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President

February 7, 1986

MEMORANDUM TO: Peter Sparber
Susan Stuntz
The Tobacco Institute

John Rupp ✓
Covington & Burling

FROM: Philip Schaenman *PH*

SUBJECT: Trends in Careless Smoking Fires

Attached are figures showing the most complete trend information on the causes of fires that have been compiled to date.

The trends vividly demonstrate that smoking-related fires and fire deaths not only decreased over the seven-year period shown, but they have been decreasing faster than any of the other causes.

Fires

The data on numbers of fires by cause is based on the percentages of fires by cause that are derived from the National Fire Incident Reporting System (NFIRS) data, multiplied by estimates of totals for fires that are obtained from the NFPA Annual Survey of Fire Departments.

Careless smoking dropped from 3rd to 5th place for residential fires as a whole (Figure 1). The percentage drop in careless smoking fires was 44% over the seven years shown.

Looking at the two main types of residences separately, we see that the numbers of fires caused by careless smoking in apartments dropped 50% from 1977 to 1983 (Figure 3). In one- and two-family homes, careless smoking fires dropped 43% in the same period (Figure 2).

Fire incidence for all of the leading causes of fires has gone downward over the seven years except for heating, which increased sharply. Arson was trending upward, but sharply dropped the last year. As we have noted before, the downward trends are most likely the result of the influence of detectors, with perhaps some additional help from public education efforts and, for smoking, the introduction of more smolder-resistant beds and furniture. The consumption of cigarettes increased and then decreased somewhat during this period, and does not seem likely to explain much of the drop. There is no study that definitively shows reasons for the declines.

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Fire Deaths

The data on fire deaths for 1977-1981 is based on the percentages of fire deaths by cause from NFIRS, multiplied by estimated death totals from the USFA, which developed them using National Center for Health Statistics death certificate data. For 1982-1983 the percentages still come from NFIRS but they were multiplied by NFPA estimates of fire deaths (USFA stopped doing the other method.) The solid line in Figure 4 represents the "official estimates" for each year. It shows a drop of 37% in deaths for careless smoking. Careless smoking-related fire deaths in apartments during the same period dropped 48% (Figure 6), and in one- and two-family homes it dropped 25% (Figure 5).

However, because the NFPA death estimates of fire deaths had been lower than the USFA estimates by about 10%, it is likely that part of the apparent large drop in deaths shown from 1981 to 1982 was due to the switch from USFA to the NFPA estimates.

The dotted line on the figure shows how fire deaths related to careless smoking might have appeared had the USFA death estimates been continued. The assumption is that the NFPA estimates continued their 1980-1981 proportion of being 10% lower than the USFA estimates.

The result is that there is still a pronounced trend downward in the careless smoking fire deaths even with the higher, USFA death estimates. The drop is 30% instead of 37% for residential deaths. It makes sense that the fire death rate from careless smoking should be going down more slowly than the fire incident rate. The use of smoke detectors by those at greatest risk has tended to be much, much less than the general population.

As we did once before, at the IAFC Ad Hoc Committee hearing in comparing our estimates to CPSC, we might once again take the initiative for credibility's sake, and point out where appropriate at hearings, etc. that the "official estimates" may be low, but that there still is a strong trend downward.

For comparison sake, I have also made an upward adjustment of the death estimate for heating. Here it is much more significant than smoking because it turns a "flat" curve into a rising curve. Since we are sure that heating fires have risen a lot in the last five years, it was anomalous not to find heating deaths also rising. With my "correction," they would be rising. This tends to support the case that the fire death curve using the NFPA data was too low.

1984 Data

These trends do not include the latest year for which data is available - 1984. We are in the process of obtaining a readable set of the 1984 tapes from USFA (they sent us an unreadable set on the first pass). We will then update these curves for you.

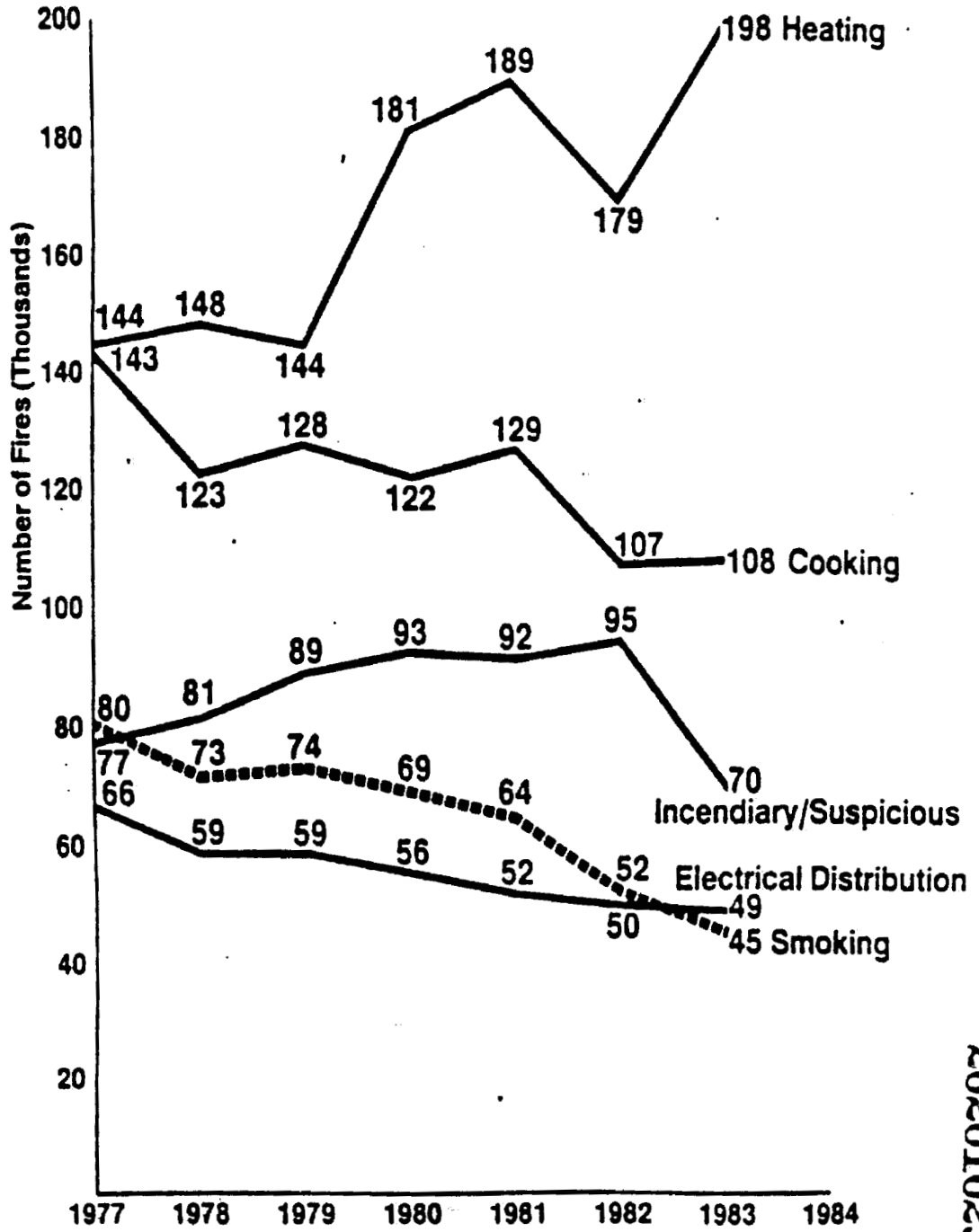
Teleconference

As part of my role as the lead speaker on a national teleconference on public fire education being sponsored by the U.S. Fire Administration, I will set the stage with a description of the fire problem, and will be showing simplified versions of the trend curves.

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FIGURE 1.

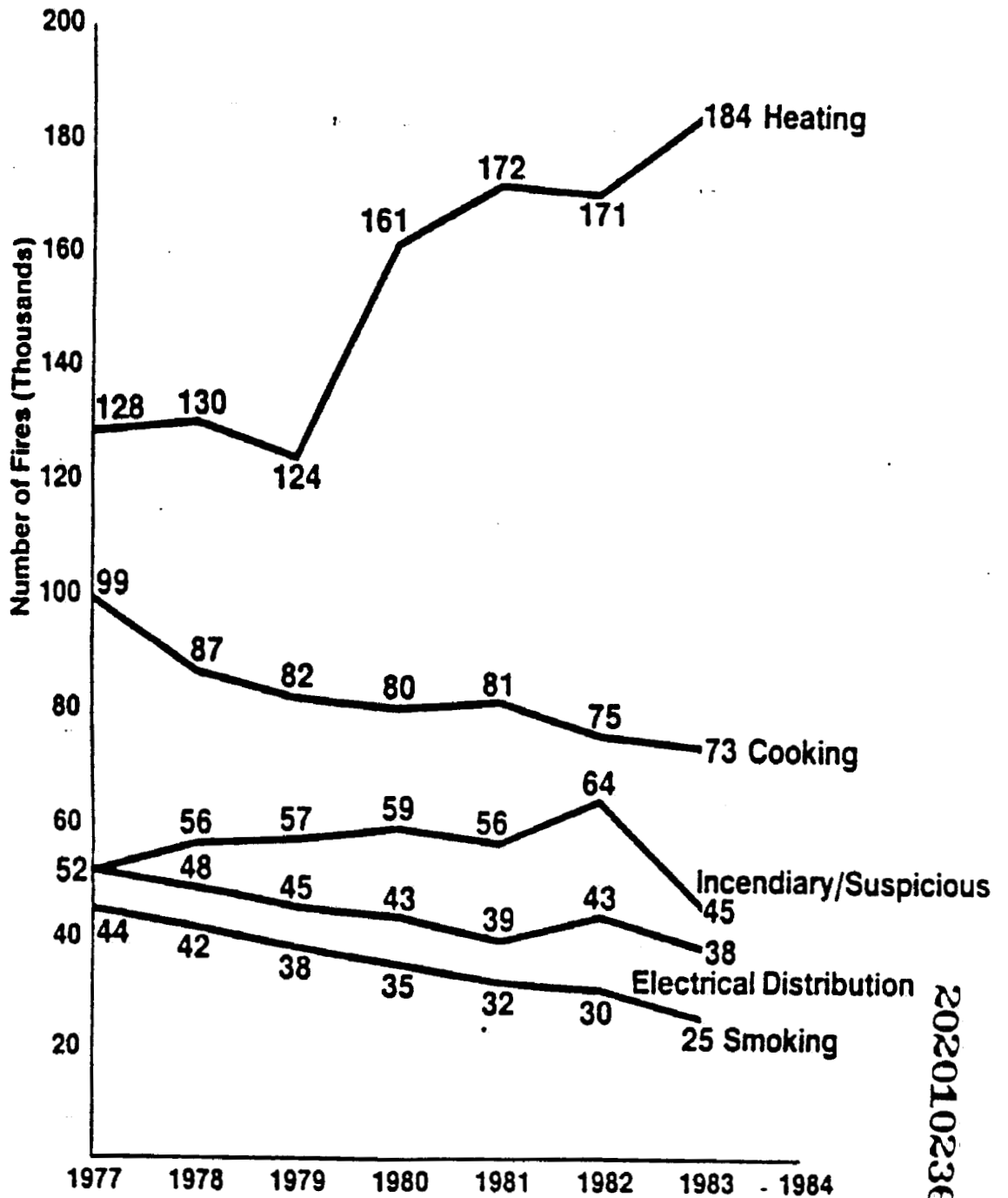
Causes of Residential Fires



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FIGURE 2.

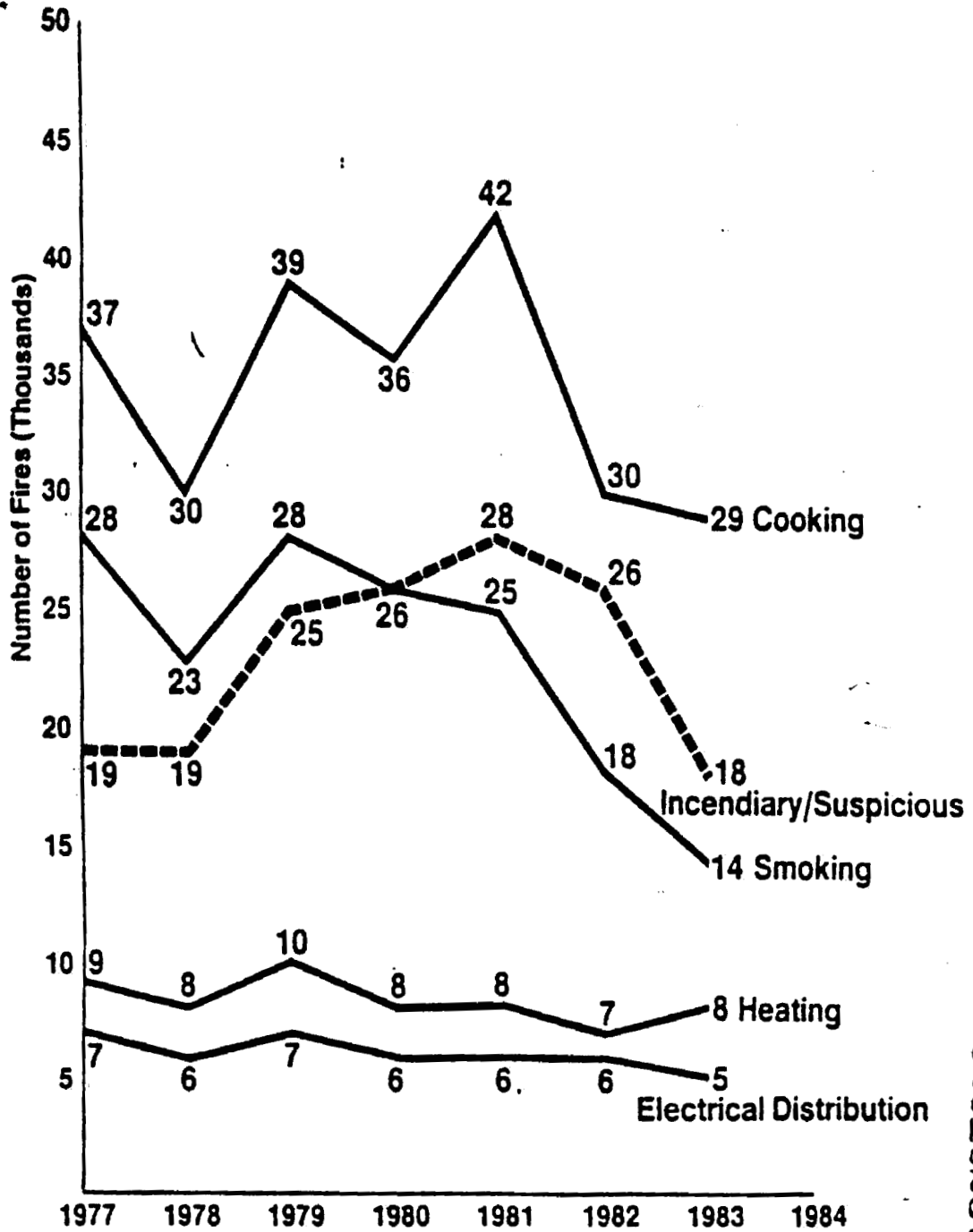
Causes of Fires in One- and- Two-Family Dwellings



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FIGURE 3.

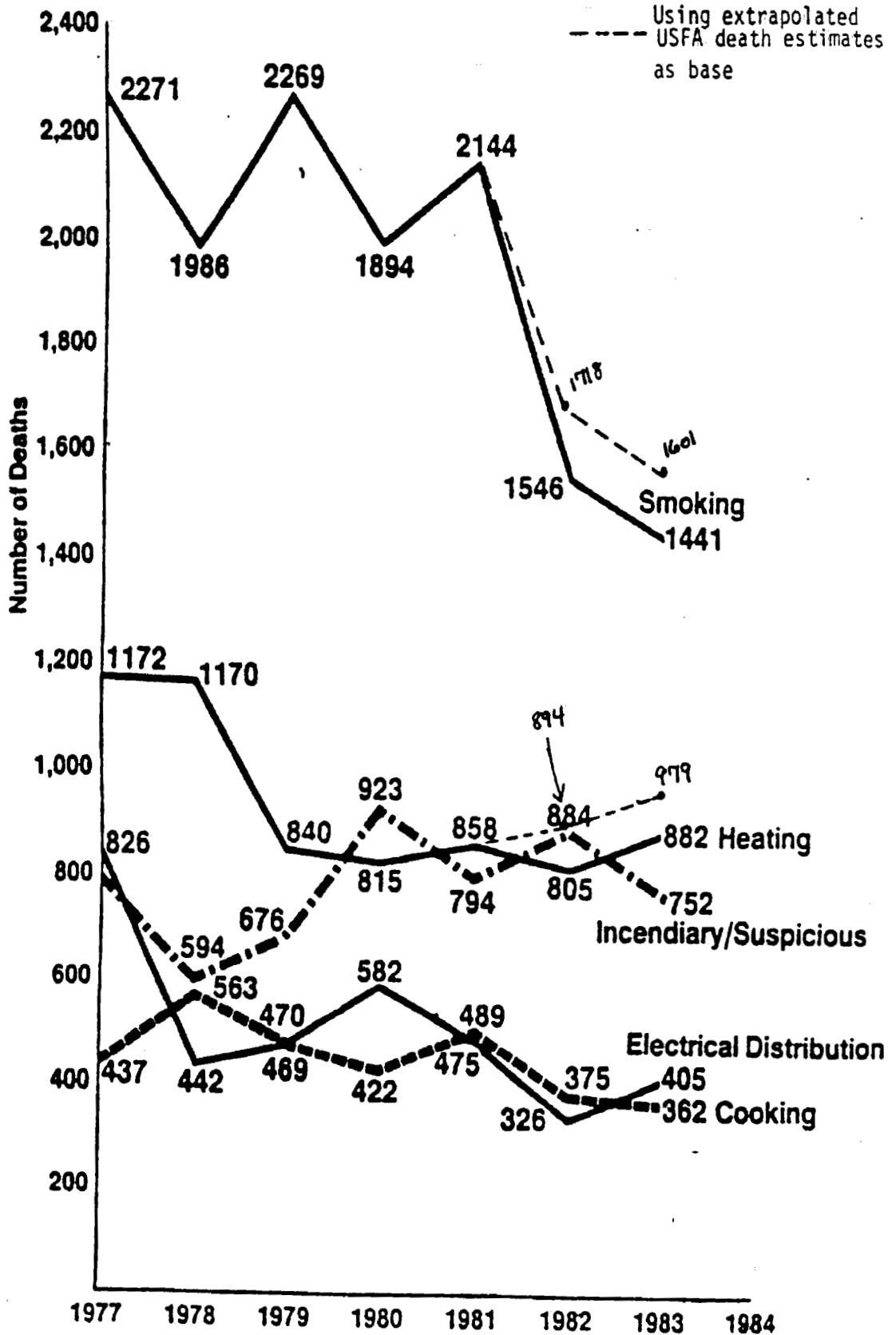
Causes of Apartment Fires



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FIGURE 4.

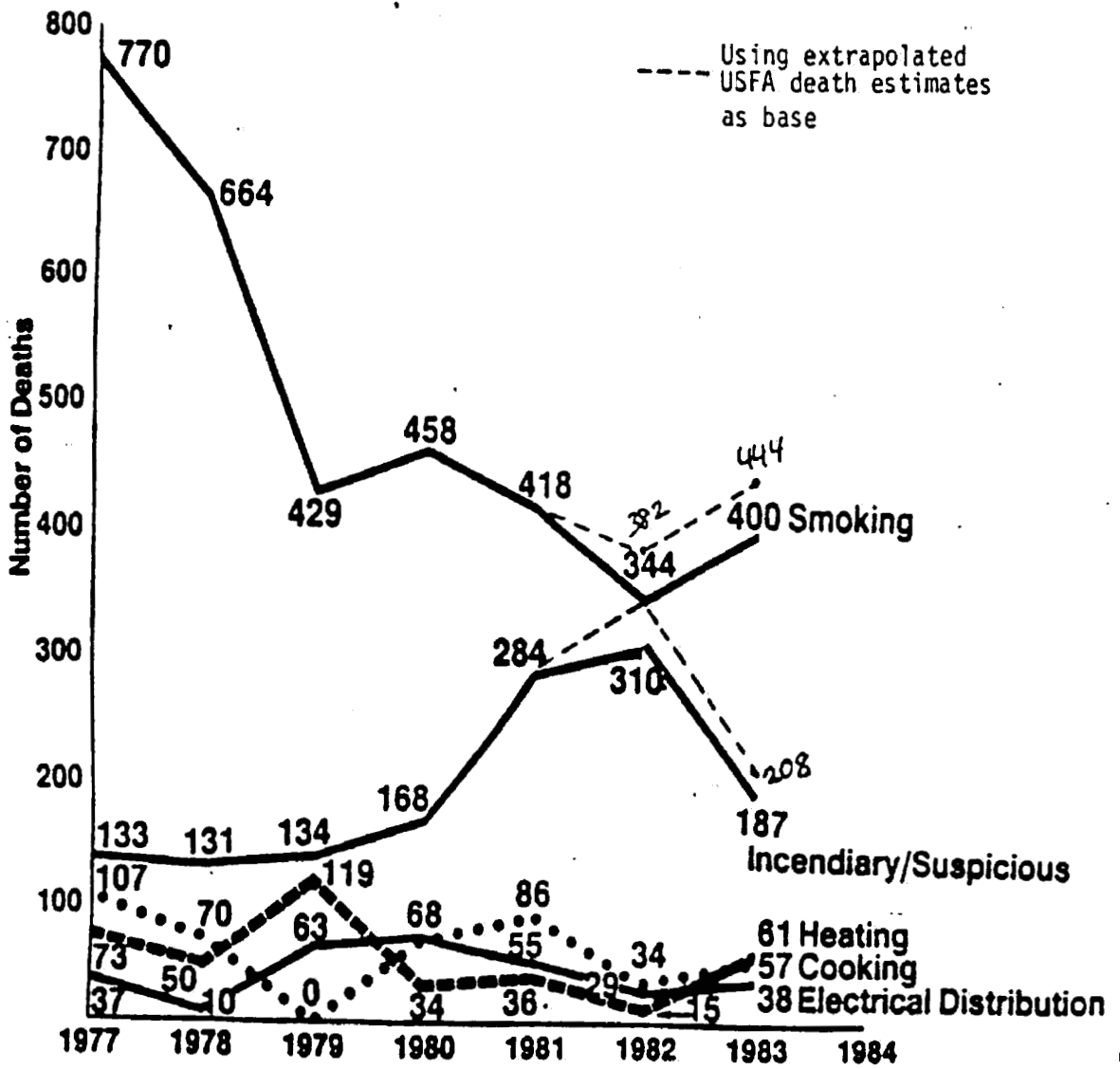
Causes of Residential Fire Deaths



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FIGURE 5.

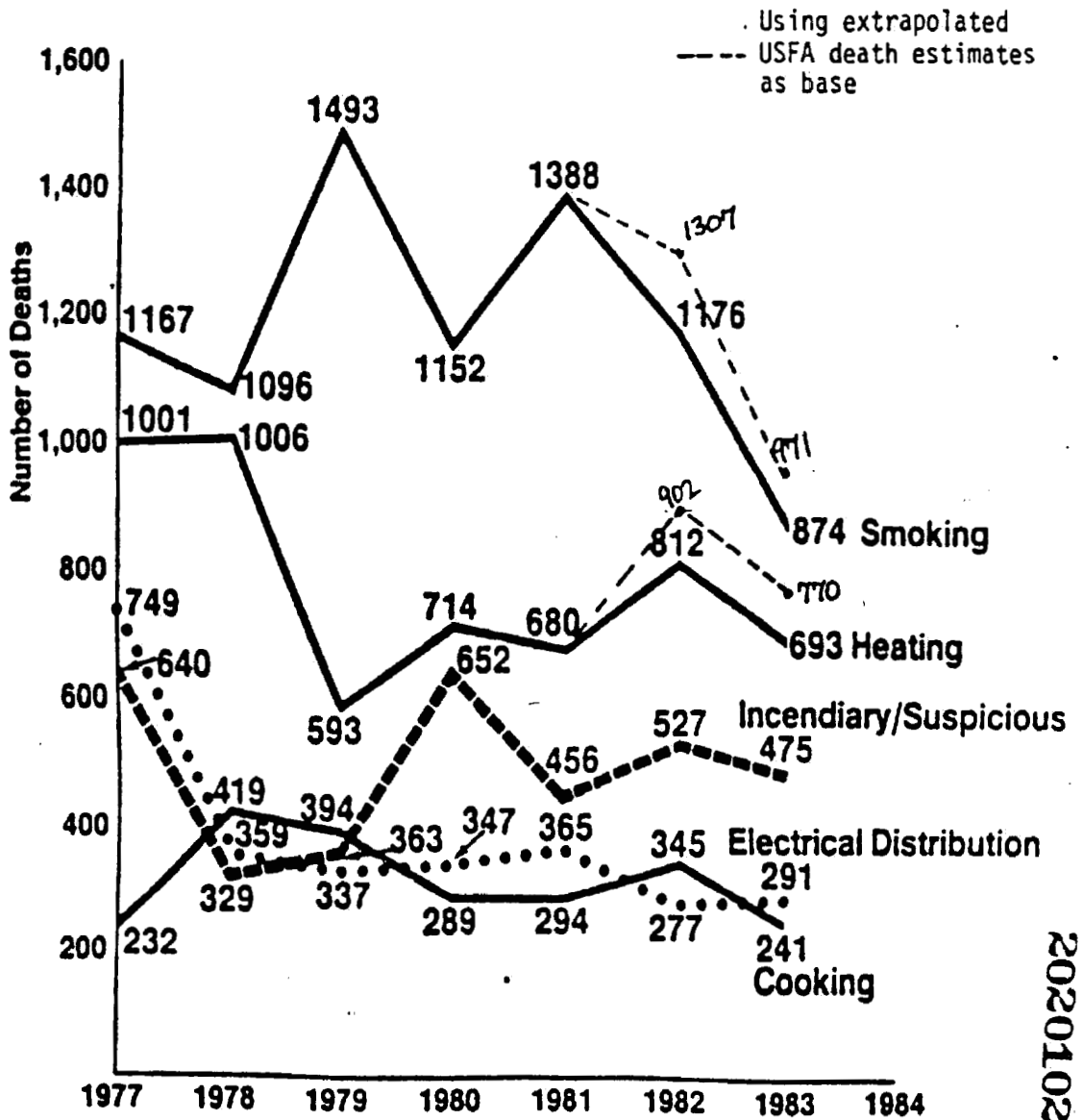
Causes of Fire Deaths: Apartments



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FIGURE 6.

Causes of Fire Deaths: One- and Two-Family Dwellings



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