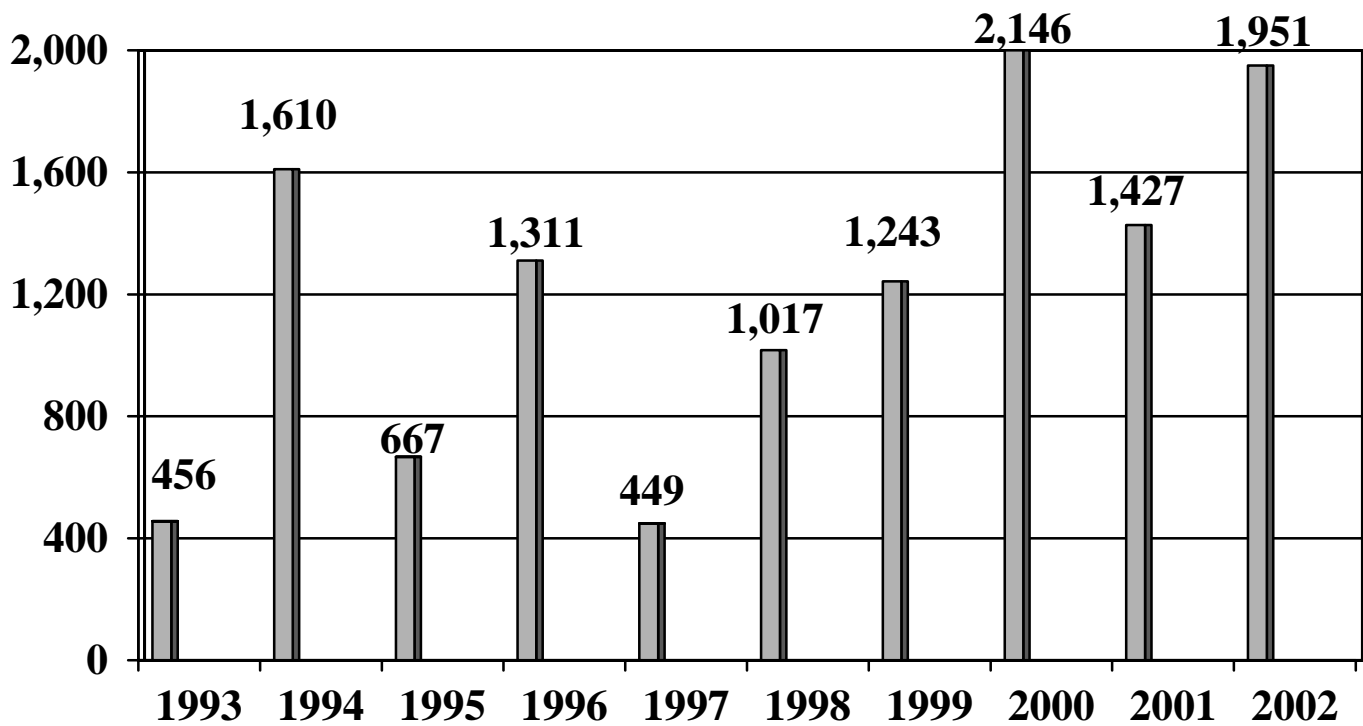


Number of Acres



NPS SUPPORT ACTIONS, 1993-2002

Number of Support Actions



Number of Support Actions

Support actions are primarily wildland fire suppression assists to non-local areas. They do not include local mutual aid responses. Many agency personnel, including those whose regular job assignments are not fire-related, have been trained and dispatched to fire assignments.

The above graph displays the number of support action dispatches, consequently the actual number of individuals dispatched is substantially greater. These figures do not include people, who were involved in mutual aid or local suppression activities, or the people involved in fire related support positions at their home units. In addition to personnel, NPS helicopters, engines, and other equipment are commonly used during mobilizations.

1993-2002 FIRE STATISTICS BY REGION

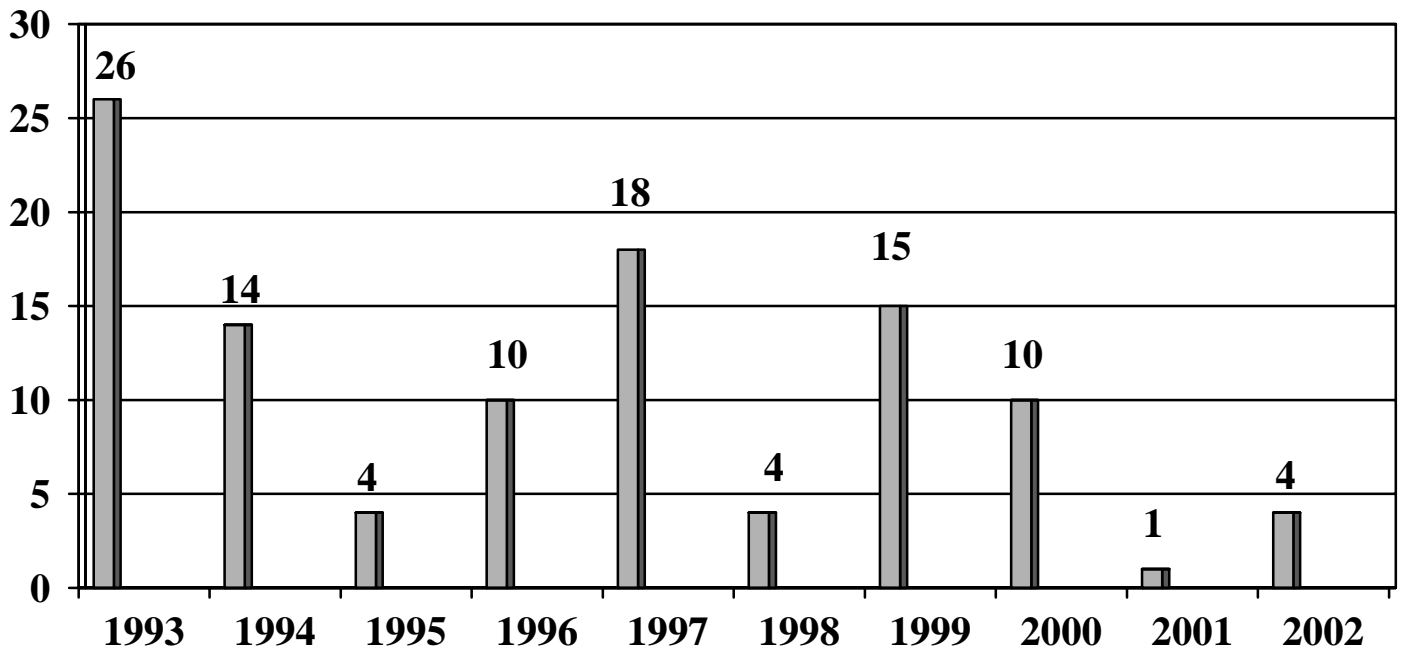


Bison Flats prescribed fire at Wind Cave National Park

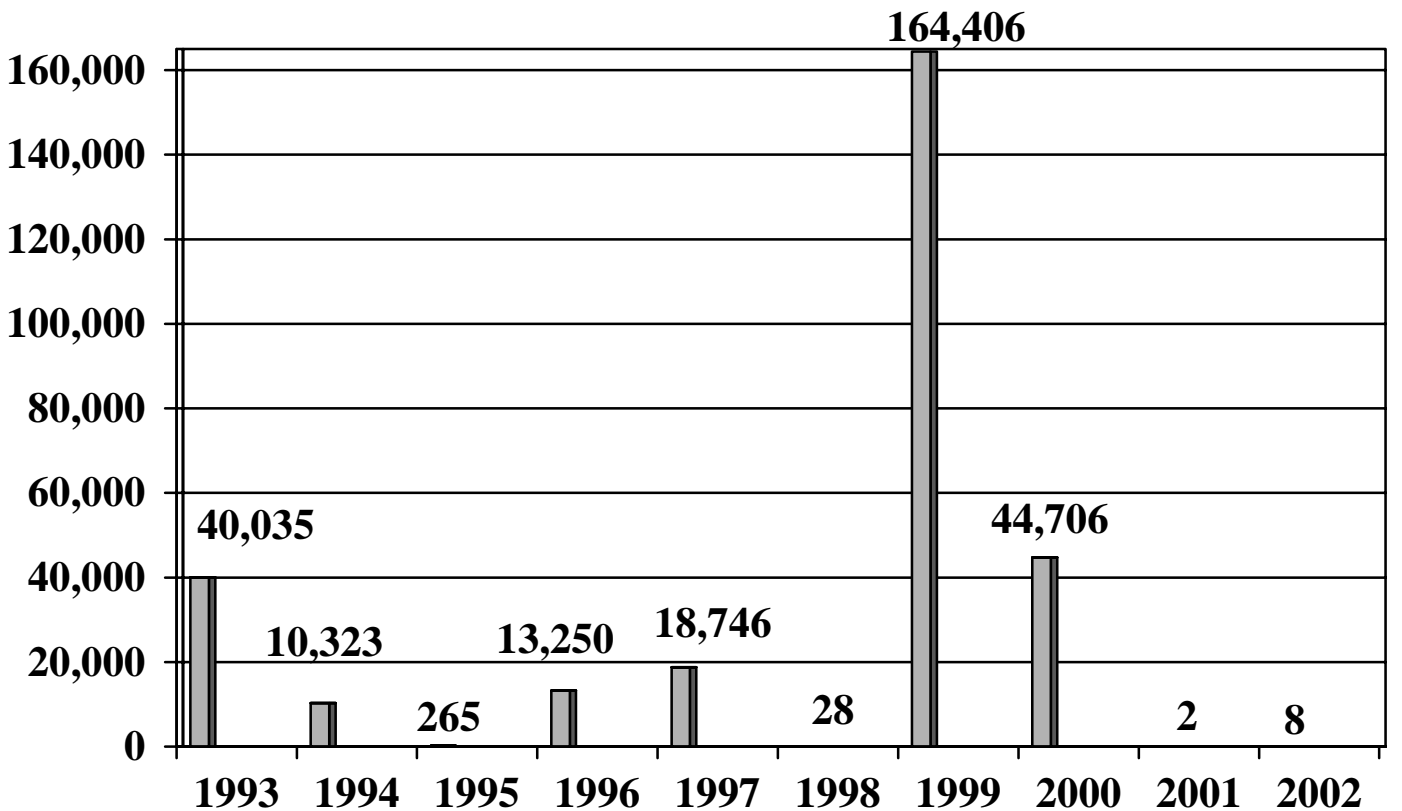
ALASKA REGION WILDLAND FIRES

1993-2002

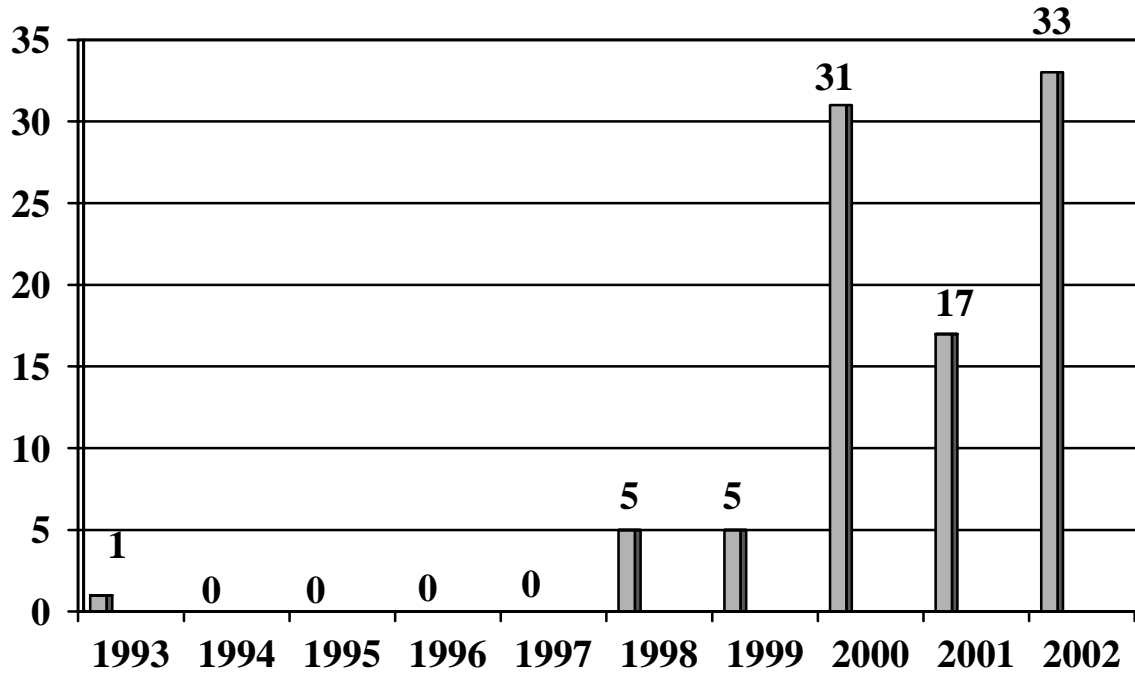
Number of Fires



Number of Acres

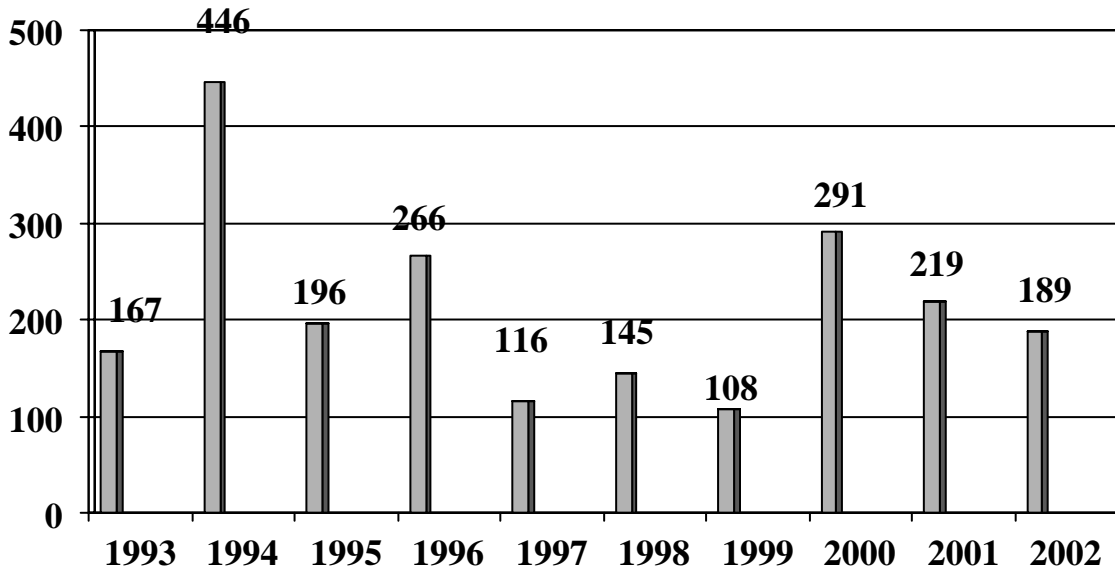


**ALASKA REGION SUPPORT
ACTIONS, 1993-2002**
Number of Actions

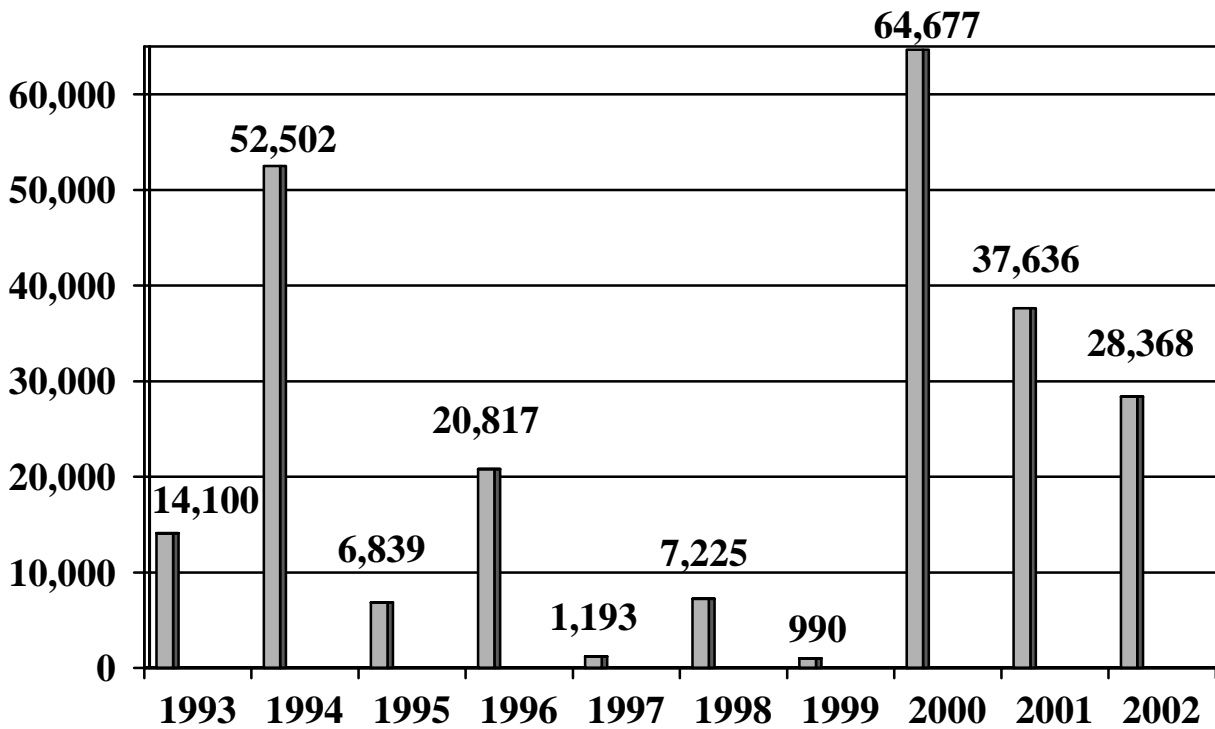


INTERMOUNTAIN REGION WILDLAND FIRES 1993-2002

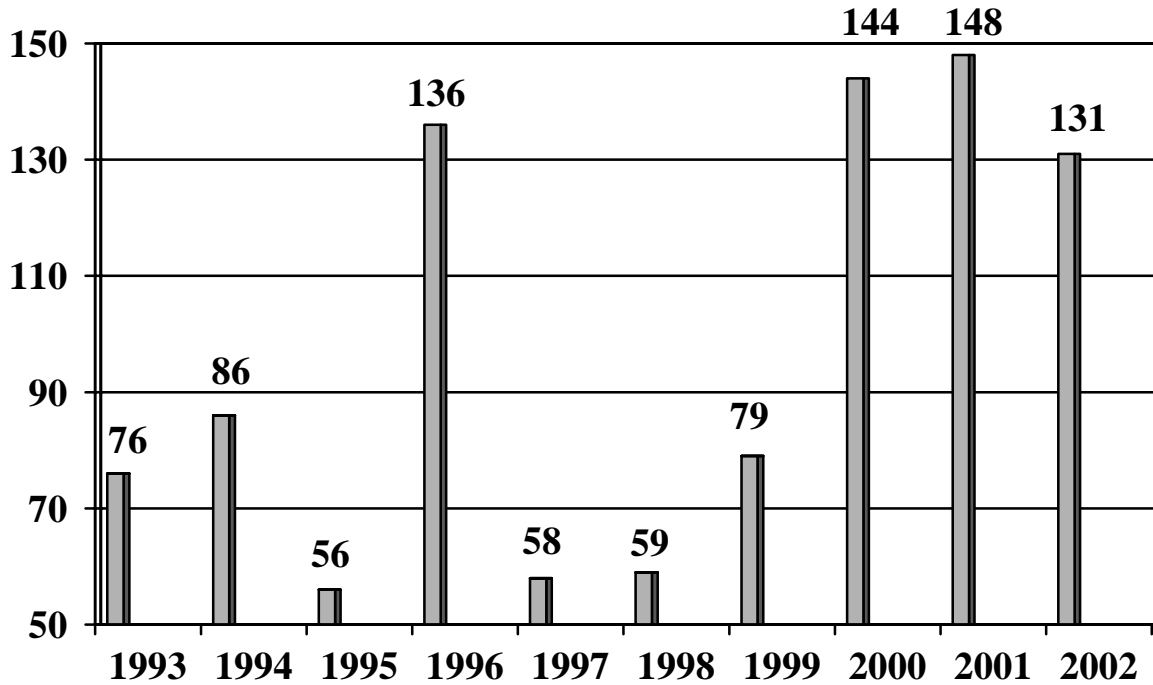
Number of Fires



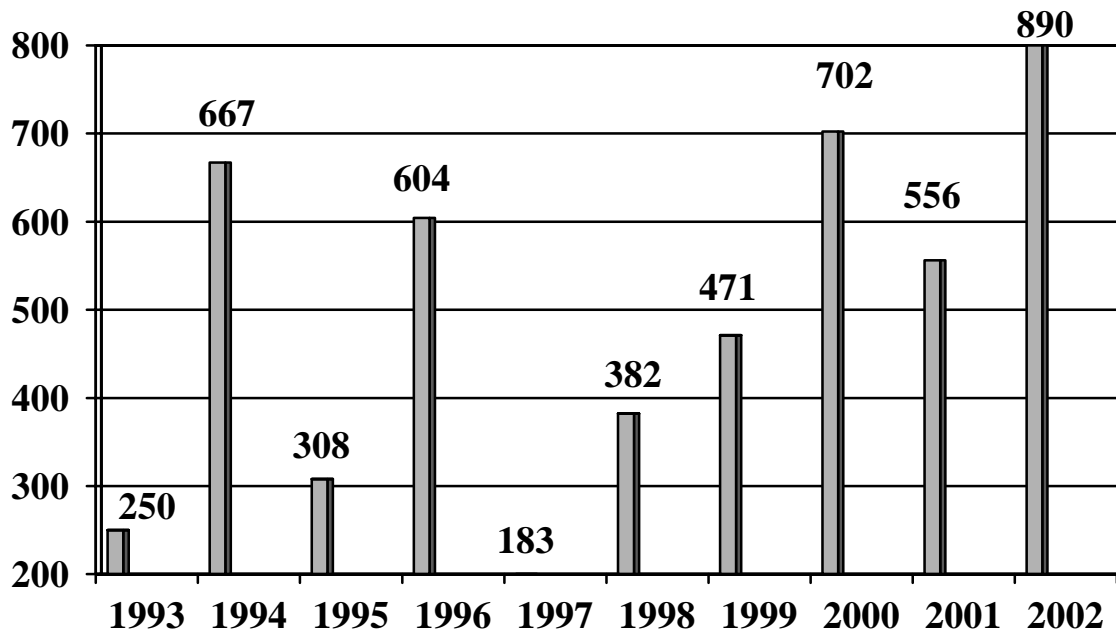
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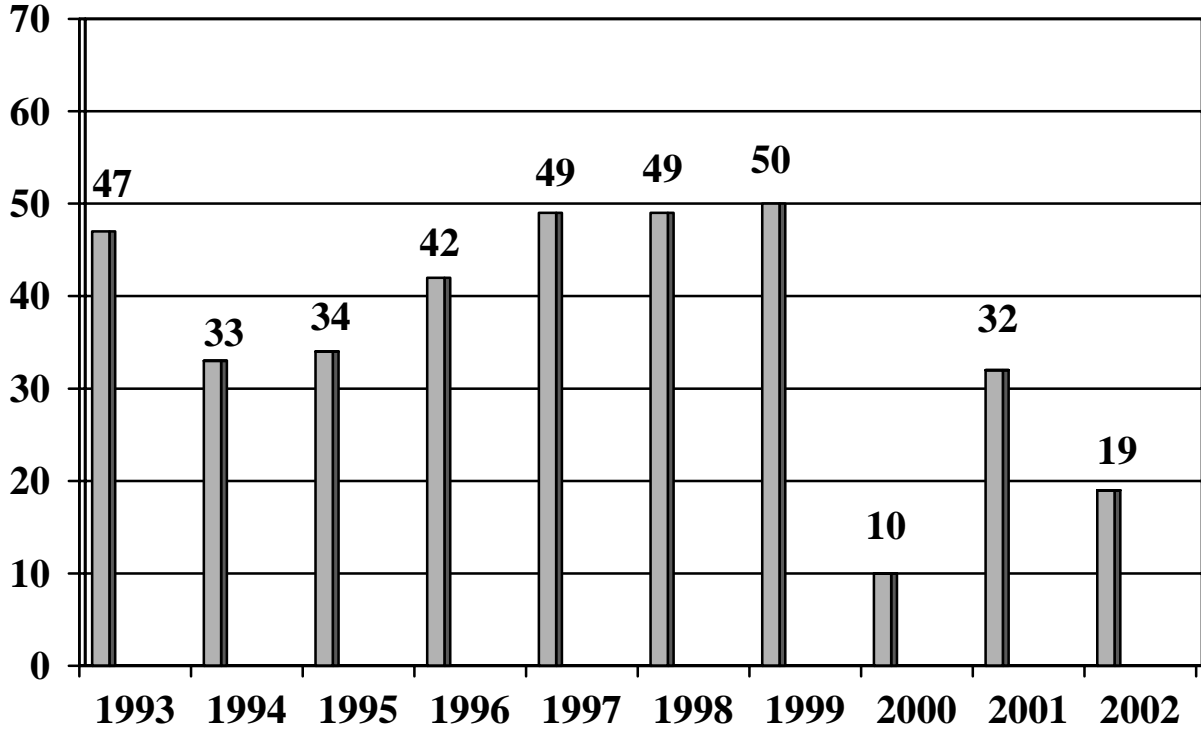
**INTERMOUNTAIN REGION
MUTUAL AID RESPONSES, 1993-2002**
Number of Responses



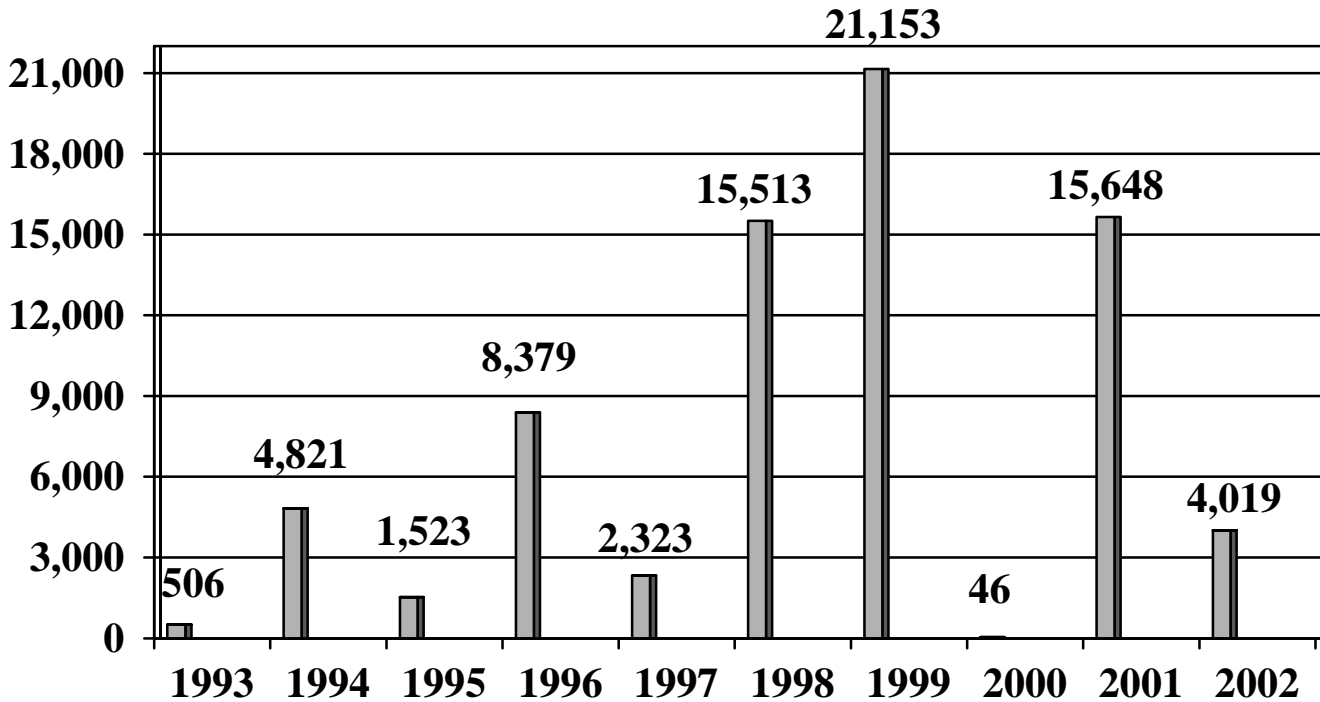
Number of Support Actions



**INTERMOUNTAIN REGION
WILDLAND FIRE USE, 1993-2002**
Number of Fires

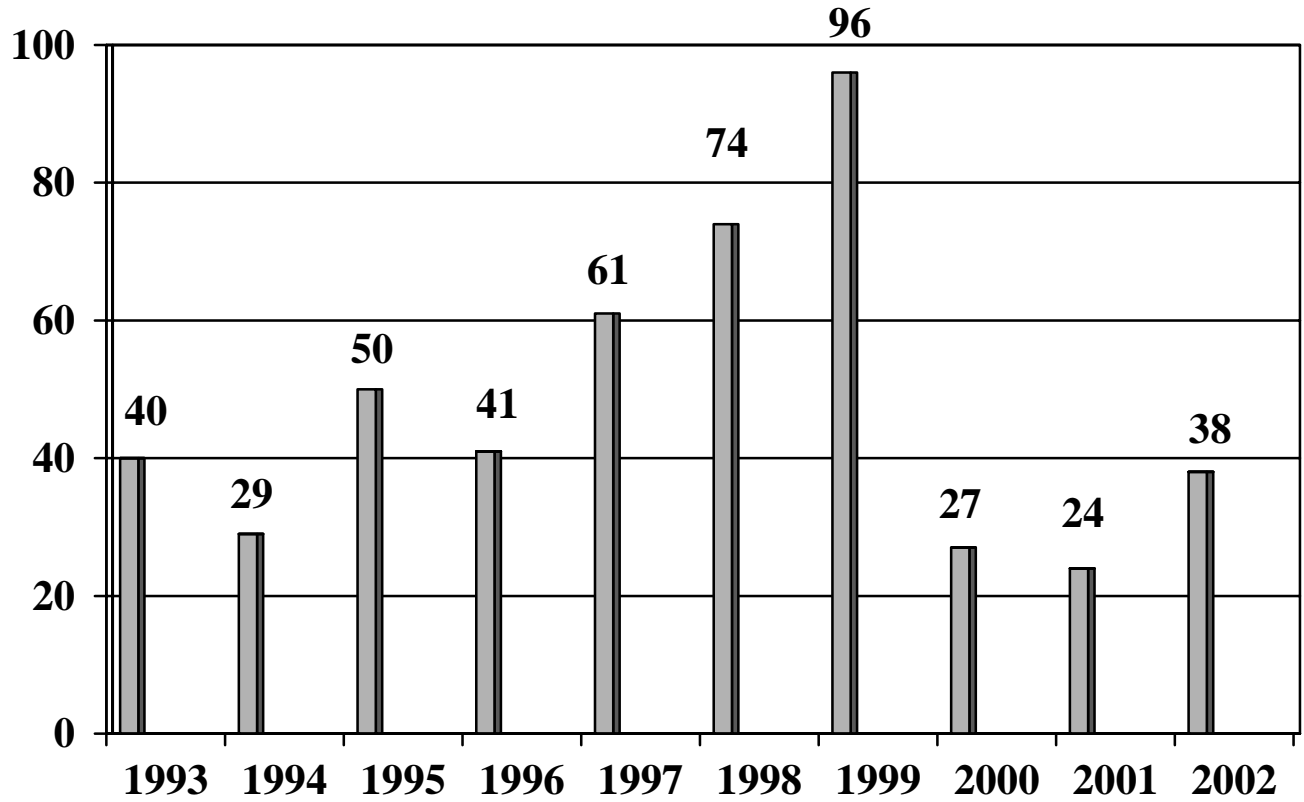


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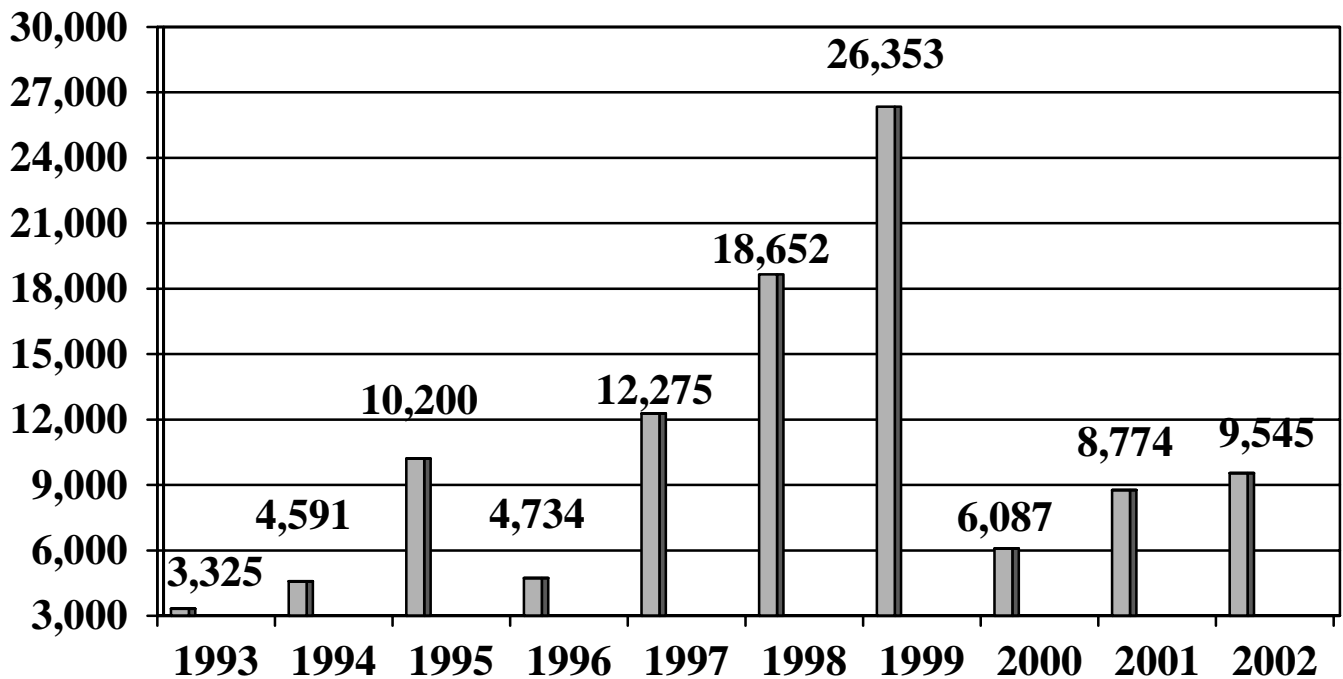


INTERMOUNTAIN REGION PRESCRIBED FIRES, 1993-2002

Number of Fires

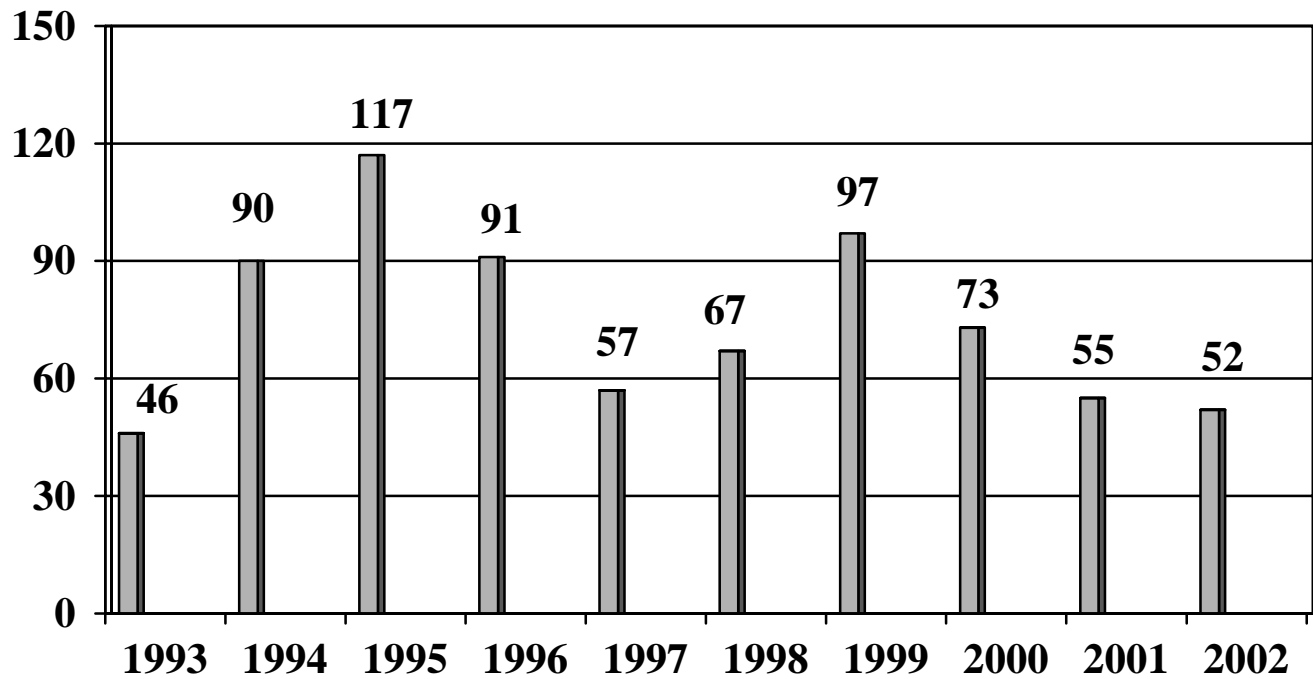


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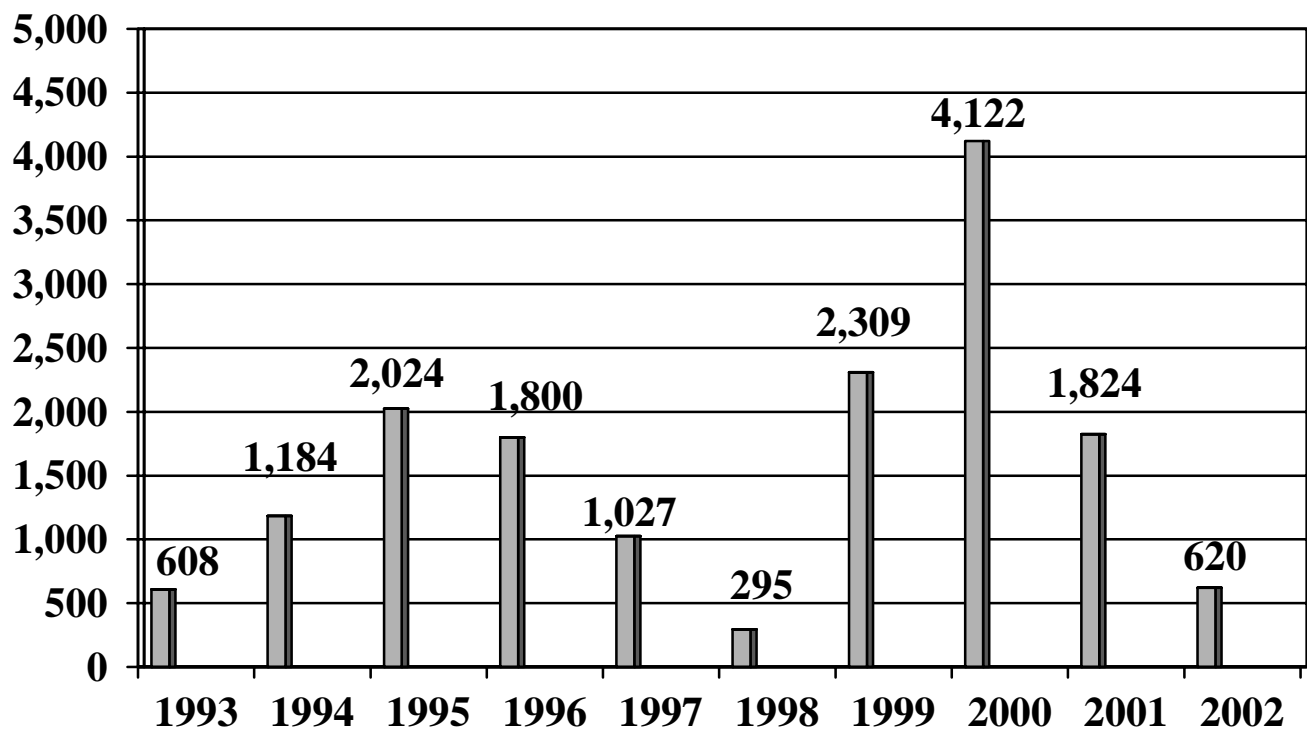


MIDWEST REGION
WILDLAND FIRES, 1993-2002

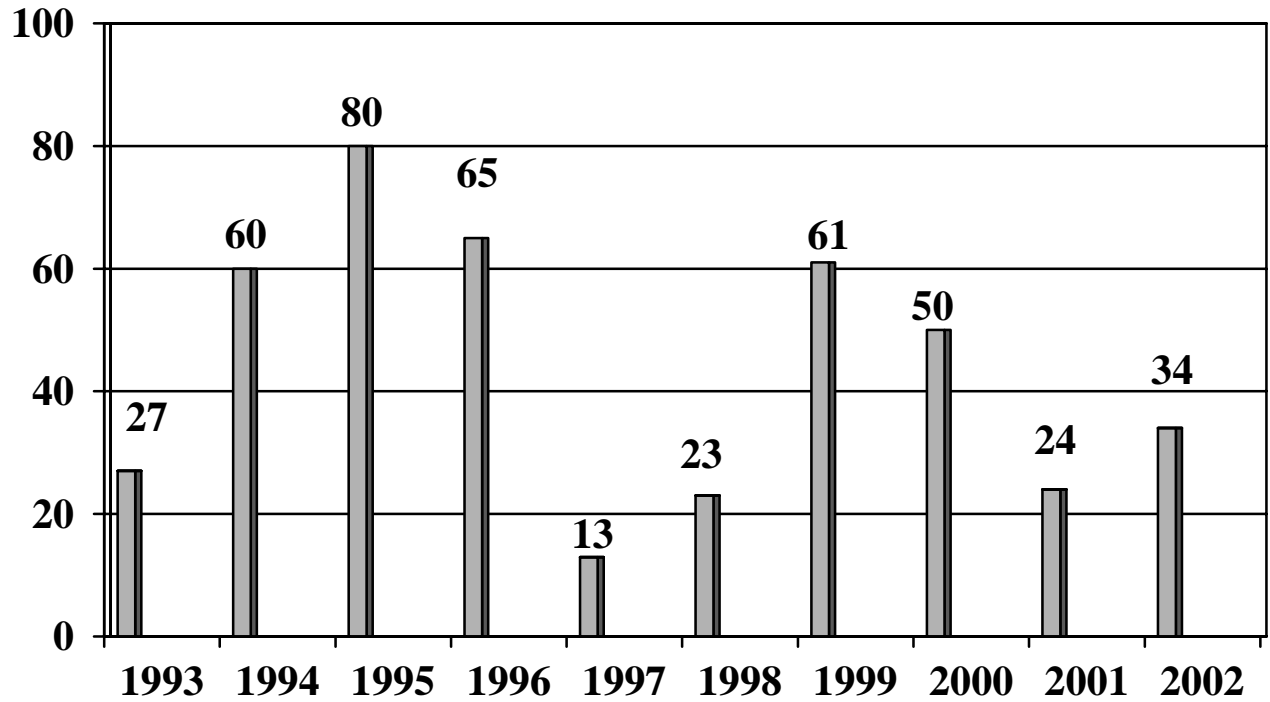
Number of Fires



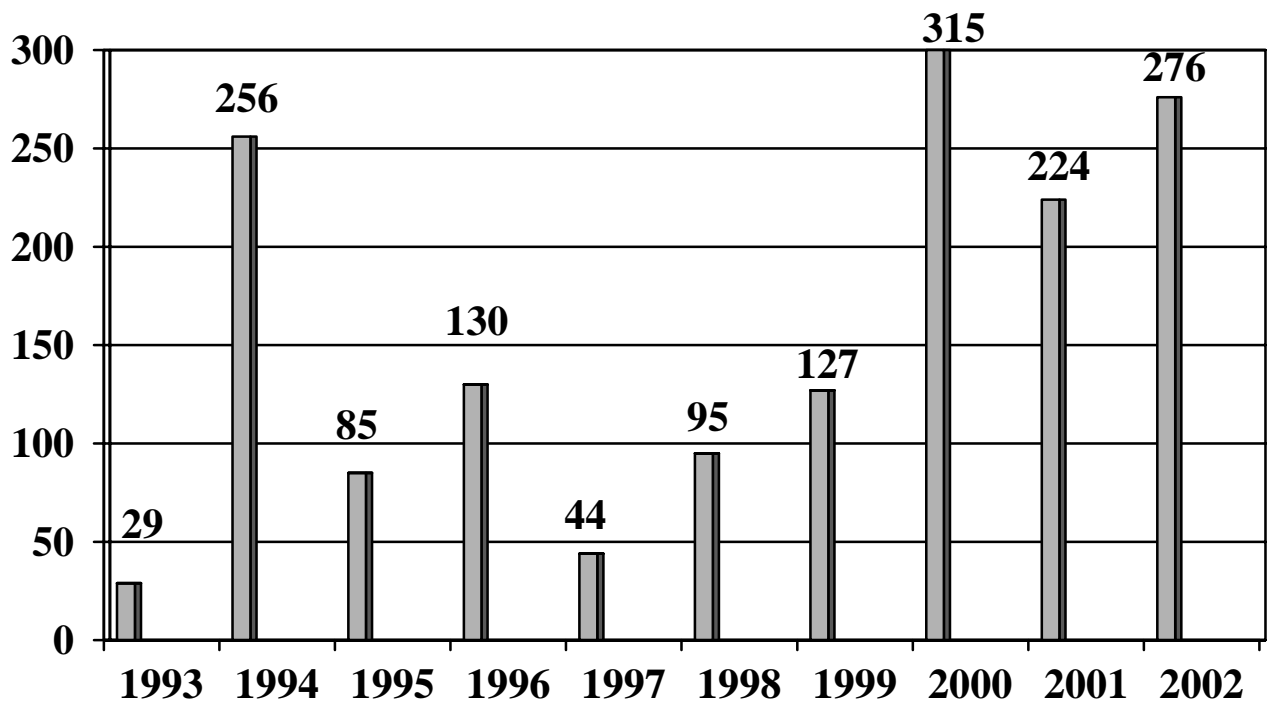
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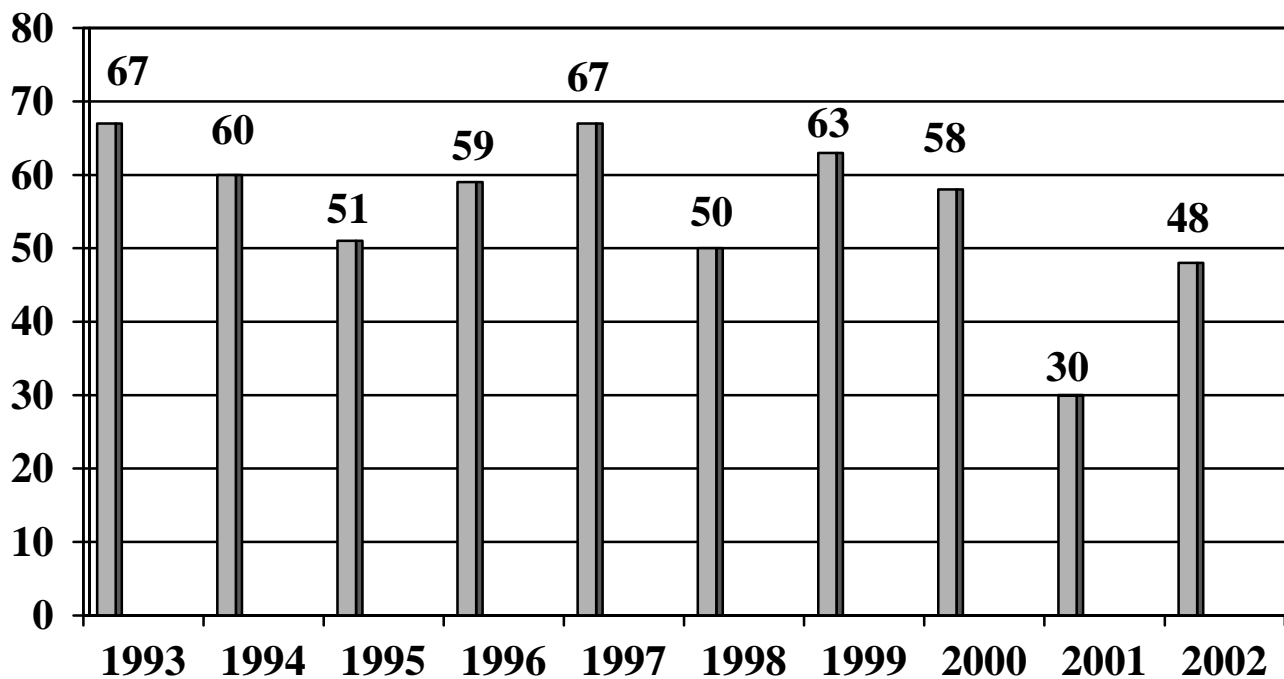
**MIDWEST REGION
MUTUAL AID RESPONSES, 1993-2002**
Number of Responses



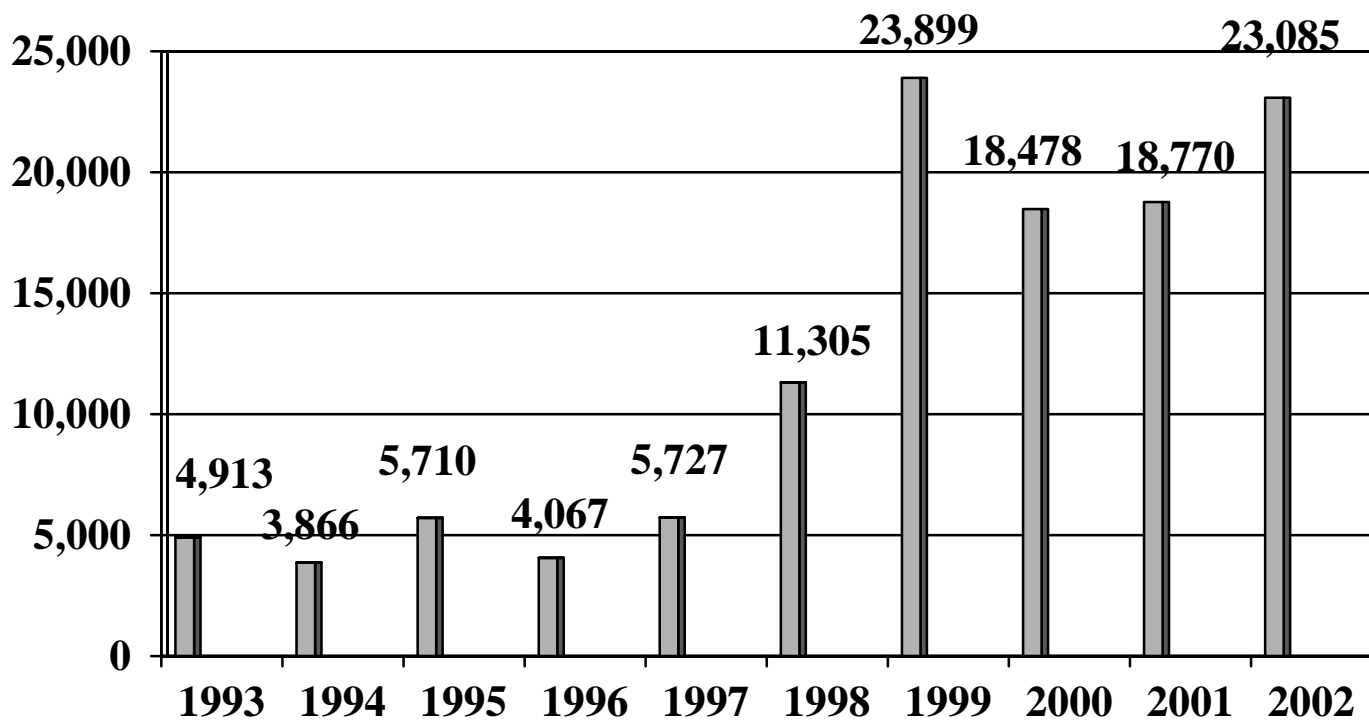
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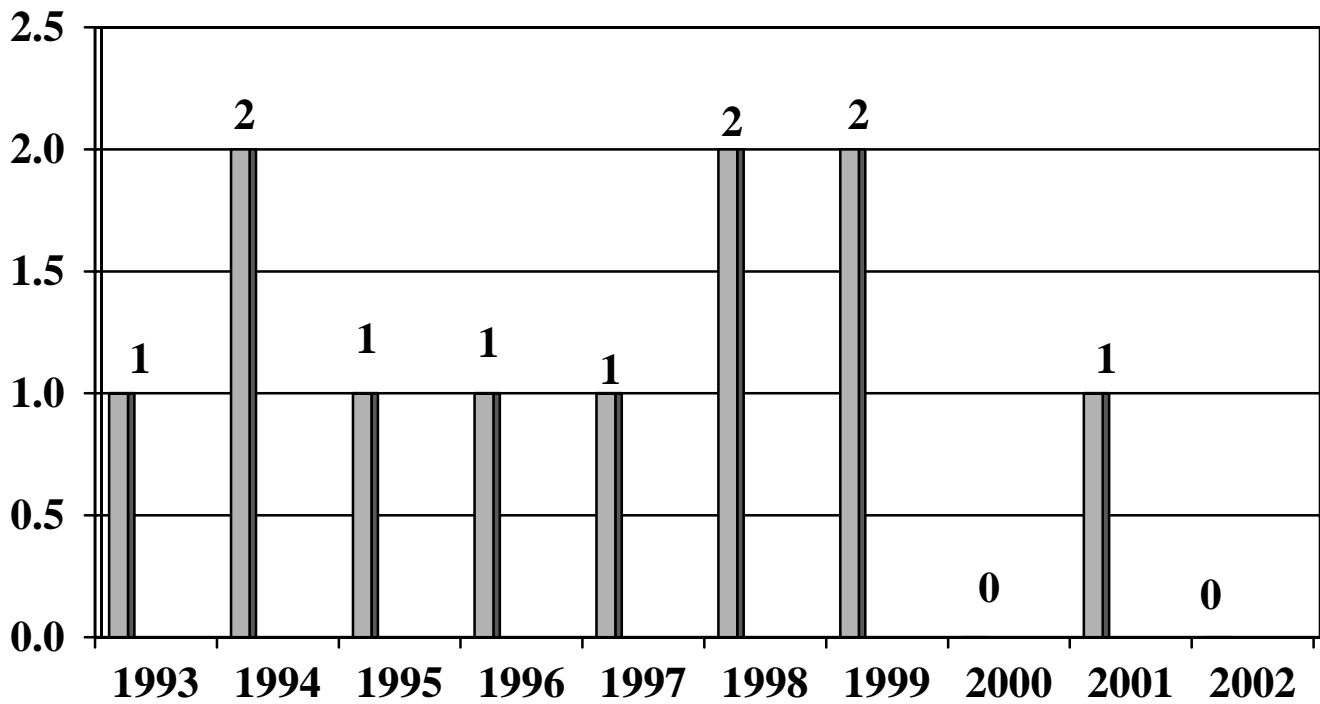
**MIDWEST REGION
PRESCRIBED FIRES, 1993-2002**
Number of Fires



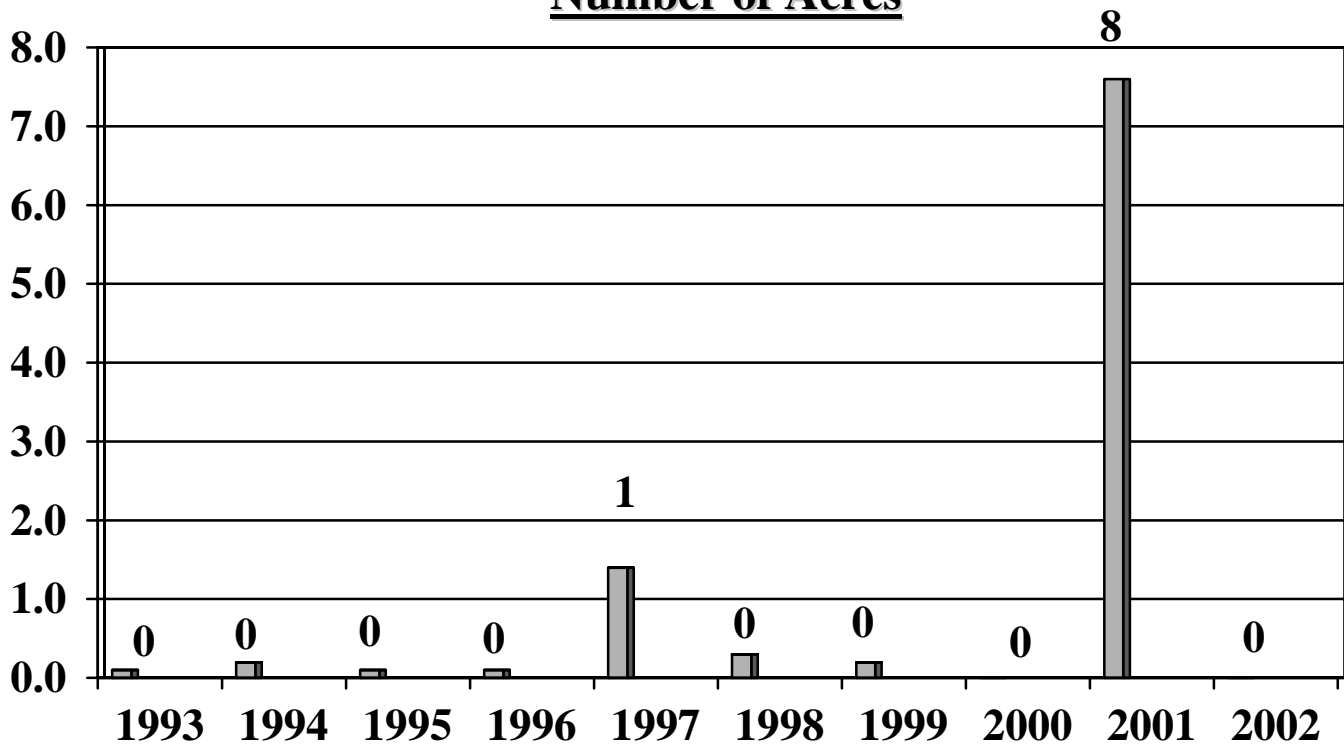
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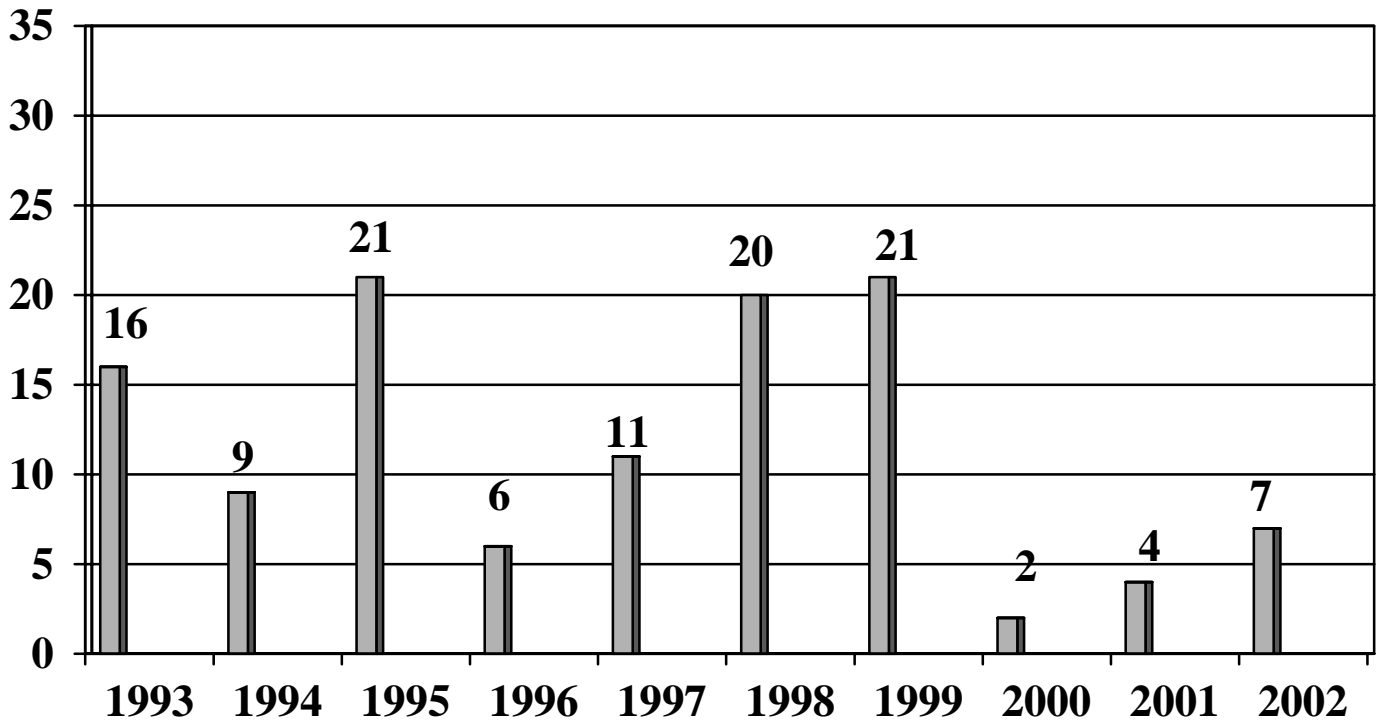
**MIDWEST REGION
WILDLAND FIRE USE, 1993-2002**
Number of Fires



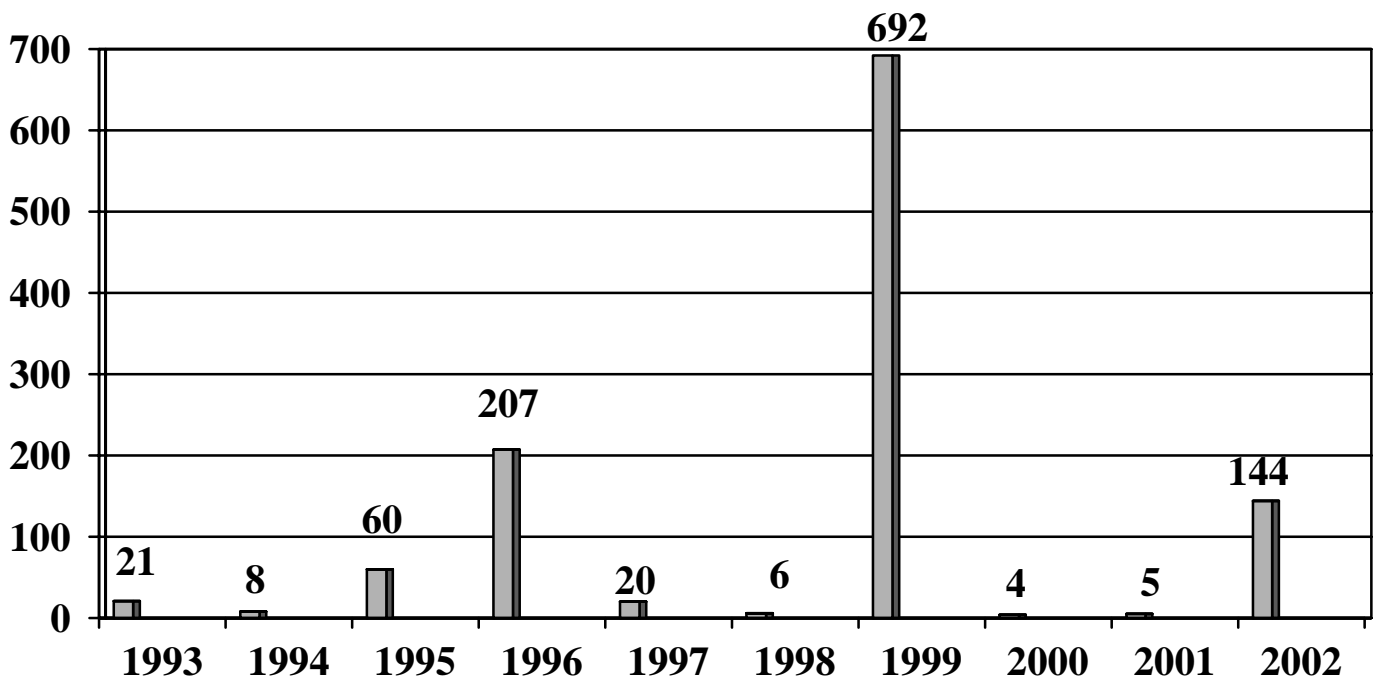
Number of Acres



**NATIONAL CAPITAL REGION
WILDLAND FIRES, 1993-2002**
Number of Fires

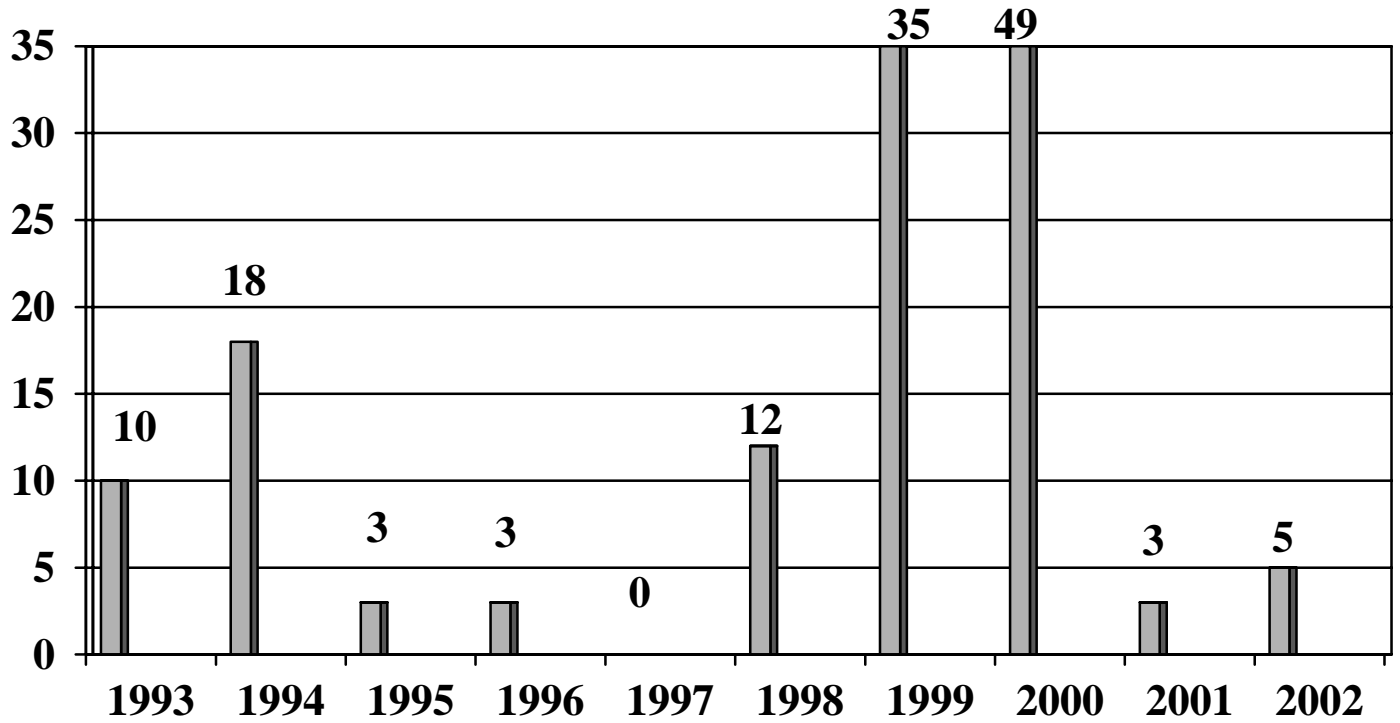


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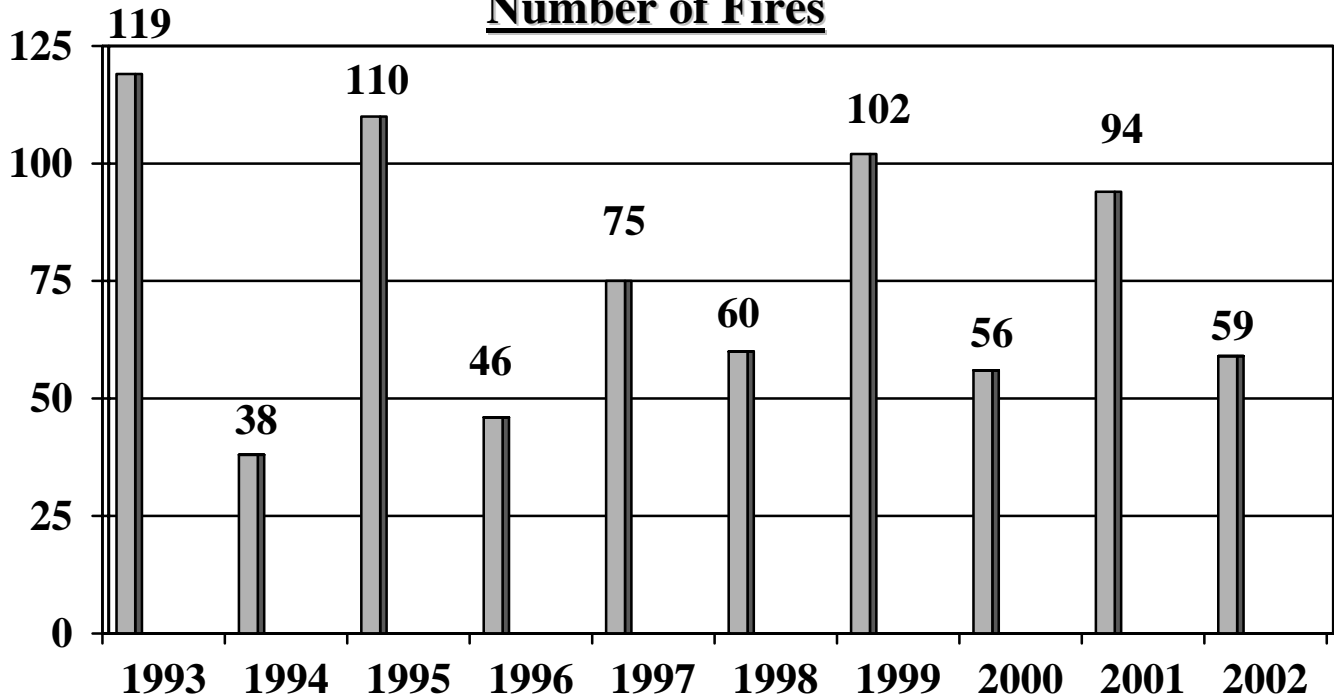
NATIONAL CAPITAL REGION SUPPORT ACTIONS, 1993-2002

Number of Responses

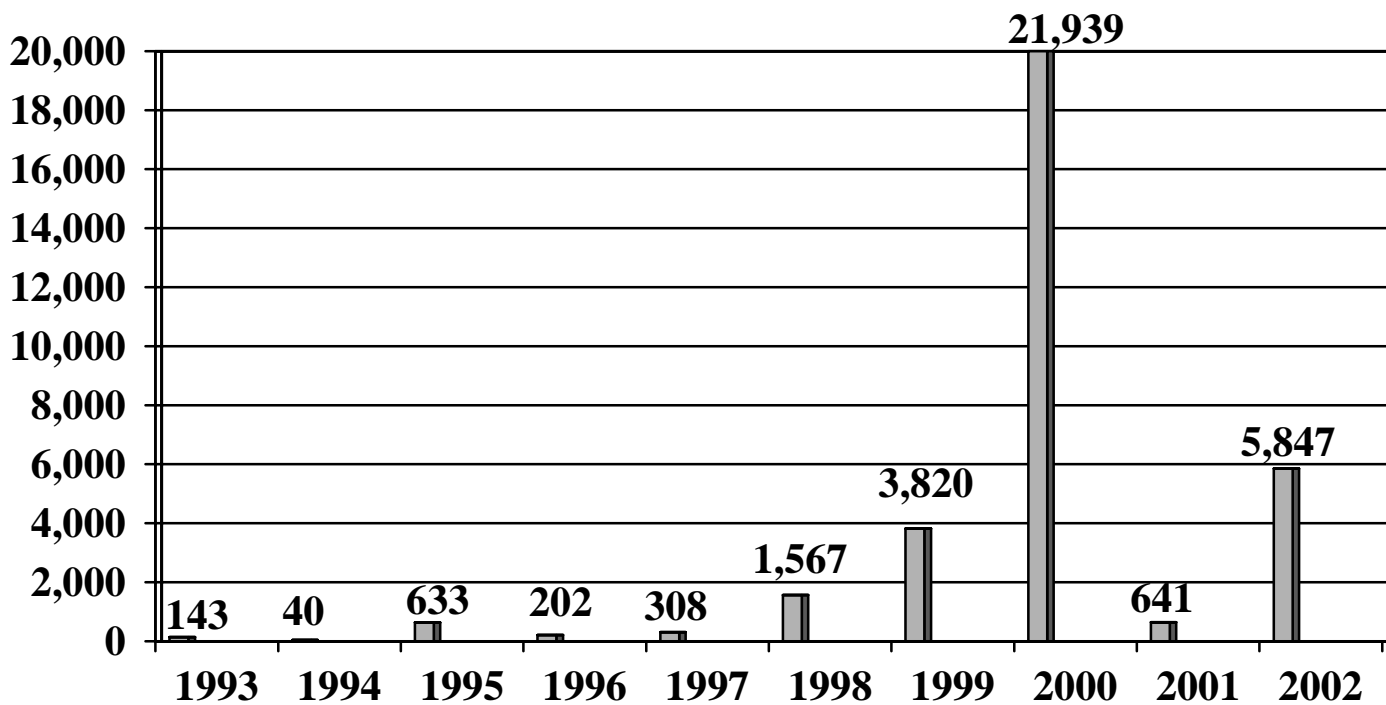


NORTHEAST REGION WILDLAND FIRES, 1993-2002

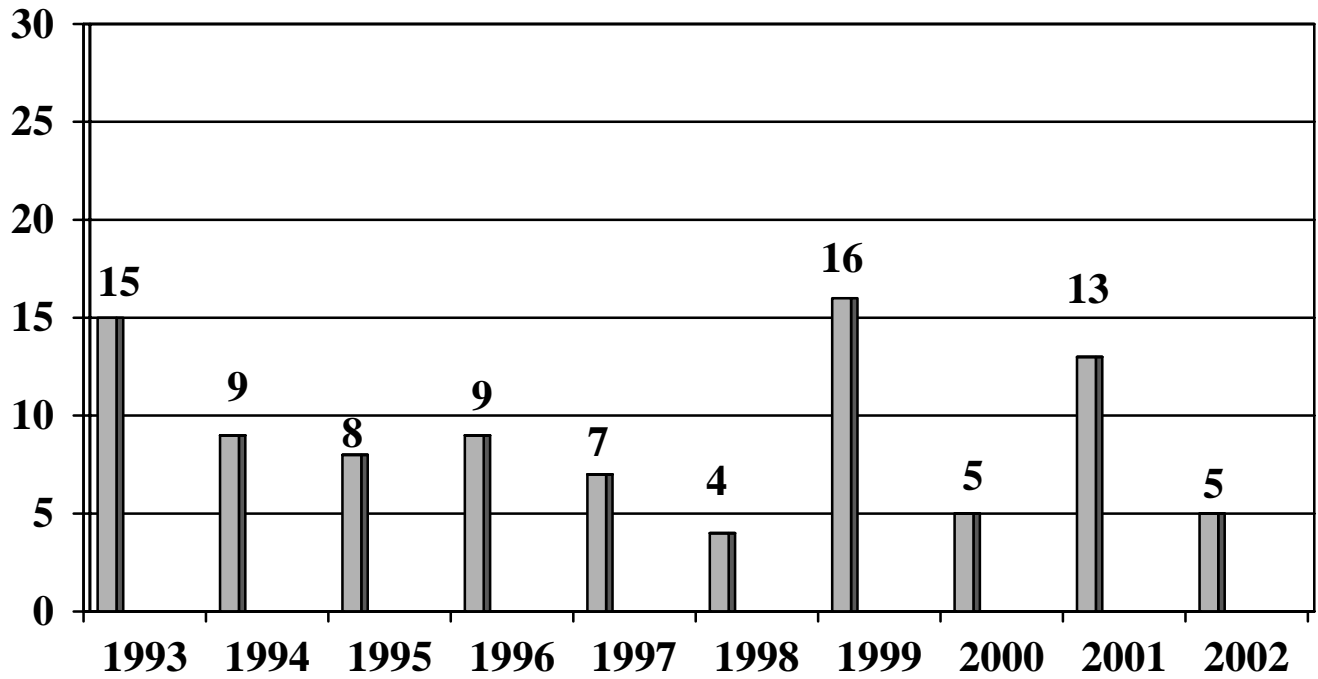
Number of Fires



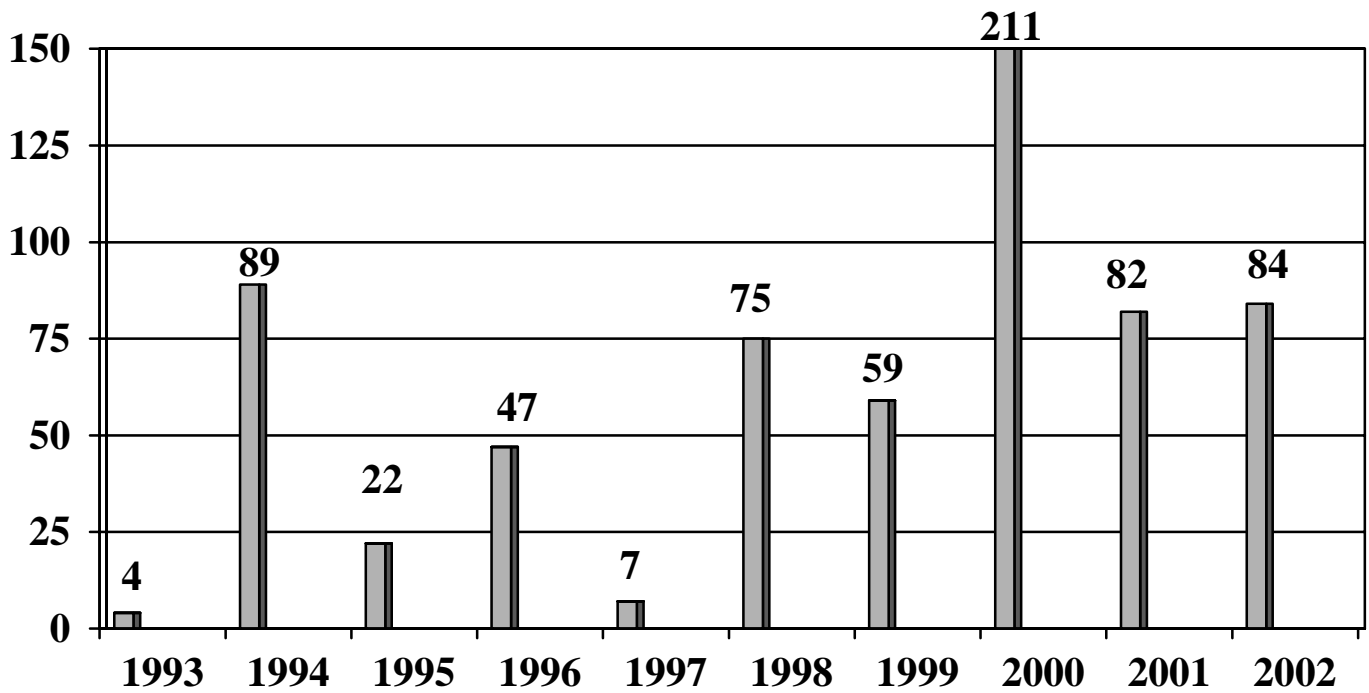
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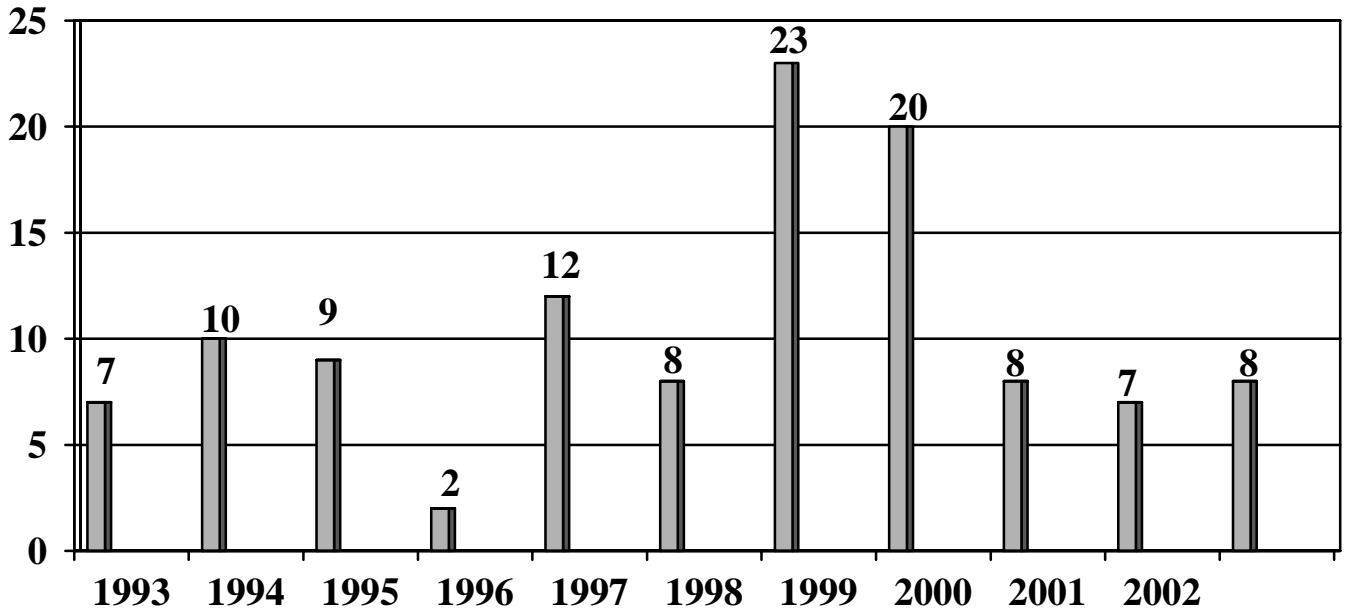
NORTHEAST REGION
MUTUAL AID RESPONSES, 1993-2002
Number of Responses



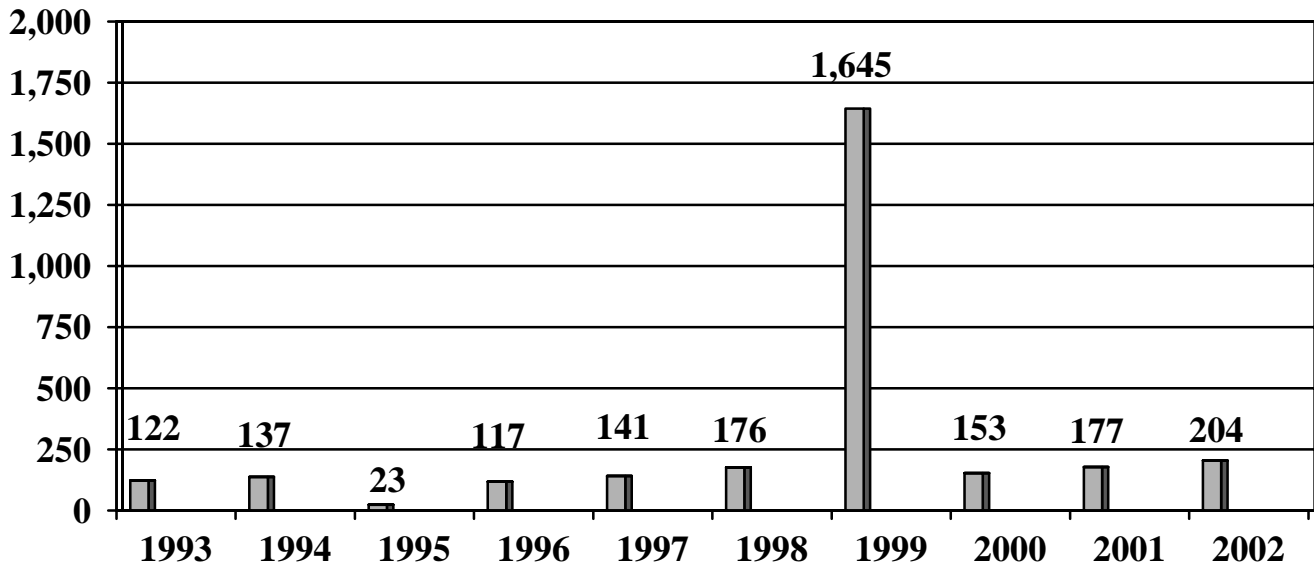
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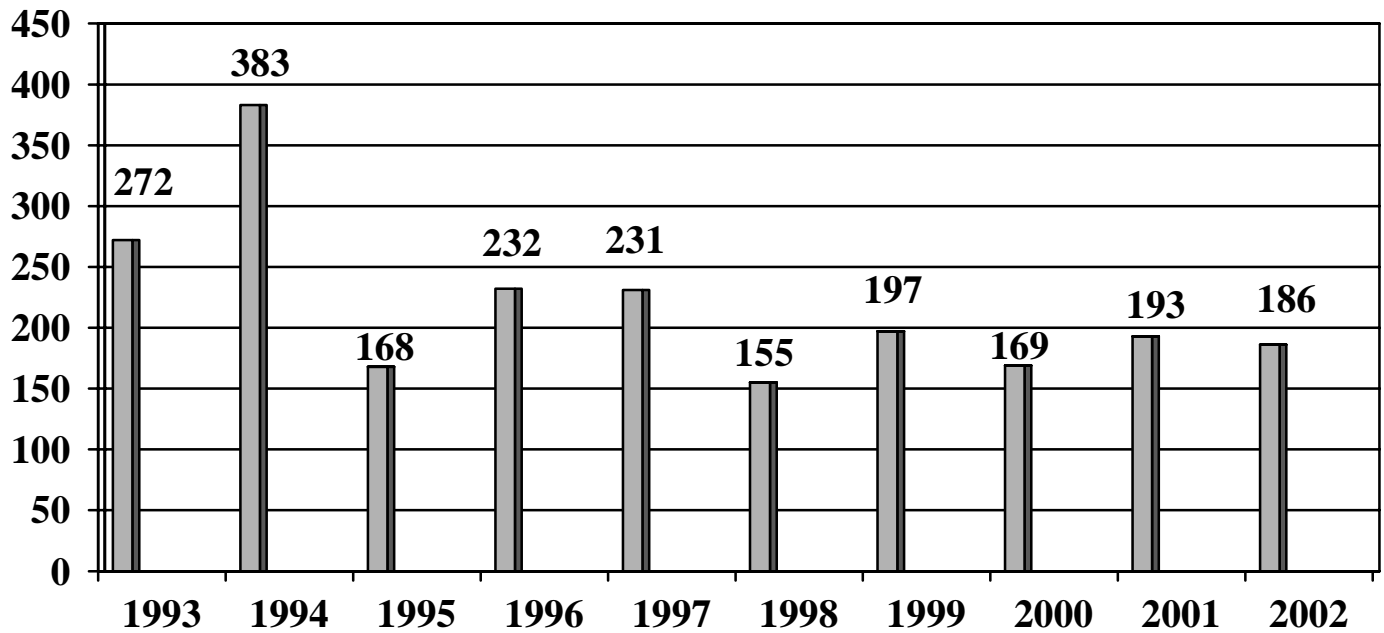
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 PRESCRIBED FIRES, 1992-2001**
Number of Fires



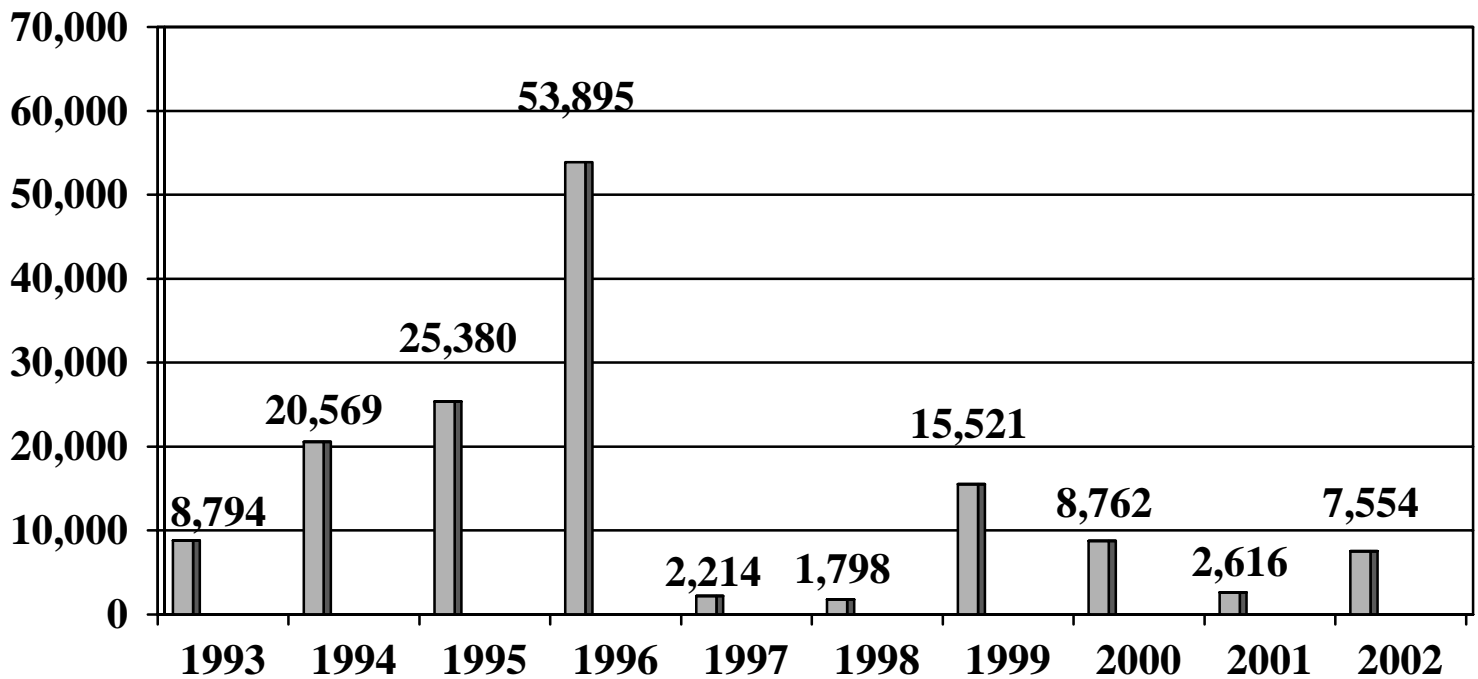
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WILDLAND FIRES, 1993-2002**
Number of Fires

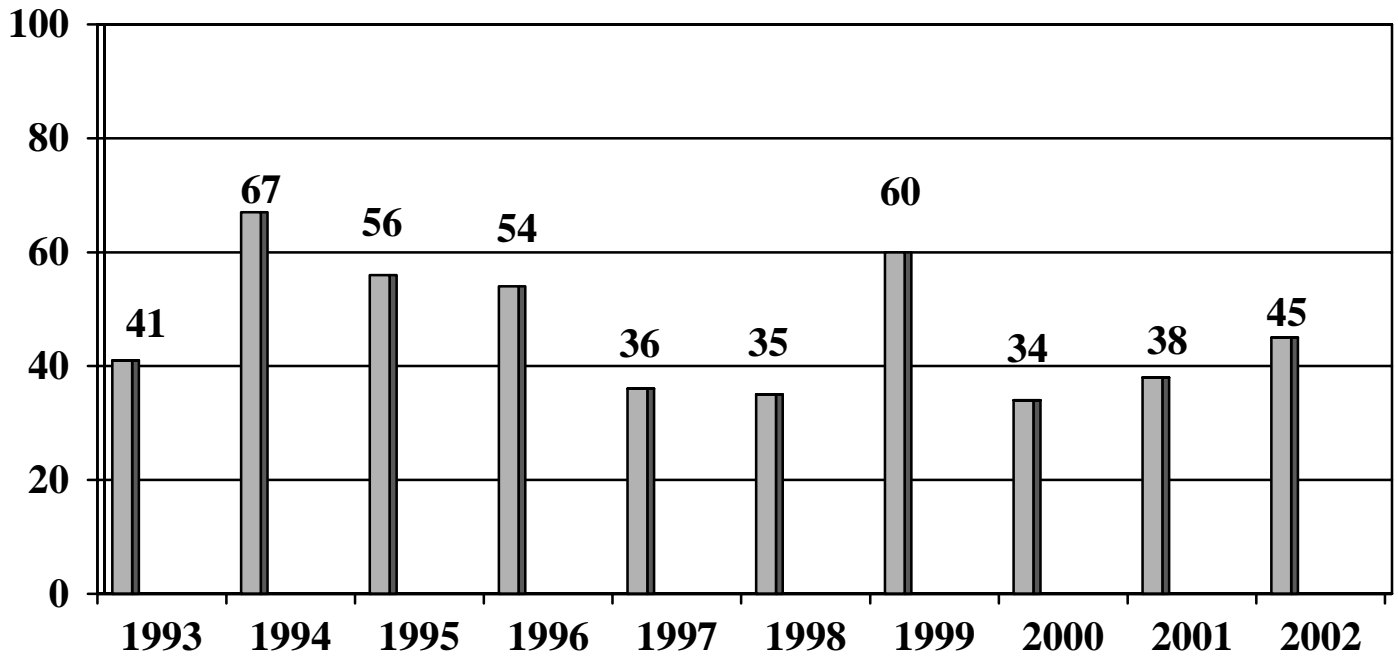


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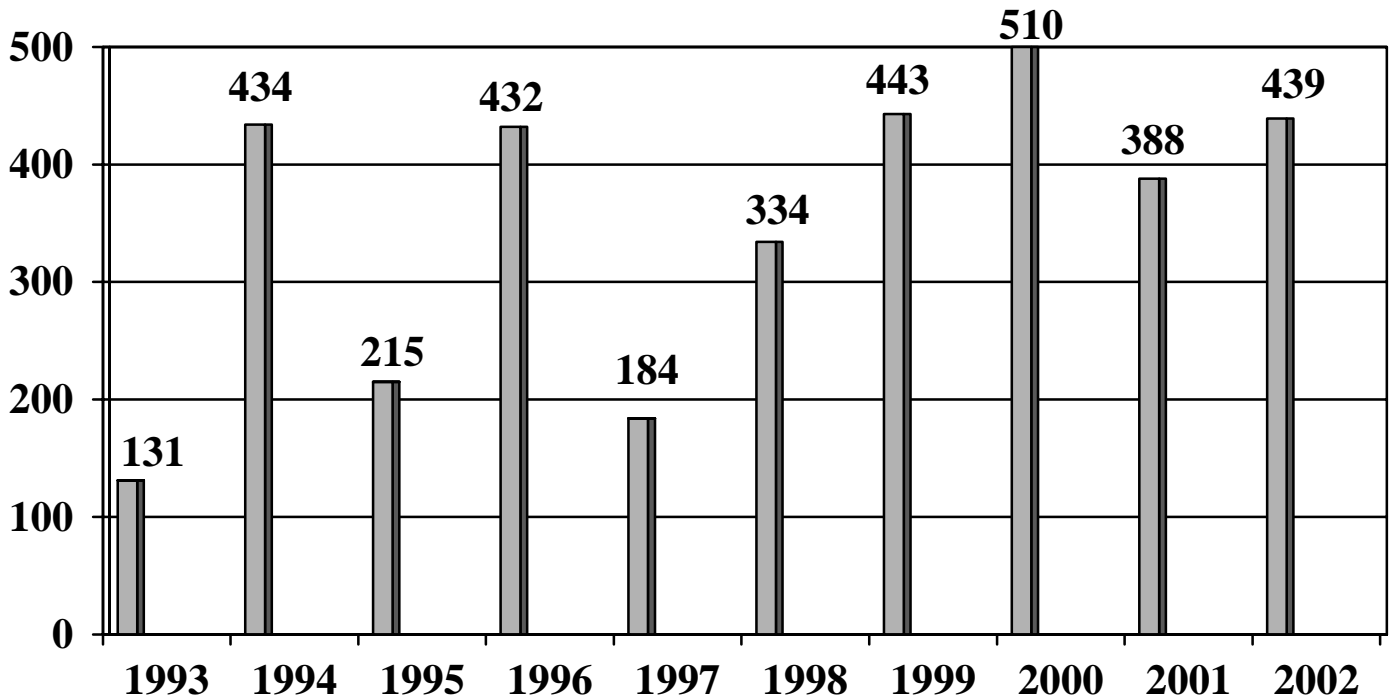


**PACIFIC WEST REGION
MUTUAL AID RESPONSES, 1993-2002**

Number of Responses

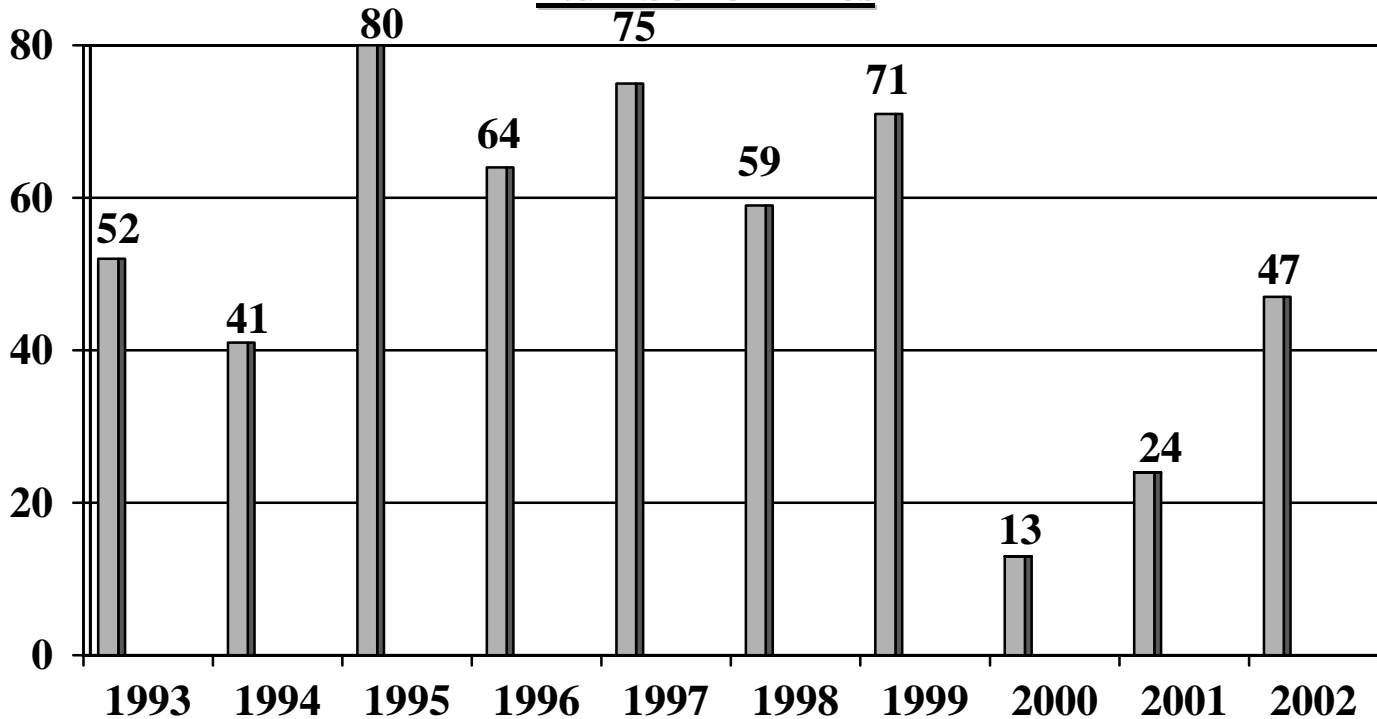


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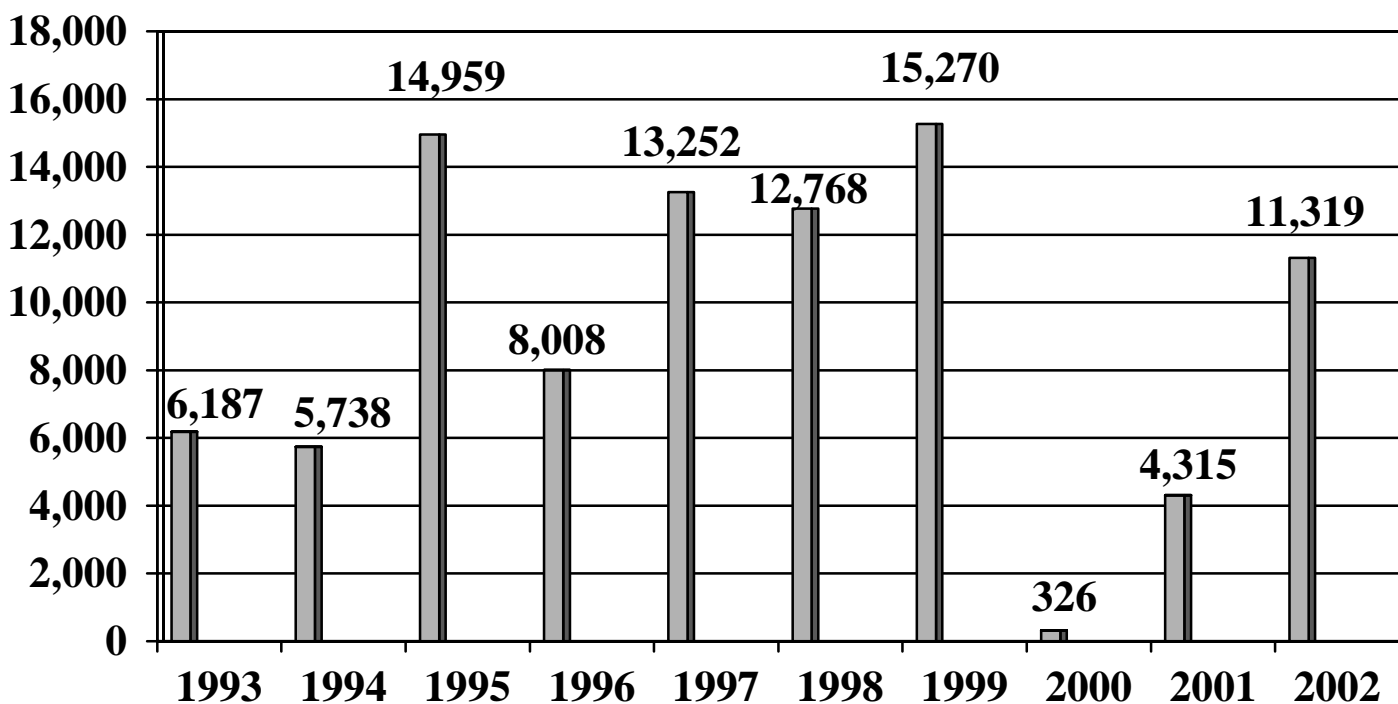


PACIFIC WEST REGION PRESCRIBED FIRES, 1993-2002

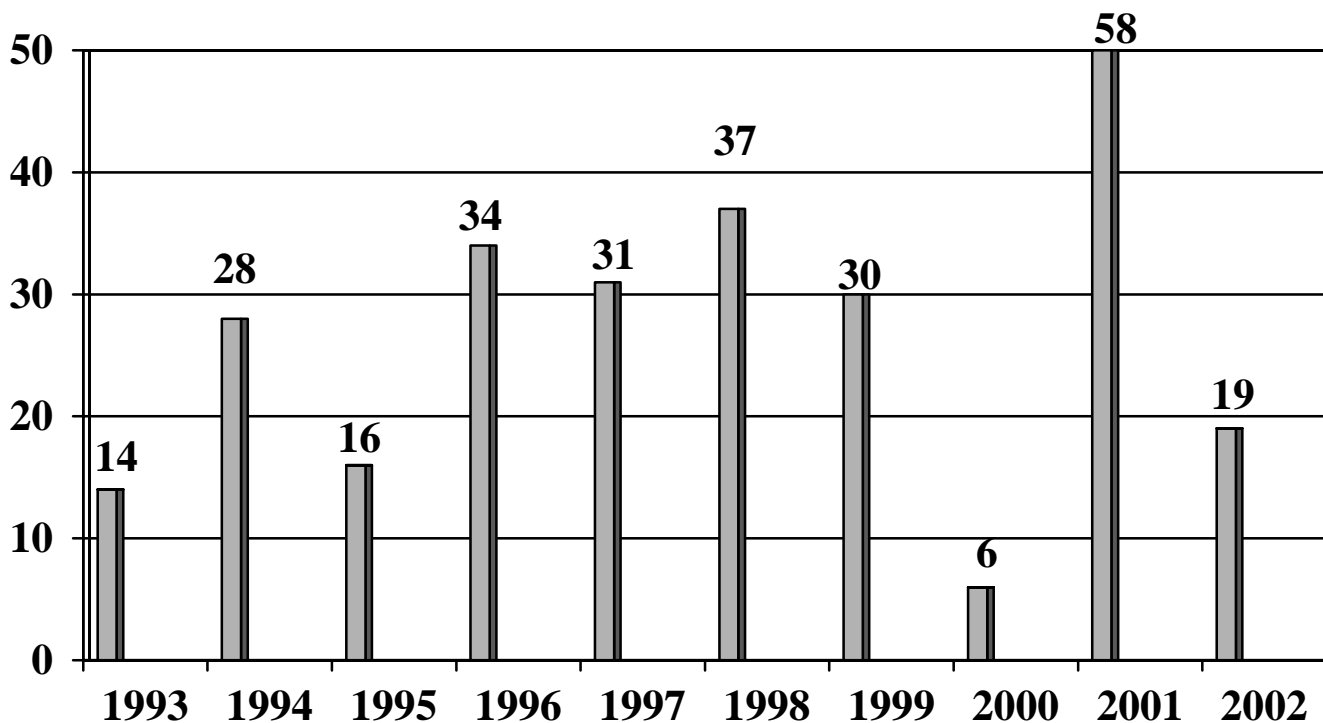
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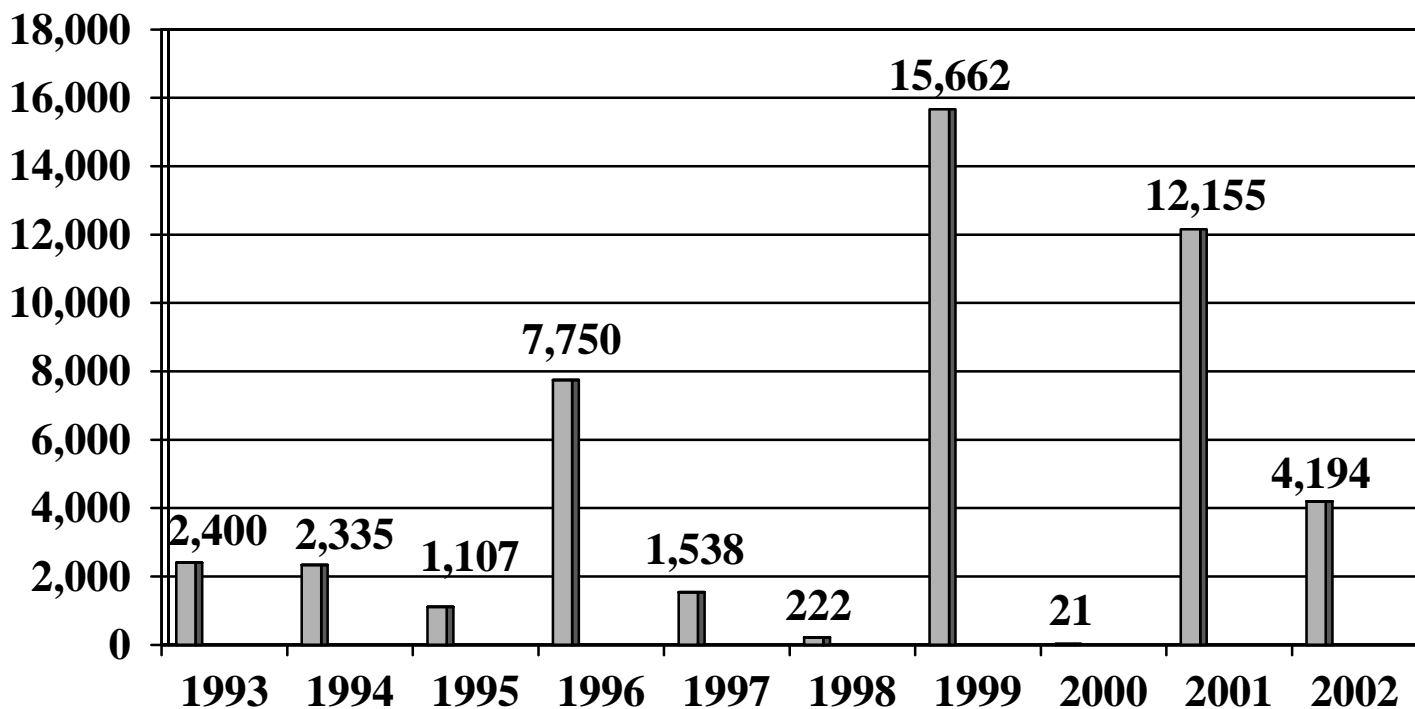
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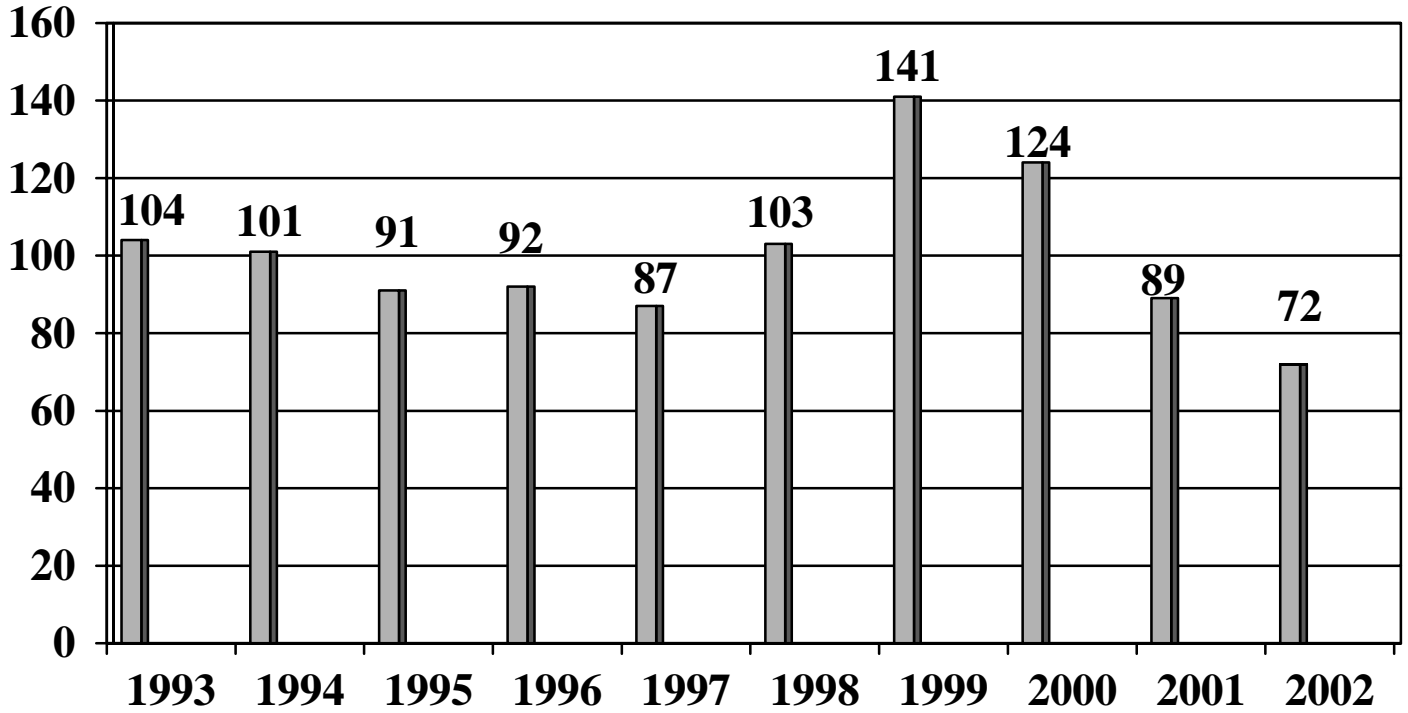
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WILDLAND FIRE USE, 1993-2002**
Number of Fires



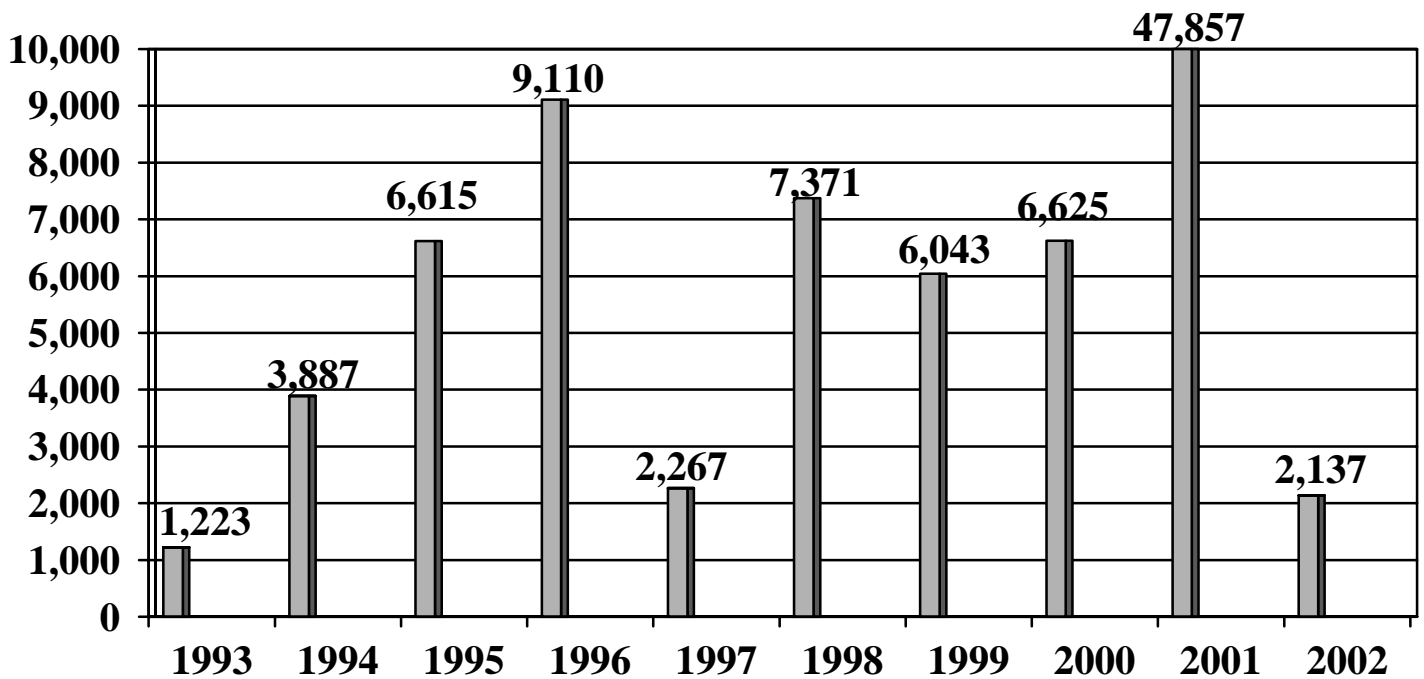
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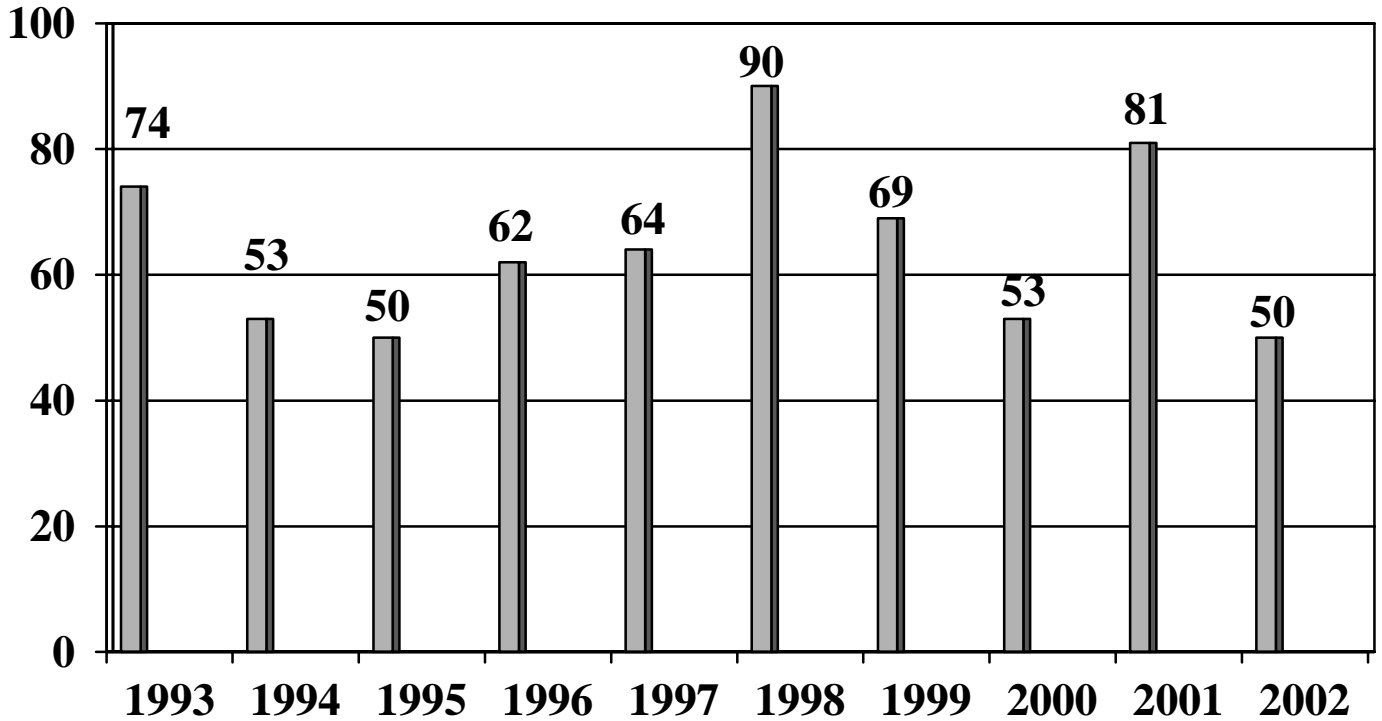
**SOUTHEAST REGION
WILDLAND FIRES, 1993-2002**
Number of Fires



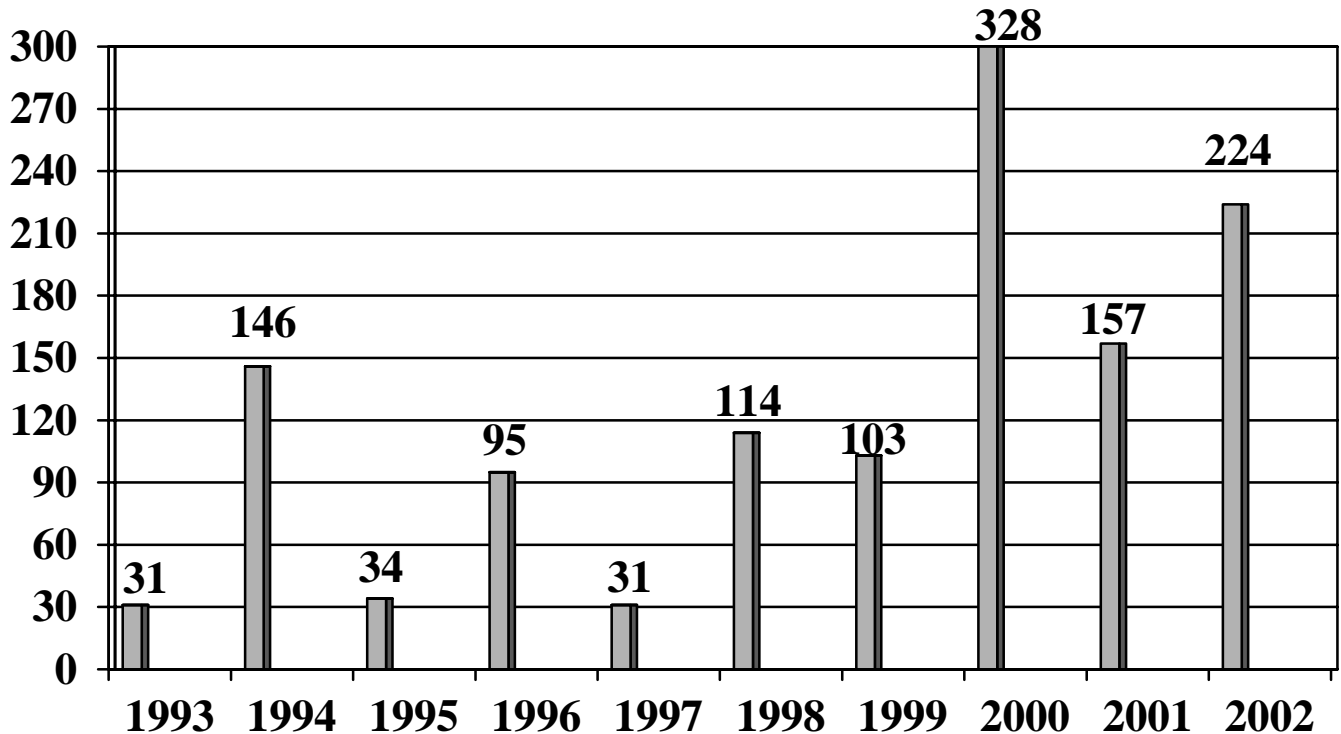
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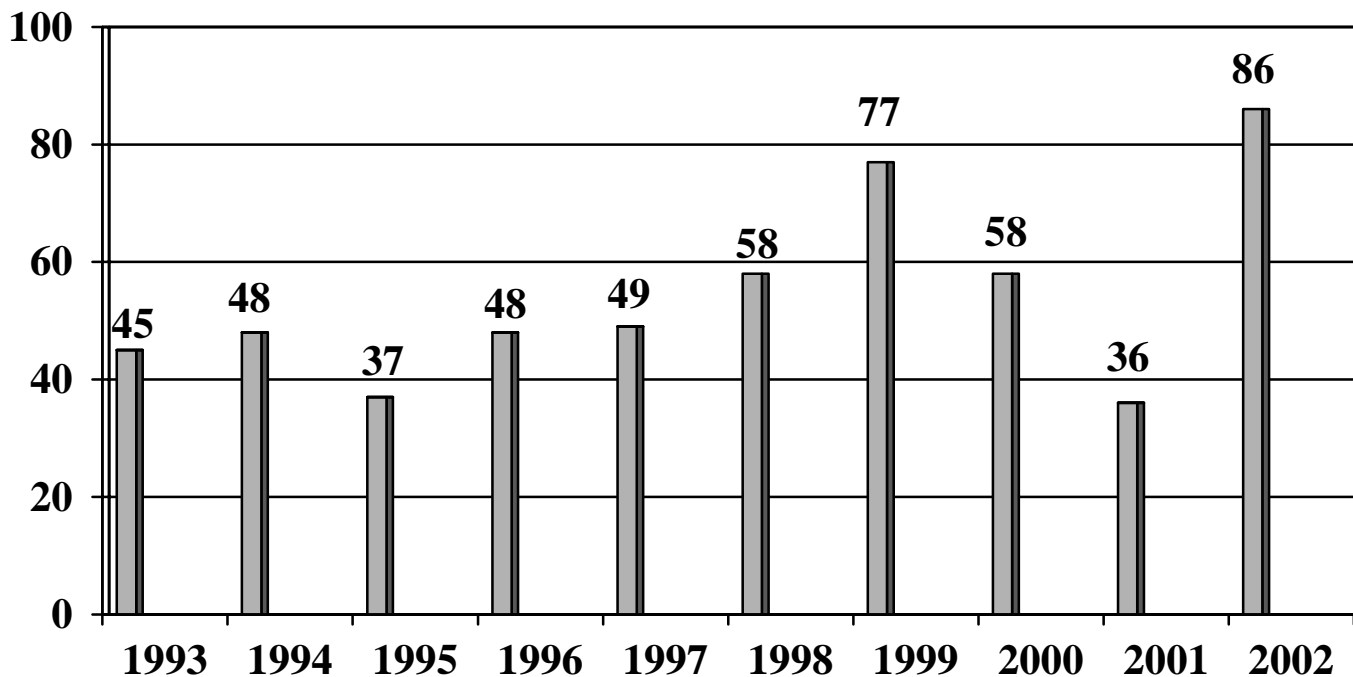
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MUTUAL AID RESPONSES, 1993-2002
Number of Responses



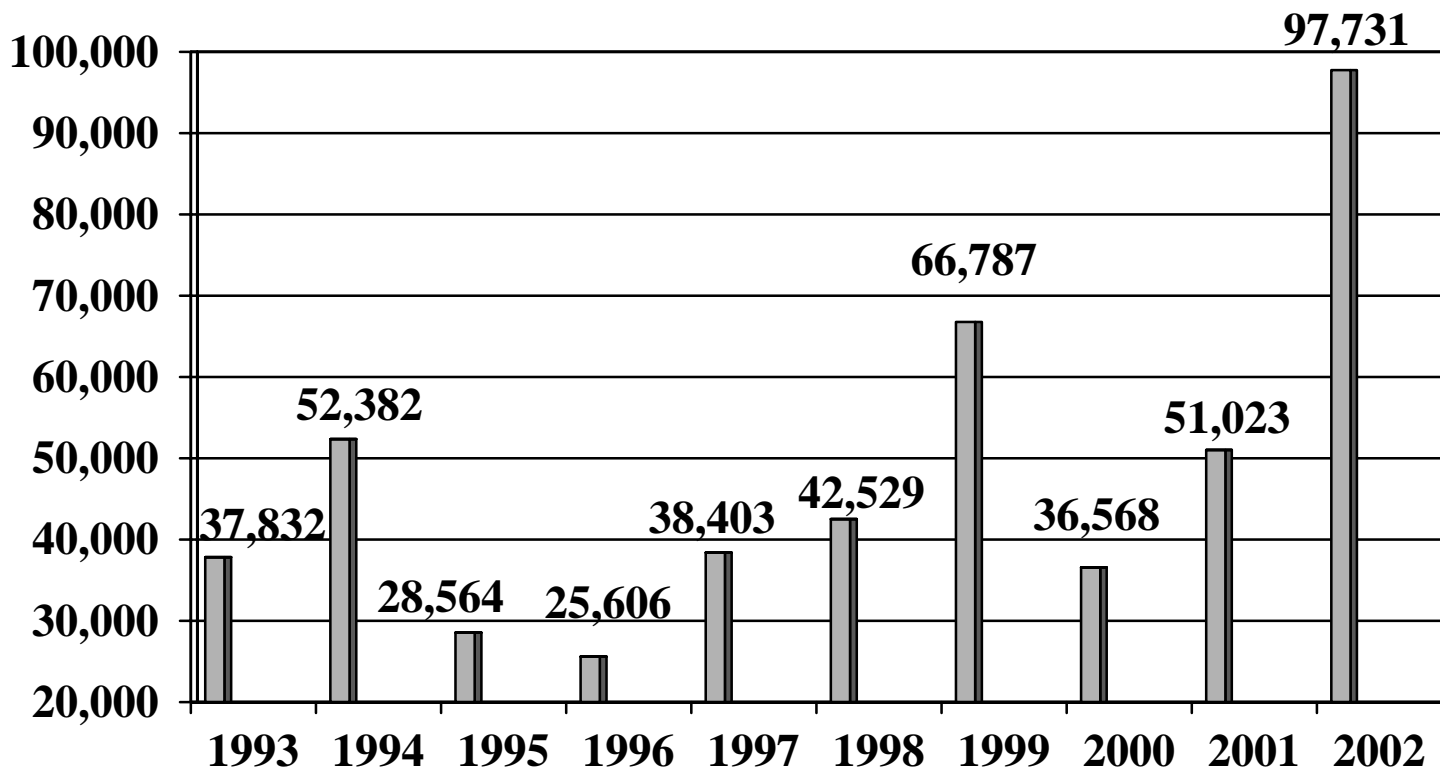
Number of Support Actions



**SOUTHEAST REGION
PRESCRIBED FIRES, 1993-2002**
Number of Fires

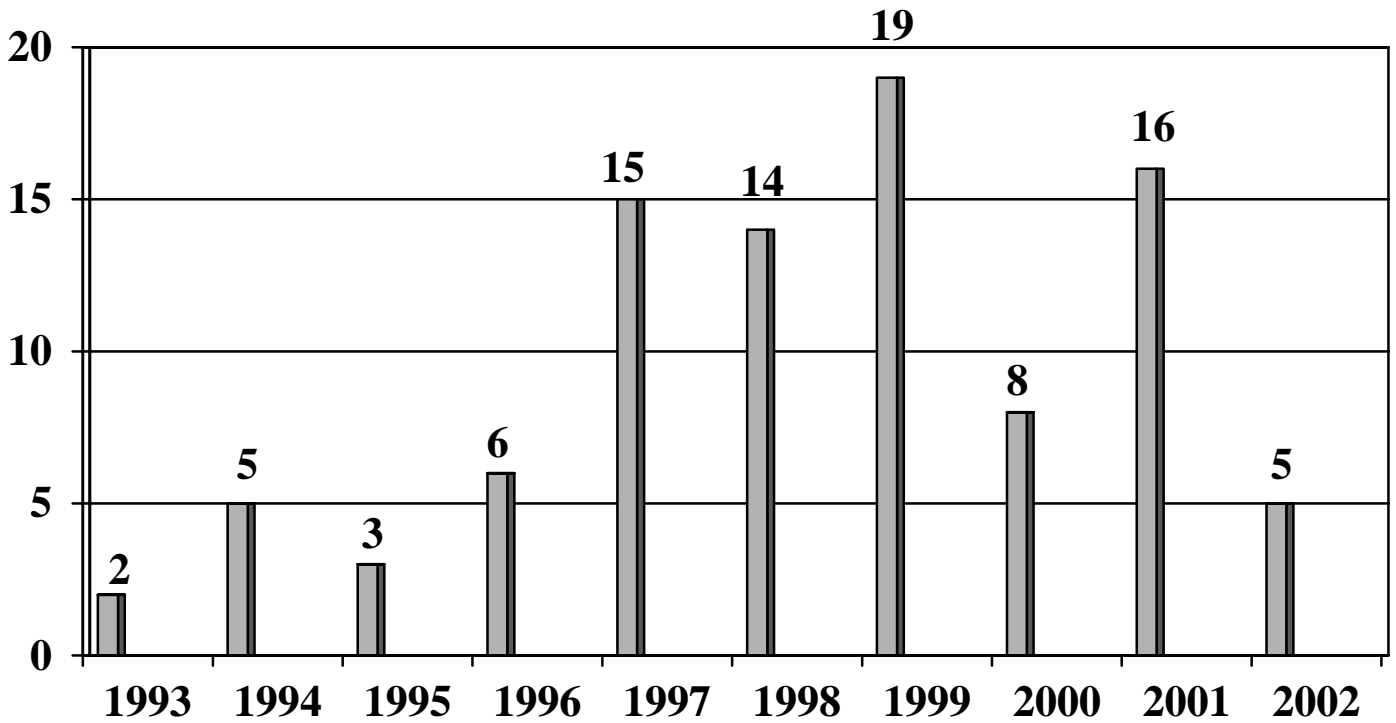


Number of Acres



SOUTHEAST REGION
WILDLAND FIRE USE, 1993-2002

Number of Fires



Number of Acres

