

the period of the great migrations from Eastern and Southern Europe, and of the first movement for urban reform; the questions of variations in death rates for specific causes between ethnic groups, and between urban neighborhoods, were politically significant in the fight over restriction of immigration, and in the campaign to establish detailed governmental responsibility for sanitation and public health. But although the results for alcohol-related causes in these compilations were discussed in passing at the time, notably in apologies for Jewish immigration (Peters 1905:105; James et al., 1906:299), these data have since remained totally unnoticed.

Since there are no known reports in the alcohol literature comparing the rates of alcohol-related deaths in American ethnic groups,³ even a presentation just of the group differences emerging from these compilations would be worthwhile. But the data also allow for controls by sex and marital status or SES, and thus offer a unique opportunity to investigate the demographic underpinnings of these group differences.

In analyzing these data, of course, we are dealing with patterns of alcohol-related deaths among first- and second-generation immigrants who might be the great-grandparents of adults today. If drinking patterns were governed by the traditional melting-pot model of progressive acculturation over a very few generations, the much smaller immigration of the last fifty years would render our findings mainly of historical interest, since they would lack much relevance to the generational composition of ethnic groups in the 1960's. There is evidence, however, of a considerable persistence across generations in ethnic patterns of drinking behavior, particularly if young adults are excluded in making the

comparison (Knupfer & Room, 1967: Table 6). Findings from 1890 data must therefore be regarded as at least suggestive of relations which may persist today.

THE VARIABLES

Alcohol-Related Causes of Death: Alcoholism and Liver Diseases. The 1890 compilations offer data on two alcohol-related causes of death—"alcoholism" and "liver diseases" as recorded by the attending physician on the death certificate. As indicators of alcohol-related deaths, these categories exhibit contrary defects. We can be relatively confident that few deaths were falsely recorded as from alcoholism, while certainly many non-alcoholic deaths fall under the rubric of "liver diseases." On the other hand, deaths from "liver diseases" are less likely to be under-reported; but deaths from "alcoholism" were and are known to be considerably under-reported.⁴ We are forced back on the general aggregation "liver diseases" in this analysis partly because the subdivisions of this category in the 1890 data did not isolate "cirrhosis," and partly because this aggregation is the only available indicator in many of the cross-tabulations. A comparison of the census compilations with a later reclassification of the same material from New York

⁴ "The Census returns are especially defective and inaccurate as regards the number of deaths reported as due to alcoholism, . . . and in this respect they resemble all other vital statistics" (U.S. Census Office, 1884, Part 2:lxvi. For quantitative evidence on this point, see Dublin (1919:379) and Nicoll and Bellows (1934). The latter authors reported that deaths certified by the county hospital were far more accurately reported than deaths certified by private doctors, a finding which supports the comment in the 1890 census report that "it is only from hospitals that even approximately correct reports are made with regard to persons dying from the effects of alcoholism" (U.S. Census Office, 1895a, part 1:308). But this is unlikely to have produced biases in our comparisons, since there do not seem to have been large differences between ethnic groups in 1890 in the proportion of adult deaths occurring in institutions: 35 per cent of English-born decedents, 34 per cent of Irish-born, 29 per cent of German-born, 43 per cent of Russian-born, and 29 per cent of Italian-born decedents in New York City in 1891 and 1893 died in institutions (combining figures from New York City Health Department, 1892; and 1897).

³ Comparative rates for ethnic groups can be found buried in some other general compilations of vital statistics, notably in the 1900 Census, and in Guilfooy (1917). In his survey of the literature, Robert Bales happened on some of the death rate tables in the 1900 Census, but did not make use of them, since he mistakenly thought it was "impossible to tell whether these are rates per 100,000 of the total population, or rates per 100,000 of each maternal nativity group," (Bales, 1944:16).

City⁵ (Emerson & Hughes, 1941: Causes 124, 125) makes it clear that most cirrhosis deaths fell in the census subcategory of "other liver diseases" (2069 deaths in six years), though some may also have been included in "inflammation and abscess of the liver" (536 deaths). Certainly very few were included in the small category of "jaundice" (159 deaths, mostly of infants), and wherever possible in the following tables this subcategory is excluded.

From Emerson and Hughes' reclassification, it appears that cirrhosis accounted for 66 per cent of all male deaths from liver diseases, and for 58 per cent of all such female deaths in New York City in 1884-1889. Current estimates for the U.S. as a whole would classify just under 40 per cent of all cirrhosis deaths-51.5 per cent of male deaths, and 17.7 per cent of female deaths-as alcohol-related (Popham, 1956:564; Keller, 1962:318). Of all deaths from "liver diseases," then, we might estimate that 34 per cent are alcohol-related among males, 10 per cent among females, and 25 per cent in the total adult population. It would be possible to apply these figures as factors to estimate actual alcohol-related cirrhosis death rates in ethnic categories and subcategories. Such estimates would, however, depend upon the questionable assumption that alcohol-related cirrhosis deaths are a constant fraction of liver disease deaths in all segments of the adult population.⁶

Neither of our cause-of-death indicators, then, will yield death-rates which could be treated as valid estimates of the total prevalence of "alcoholism." Results with both indicators should therefore be regarded as useful only for comparative purposes.

Ethnic Groups: Birthplace of Mother. The term "ethnic group", as Milton Gordon points out, "is a useful one for designation" of the "common social-psychological core

⁵ Note that till 1898-and thus in this paper-"New York City" means Manhattan and the Bronx only, the latter and the northern third of the former being "suburban" and sparsely populated.

⁶ The assumption is rendered improbable by the very large differences between ethnic groups in liver disease death rates in our data (Table 2), paralleling the differences in alcoholism death rates.

to the categories 'race,' 'religion,' and 'national origin'-the sense of 'peoplehood' (1964:28). Whereas studies of twentieth-century alcohol-related mortality in the U.S. (Dublin, 1932; U.S. Bureau of the Census, 1939; Jellinek, 1942; Jolliffe & Jellinek, 1942; Popham, 1956; Keller, 1962) have been confined by the available data to distinctions between aggregates on one of these categories-race-the distinctions in the 1890 data used here are made within a single racial aggregate, between groups defined by Gordon's other two categories-national origin and religion. On its face, the indicator of ethnic identification used in the 1890 data-national birthplace of mother-reflects only one of these categories; clearly, however, the national origin group is also overwhelmingly homogeneous in religion in the case of Italians, and preponderantly homogeneous in religion in the cases of the Irish, British, and Scandinavians. In 1890 in New York City, those grouped as of Russian and Polish origin were also overwhelmingly of one religion, being Russian Jews.⁷ Of the major national groups of the 1890's, then, only the Germans were heterogeneous in religion, since they included substantial proportions of Protestants, Catholics, and Jews. However, it might be argued that for Germans in 1890, at least in comparison with the Irish and Russians, religion was subordinated to nationality as a determinant of "ethnic consciousness."

National birthplace of mother as an indicator defines "foreign" ethnic identification groups approximating the combined first and second generations of an immigrant population,⁸ and a residual "native"

⁷ In the 1890 census 48,790 residents of New York City were born in Russia, and 6759 in Poland (U.S. Census Office, 1892, part 1:670-673). Any substantial immigration by non-Jewish Russians would have been signalled by the appearance of Russian Orthodox churches, but the Russian Orthodox church was only organized on the U.S. East Coast after 1891, when "the immigration from Russia proper increased," and even by 1906 included only 1300 members in New York City (including Brooklyn and Queens). (U.S. Bureau of the Census, 1910, part 2:261; part 1:470).

⁸ The group defined by birthplace of mother will exactly correspond to the first and second generations of a national group only when the group is totally endogamous. But exogamy seems

category of third and higher generation Americans. This residual category should not be regarded as a "core group" of "Old Americans" constituting an ethnic group in its own right, since the minimum requirements for inclusion of anyone over 15 in it are only that migration shall have occurred at least two generations and 35 years ago on the mother's side. Nevertheless, the category can serve as a useful comparison group in interpreting ethnic drinking patterns. Arguments that a high Irish alcoholism rate is due to peculiarities of the Irish culture, for instance, lose much of their force if the Irish rate is matched by the rate of this residual "native" group. Although "birthplace of mother" defines each ethnic group essentially in terms of the first and second generations, the great differences in the temporal pattern of immigration meant that some "foreign" maternal nativity groups were composed in 1890 almost exclusively of the first generation, and included virtually all adults with the particular ethnic identification (Italians, Russian Jews), while others were more evenly split between first and second generation, and included only a portion of those adults who might consider themselves members of a national community (Irish, British, Germans).⁹ This disparity affects the comparability of our national nativity groups in several ways. In the first place, the tables in the present report showing death-rates calculated from deaths in a six-year period (June 1884 to May 1890)

but based on the 1890 census populations, will yield considerable underestimations, by up to 30 per cent, of the true prevalence among those with mothers born in Italy and Russia/Poland. In the second place, the combination of mainly recent immigration, and an excess of males over females among immigrants produced a sex distribution of perhaps 60 males to 40 females among the population of adults with mothers born in Italy, and probably Russia/Poland. In the third place, unmarried adult females seem to have been particularly uncommon in some recently immigrated groups, as the combinations of a preponderance of males and high endogamy might lead us to expect. Table 1 illustrates these latter two points for those with Italian mothers, although such direct data was unfortunately not given for those with Russian and Polish mothers. In the fourth place, a recently immigrated population may tend to include fewer children, but in an ethnic identification long represented in the U.S., those with foreign-born mothers will tend to be older, so that long-established identifications will have the greatest deficits of children when "ethnic groups" are defined by birthplace of mother. But since we are concerned with causes of death specific to adults, our death rates are based on the population over 15, so that we are in any case applying an approximate corrective to this bias in age distribution.

The overstatement of populations and disparity of sexes in recently immigrated populations can be allowed for in analyzing the data. But the 1890 census reports do not allow us to gauge the effects of the variation in generational composition between a recently arrived group and a long-established one-for if generation in the U.S. does affect alcoholism rates, only the long-established groups would be affected. As part of the present study, a very rough comparison of alcohol-related adult death rates in the first and second generations of long-established groups was made, using **New York City** data of the same era: no dramatic generational differences appeared, although the second generation tended to show a lower rate than the first in each group. If used with caution, then, results

to have been common only for the British, among the major national groups in New York City in 1890: the census shows the ratio of exogamous to endogamous mothers among those born in the U.S. to be 1.16 for those with English mothers, .78 for those with Scottish mothers, .17 for those with Irish mothers, .10 for those with German mothers, .05 for those with Russian mothers, .02 for those with Italian mothers, .28 for those with

U.S. mothers (recalculated from U.S. Census Office, 1892, part 1:704--707, 710-711, 716-717, 724--729). Since these figures treat as exogamous, for instance, the marriage of an Irish-born girl to the U.S.-born son of Irish-born immigrants, they represent an overestimate of actual exogamy.

^e Of all immigrants from each country between 1821 and 1890, the proportion arriving in 1871-1890 was: Scotland/England, 48 per cent; Ireland, 32 per cent; Germany, 48 per cent; Italy, 95 per cent; Russia/Poland, 97 per cent (recalculated from Hall, 1908: 339-343).

TABLE 1. DISTRIBUTION BY MARITAL STATUS AND SEX (EXCLUDING DIVORCED), IN MAJOR ETHNIC GROUPS IN U.S. CITIES, JUNE 1890*

	Mother's Birthplace							
	U.S. White		Ireland		Germany		Italy	
	Male	Female	Male	Female	Male	Female	Male	Female
A. Aged 20 and Over								
Single	31%	27%	41%	36%	29%	20%	30%	6%
Married	64	58	54	48	67	67	67	87
Widowed	5	15	6	16	4	13	2	7
Population Base (in thousands)	(663)	(740)	(539)	(662)	(362)	(344)	(37)	(21)
B. Aged 25 and Over								
Single	20%	19%	29%	26%	18%	10%	23%	3%
Married	74	63	64	55	77	74	74	88
Widowed	6	18	7	20	5	16	3	8
Population Base (in thousands)	(550)	(616)	(437)	(527)	(304)	(277)	(32)	(17)
C. Proportion Male of those aged 20 and over in each maternal nativity								
	47%		45%		51%		63%	

* Sources: Recalculated from U.S. Census Office, 1895a, Part 1:850-851, and Part 4:38-39.

This table includes only those in the three named marital statuses who were living in cities in Registration States at the 1890 census. Registration States were those with official death registration procedures which were considered by the Census Office to include at least 90% of all deaths in the state.

The population for each sex, marital, and ethnic identification category was reconstructed by summing the quotients of: the total number of deaths in that category at each adult age-break divided by the death rate for the same age-break and category. For the "U.S. White" categories, the corresponding figure for "Colored" deaths was subtracted from "mother born in U.S." deaths; the "U.S. White" populations are therefore slight underestimates, since the very small population of "Colored" persons with mothers born abroad were unavoidably included in the subtraction.

from maternal nationality groups in 1890 can be treated as valid indications of ethnic differences.

Social Status: Sanitary Districts. The Eleventh Census vital statistics reports offer no direct measure of social status; but they do give tabulations by main causes, sex and mother's birthplace, for what amount to neighborhoods-in New York City, for example, for 114 "sanitary districts." Collating the descriptions of these "sanitary districts" in the 1890 vital statistics report (U.S. Census Office, 1894:254-345) and in the New York City tenement-house census of 1893 (New York City Health Department, 1897:161-183), these districts were divided into six levels of neighborhood status, as follows:

1. "Crowded" tenements: described as "crowded," "low grade," etc., filled with "very poor" people (22 districts).
2. "Common" tenements: predominantly

tenements, described as "of the common kind," or with no specific mention of crowding or poor quality (23 districts).

3. "Mixed" tenements and single dwellings: mostly or half "common" tenements, with some small private dwellings, apartment houses, etc., and sometimes a mention of "middle class" (26 districts) "Middle class": mostly "middle-class apartments," "apartment houses and private houses," "dwellings of the better class," or "fine private houses" (15 districts).
4. "Suburban": these districts, in northern Manhattan and the Bronx, seem to have ranked near the middle-class in quality of housing, with some shanties, but were very sparsely settled (6 districts).
5. "Wealthy": described as "wealthy," "buildings of the best," "well-to-do class" (3 districts).

Nineteen districts were excluded from the scale because they were predominantly business districts or institutional; or because the vital statistics report and the

tenement-house census differed in their descriptions, or described them as a mixture of upper and lower classes. The six levels of neighborhood status described above will be treated in this report as an approximate scale of the social status of the inhabitants of each neighborhood.

RESULTS

Rates for Ethnic Groups. Table 2 shows, for all ethnic groups of substantial size in each of three American cities, the death rates in a six-year period from "alcoholism" and "liver diseases," per thousand aged fifteen and over. Looking for the moment at the patterns for the total groups, it is apparent that there is considerable variation in rates between the cities: Brooklyn, much of which was suburban, shows fewer deaths than New York City in nearly every comparison. The data from the three cities may be viewed as three independent tests of the same relations; and our results leave no doubt that, in spite of substantial intercity variations in the general prevalence of the alcohol-related causes of death, there is a characteristic ordering of the ethnic groups on prevalence rates. Consistently, for both alcoholism and liver diseases, the Irish rate is by far the highest. Generally speaking the English rank next, exceeding the U.S. rate in five of the six comparisons, and the German rate in four of the six. The German rate also exceeds the U.S. in four of the six comparisons. On the other hand, four of the other five ethnic identifications (each present in sufficient numbers only in one city) show lower rates than the U.S. rates, with the Italian and Russian (Jewish) rates being very substantially lower. Even if we allow for the inflated population bases, as explained above, the Italian and Russian rates remain at the lower extreme.

If there is any surprise in these results, it is that, with the exception of the low Scandinavian rate (for which the population base is small), they conform so perfectly to prior expectations. Since we have discussed at some length above the shortcomings of our indicators, it is perhaps worth noting that the data in Table 2 have several advantages over prior reports. The data represent a six-year series of results, with known population bases excluding

children, which provide comparisons of ethnic rates as reported on death certificates in the same jurisdiction, and contain replications of results with two alcohol-related cause-of-death indicators and three separate populations. Furthermore, alcohol-related deaths are relatively untainted as a measure for cross-cultural comparisons, in the sense that such deaths are less likely to represent a culturally conditioned choice by familial or communal "guardians" among alternative dispositions of a problem case than, say, commitments to a mental hospital.

These rates for each ethnic group as a whole in a sense finish the task of establishing a relationship between ethnic identification and alcohol-related deaths. Even if it turns out, say, that only redheads become alcoholics, and that the high Irish alcoholism rate is due solely to a larger number of Irish redheads, this does not gainsay the fact that the Irish have a higher rate of alcoholism. But to demonstrate the mere fact of ethnic differences does not contribute much to our understanding of the reasons for those differences.

Of course, no matter how detailed they are, "social statistics" by their nature can play only a limited role in explaining such cultural differences: the most even a Durkheim can wring out of them is to rule out some explanatory hypotheses, and to render others plausible. And, in fact, the data discussed so far do rule out a few hypotheses, mostly already discredited-for instance, the hypothesis that the high Irish rate is simply a product of official Roman Catholic policies on drinking and drunkenness. The further refinements available in the 1890 census data, however, cast light upon some more lively hypotheses. Explanations of the high Irish alcoholism rate have stressed patterns of drinking among Irish males-"drinking in clubs, hotels, and saloons affords the chief social life of the men and the chief means of getting them out of homes dominated by their women" (Bales, 1962); the cultural repression of sexuality among Irish males-"the expectations of greater disturbance in the mother-child role for the Irish male, their more inadequate ego structures on the side of assertiveness, and the possibility of greater

oral-aggressive needs, suggested that . . . alcoholism would be found additionally in the Irish" (Opler & Singer, 1956); and the strains of a culturally and economically prescribed extension of bachelorhood into middle age-"the drunkard role relates to **the** actual frustrations imposed upon the 'boy' by the family and land tenure systems" (Bales, 1962). For the first two of these explanations to maintain their plausibility, alcohol-related deaths among the Irish should be concentrated among Irish males, and for the third to remain plausible, the concentration should occur particularly among unmarried Irish males.

Rates by Sex in Ethnic Groups. Although the special 1890 vital statistics reports gave numbers dying of each cause in each city by sex as well as age and ethnic identification, the corresponding population figures were not broken by sex. The denominators of the rates by sex shown in Table 2 were therefore constructed on the assumption of an equal number of males and females in each adult population. On the evidence of Table 1C, this assumption misstates the actual situation, but not by enough to change substantially the results of the comparisons in Table 2. Looking first at the sex ratios, there are striking regularities in the six comparisons of ethnic patterns shown in Table 2: for both causes of death in each city, the Germans show the highest excess of male over female deaths, and the Irish show the lowest-in fact, females exceed males among Irish dying of liver diseases. The consistency of this pattern suggests that cultural prescriptions on sex roles have a consistent effect on alcohol-related deaths: we may surmise that the subordinate status of women in the nineteenth-century German patriarchal household effectively barred them from behavior leading to an alcohol-related death, while the relative parity of rates among Irish males and females reflects a less subordinate status for Irish women.¹⁰ Table 2 shows also that, in spite of ethnic differences in

¹⁰ Alcoholic admission rates to New York State Mental Hospitals, 1949-1951, show the same basic pattern: in both first and second generations, the sex ratio for admissions is lowest among the Irish, English, and Swedish, and highest among the Germans, Russians, and Italians (Malzberg, 1960: 39).

the sex ratio of deaths, the ordering of ethnic groups by the actual death-rates is much the same in each sex. However, the sexes differ in the range of variation between ethnic groups, at least if percentage deviation from the U.S. group's rates is taken as an indication of range-and, somewhat surprisingly, it is the females who show the greater spread by this criterion.

The group most responsible for this effect is the Irish women, whose alcohol-related death rates appear more extraordinary for their sex than are Irish men's rates for theirs.¹¹ In this light, Table 2 must be regarded as casting grave doubt on theories, like those cited above, which regard peculiarities of the Irish male role as the crucial factor in Irish alcoholism. Future explanations at least of nineteenth-century patterns of Irish alcoholism, it would seem, must propound a chain of causation applying equally to either sex, or even a little more strongly to Irish females.

Rates by Sex and Marital Status in Major Ethnic Groups. Unfortunately, the compilations for individual cities used in Table 2 do not provide population bases by marital status in ethnic groups, so we are not able to use death-rates for six years in particular cities to extend our analysis to marital status. However, the relevant data is available for deaths from alcoholism by major ethnic groups in the census year for the aggregate of cities in the 1890 vital statistics registration area. Marital status is, of course, very much related to age, so that the ages chosen for marital status group bases will greatly influence non-age-

¹¹ The relative equality of Irish male and female drinking patterns implied by the 1890 data may go back a long way: "... in many families, especially at Feasts, both men and women use excess [of Usqueba h]. And since I have in part seen, and often heard from others' experience, that some Gentlewomen were so free in this excess, as they would kneeling upon the knee and otherwise garrusse Health after Health with men; not to speak of the Wives of Irish Lords, or to refer to it in the due place, who often drink till they be drunken, or at least till they void **urine** in full assemblies of men, I cannot (though unwilling) but note the Irish women more specially with this fault, which I have observed in no other part to be a woman's vice, but only in Bohemia." (Pynes Moryson, *A Description of Ireland* (about 1600), quoted in MacManus, 1939:19-20).

C. BOSTON

<i>Deaths from Alcoholism:</i>	Total	.43	2.03	.57	.31	.38
	Males	.70	2.72	....	....	.51
	Females	.15	1.34	.....	.....	25
	Sex Ratio	4.6	2.0	(7/2)	(2/3)	(8/4)
<i>Deaths from Liver Diseases: (except Jaundice)</i>	Total	1.26	1.97	1.14	1.59	.35
	Males	1.37	1.82	.....	.....	25
	Females	1.14	2.13	.....	.....	44
	Sex Ratio	1.2	0.9	(10/8)	(18/8)	(4/7)
Population over 15 (in 1000's)	(105)	(127)	(16)	(16)	(32)	

* Sources: U.S. Census Office, 1894:234-235, 242-243, 440--495; and 1895b:120-121, 188-207.

This table shows rates for all ethnic categories in each of the cities with at least 15,000 persons aged 15 and over. Sex rates are shown only when their denominator is at least 15,000. The sex ratio, male deaths divided by female deaths, is calculated only when the sum of male and female deaths in a category is at least 40; for smaller sums, the actual number of deaths in each sex is shown in parentheses (male deaths/female deaths).

The denominator in each "total" rate is those of the given maternal natality aged 15 and over on June 1, 1890. The denominator in each rate by sex is one-half of the denominator for the total rate, assuming equal numbers of males and females in the adult population of each group. For the English and Welsh in New York City and Brooklyn, and for the Scots and the Scandinavians in Brooklyn, the numerators are deaths from the named causes--60 that rates for these groups are very slightly inflated by deaths of those under 15. For the other groups, the numerators are deaths of those aged 15 and over from the named cause. For all groups, the deaths counted are those occurring June 1, 1884-May 31, 1890--thus the rates are *not* annual rates.

For the "U.S. White" groups, the denominator is whites with U.S.-born mothers, while the numerator is deaths of all with U.S.-born mothers minus deaths of all "Colored." **Rates** for the U.S. group are thus very slightly underestimated by the subtraction of "Colored" descendants with foreign-born **mothers**.

TABLE 3. DEATHS FROM ALCOHOLISM PER THOUSAND ADULTS IN MAJOR ETHNIC GROUPS IN U.S. CITIES, JUNE 1889-MAY 1890 *

	Mother's Birthplace					
	U.S. White		Ireland		Germany	
	Male	Female	Male	Female	Male	Female
<i>A. Rate on Population Aged 25 and Over</i>						
Single	.27	.02	1.00	.16	.49	(.00)
Married	.10	.03	.41	.23	.17	.02
Widowed	.35	.01	(.97)	.26	(.71)	.09
<i>B. Rate on Population Aged 20 and Over</i>						
Single	.15	.01	.58	.09	.26	.00
Married	.10	.03	.40	.21	.16	.02
Widowed	.35	.01	(.97)	.26	(.71)	.09

* The denominators of the rates in this table are the population figures as reconstructed for Table

1. The numerators are all deaths from alcoholism in those populations, that is, in cities in Registration States, in the period June 1, 1889 to May 31, 1890 (U.S. Census Office, 1895a, Part 4:40-49). Rates are shown in parentheses where the base is below 35,000.

The rates are thus very slightly raised from their true value by the inclusion of deaths from alcoholism in those under 20. Since the subtraction of "Colored" persons of foreign maternal natality figures in both the numerator and denominator of the "U.S. White" rate, its effect on that rate is not clear, although certainly small.

specific death rates. Table 3, which shows results calculated both on a base of those 20 and over, and on a base of those 25 and over, illustrates the particular sensitivity of rates for the single even to relatively small variations in the definition of the base.

But since in New York City at the time only 0.7 per cent of those dying of alcoholism were under 20 and only 3.1 per cent were 20-24 (U.S. Census Office, 1894: 426-431), rates based on those 25 and over would appear to provide the closest approximation to a true comparison of marital statuses, and will be used in our discussion, even though rates for the single on the older base may be slightly inflated.

Table 3 shows that the single Irish males have a very high rate of deaths from alcoholism. Since, as Table 1 showed, there is a relatively high proportion of bachelors among Irish adult males, it is indeed true, in at least an arithmetical sense, that the high overall Irish alcoholism rate reflects a combination of the particular Irish pattern of delayed marriage, and a high rate of alcoholism among bachelors.

But looking beyond this arithmetical effect to etiological concerns, it is not clear that there is anything in particular about Irish bachelorhood which explains the high

Irish rate. The bachelors' high rate certainly does not wholly account for the high rate of alcoholism among the Irish, for each of the other five Irish sex-marital status categories also have a rate exceeding their U.S. and German counterparts. In fact, Table 3's figures suggest a constant pattern, whereby Irish men are two to four times, and Irish women eight to ten times, as likely to become alcoholics as U.S. or German group members of the same status. The high figure for Irish bachelors is also clearly not a simple function either of singleness nor of the prolongation of singleness, since Irish females also remain unmarried more often and longer (Table 1), and yet have an alcoholism rate lower than Irish wives.

The high rate among Irish bachelors may, indeed, be simply a manifestation of a general pattern of relations between alcoholism rates for sexes and marital statuses, somewhat like that described by Durkheim for suicide, superimposed on comparatively high alcoholism death rate for the Irish overall, and particularly for Irish women. In Table 3, deaths from alcoholism in each of the three ethnic groups follow Durkheim's summary for suicide: "the share of wives in the suicides

of married persons is far higher than that of unmarried women in suicides of unmarried persons" (1951:183-184). Beyond this, while the death rate from alcoholism in each ethnic group is higher for bachelors than for husbands (by a factor of about 2.5) the death rate in each group appears to be actually somewhat lower for spinsters than for wives.¹²

The persistence of this pattern across three ethnic groups with quite different alcohol-related death rates suggests that there is a fairly direct causal relationship between attributes of the sexes and marital statuses and the occurrence of death from alcoholism. The relatively high alcoholism death rates for widowers in Table 3 would seem to argue against the operation of selective factors, whereby relatively alcoholism-proof males and alcoholism-prone females would be more likely to become married, or married earlier. But even if we confine our discussion to reactive factors, there are at least two alternative lines of explanation of the outlined pattern. Death from alcoholism can be viewed, as Durkheim viewed suicide, as an indicator of a psychological state characteristic of particular demographic categories. Like suicides,

or self-evaluations of unhappiness,¹³ death rates from alcoholism can thus be taken as reflecting the degree of maladjustment to the social order which characterizes particular statuses. Thus, the high incidence among bachelors of behavior which terminates in death from alcoholism is seen to reflect, in Durkheim's works, a "morbid desire for the infinite" by which the male unchecked by "matrimonial regulation" "aspires to everything and is satisfied with nothing" (1951:271). The fact that the incidence among wives approaches the incidence among husbands more closely than the incidence among spinsters approaches the incidence among bachelors is seen as reflecting that females "gain less" than males in the way of "moral equilibrium" by marriage (Durkheim, 1951:184, 188). Alternatively, patterning of deaths from alcoholism by sex and marital status can be viewed as a reflection of differences in social norms for the different statuses. Heavy drinking is presumably a necessary prerequisite of death from alcoholism, and the availability of heavy drinking as a behavior is seen as closely tied to general European and American norms of relative license for men and relative constraint for women (see Clark, 1964). These norms seem to be most fully expressed in the behavior of the unmarried, partly because the norms form the fundamental dynamic of Western courtship patterns, and partly because sex differences in behavior tend to be moderated in the dyadic relationship of marriage. The patterning by sex and marital status in the very small segment of the population which dies of alcoholism is seen, then, as reflecting the differential norms on drinking behavior for each sex and marital status.

Of course, either line of explanation is uneconomical, in the sense that the prevalence of very rare behavior (death from alcoholism) is viewed as resulting from variations in very common characteristics (whether psychological, normative, or behavioral): obviously, there would be other factors intervening to determine which in-

¹² Other recent reports, unspecified by ethnic group, also show a patterning of sex and marital status rates for alcoholism conforming to the Durkheimian formulation. In Malzberg's age-standardized rates for 1949-1951 commitments to New York State mental hospitals for alcoholism, the married female rate, like Durkheim's suicide statistics, but unlike the alcoholism rates reported here, remains lower than the unmarried female rate (1960:16). In reports on the incidence and prevalence of alcoholism in mental hospitals and outpatient clinics in Victoria, Australia, calculated on bases of single people over 15 and of all in other marital statuses, the pattern replicates that of Table 3—the male rate rises, while the female falls, with marriage; but a recalculation of these rates on a base of those over 25 would probably produce a pattern like Malzberg's. (Victoria Mental Hygiene Authority, 1964:105-106; 1965:107-110). A. F. Newman's rates of those in a Canadian county known to agencies as alcoholics are based on the population over 15 for each marital status, and show the rate rising with marriage for both sexes, though more steeply among females than males; however, recalculation of these rates on a base of those over 25 would probably produce a pattern like that of Table 3 (1964:23, Table 2.4.2).

¹³ Recent studies of self-evaluations of unhappiness show the same patterns by sex and marital status as deaths from alcoholism in Table 3 (Knupper, et al., 1966:842).

dividuals in the vulnerable statuses actually died of alcoholism, and census data will neither elucidate such factors, nor enable us to choose between such lines of explanation as those outlined above. In any case, however, the data in Table 3 can be regarded as casting serious doubt on propositions that there is something in particular about Irish bachelorhood which can be regarded as "causing" the high Irish alcoholism rate. For while the high Irish rate is influenced by the high proportion of bachelors in the population, not only Irish bachelors, but also Irish spinsters, wives and husbands show higher rates than their equivalent status in other ethnic identifications.

Deaths from Liver Diseases by Sex and Neighborhood Status. Table 4 shows the effects of neighborhood status on death rates for liver diseases, including jaundice, in New York City ethnic groups in a six-year period 1884.:.1890. Since in this period the groups with the higher alcohol-related death rates were generally of higher social status than the groups with lower rates, it seemed possible that ethnic differences might partly reflect a generally higher alcoholism rate at higher statuses. Table 4 shows, however, that at least for liver diseases, the reverse was true: in each ethnic group with substantial numbers at higher statuses, the death rate from liver disease fell off steadily with increasing status, so that a comparison of ethnic rates at the same status (i.e., the lowest status) shows an even greater spread than a comparison of the overall ethnic rates.

Generally speaking, the overall ethnic rates retain the same ordering at each status level, with the Irish rate outstandingly high, and the Italian and Russian rates much the lowest, even if we correct for their inflated population bases. The rates by sex and neighborhood status reinforce our previous finding that, at least in 1890, it is the Irish women who are primarily responsible for the Irish pre-eminence in alcohol-related deaths. The Irish are the only group in which the female liver-disease rate is consistently higher than the male, at all social levels; and the Irish male rate is, in fact, exceeded by the German male rate at the lowest status level, and is gener-

ally lower than those for males of the other three ethnic identifications for the middle-class level and above.

Table 4 suggests that both ethnic and sex differences in drinking behavior are considerably muted among the middle and upper classes in New York City in 1890. This evidence of cosmopolitanism at these levels is not surprising, particularly in Manhattan; but why the cosmopolitanism should be expressed in a *lower* rate is not clear. Perhaps the low rate does reflect actual class differences in drinking at the time. Or perhaps it reflects the operation of other factors-better nutrition, access to treatment facilities, etc. Such questions cannot, of course, be settled by the type of data used in this paper.¹⁴

CONCLUSION

This paper represents a small-scale strip-mine on the rich lode of "social statistics" on alcoholism collected around the turn of the century, but since almost totally neglected. Much of the data, like that used here, was then reported in more detailed tabulations than ever before and since, and thus is often more useful for analytical purposes than the available twentieth-century data.

The data reported here suggest that the characteristic ordering of ethnic groups on indicators of alcoholism, reported in many prior studies, remains intact when controlled by sex, marital status, and social status, although the magnitude of differences between the same demographic category in the different ethnic groups does vary. This homogeneity in ordering demonstrates that ethnic differences in alcoholism rates cannot be adequately explained in terms of characteristics of a particular sex, marital status, or social level, and suggests that an adequate explanation must take

¹⁴ A report on death rates from cirrhosis by "social rank"--defined, again, by neighborhood status-in three California cities in 1950 shows the same pattern of a steady decrease in rate with increasing "social rank"--both for "cirrhosis with mention of alcoholism," and for other cirrhosis deaths. Here, again, the sex ratio tended to decrease with increasing social rank--from an average of 2 at lower ranks to an average of 1.5 at higher ranks (California State Department of Public Health 1958:38-39).

account of characteristics of ethnic groups as wholes, that is, of cultural factors.

It appears that ethnic groups also have a characteristic ordering in terms of sex ratios on indicators of alcoholism. Irish females in particular, at least in 1890, had rates approaching those of Irish males; so

that the extraordinarily high overall Irish rate can be viewed as resulting from the conjunction of a generally high rate in that culture with a low sex ratio.

Generally speaking, marital status and social status appeared to affect different ethnic identifications in the same way, with

TABLE 4. DEATHS FROM LIVER DISEASES (INCLUDING JAUNDICE), PER THOUSAND ADULTS IN WHITE ETHNIC GROUPS, BY NEIGHBORHOOD STATUS AND BY SEX NEW YORK CITY, JUNE 1884-MAY 1890 *

	Mother's Birthplace					
	U.S.	Ireland	Germany	England Wales	Italy	Russia Poland
A. BY NEIGHBORHOOD STATUS (both sexes)						
1. Crowded tenements	2.56	4.87	3.18	2.41	1.70	.50
2. Common tenements	2.15	3.94	2.34	3.16		
3. Mixed: tenements and houses	2.11	3.73	2.20	2.03	.97	.42
4. Middle-class	1.76	1.84	1.92	2.21		
5. Suburban	1.04	1.48	1.31	} 1.61	j	
6. Wealthy	1.55	1.78	1.26			
B. BY SEX AND NEIGHBORHOOD STATUS (assuming equal numbers of each sex)						
<i>Males</i>						
1. Crowded tenements	3.48	4.02	4.58	} 3.06	2.42	.70
2. Common tenements	2.71	3.44	3.00			
3. Mixed: tenements and houses	2.67	3.21	2.98	1.65		
4. Middle-class	1.86	1.66	2.28			
5&6. Suburban & Wealthy	1.18	1.40	1.60			
<i>Females</i>						
1. Crowded tenements	2.07	5.73	1.78	} 1.10	.98	.30
2. Common tenements	2.23	4.44	1.69			
3. Mixed: tenements and houses	1.65	4.25	1.42	2.40		
4. Middle-class	1.72	2.02	1.56			
5&6. Suburban & Wealthy	1.10	1.68	.98	} 1.90		
C. POPULATION BASE: Aged 15 or more, June 1, 1890 (in thousands)						
1. Crowded tenements	18	64	64	4	22	40
2. Common tenements	25	80	63	7	3	1
3. Mixed: tenements and houses	63	89	105	13	1	4
4. Middle-class	29	28	19	5	0	
5. Suburban	20	17	11	4	1	
6. Wealthy	5	4	6	1		

* Source: U.S. Census Office, 1894:234-237, 254-345.

Deaths by general cause and sex in each ward and sanitary district were published only for the five most prevalent maternal nativities in that district, so the rates in this table exclude both deaths and the population base of districts in which the particular nativity was a tiny minority. Rates are shown only for categories with over 4,000 people aged 15 and over; status groups are combined where necessary to produce a sufficient base. Being calculated on the same six-year period as Table 2, the rates are *not* annual rates.

The numerators of the rates are all deaths from liver diseases (including jaundice), while the denominators are the relevant population aged 15 and over, so the rates are somewhat inflated by the inclusion of the small number of juvenile deaths. The "U.S. mother" rates by neighborhood status are very slightly diminished by the subtraction of deaths of "Colored" (see note to Table 2). However, as the report of "Colored" deaths by district did not distinguish sex, the "U.S. mother" rates by sex and neighborhood status include all "Colored" deaths, so that these rates are a little inflated.

marriage producing a gross lowering of the rate in males and a slight raising of the rate in females, and higher social status considerably lowering the rates for both males and females. Both marriage and higher social status also entailed a lowering of the sex ratio in all ethnic identifications. Ethnic variations in drinking patterns and behavior have long played a major part in discussions of the etiology of alcoholism; but there has been a distinct paucity of American data allowing for comparisons of ethnic patterns extending beyond the mere fact of ethnic differences. The lack of data is probably partly a result of the very variety of U.S. ethnic identifications: only a very large general-population survey sample will yield ethnic groups of adequate size. The lack is also probably conditioned by the ideology of the melting pot, which presumably accounts for the census' longstanding use of "general nativity"-native-born versus foreign-born-as a basic division of the population, and for the failure to develop indicators of ethnic identifications which would carry beyond the second generation ethnic divisions in the social statistics of the white population.

In the absence of such contemporary data, data such as ours from the turn of the century can provide some assistance: there is evidence, as we have mentioned, that the grapes the forefathers drank have set the children's teeth on edge. But the data which would allow the study of ethnic patterns to make its proper contribution to our understanding of the etiology of alcoholism has yet to be collected.

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