

KEEPING COLORADANS WARM

A REPORT ON THE STATUS OF COLORADO'S
LOW-INCOME ENERGY CONSUMERS

February 2003

Prepared by



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A special thanks goes to the LEAP program for all of its hard work in distributing energy assistance dollars to Colorado's most needy households since 1980.

CEAF also would like to acknowledge the more than 25,000 individual, corporate and foundation donors that have supported the organization through the years. It is their commitment that has allowed CEAF to increase the amount of money given and the number of people served.

CEAF's Board of Directors and the members of the Colorado Commission on Low-Income Energy Assistance deserve a round of applause for their leadership and guidance in carrying out the organization's mission.

Thank you to Jeff Ackermann, Jessica Anderson, Elizabeth Horn, Scott Wadle and Diana Yee for dedicating the time to editing and making this report as comprehensive as possible.

KEEPING COLORADANS WARM

CEAF'S REPORT ON THE STATUS OF COLORADO'S LOW-INCOME ENERGY CONSUMERS FEBRUARY 2003

EXECUTIVE SUMMARY

Energy is a basic necessity of modern life. The heat and electricity we pump through our homes keep us safe, healthy and comfortable. Heat and electricity allow us to cook, bathe, learn, sleep and grow. Without them, we are unable to safely store food, wash our clothes, heat our homes and a dozen other essential daily tasks we take for granted. That is, *most* of us take them for granted.

This report, *Keeping Coloradans Warm – A Report on the Status of Colorado's Low-Income Energy Consumers*, outlines a disturbing problem facing our state, its increasing severity and the consequences of our inaction. More specifically, this report shows:

- Twenty-two percent – more than one-fifth – of Colorado households are low-income and at times unable to afford energy. This is an increase of 2.5 percent from the last Census.
- It would cost Colorado \$198 million to help all low-income Coloradans meet their home energy needs this year alone. That's an increase of \$40 million during the last 10 years.
- The programs intended to help Colorado's low-income afford home energy only have approximately \$33 million. That number is expected to shrink significantly in the immediate future.

The network in place to address the long-term and short-term energy needs of the state's low-income is helpful to thousands each year, but inadequate to reverse these trends and avoid the impending energy crisis.

- The state's LEAP program hopes to distribute as much as \$26 million in energy assistance this year, but its funding is uncertain. Additionally, the program is up for reauthorization. Its continued funding and existence are uncertain.
- The Colorado Energy Assistance Foundation plans to distribute at least \$4 million this year for energy assistance and weatherization. But a volatile economy and expiring settlement agreement will slash the program's budget in half in 2004.
- The Energy Saving Partners weatherization program improved the energy efficiency of nearly 4,000 homes last year, but the need for weatherization greatly exceeds the resources available. Waiting lists in different regions can range from six months to two years, and are unnecessarily costing low-income households thousands of dollars.

The typical Colorado household spends just 5 percent of its annual income on home energy. But a family of four living in poverty in Colorado – earning just \$17,000 each year – spends 16 percent or more of its annual income on heat and electricity. That leaves less than \$1,200 per month for housing, food, medication, transportation and other necessities. This report, in addition to defining this problem, also provides direction to finding solutions that will significantly improve the lives of these families and help them better meet their needs.

INTRODUCTION

Energy assistance is an issue that affects the entire state of Colorado. Historically, the amount of available assistance has been inadequate to meet the pressing needs. Energy assistance in Colorado is defined as programs that provide financial support to help pay home energy bills of low-income persons (cash assistance), or that provide services to make homes more energy efficient, therefore reducing energy usage (weatherization). Presently, these needs are addressed and funded by a patchwork quilt of agencies and programs including energy companies, churches, non-profit community service agencies and a variety of public and private organizations. Energy providers are often the first line of assistance, making payment arrangements and working with customers to maintain their accounts. When more assistance is necessary, people have three main resources they can turn to for help. These resources consist of the Low-Income Energy Assistance Program (LEAP), the Colorado Energy Assistance Foundation (CEAF), and Energy Saving Partners (ESP). This report, compiled by CEAF, offers a window into Colorado's low-income energy needs and a view of the current energy assistance situation.

In addition to presenting a statewide picture, this report offers an in-depth look at individual Colorado counties and the situations faced by their low-income energy consumers. This report also uses the most current census data to determine the diverse need for assistance in different parts of the state. Maps and tables that illustrate many aspects of Colorado's low-income energy assistance situation also have been included to demonstrate patterns and correlations.

PURPOSE

This report shows the current scope of Colorado's low-income energy assistance programs, an analysis of the gaps and a focus on new directions for the future.

Its objectives are to:

- Provide an overview of the low-income population;
- Assess the energy needs of the low-income population;
- Review the major existing public and private sources of energy assistance available in Colorado and identify gaps that may exist; and
- Determine the steps necessary to improve low-income energy assistance in Colorado.

METHODOLOGY

This report uses 2000 U.S. Census data in conjunction with data from other local and national sources. In cases where figures were not immediately available or were not directly comparable, best estimates were made and disclosed as such.

POVERTY IN COLORADO

Colorado residents recognize that they can encounter extreme weather conditions throughout the year. These conditions do not affect many who can simply retreat into heated or air-conditioned homes. However, for those less able to afford the costs of energy, it is not just an inconvenience. It can be a serious situation.

Picture a family around the kitchen table enjoying a warm meal, a retired couple reading in their favorite chairs, or children going through their evening routines – completing homework, enjoying a warm bath, snuggling into comfortable beds. Now picture these households without home energy. The lack of warmth creates a health risk for children and the elderly alike. Food cannot be cooked or safely stored. Without home energy daily living becomes disrupted and stressful.

THE TYPICAL LOW-INCOME COLORADO HOUSEHOLD

According to the 2000 U.S. Census, the average Colorado household earns \$46,733 per year.ⁱ During the course of one year the average Colorado household spends about 5 percent of its income on home energy costs.ⁱⁱ In contrast, Colorado families living at or below 100 percent of poverty can spend an average of 16 percent of their annual income on utilities, with many spending as much as 40 percent.ⁱⁱⁱ Because home energy expenses weigh so heavily on low-income households, they face challenges paying for this necessity. The strain of this greater energy burden impacts their quality of life because it can lead to difficult choices like buying food and medicine, or paying home energy expenses.^{iv} If low-income households make the choice to forgo paying their home energy expenses, they may still put themselves at risk for sickness and other health problems that can occur due to a lack of heat or electricity.

Twenty-two percent of Colorado households are low-income and qualify for energy assistance. Nearly half of them live at or below poverty – earning just \$17,000 each year for a family of four.

It is a common misconception that most poor families include adults who could work but choose not to. A recent study by the Colorado Fiscal Policy Institute reported that the reality of Colorado's poor is quite different. There was at least one working adult in 78 percent of extremely poor families with children in which the parents were not elderly, ill, disabled or retired.^v In extremely poor families without children, in which the head of household was not elderly, ill, disabled or retired, many contained an adult who held a job for at least 13 weeks.^{vi}

The report also shows that 54 percent of Colorado's working poor families with children is made up of married heads of household, is Caucasian and has a high school or equivalent education^{vii}. Most of the parents in working poor families are between the ages of 25 – 34 years old and are living in Colorado's metro areas^{viii}. Many of Colorado's poor households do not fit common stereotypes and have just fallen on hard times. The following two real life stories are from people who have recently received energy assistance.

The Story of Sam and Tammy

Sam and Tammy have been married for 10 years. During that time, they always were able to provide for themselves and their two children – never asking for assistance. This changed following September 2001.



Business slowed in the travel industry and Sam was laid off from the hotel where he was employed. For the next few months, Sam was unable to find employment and their savings was depleted. They experienced difficult times, especially paying their energy bills. Tammy's part-time salary was barely enough to pay their rent and groceries, not to mention their health care expenses and transportation costs.

In jeopardy of losing service, Sam and Tammy were able to find assistance from one of the agencies in the Charitable Energy Network. "It was such a relief not to have our service shut off. We were trying to catch up from the winter before – with high gas prices, then Sam was laid off – it was more than we could handle," said Tammy.

Because of unforeseen events, Sam and Tammy had to turn to an agency for assistance and received the help they needed, keeping their heat on throughout the winter. Several months later, Sam found a job as a cargo handler for a shipping company and the family was able to regain financial stability.

Meet Thelma

Thelma, age 80, lives in rural Colorado with her son who suffers from epilepsy. Thelma has tried to provide for both of them by working as a bartender and janitor. At the age of 62, Thelma tried to retire but needed to return to work so she and her son could keep afloat financially. Thelma worked for five more years, and then tried to retire again at age 67. However, 18 months later she was forced back into work because of insufficient finances. Finally, at age 75, Thelma quit working. Unfortunately, she could not look forward to a relaxing retirement.



When asked about her present situation, Thelma admits that it is difficult to make ends meet. Her fixed income leaves her little room for when things breakdown and prices rise. Thelma and her son keep costs at a minimum by not driving her car, turning off lights, and keeping the thermostat at 55 degrees. Fortunately for Thelma, there was help through the Colorado Energy Assistance Foundation and the Low-Income Energy Assistance Program. Unfortunately, many families in Colorado struggle with these issues without any support.

DEFINITION OF POVERTY

To determine who qualifies for assistance, the federal government created a measurement of poverty. Through the years the description has evolved, but it remains the primary way eligibility is determined for all federal assistance programs, as well as a majority of private assistance programs. The U.S. Department of Health and Human Services issues new poverty guidelines each year reflecting price changes from the previous year. The guidelines allow federal and private assistance

programs to determine the levels of eligibility for their programs and better balance need with available funding.

The LEAP program in Colorado currently uses the 185 percent of poverty threshold. Figure 1 shows the poverty levels of LEAP recipient households during the 2000-2001 heating season (November 2000 – April 2001).^{ix} Table 1 shows the corresponding monthly and annual incomes for up to 100 percent and 185 percent of poverty for the 2000 – 2001 heating season.

Range of Poverty Among LEAP Recipient Households, 2000-2001 Heating Season

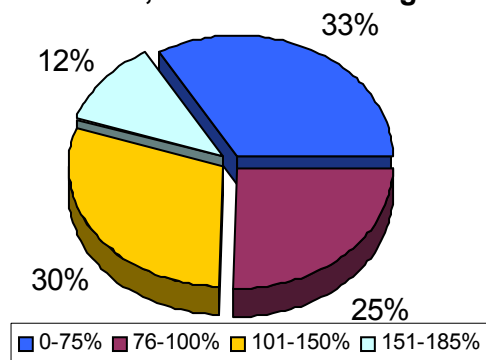


Figure 1:

Source: LEAP Weekly Statistical Report 2000-2001

Year 2000 Annual Household Income Amounts: 100 Percent of Poverty, 185 Percent of Poverty, and Median Income Estimates						
	Income Limits for 100% of Poverty		Income Limits for 185% of Poverty		Average Income [Estimates] for Middle Income Family *	
Family Size	Monthly Income	Annual Income	Monthly Income	Annual Income	Monthly Income	Annual Income
1	\$ 696	\$ 8,350	\$ 1,287	\$ 15,448	\$ 2,556	\$ 30,673
2	\$ 938	\$ 11,250	\$ 1,734	\$ 20,813	\$ 3,343	\$ 40,112
3	\$ 1,179	\$ 14,151	\$ 2,182	\$ 26,179	\$ 4,129	\$ 49,550
4	\$ 1,421	\$ 17,051	\$ 2,629	\$ 31,544	\$ 4,916	\$ 58,988
5	\$ 1,663	\$ 19,951	\$ 3,076	\$ 36,909	\$ 5,765	\$ 69,177
6	\$ 1,904	\$ 22,851	\$ 3,523	\$ 42,274	\$ 6,489	\$ 77,863

* Computed from Low-Income Home Energy Assistance Program State Median Income Estimates for Fiscal Year 2000.

Table 1:

Source: LEAP Household Income Limits for the 2000-2001 Heating Season and estimates made by the author from the Low-Income Home Energy Assistance Program State Median Income Estimates for Fiscal

LEVELS OF POVERTY

Viewed from the ski slopes, from a mountain peak, or from the I-25 corridor, it may not appear there are many poor people living in Colorado. However, the reality is quite different. In fact, approximately 22 percent of the households in Colorado would currently qualify for energy assistance from LEAP under current eligibility guidelines.^x That equates to more than one-fifth of the state's households. Within that 22 percent are different levels of poverty and different extents to which people have difficulty affording home energy.

The three degrees of poverty associated with home energy assistance are extremely poor, very poor, and marginally self-sufficient. The extremely poor are those households and persons living at or below 100 percent of poverty. These households have the most difficult time affording the home energy they need. Table 2 shows that extremely poor households make up 9 percent of Colorado households. Very poor households make up 7 percent of Colorado households; they are between 101 and 150 percent of poverty. These households are above the poverty line, yet often have difficulty in meeting their home energy expenses. Those households that are marginally self-sufficient are between 151 and 185 percent of poverty, they consist of 6 percent of Colorado's households. Marginally sufficient households are able to make ends meet, but typically have great difficulty when emergencies or unforeseen problems occur. These households are the ones that usually need short-term assistance so they can get back on their feet financially.

Three Degrees of Poverty	Intevals of Poverty	Number of Households	Percentage of All Colorado Households
<i>Extremely Poor</i>	Households living at or below 100 percent of poverty	155,389	9%
<i>Very Poor</i>	101-150 percent of poverty	120,270	7%
<i>Marginally Self-Sufficient</i>	151-185 percent of poverty	91,227	6%

Source: Estimate computed by the author based on U.S. Census 2000 Data

Table: 2

Source: Estimates made by the author based on U.S. Census Bureau 2000 Census

THE NEED FOR LOW-INCOME ENERGY ASSISTANCE IN COLORADO

Although there are programs that provide weatherization services in order to reduce dependency on cash assistance, cash assistance is necessary for individuals living on fixed incomes or families that are in crisis due to job losses or medical problems.

In a 2001 report by the Economic Policy Institute, nearly 20 percent of Coloradans with incomes at or below 200 percent of poverty stated that they were unable to make a house, rent or utility payment during the year.^{xi} Figures 2 and 3 show that on average, home energy bills disproportionately consume an average of 16 percent of the income of households below 100 percent of poverty, compared to 5 percent for the average Colorado household.^{xii} Home energy bills, when added to the other expenditures low-income households face can leave low-income households with difficult choices to make, such as paying for home energy or purchasing food.^{xiii}

Home energy bills consume such a disproportionately high amount of a low-income household's annual budget, that by one estimate, the households earning below 185 percent of poverty in Colorado spend \$198 million more on energy costs than they would if they were spending the same percentage of their annual income on energy bills as the average Colorado household.^{xiv} The burden of home energy costs represents funds that poor families would be able to use for other essential expenses such as food, healthcare and shelter. There have been several studies that have shown a strong correlation between a household's inability to pay its home energy bills and homelessness, malnutrition, heat stroke and the disintegration of families.^{xv} Although low-income energy assistance will not solve all of the challenges faced by low-income households, it is a way to significantly impact their quality of life.

**Home Energy Bills as a
Percent of Annual Income
For Low-Income Households,
at or Below 100 Percent of
Poverty**

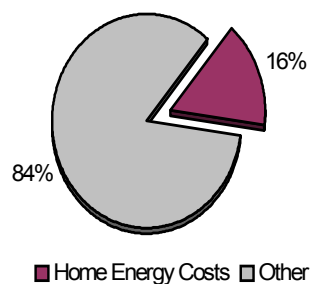


Figure: 2

Source: Roger Colton Low-Income Energy Burden Tables

**Home Energy Bills as a
Percent of Annual Income
For Median Income
Households**

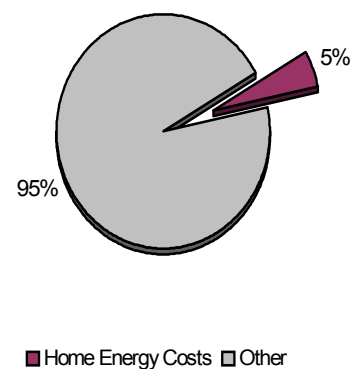


Figure: 3

Source Roger Colton Non Low-Income Energy Burden Tables

THE NEED FOR HOME HEATING AND COOLING

Every county in Colorado is affected by the need for home energy assistance, because every county has either a need for home heating, home cooling, or both. The need for heating and cooling is measured using heating and cooling degree days. Definitions are provided in the Definitions section of this report.

Maps on pages 34 and 35 show that the Colorado counties with the greatest need for home heating primarily are located in the mountains and the central and north central regions of the state. The need for home cooling is most prevalent in counties on the eastern plains and western slope.

ENERGY USE AND ENERGY BILLS IN COLORADO

Traditionally, energy usage and energy bills of low-income households are less than that of the average Colorado household, but the percentage of annual household income that their home energy bills demand is considerably greater. Low-income households use on average only 74 percent of the energy of an average household, but the energy expenditures for the poor represent a burden on their annual income nearly four times as great.^{xvi} This increased burden occurs despite the fact that, unlike many other states, the poor in Colorado do not disproportionately rely upon more expensive heating sources such as electricity.

Colorado Low-Income Fuel Use Estimates

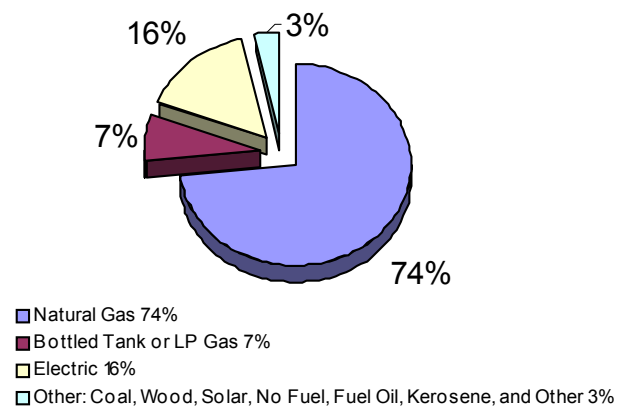


Figure: 4

Source: Estimates made by the author based on U.S. Census 2000 data

LOW-INCOME FUEL USE IN COLORADO

The three primary home heating fuels in Colorado are natural gas, electricity and liquid propane gas. Roughly 74 percent of Colorado's low-income households use natural gas as the primary space heating fuel.^{xvii} In contrast, electricity is the primary fuel for space heating in 16 percent of low-income Colorado households. Propane falls even further behind, used by only 7 percent of low-income households, as shown in Figure 4. The geographic distribution for electricity and propane use are shown in the maps on pages 36 and 37. This illustrates the counties in Colorado's central mountains have the highest percentages of households using electricity as the primary home energy fuel. The counties with the highest percentages of households using propane are found in the central and southwestern portions of Colorado.

PRICE OF HEATING FUELS

The price of home heating fuels has a considerable impact on the poor in Colorado. The cost of providing hot water and heating a home makes up an average of 56 percent of a Colorado household's energy bill (see Figure 5).^{xviii} The types of fuels used for home heating and water heating are significant, as some fuels are more efficient than others at producing heat. Figure 6 shows that natural gas is the cheapest energy source and provides the greatest amount of heat for the dollar (measured in British Thermal Units, BTU), followed by propane and then electricity.^{xix} The type of fuel that a household uses has a significant impact on the home energy expenditures a household faces.

Poor households spend 16 percent or more on their annual incomes on energy bills. Some spend as much as 40 percent. The typical middle income resident in Colorado spends just 5 percent.

LOW-INCOME HOME ENERGY COSTS

Using the estimate that a reasonable cost for household home energy bills is the percentage that a median income household spends (5 percent), it becomes evident that every county in Colorado should be concerned about low-income energy assistance. Metropolitan counties need to be concerned because there are more households needing energy assistance. Colorado's rural counties need to be concerned because this is where the greatest home energy burden per household exists,

meaning that home energy bills demand the greatest percentage of annual income. Burden per household more accurately shows which counties home energy bills bear a greater financial stress on low-income households. Shown in the map on page 29, the energy burden (percentage of annual income spent on home energy) per county is most severe for the low-income residents in Costilla County. This occurs for two main reasons. First, 61.2 percent of Costilla County uses propane and 8.4 percent uses electricity.^{xx} Propane and electricity lead to higher home energy costs because they produce less heat per dollar spent. Second, Costilla County has high home energy costs because of the colder climate and greater need for home heating.

Average Colorado Low-Income Household Energy Bill Costs

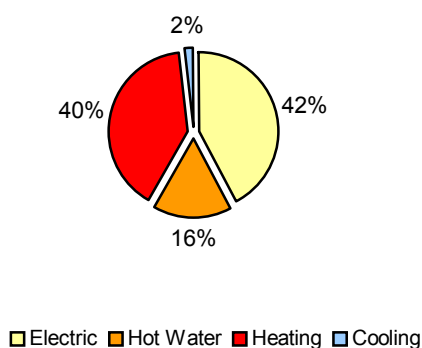


Figure 5:

Source: Colton, Roger. (2002). *Colorado's Low-Income Calculations*. Prepared for the Colorado Energy Assistance Foundation. Belmont, MA: Fisher, Sheehan & Colton, Public Finance and General Economics.

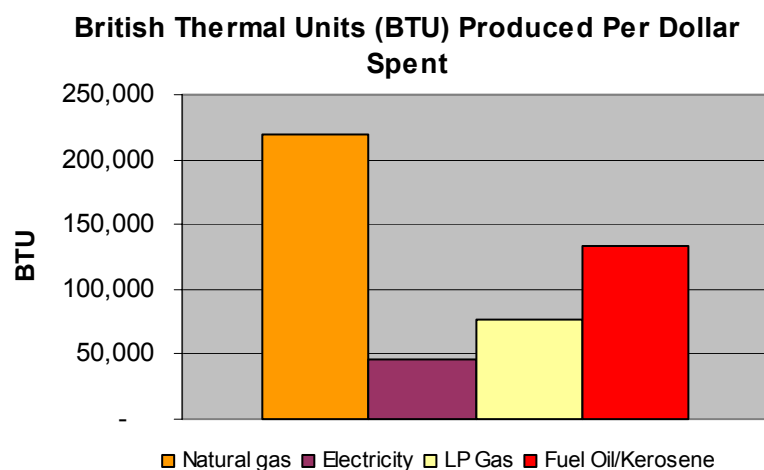


Figure 6:

Sources: Calculations made by the author based on data from Connecticut Natural Gas Company, EStar Colorado, Lois B. Arena, Xcel Gas Bill (November 2002), Heating & Cooling of Buildings by Kreider & Rabl Petroleum Marketing Monthly (March 2001)

ENERGY-RELATED ASSISTANCE IN COLORADO

PUBLIC ASSISTANCE

Public funds available to help low-income households pay their home energy bills are extremely limited in Colorado.

LOW-INCOME ENERGY ASSISTANCE PROGRAM

The majority of public support for energy assistance in Colorado is distributed by the federal Low-Income Home Energy Assistance Program (LIHEAP), known in Colorado as the LEAP program. The primary use of LEAP funds is for winter home heating assistance between November and April, which is when LEAP is operational. During the 2001-02 heating season, LEAP helped more than 76,000 households with an average benefit of \$275.

LEAP is funded primarily by a federal block grant and is administered by the Colorado Department of Human Services with funds flowing through the county departments of social services. LEAP also receives additional funding from CEAF, equating historically to an average of 10 percent of the program's total funding (Figure 7). In 2001-02 CEAF's funding to LEAP was \$2.5 million. LEAP is able to maximize its funding by leveraging these private dollars. Additionally, LEAP does not require any administrative dollars to distribute this additional funding. At the time of this report, LEAP is expected to receive \$26 million total for the 2002-2003 heating season.

The preservation of fuel assistance in Colorado is essential to providing assistance for unaffordable home energy bills. The elimination or significant curtailment of LEAP funding in Colorado would leave virtually no publicly-funded assistance program to help pay energy bills of Colorado's low-income households.

Composition of LEAP Funds

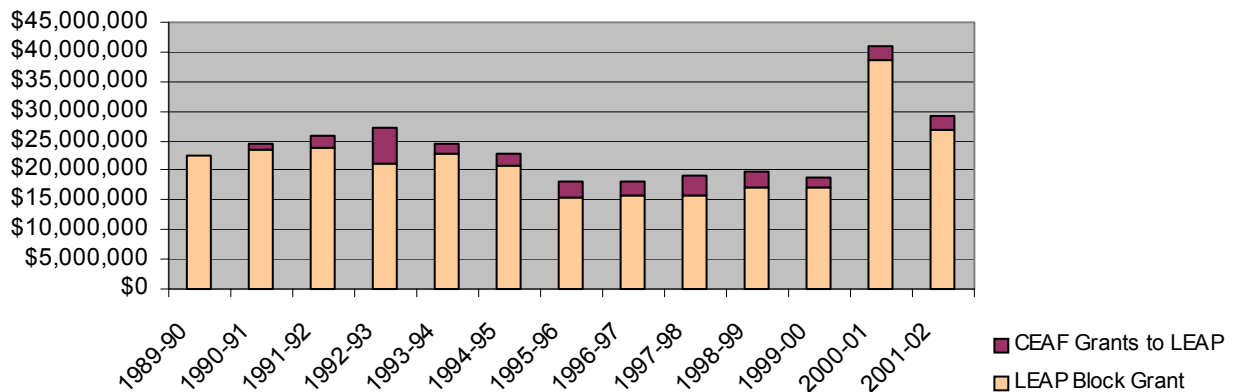


Figure: 7

Please note – The State of Colorado supplemented LEAP’s funding for 2000-01 by providing \$10 million in Severance Tax dollars. *Source: Low-Income Energy Assistance Program, Colorado Energy Assistance Foundation*

FEDERAL EMERGENCY MANAGEMENT AGENCY

A federal crisis program used as a source for energy related crises in Colorado involves FEMA, the Federal Emergency Management Agency. FEMA dollars account for a very small portion of fuel assistance dollars. Through the past eight years, the amount of FEMA funds used for emergency energy assistance has declined steadily from \$110,000 annually to only a few thousand dollars each year. One of the major reasons for this reduction is due to the expansion of the Charitable Energy Network funded through CEAF.^{xxi} This decline in FEMA energy assistance has allowed its funds to be spent for other needs, such as rent and food allowances.

PROPERTY TAX /RENT/HEAT CREDIT PROGRAM (PTC)

PTC is a public benefit programs that provides a property tax/rent/heat rebate on Colorado income taxes. In 2001, this program was available to any Colorado resident who was:

- At least 65 years old, or^{xxii}
- A surviving spouse at least 58 years old, or^{xxiii}
- A person who was disabled for the entire tax year, regardless of age^{xxiv}

In addition to these criteria, a Colorado resident must qualify according to income guidelines. They require that a single person’s income for 2001 not exceed \$11,000. If married, both spouses’ incomes from all sources cannot exceed \$14,700. Finally, a person listed as a dependant on another resident’s federal income tax return is not eligible for the credit.

Created in 1987, the PTC program has not adjusted its benefit levels or its income eligibility criteria since inception. During the 2001-02 heating season Colorado's PTC program reported giving \$5,218,633 in assistance to low-income households. These funds included property tax and rent rebates as well as energy assistance. LEAP received some of these funds, and as a result, was able to leverage from the federal government an additional \$114,000 last year to distribute to households in need.^{xxv}

GENERAL ASSISTANCE

General Assistance distributed by the Departments of Human Services (DHS) in each county is quite limited. Moreover, general assistance benefits are not always available for energy bill emergencies.

LEVERAGED FUNDING: TEMPORARY ASSISTANCE TO NEEDY FAMILIES

One source of non-LEAP federal dollars in Colorado involves the leveraged resources provided through the Temporary Assistance to Needy Families (TANF) program. The Colorado Legislature determined that each year \$1.5 million of the state's TANF funds be transferred to LEAP to help fund utility assistance to TANF eligible families with children. CEAF dollars distributed to LEAP help secure these TANF funds for Colorado.

PUBLIC AND ASSISTED HOUSING

Utility allowances provided through public and assisted housing programs are an additional source of dollars to help low-income households pay home energy bills. The primary public and assisted housing programs are provided by local housing authorities and Section 8 programs. These allowances are comparatively small and are sometimes unable to pay fully the home energy bills of those living in these housing units.

PRIVATE ASSISTANCE

Private sources such as the Salvation Army, Catholic Charities, Volunteers of America, and the Colorado Energy Assistance Foundation provide limited but critical "crisis" energy assistance in Colorado. These private sources of energy assistance funds are important because they provide a physical location that those in need can visit, getting assistance right in their community. In addition, private sources provide a statewide presence year-round for energy assistance for both home cooling and heating.

COLORADO ENERGY ASSISTANCE FOUNDATION

The Colorado Energy Assistance Foundation is a not-for-profit organization whose mission is to ensure that Colorado's low-income households can meet their home energy needs. CEAF raises dollars from individuals, corporations, and energy providers statewide, and in turn, funds cash assistance and energy efficiency programs. CEAF also advocates on behalf of low income energy consumers before the Public Utilities Commission and the State Legislature. CEAF was created as a result of declining federal funding and has generated more than \$70 million to support low-income

energy assistance since its inception in 1989. As part of the short-term solution, CEAF raises funds for and provides financial assistance to LEAP and the Charitable Energy Network. These dollars provide emergency financial assistance to households in immediate need. As part of the long-term solution, a portion of the funds CEAF raises is distributed to weatherization and energy efficiency programs and conservation education.

CHARITABLE ENERGY NETWORK

CEAF distributes funds through the Charitable Energy Network (CEN), an energy assistance network that complements the state's LEAP program, targeting those unwilling to apply for LEAP, not eligible for LEAP, or who are in need when LEAP does not operate. This network consists of more than 80 nonprofit, community, and faith-based organizations that provide local energy assistance and additional funds and services to assist clients' other non-energy needs. Examples of these agencies are Catholic Charities, Metro CareRing, the Association of Senior Citizens, Denver Indian Center, and Salvation Army. Since 2001, this network has operated statewide and functions on a year-round basis.

The CEN agencies receive funding from CEAF in the form of grants based on criteria showing a strong low-income constituency base and capability to administer emergency assistance funds. The CEN provides an efficient form of low-income energy assistance distribution because the network keeps administrative costs down directing more contributions to those in need and gives organizations the opportunity to utilize funds strictly for energy assistance. CEAF distributes approximately \$1.5 million annually through the CEN. During the 2001-02 heating season, those funds helped an additional 7,500 families.

Energy assistance through the CEN agencies can range from \$50 to as much as \$2,000 per household per heating season. The average assistance sum for the 2001- 2002 heating season was \$230 per household. Most of the CEN agencies have specific geographic areas and populations that they serve defined by counties, towns, or neighborhoods. This flexibility permits agencies to assist people at a local level where they can have more personal contact and solve problems that will have a greater impact on the recipient's life.

Eight programs in Colorado will provide approximately \$33 million in energy assistance to low-income households this year. It would take \$198 million to help all low-income residents who qualify. That's a shortfall of \$165 million for this year alone.

CEAF distributes dollars through grants on a quarterly basis to ensure that people are receiving help throughout the year. Typically, every agency runs out of CEAF dollars by the end of the funding period because the need is so great. The time between when agencies run out of money and when they get their next installment from CEAF can be anywhere from one day to 90 days.

UTILITY COMPANIES

The utility companies play an important role in providing low-income energy assistance. They provide payment options and often have customer service representatives that work with customers and refer them to local agencies. Utilities like Xcel Energy, Atmos Energy, and Aquila, along with rural electric cooperative and municipal utilities, historically have supported efforts to raise money to help energy assistance efforts in their communities. Several cooperatives and municipal utilities even have their own funds specifically to support their low-income customers.

IMMEDIATE OUTLOOK AND THE IMPENDING CRISIS

GAP IN RESOURCES

According to an initial report from the National Energy Assistance Directors' Association, President Bush's proposed 2003 budget would have reduced LIHEAP national funding 17.6 percent from \$1.7 billion to \$1.4 billion for the financial year 2003. This would have affected Colorado's program significantly by reducing funding for the LEAP program by \$4,821,000 compared to the 2001-2002 fiscal year. ^{xxvi}

LEVEL OF FUNDING

CEAF was created in 1989 in response to the instability of federal funding levels for the LEAP program. Since then, CEAF has worked diligently to generate additional revenue in order to help more households with their home energy needs. CEAF has raised more than \$70 million through the last 13 years. Though CEAF's funding also has fluctuated from year to year, the organization consistently has made efforts to address this community problem in creative and innovative ways. CEAF receives a significant amount of revenue from energy company settlements that were negotiated on behalf of low-income Coloradans. In addition to revenue that is generated through these agreements, CEAF also produces revenue by soliciting energy customers from across the state through an

Colorado needs to discover new sources of funding for energy assistance programs within the next several years, or thousands will face a permanent energy crisis.

insert in their utility bills, or through an annual direct mail campaign. Energy providers that participate in this program include investor-owned utilities like Xcel Energy and Atmos Energy, as well as rural electric cooperatives and municipal utility companies. Through this opportunity, CEAF has generated more than 25,000 individual donors. Many utilities match their customer contributions dollar-for-dollar, or up to a certain threshold amount. Additionally, through Colorado statute, CEAF is eligible for unclaimed deposit and unclaimed refund dollars from most energy companies statewide. These funds are available when a utility cannot locate a former customer. CEAF also solicits support from corporations and foundations, and through special events.

2004 CEAF LOSS OF FUNDS

One of CEAF's primary goals over the last several years has been to build organizational capacity and strengthen the organization's annual donor base. A current utility settlement agreement has a duration of 10 years and will expire in 2004 leaving CEAF's present funding cut in half. Therefore, CEAF has been working to build its individual and corporate donor base to make up for this shortfall. While the need for energy assistance in our state grows every year, traditional government resources have been decreasing. CEAF has made up a significant portion of this shortfall but the organization needs to continue to expand its donor base and consider other methods of revenue generation in order to serve an increasing number of families in need.

One such method was proposed in 1996 by a task force created by then Governor Romer to review the impact on low-income energy assistance due to the volatility within the energy industry. According to the 1998 Final Report of the Governor's Energy Assistance Reform Task Force, one of the best policy responses to low-income energy concerns was to "establish distribution fees on energy sources to raise funds for low-income energy assistance programs. These distribution fees should be competitively neutral, non-bypassable and ongoing, and should be used to augment existing programs." A recommendation of Governor's Energy Assistance Task Force was:

- The creation of a \$55 million fund (for low-income energy assistance);
- Financed through a utility distribution fee; and
- Used to fund cash assistance and energy efficiency

CEAF currently is pursuing legislation that will assist in generating needed revenue to help meet the gap that exists between the need and the available dollars as outlined in this report.

LONG-TERM HOME ENERGY SOLUTIONS

Providing cash assistance has been the primary approach to addressing the inability of low-income households to pay their utility bills. Cash assistance can help meet winter emergencies and is easily used by all low-income segments. Addressing low-income energy problems, however, involves more than simply providing cash assistance. A comprehensive low-income energy assistance program also must include energy efficiency improvements.

Weatherization is an effective tool for reducing the energy needs for many low-income households and can take the form of outfitting and refitting houses, upgrading insulation, sealing walls and pipes and installing energy saving appliances. Weatherization assistance generally is recognized as a more efficient means of addressing low-income energy needs because it provides continuing benefits year-in and year-out. Cash assistance is seen as less efficient

**Weatherization and energy
efficient affordable housing
have proven to be cost-
effective, long-term solutions
for addressing low-income
energy needs.**

because it only provides a one-time cash supplement to help pay current utility bills (including arrearages in some cases), and each year requires a new cash supplement.

ENERGY SAVING PARTNERS

The Governor's Office of Energy Management and Conservation manages the Energy Saving Partners (ESP) program, established by the Federal Energy Conservation in the Existing Buildings Act of 1976. The purpose of ESP is to help low-income families reduce their energy use by making their homes more energy efficient. In 2001, ESP had a budget of \$10 million and was able to weatherize 3,835 homes. Since its inception in 1976, ESP has assisted Coloradans by weatherizing more than 75,000 homes, but the need is great and requests exceed the organization's ability to assist. The Colorado State Auditor's 2002 report found that "two ESP regions in the state currently have extensive waiting lists to receive weatherization services. These waiting lists range from about six months in Pueblo and the southeast corner of the state to about two years in the San Luis Valley."^{xxvii}

CEAF ENERGY EFFICIENCY AND AFFORDABLE HOUSING PROGRAM

To help families move from depending on cash assistance towards self-sufficiency, CEAF raises funds to distribute to weatherization programs and conservation education through ESP and other initiatives including Habitat for Humanity, Colorado Energy Science Center, Rebuilding Together, and Northeast Denver Housing Center. The CEAF Energy Efficiency and Affordable Housing Program was created to raise awareness that consumers have the power to impact their own lives by controlling their own energy usage, significantly reducing energy costs and improving the environment. In addition to educating low-income Coloradans, these dollars weatherize homes to make them more energy efficient – thereby decreasing the need for cash assistance in the future. CEAF distributes approximately \$250,000 each year for efficiency and education programs.

CEAF also is part of a coalition of energy-related businesses, organizations, and experts who have come together to teach consumers how to reduce their energy costs through energy efficiency. The coalition recently secured a national advertising campaign through the Ad Council which will bring this message to individuals across the country including Colorado. Additionally, CEAF, LEAP and ESP support a toll-free hotline, 1-866-HEAT-HELP, which provides information on where to receive cash assistance and weatherization services, how individuals can weatherize their homes and reduce energy bills, and how people can donate money to CEAF.

RECOMMENDATIONS

There are several recommendations that CEAF is proposing to address the need for additional funding to assist low-income residents of Colorado with their home energy needs.

1. Pursue legislation at the state level to create a funding stream for CEAF to provide cash assistance, residential energy efficiency, conservation assistance and energy education for low-income home energy needs. One mechanism suggested is a charge on all gas and electric utility customers collected monthly and distributed back to those in need in their communities.
2. Support reauthorization of LIHEAP at the national level to ensure that Colorado's LEAP program maintains or increases funding available to serve Colorado's poor.

3. Increase energy efficiency and education programs in order to address the long term solution and reduce the dependency on cash assistance.
4. Promote a Winter Moratorium as one example of a regulatory response that will address the problem of high winter energy bills. Typically a moratorium puts a cap on the amount that an energy company can charge for energy during the winter, but then allows the company to recoup the losses by charging higher rates during the summer. However, the State of Colorado does not currently permit this specific regulatory response.

CONCLUSIONS

In conclusion:

- The entire state of Colorado is affected by the issue of low-income energy assistance, both urban and rural communities.
- CEAF, LEAP and E\$P offer assistance to the entire state through local networks but they are not sufficient to meet the growing needs.
- Colorado's geographic diversity requires energy assistance to be available on a year round basis and it must cover all fuel types.
- Energy assistance is needed because it can help to prevent or at least postpone homelessness and other family hardships, reducing demands on other social services.
- Long term prevention of the problem through energy efficiency improvements is effective and timely.
- A huge loss in funds is foreseen for CEAF in 2004 and action must be taken now.
- Every individual can play a part by donating to CEAF and supporting legislation that ensures that low-income families will be able to receive the energy assistance they need.

Energy assistance for low-income families is an issue that concerns the entire state of Colorado. For rural areas, it means higher burdens for families that are stretched financially to the limit. In urban areas, more people need assistance with their energy bills. Along the eastern plains of Colorado, the need is evident in cold months as well as in the summer when warmer temperatures require expensive cooling measures. Although the mountain regions often do not need home cooling, they see substantial heating increases in winter months. The southern part of Colorado also is challenged with having the lowest incomes and some of the coldest weather in the state.

Fortunately, some energy assistance is available locally through LEAP, CEAF and E\$P networks. Having the assistance distributed locally means that the people administering the funding know what problems and hardships residents of the area must face and are better able to make a direct impact in their clients' lives. Having local assistance also means that asking for help is not as intimidating for those who need it. Unfortunately, there is not enough assistance available to meet the need.

Decreasing funds and increasing need for energy assistance are creating a crisis that will impact the entire state. Colorado's response needs to be comprehensive and immediate.

The hardships faced by those in poverty are complex. There is no magic formula that will fix everything for those in poverty, but there are ways to assist people in order to have a greater impact on their lives. Cash assistance is one method. The support received through cash assistance means that those who receive help no longer have to skip meals or go without medication to pay their energy bills. Weatherization is another method. By tackling the long term problem, people ideally will be less reliant on energy assistance in the future. Energy assistance, education, and conservation can provide a foundation for poor families to work towards self-sufficiency. Colorado's energy assistance program also assists those families who thought they would never need the assistance, such as those who just lost a job or are facing another crisis.

Funding for energy assistance in Colorado is decreasing in the very near future. CEAF is facing a decrease in its funding of 50 percent in 2004. In addition, LEAP is experiencing decreasing federal funding for its program and is awaiting reauthorization in 2003. At the same time as funds are decreasing, the number of persons in need is increasing. The amount of requests for assistance from LEAP and the Charitable Energy Network are well above last year's and are projected to continue to grow.

What can individuals do to ensure that Colorado has energy assistance available for those who need it? The call to action for all of us is to continue to donate, but in addition we must also actively support more effective ways to provide funding for Colorado's energy assistance programs. No one among us should have to go without heat and lights.

APPENDICES

COLORADO ENERGY ASSISTANCE FOUNDATION– HISTORY

COLORADO COMMISSION ON LOW-INCOME ENERGY ASSISTANCE

The Colorado Commission on Low-Income Energy Assistance (CCLEA) was established in 1988 by then Governor Romer in response to a steady decline in federal funding for energy assistance. Specifically, the commission is to act as a mechanism for collecting and distributing the funds for low-income energy assistance. To achieve that end, the commission created the Colorado Energy Assistance Foundation in 1989. The CCLEA provides the long-term vision for CEAF, while CEAF's Board of Directors oversees the organization's focus, its financial position and current goals and objectives.

CEAF's vision is to be Colorado's leading organization dedicated to efficient delivery of cost-effective energy assistance, energy conservation, and energy education for low-income households to maintain their well being and encourage self-sufficiency.

CEAF BOARD OF DIRECTORS 2003

James "Kent" Benham, Holy Cross Energy	Vice President
Dian Callaghan, Office of Consumer Counsel	President
Steve Coffin, GBSM	Member At-Large
Patrick Hamill, Oakwood Homes	Secretary
Joel Johnson, URS Corporation	Chair of the Colorado Commission on Low-Income Energy Assistance
Tom O'Donnell, Holland & Hart	Treasurer
Mark Sexton, Evergreen Resources	Member At-Large
Mark Sunderhuse	Member At-Large
Robert Westby, National Renewable Energy Lab	Honorary Director

COLORADO COMMISSION ON LOW-INCOME ENERGY ASSISTANCE

Joel Johnson, URS Corporation	COMMISSION CHAIR
Eugene F. Barfield, Governor's Office of Energy Management and Conservation	
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John A. Harpole, Mercator Energy	
Jayne A. Mazur, Catholic Charities – Pueblo	
Michael J. McFadden, McFadden Consulting Group	
Nicholas G. Muller, Heppenstall, Savage, Trower and Muller	
Tommy Thompson, State of Colorado	
Diana Yee, Xcel Energy	

HISTORY OF POVERTY MEASUREMENTS

In order to determine who qualifies for assistance, the federal government created a measurement for poverty. Through the years the description has evolved, but it remains the primary way of determining eligibility for all federal assistance programs.

Based on a 1955 study of an “economy food plan” (the costs of a food plan designed for temporary or emergency use), the federal government developed the “poverty income level.” This measurement is achieved by multiplying the “economy food plan” total by three, assuming that a household spends one-third of its income on food. The “economy food plan” was developed to be sufficient only in times of emergency and consequently the poverty level based off of it is meant to represent only how much is too little.

During the late 1960s, an updated measurement of poverty was introduced. The “poverty threshold” is indexed to the Consumer Price (adjusted for inflation). Because the “poverty thresholds” are primarily used by the Census Bureau for statistical purposes, the “poverty guidelines” were introduced as a simplification of the thresholds. The U.S. Department of Health and Human Services issues the poverty guidelines at the beginning of each year, reflecting the price changes from the previous year. Federal and private assistance programs use the poverty guidelines to determine the levels of eligibility for assistance, and in this fashion are able to balance need with available funding. States receive federal dollars in the form of a block grant and further define their own eligibility criteria. For example, food stamp benefits are provided to households at or below 130 percent of the poverty income threshold. In order to receive surplus federal commodities (peanut butter, pasta, and canned vegetables, etc.), 185 percent of the poverty income threshold is required. The Low-Income Energy Assistance Program (LEAP) in Colorado currently uses the 185 percent of poverty threshold.

DEFINITIONS

Cooling Degree Days: A method of calculating the demand for home cooling computed by subtracting 65 from the day's average temperature. If the average temperature is below 65, then there have been no cooling degree days. In this fashion it is possible to have values that exceed 365 because cooling degree days measure the degrees above 65 per year, not just the number of days that home cooling is needed.

Disabled: Encompassing all types of impairments both physical and mental handicaps as designated by both federal and local governments.

Elderly: Those persons older than 65 years of age.

Extremely Poor: Living at or below 100 percent of the federal poverty level.

Family: "A family includes a householder and one or more other people living in the same household who are related to the householder by birth, marriage, or adoption. All people in a household who are related to the householder are regarded as members of his or her family."^{xxviii}

Heating Degree Days: A method of calculating the demand for home heating computed by subtracting 65 from the day's average temperature. If the number is above 65, there are no heating degree days that day. If the number is less than 65, subtract it from 65 to find the number of heating degree days."^{xxix}

Home Energy Bills: Bills for home heating, home cooling, water heating, electricity, and related costs administered by energy companies.

Household: "A household includes all of the people who occupy a housing unit. A housing unit is a house, an apartment, a mobile home, a group of rooms, or a single room occupied (or if vacant, intended for occupancy) as separate living quarters. Separate living quarters are those in which the occupants live separately from any other people in the building and that have direct access from the outside of the building or through a common hall. The occupants may be a single family, one person living alone, two or more families living together, or any other group of related or unrelated people who share living quarters."^{xxx}

Marginally Self-Sufficient: 151-185 percent of the federal poverty level.

Poverty: Households at or below 185 percent of the federal poverty threshold.

Very Poor: 101-150 percent of the federal poverty level.

MAPS

MAP DESCRIPTIONS

Map 1: Average Household Energy Burden

This map illustrates the percent of annual income consumed by the average low-income household home energy bill. The home energy burden was computed by Roger Colton of Fisher, Sheehan & Colton, Public Finance and General Economics.

Map 2: Households below 100 Percent of Poverty

This map shows the percentage of households in the respective Colorado counties that are below 100 percent of poverty, using poverty guidelines issued by the U.S. Department of Health and Human Services. The number of households between 100 percent and 149.9 percent of poverty was calculated by multiplying the percent of persons per interval of poverty (2000 Census table P88) by the number of households per county (2000 U.S. Census table P15). The estimated number of Colorado households below 100 percent of poverty is 155,389 of Colorado's 1,658,238 households, or roughly 9 percent.

The south central and southeastern portions of Colorado stand out as having the highest percentages of households below 100 percent of poverty. Western counties and those counties of the eastern and northeastern plains have relatively high amounts of households below 100 percent of poverty. Denver also is included as having a relatively high amount of households below 100 percent of poverty when compared to the rest of Colorado.

Map 3: Households between 100 Percent and 149.9 Percent of Poverty

This map shows the percentage of households in the respective Colorado counties that are between 100 percent and 149.9 percent of poverty, using the poverty guidelines issued by the U.S. Department of Health and Human Services. The number of households between 100 percent and 149.9 percent of poverty was calculated by multiplying the percent of persons per interval of poverty (2000 Census table P88) by the number of households per county (2000 U.S. Census table P15). The estimated number of Colorado households between 100 percent and 149.9 percent of poverty is 120,270 of Colorado's 1,658,238 households, or roughly 7 percent.

The maps show that the counties with the largest percentages of total households between 100 percent and 149.9 percent of poverty also are those counties with the most households below 100 percent of poverty. Costilla is the only county in Colorado that appears in the highest category for both households below 100 percent of poverty and those households between 100 and 149.9 percent of poverty.

Map 4: Households between 150 Percent and 185 Percent of Poverty

This map shows the percentage of households in the respective Colorado counties that are between 150 percent and 184.9 percent of poverty as determined by the poverty guidelines issued by the U.S. Department of Health and Human Services. The number of households between 150 percent and 184.9 percent of poverty was calculated by multiplying the percent of persons per interval of poverty (2000 Census table P88) by the number of households per county (2000 U.S. Census table P15). The estimated number of Colorado households

between 150 percent and 184.9 percent of poverty is 91,227 of Colorado's 1,658,238 households, or roughly 6 percent.

The percentages of total county households between 150 and 184.9 percent of poverty greatly decreases relative to those counties with households below 150 percent of poverty. The counties that do display a relatively high amount of households between 150 and 184.9 percent of poverty tend to be in the south central and northeastern portions of Colorado.

Map 5: Households at or below 184.9 Percent of Poverty

This map shows the percentage of all households in the respective Colorado counties that are below 185 percent of poverty as determined by using the poverty guidelines issued by the U.S. Department of Health and Human Services. The number of households below 184.9 percent of poverty was calculated by multiplying the percent of persons per interval of poverty (2000 Census table P88) by the number of households per county (2000 U.S. Census table P15). The estimated number of Colorado households below 184.9 percent of poverty is 366,886 of Colorado's 1,658,238 households, or roughly 22 percent.

Map 6: Heating Degree Days

The map of heating degree days shows how many heating degree days each county has. A definition for heating degree days can be found in the appendix under definitions. The data for the heating degree days was collected from the Western Regional Climate Center. When possible the weather station data used came from the county seat, when that was not possible weather stations from other cities within or as close as possible to the county were used.

Map 7: Cooling Degree Days

The map of cooling degree days shows how many cooling degree days each county has. A definition for cooling degree days can be found in the appendix under definitions. The data for the cooling degree days was collected from the Western Regional Climate Center. When possible the weather station data used came from the county seat, when that was not possible weather stations from other cities within or as close as possible to the county were used.

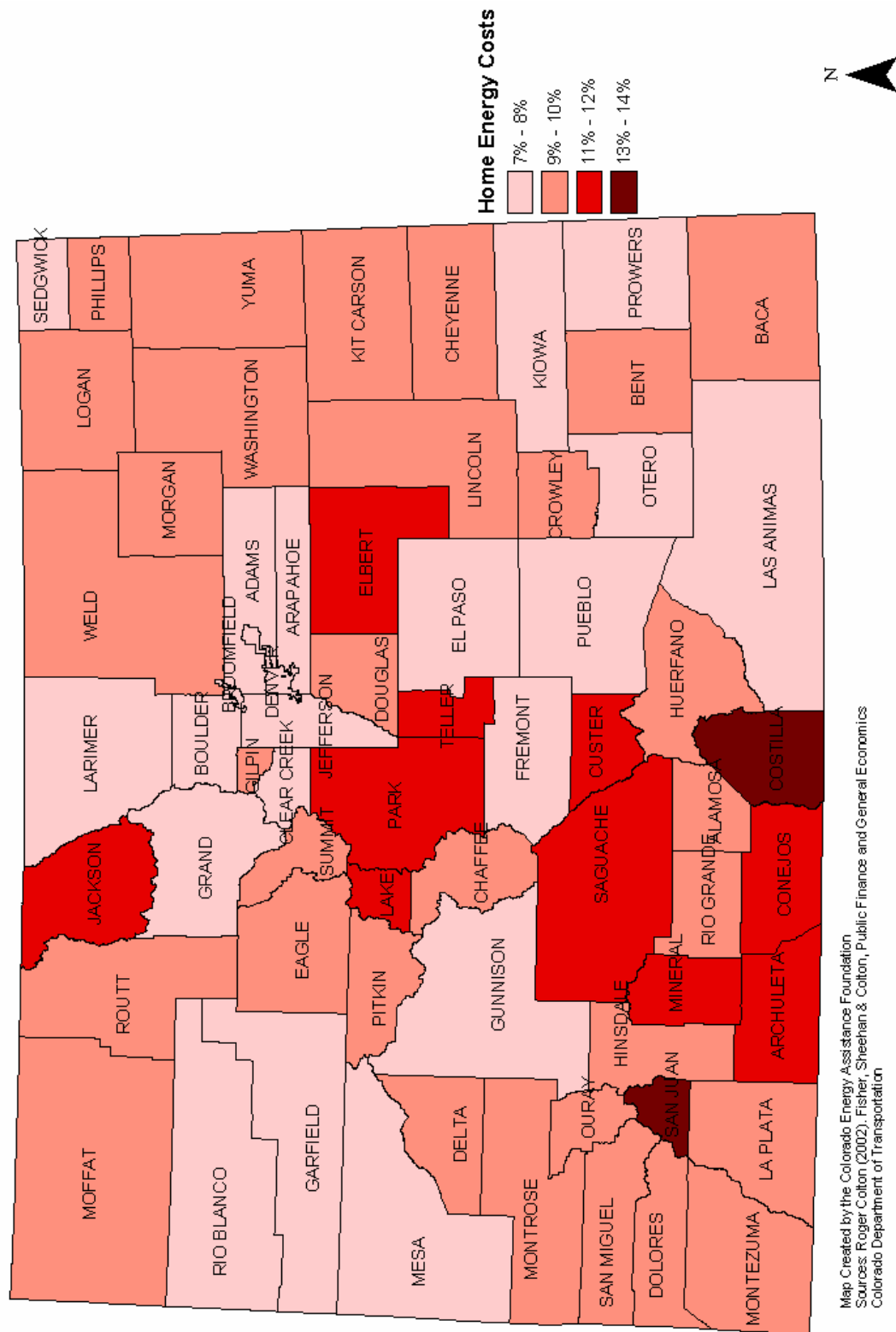
Map 8: Percent of Households Using Propane as the Primary Home Energy Fuel

The percentage of households in each Colorado County using propane as their primary home fuel is illustrated in this map. The data collected for this map came from the U.S. Census Bureau Census 2000 table H40.

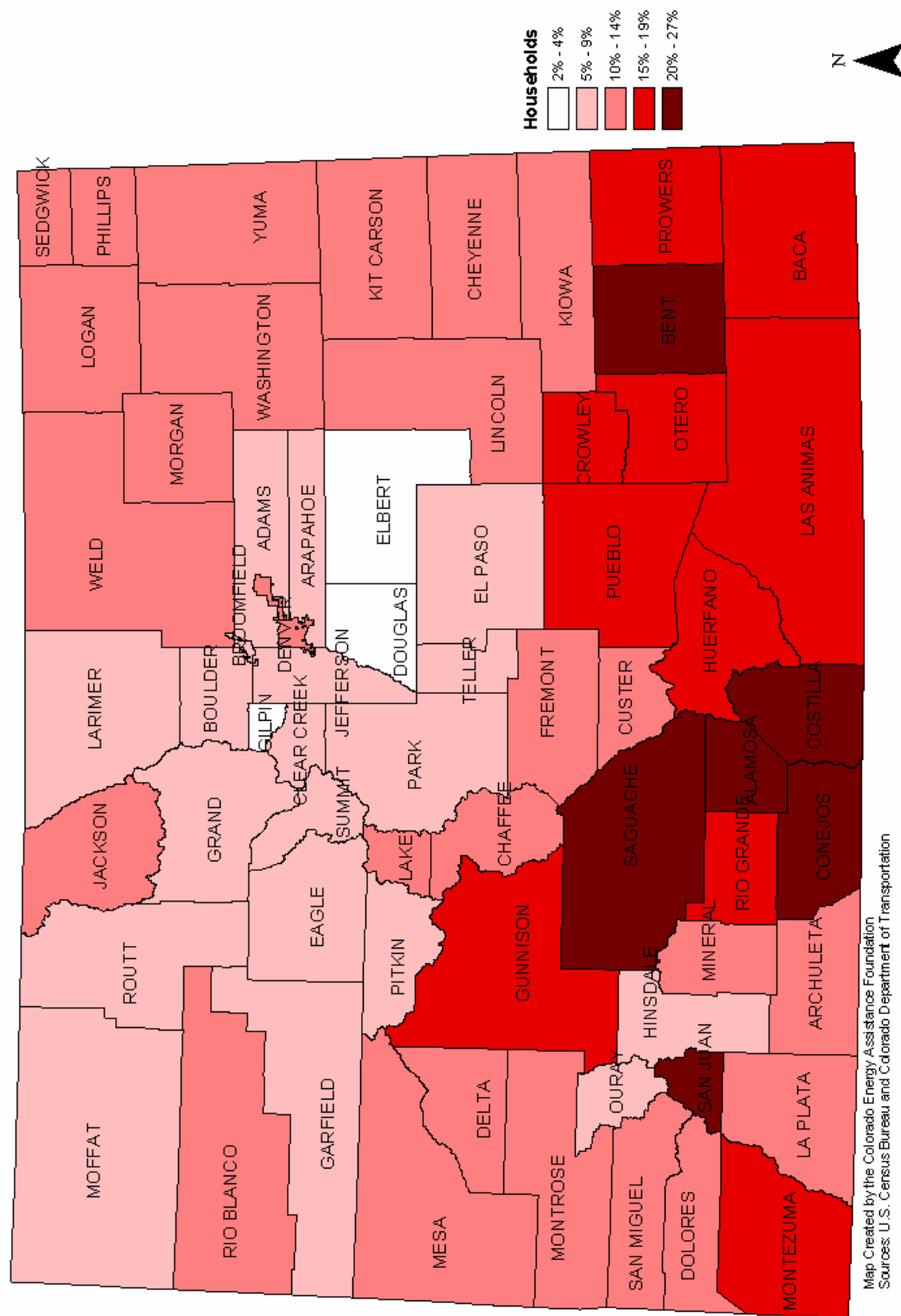
Map 9: Percent of Households Using Electricity as the Primary Home Energy Fuel

The percentage of households in each Colorado County using electricity as their primary home fuel is illustrated in this map. The data collected for this map came from the U.S. Census Bureau Census 2000 table H40.

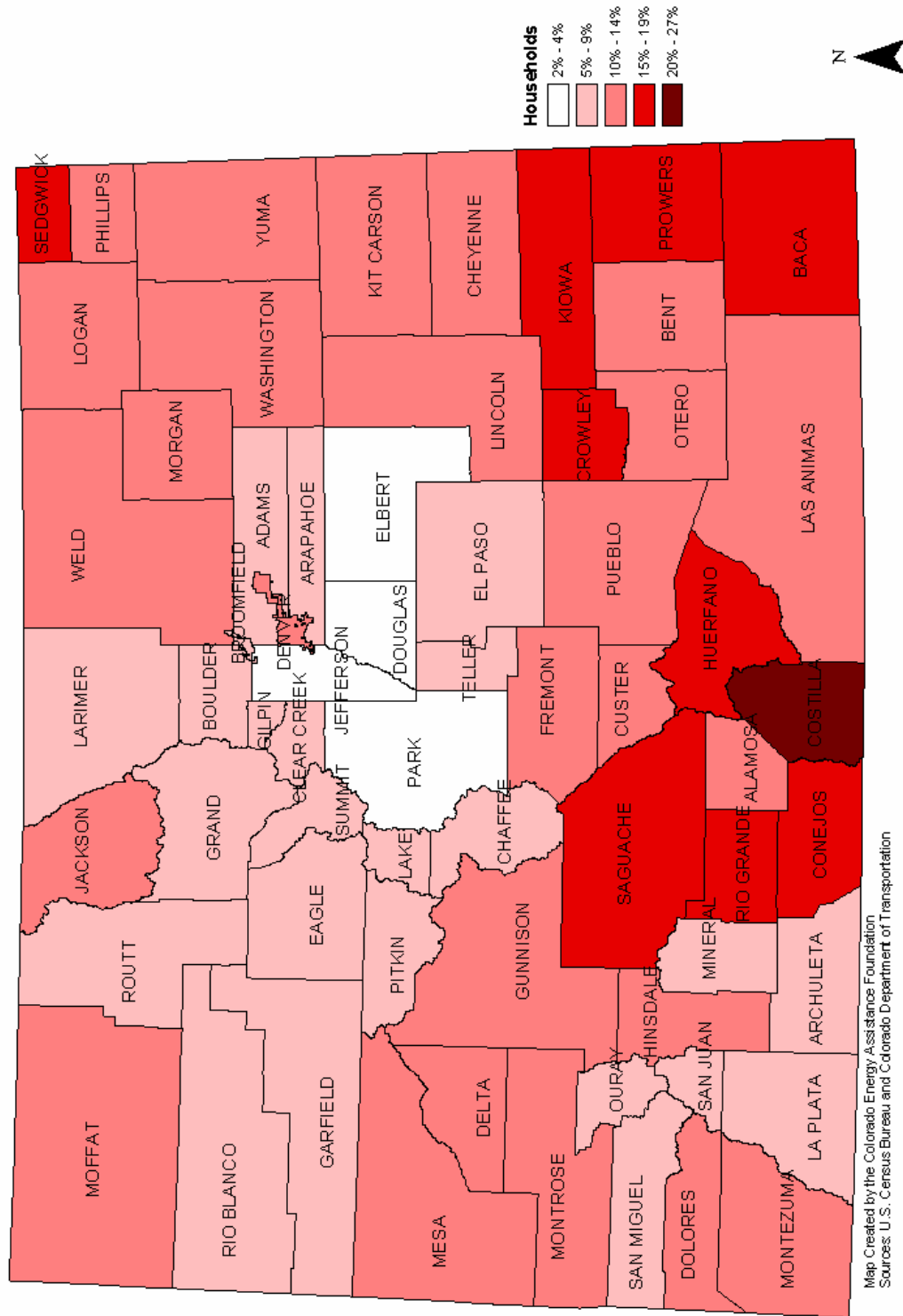
Average Home Energy Costs As Percent of Annual Income By County



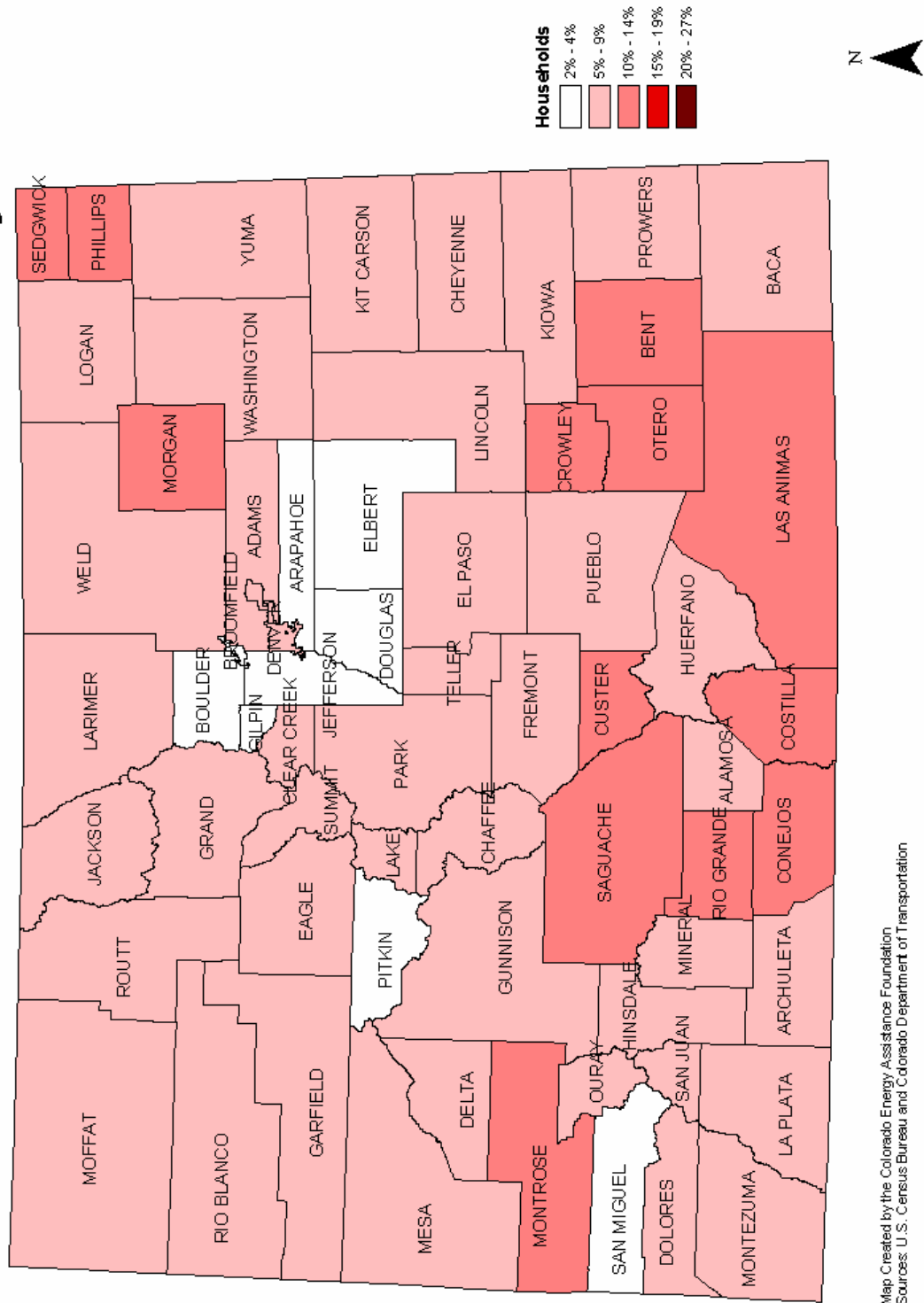
Percent of Colorado County Households Below 100 Percent of Poverty



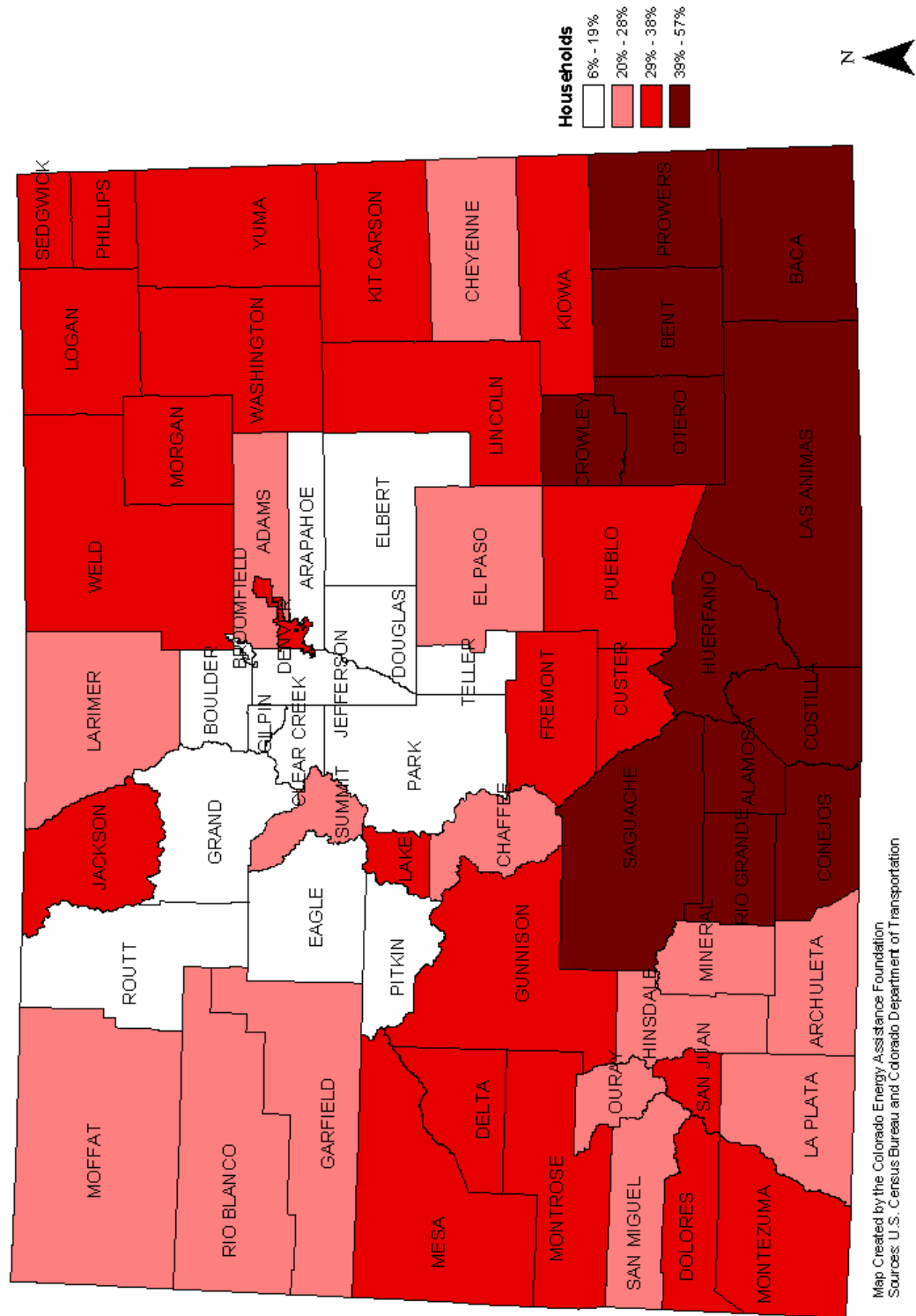
Percent of Colorado County Households Between 100 Percent and 149.9 Percent of Poverty



Percent of Colorado County Households Between 150 Percent and 184.9 Percent of Poverty

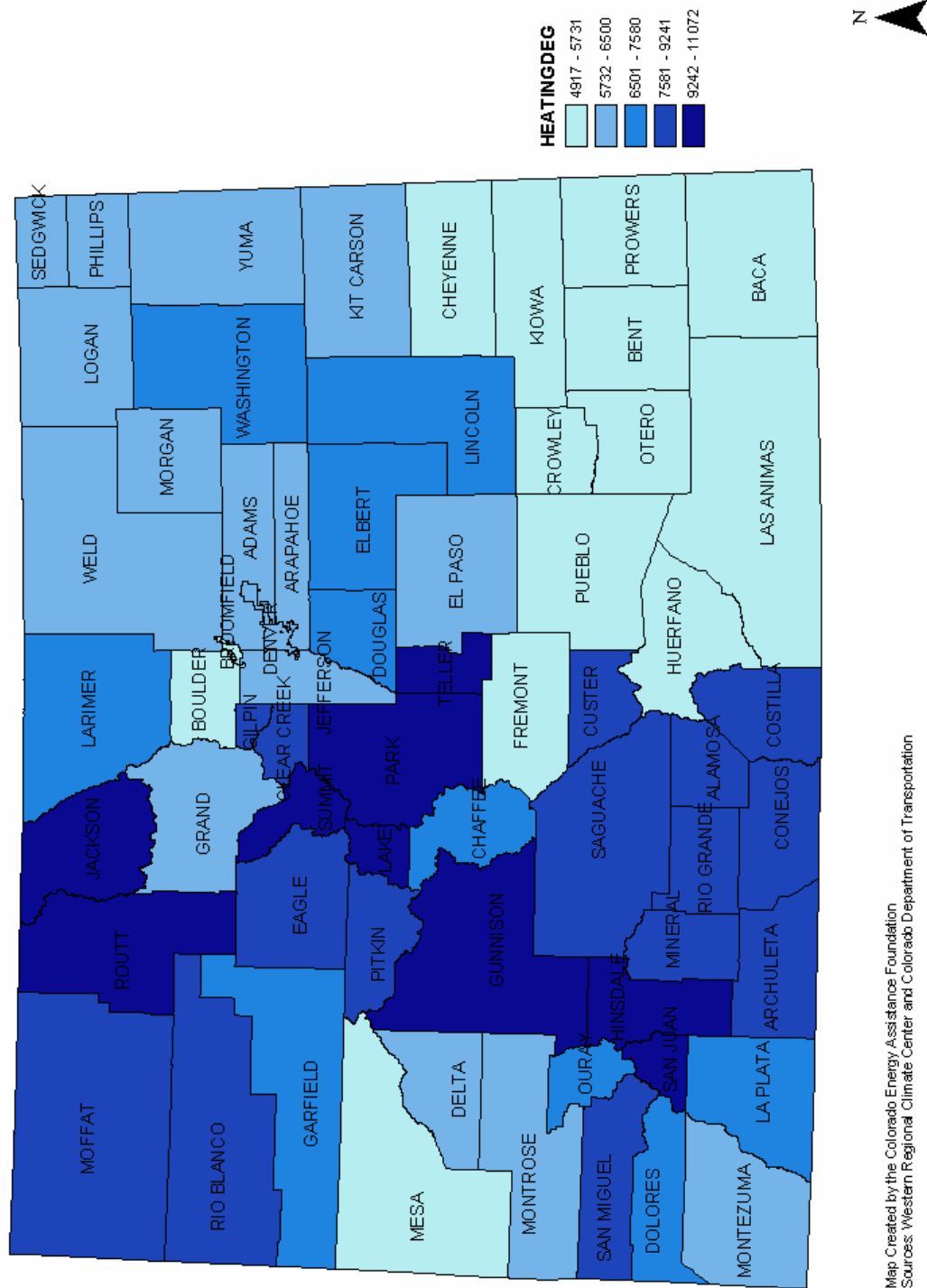


Percent of Colorado County Households Below 184.9 Percent of Poverty



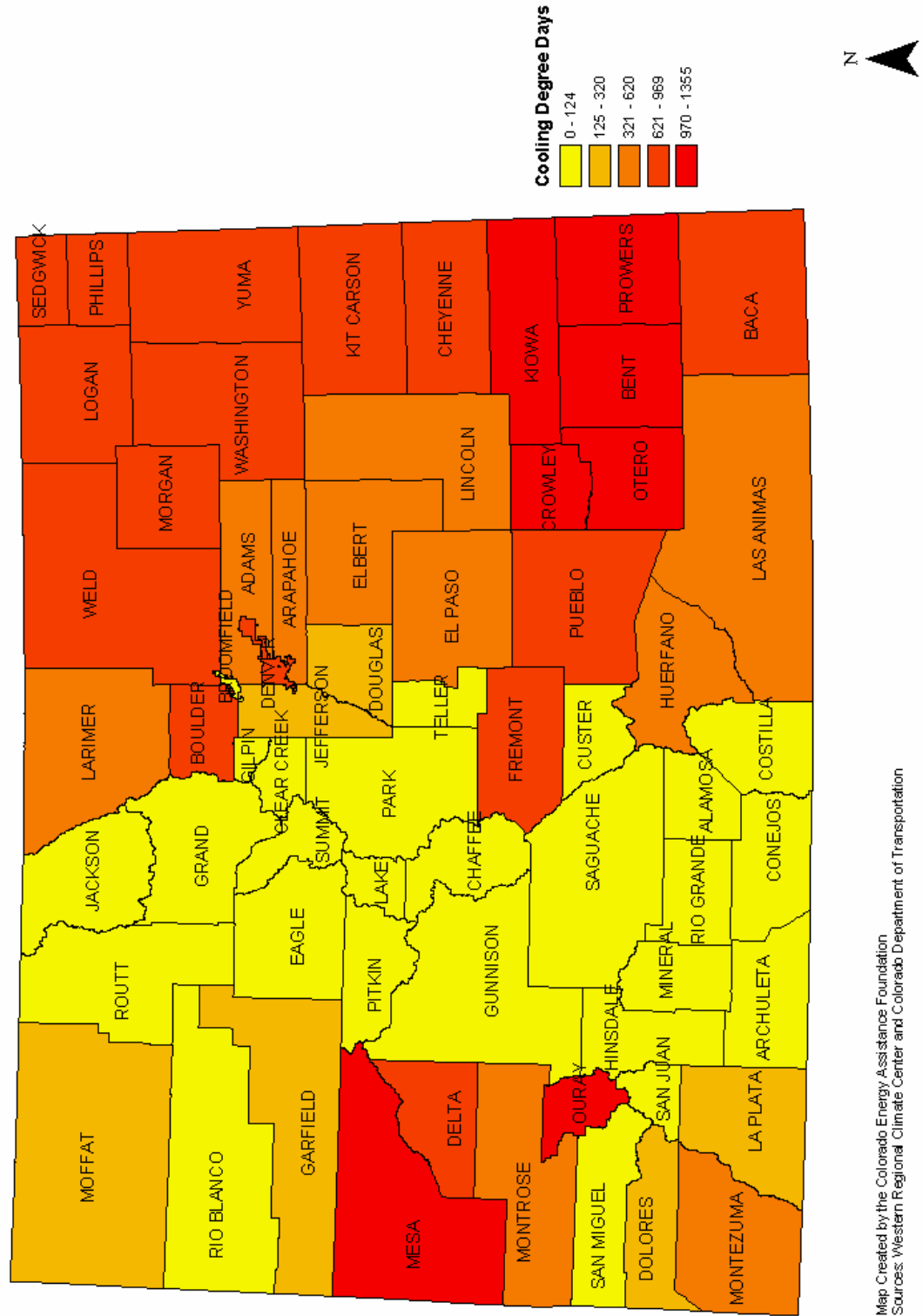
Heating Degree Days By Colorado County

A Measurement Of The Need For Home Heating

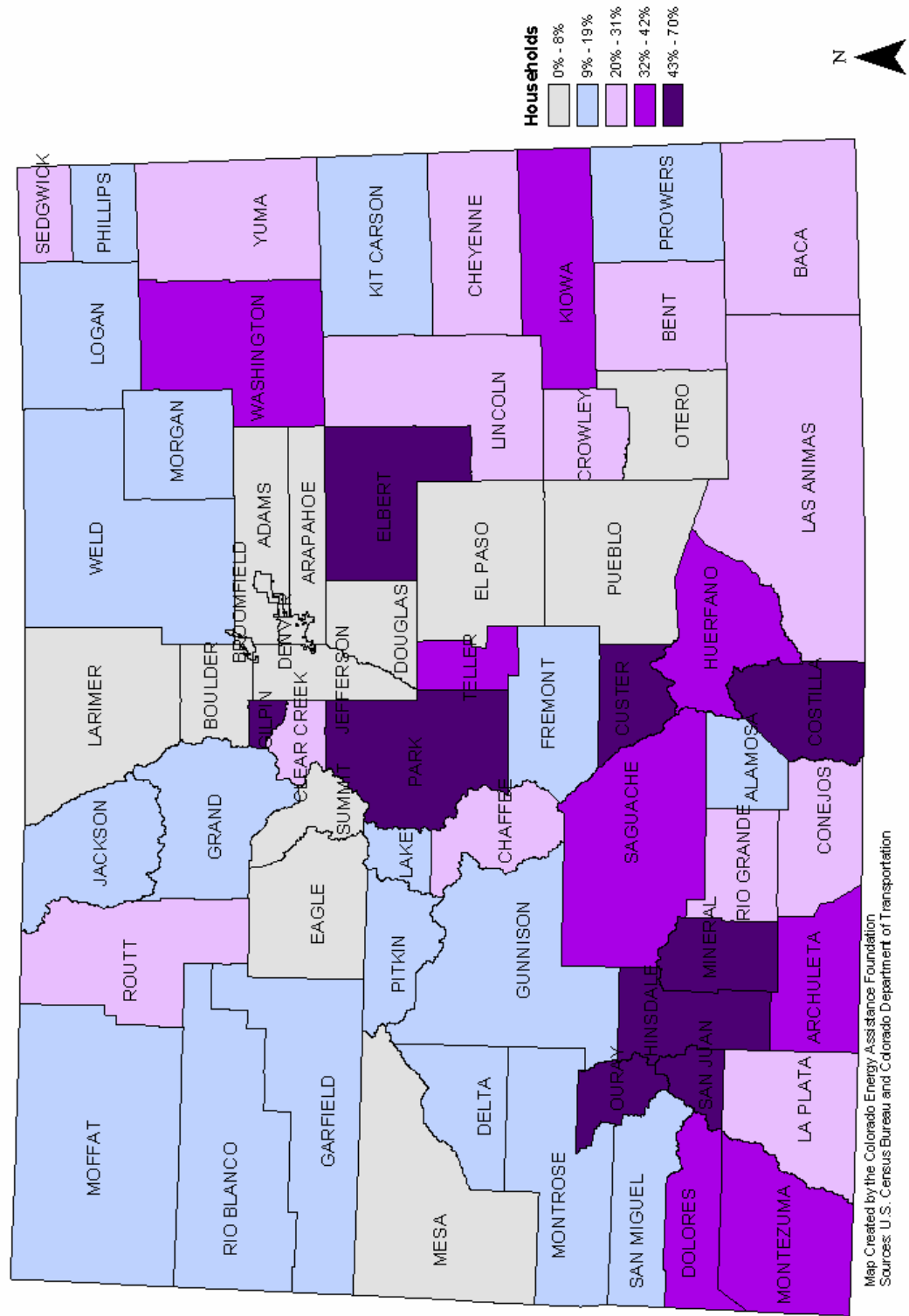


Cooling Degree Days By Colorado County

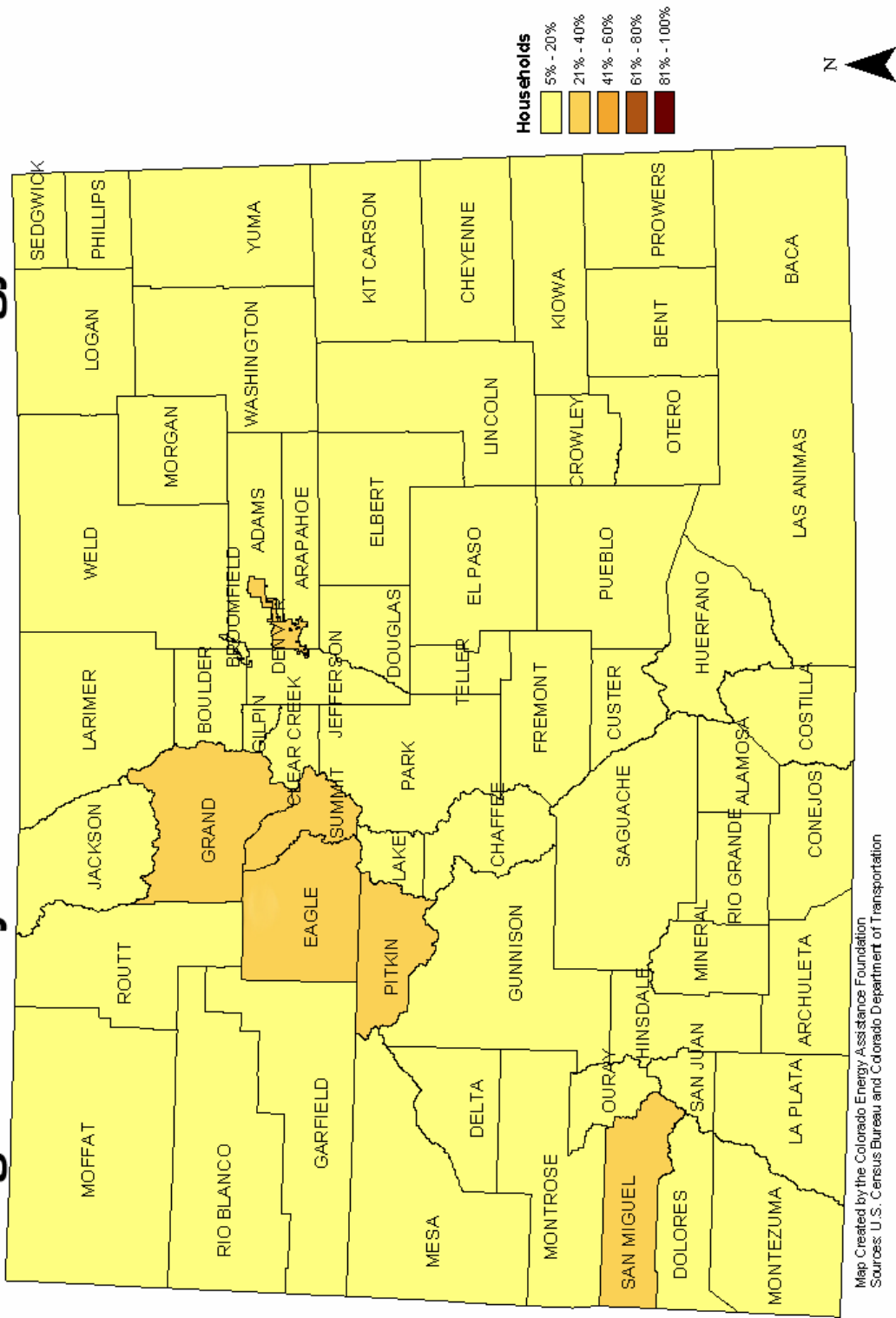
A Measurement Of The Need For Home Cooling



Percent of Colorado County Households Using Propane As Their Main Home Energy Fuel



Percent of Colorado Country Households Using Electricity As Their Main Home Energy Fuel



END NOTES

ⁱ U.S. Census Bureau. (2000). Table P53. *Median Household Income in 1999*, Washington, D.C.: United States Department of Commerce. web site: www.census.gov.

ⁱⁱ Colton, Roger. (2002). Fisher, Sheehan & Colton, Public Finance and General Economics: Belmont, MA: Colorado Center on Law and Policy.

ⁱⁱⁱ Colton, Roger. (2002). *Colorado's Low-Income Energy Calculations*. Prepared for the Colorado Energy Assistance Foundation. Belmont, MA: Fisher, Sheehan & Colton, Public Finance and General Economics.

^{iv} According to a study by the organization America's Second Harvest 45 percent of emergency clients served by the organization reported having to choose between buying food and paying for utilities or heat. America's Second Harvest. (2002). *Choices: Issues Brief Number*. Chicago, IL.

^v Colorado Fiscal Policy Institute. (2001, November). *Poverty Despite Work in Colorado*. Denver, CO: Colorado: Center on Law and Policy. Available at: <http://www.cclponline.org/cfpi/pdw.pdf>.

^{vi} Colorado Fiscal Policy Institute. (2001, November). *Poverty Despite Work in Colorado*. Denver, CO: Colorado: Center on Law and Policy. Available at: <http://www.cclponline.org/cfpi/pdw.pdf>.

^{vii} The report showed that 56 percent of Colorado's working poor families are headed by married couples, 8 percent by single males, and 36 percent by single females. Whites comprised 54 percent of the heads of working poor households, 35 percent were Hispanic, 3 percent were black (Non-Hispanic), and 9 percent were classified as other (Non-Hispanic). A high school education or GEED was attained by 54 percent of the working poor households, 26 percent had some college, 5 percent had graduated from college or had attained a higher level of education, and 27 percent had less than a high school education. (2001, November). *Poverty Despite Work in Colorado*. Denver, CO: Colorado: Center on Law and Policy. Available at: <http://www.cclponline.org/cfpi/pdw.pdf>.

^{viii} According to the report 46 percent of Colorado's working poor families contain parents between the ages of 25 – 34, 31 percent contain parents 35 – 44, 10 percent contain parents 45 or older, and 13 percent contain parents under 25. A majority of Colorado's working poor families reside in the Colorado's metro areas (81 percent), with only 19 percent residing in non-metro area locations. Colorado Fiscal Policy Institute. (2001, November). *Poverty Despite Work in Colorado*. Denver, CO: Colorado: Center on Law and Policy. Available at: <http://www.cclponline.org/cfpi/pdw.pdf>.

^{ix} Low-Income Energy Assistance Program. (2002, June). *2001/2002 LEAP Weekly Statistical Report*. Denver, CO: Colorado Department of Human Services

^x Current LEAP criteria requires that households earn below 185 percent of poverty. An estimate for the number of households at intervals of poverty was computed by multiplying the percent of persons per interval of poverty from the (2000 Census table p88) by the number of households per county (2000 U.S. Census table p15). The total estimate of households below 185 percent of poverty is 366,886, roughly 22 percent of Colorado's 1,658,238 households.

^{xi} Boushey, Brocht, Gundersen, and Bernstein. (2001). *Hardships in America: The Real Story of Working Families*. Washington, D.C.: Economic Policy Institute.

^{xii} Colton, Roger. (2002). *Colorado's Non Low-Income Calculations*. Prepared for the Colorado Energy Assistance Foundation. Belmont, MA: Fisher, Sheehan & Colton, Public Finance and General Economics.

^{xiii} According to a study by the organization America's Second Harvest 45 percent of emergency clients served by the organization reported having to choose between buying food and paying for utilities or heat. America's Second Harvest. (2002). *Choices: Issues Brief Number*. Chicago, IL.

^{xiv} Colton, Roger. (2002). *Colorado's Low-Income Calculations*. Prepared for the Colorado Energy Assistance Foundation. Belmont, MA: Fisher, Sheehan & Colton, Public Finance and General Economics.

^{xv} The National Fuel Funds Network (NFFN), The National Low-Income Energy Consortium (NLIEC), The National Energy Assistance Director's Association (NEADA). (2001) *The Cold Facts: The First Annual Report on The Effects of Home Energy Costs on Low-Income Americans*. Washington, D.C.

^{xvi} Colton, Roger. (2002). *Colorado's Low-Income Calculations*. Prepared for the Colorado Energy Assistance Foundation. Belmont, MA: Fisher, Sheehan & Colton, Public Finance and General Economics.

^{xvii} The estimated percent of low-income households in Colorado using various types of heating fuels is computed by multiplying the percent of fuel uses for all households in the county by the estimated number of households below 185 percent of poverty in the county. Admittedly this estimate will over estimate the number of low-income households using solar power and at the same time will underestimate other fuels such as wood or propane for low-income households. Source: U.S. Census Bureau. (2000). Table H40. *House Heating Fuel*. Washington, D.C.: United States Department of Commerce. Website: www.census.gov.

^{xviii} Colton, Roger. (2002). *Colorado's Low-Income Calculations*. Prepared for the Colorado Energy Assistance Foundation. Belmont, MA: Fisher, Sheehan & Colton, Public Finance and General Economics.

^{xix} The sources were for fuel prices were: a Colorado resident's household Xcel bill (October 2002) for natural gas, "Natural Gas Monthly", Table 21 (Sept. 2002) for electric, "Energy Rated Homes of Colorado Rater Training Manual" for liquid propane, and Mr. and Mrs. Arena. The sources for British Thermal Units Per Unit of Fuel was gained from a Colorado residents household Xcel bill (October 2002), "Heating & Cooling of Buildings" by Kreider & Rabl for electric, Connecticut Natural Gas Corporation for liquid propane, and Mr. and Mrs. Arena's home energy bill for fuel oil/kerosene.

^{xx} U.S. Census Bureau. (2000). Table H40. *House Heating Fuel*. Washington, D.C.: United States Department of Commerce. Website: www.census.gov.

^{xxi} Colton, Roger. (1996). *Home Energy Assistance Review and Reform in Colorado*. Belmont, MA. Fisher, Sheehan & Colton, Public Finance and General Economics.

^{xxii} For married couples, only one partner need be age 65 to qualify

^{xxiii} A person is "disabled" if they are "unable to engage in any substantial gainful activity for medical reasons." They must also be qualified for "payment of full benefits from a bona fided public or private plan or source based solely on such disability."

^{xxiv} A disabled person for the full tax year and unable to engage in any substantial gainful activity for medical reasons. Also, qualified for the payment of full benefits from a bona fide public or private plan or source based solely on such disability.

^{xxv} Eakins, Lu Ann. (2002). Telephone Interview 10-22-02 Denver, CO: Low-Income Energy Assistance Program

^{xxvi} *New Survey Finds More Households Can't Pay Their Energy Bills – 11 States & DC Out of Energy Assistance Funds by the End of February*, National Energy Assistance Directors' Association: February 20, 2002: Washington DC. P 1.

^{xxvii} Colorado State Auditor (2002). *Low-Income Energy Assistance Program Department of Human Services Performance Audit*. Denver, CO P46.

^{xxviii} U.S. Census Bureau. (2000). *Summary 3 File: 2000 Census of Population and Housing, Technical Documentation*. Washington, D.C.: United States Department of Commerce. Available online: www.census.gov/prod/cen2000/doc/sf3.pdf.

^{xxx} USA Today article “Understanding Heating and Cooling Degree Days” 2/22/2002
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