Housing of American Indians on Reservations — Plumbing

Most Americans take indoor plumbing for granted. But American Indians living on reservations can’t. As the graph below shows, their households were as likely to lack complete plumbing facilities (hot and cold piped water, a flush toilet, and a bathtub or shower) in 1990 as all U.S. households were in the 1950’s!

This Brief, one of a series, uses data collected in the 1990 Census of Population and Housing to examine housing characteristics of American Indian households on reservations and their associated trust lands. (The term “American Indian households” includes all units where the householder has identified himself or herself as American Indian, Eskimo, or Aleut.) This Brief investigates not only their chances of lacking complete plumbing, but also their source of water and method of sewage disposal. It compares them with both American Indian households living off reservations and all households in the United States.

There are 314 reservations and trust lands in the United States. Trust lands are property associated with a particular American Indian reservation or tribe, held in trust by the Federal Government. In this Brief, the term “reservation” also includes trust lands.

Most American Indian households on reservations obtained their water from public systems or private companies ....

Public systems or private companies supplied water to about 7 in every 10 American Indian reservation households. (See graph on page 4.)

<table>
<thead>
<tr>
<th>American Indian Reservation Households of 1990 Were as Likely as U.S. Households of the 1950’s to Lack Complete Indoor Plumbing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percent of households lacking complete plumbing facilities</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>American Indian Households on Reservations</th>
</tr>
</thead>
<tbody>
<tr>
<td>1990</td>
</tr>
<tr>
<td>20%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>United States</th>
</tr>
</thead>
<tbody>
<tr>
<td>1990</td>
</tr>
<tr>
<td>1%</td>
</tr>
<tr>
<td>1980</td>
</tr>
<tr>
<td>2%</td>
</tr>
<tr>
<td>1970</td>
</tr>
<tr>
<td>6%</td>
</tr>
<tr>
<td>1960</td>
</tr>
<tr>
<td>15%</td>
</tr>
<tr>
<td>1950</td>
</tr>
<tr>
<td>34%</td>
</tr>
<tr>
<td>1940</td>
</tr>
<tr>
<td>45%</td>
</tr>
</tbody>
</table>
### Reservation Recap — Plumbing

Plumbing characteristics of American Indian households living on reservations, by reservation with 500 or more American Indian households: 1990

<table>
<thead>
<tr>
<th>Reservation and Trust Lands</th>
<th>Percent receiving water from —</th>
<th>Percent disposing of sewage by —</th>
<th>Percent lacking complete plumbing facilities —</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Public system or private company</td>
<td>Individual well</td>
<td>Some other source</td>
</tr>
<tr>
<td>Acoma Pueblo and Trust Lands, NM</td>
<td>70.3 22.8 7.0</td>
<td>48.2 33.4 18.4</td>
<td>20.2 11.3</td>
</tr>
<tr>
<td>Blackfeet Reservation, MT</td>
<td>72.5 24.2 3.3</td>
<td>71.9 24.8 3.3</td>
<td>1.8 0.0</td>
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<tr>
<td>Cattaraugus Reservation, NY</td>
<td>72.5 24.2 3.3</td>
<td>71.9 24.8 3.3</td>
<td>1.8 0.0</td>
</tr>
<tr>
<td>Cheyenne River Reservation, SD</td>
<td>90.1 5.0 4.9</td>
<td>71.8 17.3 10.9</td>
<td>10.6 5.4</td>
</tr>
<tr>
<td>Colorado River Reservation, AZ–CA</td>
<td>78.0 20.9 1.1</td>
<td>50.1 47.6 2.4</td>
<td>1.9 0.0</td>
</tr>
<tr>
<td>Colville Reservation, WA</td>
<td>58.9 37.6 3.5</td>
<td>47.4 52.3 0.3</td>
<td>0.5 0.3</td>
</tr>
<tr>
<td>Crow Reservation and Trust Lands, MT</td>
<td>51.5 43.3 5.1</td>
<td>50.8 39.8 9.4</td>
<td>3.3 1.0</td>
</tr>
<tr>
<td>Devils Lake Sioux Reservation, ND</td>
<td>523 463 1.4</td>
<td>51.2 46.0 2.9</td>
<td>2.9 0.6</td>
</tr>
<tr>
<td>Eastern Cherokee Reservation, NC</td>
<td>42.9 31.1 26.0</td>
<td>35.2 58.5 6.3</td>
<td>1.1 0.0</td>
</tr>
<tr>
<td>Flathead Reservation, MT</td>
<td>58.2 34.8 7.1</td>
<td>49.5 48.0 2.6</td>
<td>0.7 0.0</td>
</tr>
<tr>
<td>Fort Apache Reservation, AZ</td>
<td>91.6 2.2 6.2</td>
<td>75.2 14.5 10.3</td>
<td>14.5 5.1</td>
</tr>
<tr>
<td>Fort Belknap Reservation and Trust Lands, MT</td>
<td>62.8 34.5 2.7</td>
<td>60.0 38.0 2.0</td>
<td>2.3 0.8</td>
</tr>
<tr>
<td>Fort Berthold Reservation, ND</td>
<td>72.5 24.2 3.1</td>
<td>70.4 25.3 4.2</td>
<td>3.7 0.0</td>
</tr>
<tr>
<td>Fort Hall Reservation and Trust Lands, ID</td>
<td>26.6 70.7 2.7</td>
<td>26.6 65.1 8.3</td>
<td>5.4 1.3</td>
</tr>
<tr>
<td>Fort Peck Reservation, MT</td>
<td>83.5 15.4 1.2</td>
<td>83.3 13.9 2.7</td>
<td>0.6 0.6</td>
</tr>
<tr>
<td>Gila River Reservation, AZ</td>
<td>97.6 2.4 0.0</td>
<td>46.9 43.8 9.4</td>
<td>18.0 8.6</td>
</tr>
<tr>
<td>Hoopa Valley Reservation, CA</td>
<td>76.5 10.6 12.9</td>
<td>97.2 1.9 3.9</td>
<td>3.9 0.7</td>
</tr>
<tr>
<td>Hopi Reservation and Trust Lands, AZ</td>
<td>76.5 7.7 15.8</td>
<td>64.5 10.5 43.0</td>
<td>46.7 29.4</td>
</tr>
<tr>
<td>Isleta Pueblo, NM</td>
<td>97.8 1.9 0.2</td>
<td>59.8 40.2 0.0</td>
<td>2.2 0.1</td>
</tr>
<tr>
<td>Jicarilla Apache Reservation, NM</td>
<td>91.6 4.6 3.8</td>
<td>81.2 10.9 7.9</td>
<td>8.2 4.1</td>
</tr>
<tr>
<td>Lac Courte Oreilles Reservation and Trust Lands, WI</td>
<td>56.0 43.6 0.4</td>
<td>7.4 87.9 4.7</td>
<td>0.8 0.0</td>
</tr>
<tr>
<td>Laguna Pueblo and Trust Lands, NM</td>
<td>95.8 2.6 1.7</td>
<td>78.1 20.1 1.8</td>
<td>7.5 2.3</td>
</tr>
<tr>
<td>Lake Traverse (Sisseton) Reservation, ND–SD</td>
<td>79.3 20.1 0.5</td>
<td>62.4 37.3 0.3</td>
<td>0.9 0.0</td>
</tr>
<tr>
<td>Leech Lake Reservation, MN</td>
<td>34.8 64.4 0.8</td>
<td>27.3 69.7 3.1</td>
<td>3.1 0.0</td>
</tr>
<tr>
<td>Menominee Reservation, WI</td>
<td>59.3 39.7 1.1</td>
<td>54.4 43.5 2.0</td>
<td>3.0 0.2</td>
</tr>
<tr>
<td>Mescalero Apache Reservation, NM</td>
<td>91.5 3.8 4.7</td>
<td>66.7 33.3 0.0</td>
<td>0.7 0.3</td>
</tr>
<tr>
<td>Mississippi Choctaw Reservation and Trust Lands, MS</td>
<td>99.3 0.7 0.0</td>
<td>55.6 43.5 0.9</td>
<td>5.2 2.6</td>
</tr>
<tr>
<td>Navajo Reservation and Trust Lands, AZ–NM–UT</td>
<td>64.2 22.3 13.4</td>
<td>36.4 18.1 45.5</td>
<td>49.1 29.8</td>
</tr>
<tr>
<td>Nez Perce Reservation, ID</td>
<td>66.4 32.3 1.4</td>
<td>63.3 35.6 1.0</td>
<td>0.7 0.0</td>
</tr>
<tr>
<td>Northern Cheyenne Reservation and Trust Lands, MT–SD</td>
<td>60.8 39.2 0.0</td>
<td>61.3 37.7 1.0</td>
<td>2.0 0.9</td>
</tr>
<tr>
<td>Oneida (West) Reservation, WI</td>
<td>38.7 60.9 0.4</td>
<td>30.7 66.1 3.2</td>
<td>0.6 0.4</td>
</tr>
<tr>
<td>Osage Reservation, OK</td>
<td>89.2 8.6 2.2</td>
<td>61.8 37.2 1.0</td>
<td>1.1 0.0</td>
</tr>
<tr>
<td>Papago Reservation, AZ</td>
<td>77.6 21.1 1.3</td>
<td>36.0 32.5 31.5</td>
<td>32.0 18.8</td>
</tr>
<tr>
<td>Pascua Yaque Reservation, AZ</td>
<td>100.0 0.0 0.0</td>
<td>99.0 1.0 0.0</td>
<td>1.1 0.0</td>
</tr>
<tr>
<td>Pine Ridge Reservation and Trust Lands, NE–SD</td>
<td>55.8 39.6 4.6</td>
<td>51.8 26.9 21.2</td>
<td>20.9 12.2</td>
</tr>
<tr>
<td>Red Lake Reservation, MN</td>
<td>47.8 48.2 4.0</td>
<td>28.6 66.6 4.8</td>
<td>4.8 0.3</td>
</tr>
<tr>
<td>Rosebud Reservation and Trust Lands, SD</td>
<td>74.2 24.7 1.1</td>
<td>69.4 25.9 4.6</td>
<td>7.2 3.0</td>
</tr>
<tr>
<td>St. Regis Mohawk Reservation, NY</td>
<td>54.6 42.4 3.0</td>
<td>1.4 97.8 0.8</td>
<td>8.4 0.8</td>
</tr>
<tr>
<td>Salt River Reservation, AZ</td>
<td>93.5 2.9 3.6</td>
<td>19.0 67.6 13.4</td>
<td>17.9 6.0</td>
</tr>
<tr>
<td>San Carlos Reservation, AZ</td>
<td>92.7 2.0 5.3</td>
<td>74.0 12.7 13.3</td>
<td>21.6 10.6</td>
</tr>
<tr>
<td>Standing Rock Reservation, ND–SD</td>
<td>80.2 15.7 4.1</td>
<td>77.1 16.5 6.4</td>
<td>9.2 1.5</td>
</tr>
<tr>
<td>Turtle Mountain Reservation and Trust Lands, ND–SD</td>
<td>91.0 5.9 3.1</td>
<td>47.2 47.6 5.2</td>
<td>7.0 0.5</td>
</tr>
<tr>
<td>Uintah and Ouray Reservation, UT</td>
<td>85.5 11.0 3.5</td>
<td>56.6 42.2 1.2</td>
<td>2.7 0.0</td>
</tr>
<tr>
<td>Warm Springs Reservation and Trust Lands, OR</td>
<td>89.8 8.3 2.0</td>
<td>77.4 20.0 2.6</td>
<td>2.6 0.3</td>
</tr>
<tr>
<td>White Earth Reservation, MN</td>
<td>45.5 52.9 1.6</td>
<td>37.2 61.3 1.4</td>
<td>3.0 0.6</td>
</tr>
<tr>
<td>Wind River Reservation, WY</td>
<td>62.8 34.0 3.1</td>
<td>34.3 61.6 4.1</td>
<td>4.8 1.0</td>
</tr>
<tr>
<td>Yakima Reservation and Trust Lands, WA</td>
<td>38.3 61.4 0.3</td>
<td>39.4 58.8 1.7</td>
<td>1.5 0.0</td>
</tr>
<tr>
<td>Zuni Pueblo, AZ–NM</td>
<td>94.6 0.6 4.8</td>
<td>91.9 6.0 2.1</td>
<td>6.2 2.5</td>
</tr>
</tbody>
</table>

1 Crowded means more than 1 person per room.
But this rate differed greatly among the larger reservations (those with 500 or more American Indian households). For example, virtually all American Indian households on the Pascua Yaqui Reservation, AZ, and the Mississippi Choctaw Reservation and Trust Lands, MS, got their water from public systems or private companies. On some reservations, however, like the Cattaraugus, NY, these sources were rare. (See table on page 2.)

... but just under half were connected to a public sewer.

This was far lower than the 76 percent of all U.S. households and the 72 percent of American Indian households living off reservations. It should be noted, though, that most reservations were located outside metropolitan areas, where public sewers were less common. So a fairer comparison might be with only all U.S. housing outside metro areas. When we look at things this way, we see that the rates were the same (just under 50 percent for both American Indian reservation households and nonmetro U.S. housing units).

Again, the situation varied tremendously from one reservation to another. On the Pascua Yaqui Reservation, AZ, for example, virtually all American Indian homes were connected to a public sewer. But on Hoopa Valley, CA and St. Regis Mohawk, NY, almost none were. (See table.)

About 1 in 5 American Indian reservation households disposed of sewage by means other than public sewer, septic tank, or cesspool ....

Outhouses, chemical toilets, and facilities in another structure are a few examples of what may be used instead. In contrast, only 1 percent of all households nationally used other means to dispose of sewage. (See graph at right.) Even for housing units outside metro areas, this proportion was only 3 percent, the same as that for American Indian households living off reservations.

On the larger reservations, the chances that American Indian households used other means ranged from near or above 40 percent (on the Navajo, AZ-NM-UT; and Hopi, AZ) to below the U.S. average of 1 percent (on the Colville, WA; Isleta Pueblo, NM; Mescalero Apache, NM; and Pascua Yaqui, AZ). (See table.)

... and about 1 in 5 lacked complete plumbing facilities in their homes.

Once again, this was a condition almost unknown nationally, where fewer than 1 percent of all households were so inconvenienced. Even U.S. households outside metro areas had a rate below 2 percent. American Indian households off reservations had a percentage only slightly higher (about 3 percent).

The two larger reservations with the highest rates were, again, the Navajo and the Hopi, where around one-half of American Indian households lacked complete plumbing. (See table.)

The situation was even worse for owners.

Just over one-quarter of American Indian homeowners living on reservations lacked complete plumbing, much higher than the 8 percent of their renter counterparts. The situation for all households nationally was the opposite — renters were likelier than owners to lack plumbing. In fact, every housing census since the first in 1940 has shown this to be the case.

When it comes to the prevalence of homes without complete indoor

<table>
<thead>
<tr>
<th>American Indian Reservation Households’ Sewage Disposal Situation Also Resembles That of the United States in the 1950’s</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percent of households using a means of sewage disposal other than a public sewer, septic tank, or cesspool</td>
</tr>
<tr>
<td><strong>American Indian Households on Reservations</strong></td>
</tr>
<tr>
<td>1990</td>
</tr>
<tr>
<td>United States</td>
</tr>
<tr>
<td>1990</td>
</tr>
<tr>
<td>1980</td>
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<tr>
<td>1970</td>
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<tr>
<td>1960</td>
</tr>
<tr>
<td>1950</td>
</tr>
<tr>
<td>1940</td>
</tr>
<tr>
<td>Note: Data for the U.S. prior to 1970 were estimated based on units reporting no flush toilet.</td>
</tr>
</tbody>
</table>
plumbing, visiting a reservation today is like going back in time.
The 26 percent of American Indian owners on reservations lacking complete plumbing in 1990 was comparable to the 30 percent of all U.S. owners in 1950. The 1990 rate for American Indian reservation renters, meanwhile, was identical to that of all U.S. renters in 1970.

Incidentally, no one had it as tough as Navajo owners. Remarkably, about 6 in every 10 did not have complete plumbing!

Many experienced the worst-case scenario — lacking complete plumbing and living in crowded housing.

Imagine living in a home that not only lacks complete plumbing, but also has more residents than rooms. If you’re like most Americans today, it’s difficult. Only one-tenth of 1 percent of U.S. households lived in such conditions in 1990. However, more than 1 in every 10 American Indian households on reservations lived in such housing conditions. Another way of looking at this is that American Indian reservation households comprised only 1 in every 1,000 U.S. households, yet constituted 250 in every 1,000 who lived in homes that simultaneously lacked complete plumbing and were crowded. On the populous Navajo Reservation and Trust Lands, AZ-NM-UT and the Hopi Reservation and Trust Lands, AZ, approximately 3 in 10 American Indian households lived in such housing. But on many reservations, these conditions were as rare as they were in the United States as a whole. (See table.)

Once again, owners fared worse.

About 15 percent of American Indian owners on reservations resided in crowded homes that lacked complete plumbing. These owners accounted for about one-fifth of all such owners in the United States.

Of all reservations, the Navajo Reservation and Trust Lands had the largest number of American Indian owners who faced these conditions (9,200). The Navajo alone accounted for over 80 percent of all American Indian owners on reservations who lived in crowded homes without complete plumbing. By the way, if 9,200 doesn’t sound so high, keep in mind that only half as many homeowners in California and New York combined lived in such homes!

More information:

Detailed Housing Characteristics, American Indian and Alaska Native Areas, Series 1990 CH-2-1A.

For sale by the U.S. Government Printing Office. Stock No. 003-024-07623-3. $44.

Contacts:

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This Brief is one of a series that presents information of current interest. It examines data from the 1990 census. A complete description of statistical quality and limitations is included in the above-mentioned report.

Data for Smaller Reservations

Due to space constraints, the table on page 2 has data only for the 48 reservations with 500 or more American Indian households. To obtain data for reservations not shown, call Robert Bonnette (301-763-8553).