Funds to collect and manage the Women’s Employment Survey (WES) were provided by the Charles Stewart Mott Foundation, the Joyce Foundation, the John D. and Catherine T. MacArthur Foundation, the National Institute for Child Health and Development, and the National Institute of Mental Health (R24-MH51363). The Substance Abuse Policy Research Program of the Robert Wood Johnson Foundation provided the funds to gather the information on lifetime use of substances and the analyses reported here. The authors thank WES data manager Sarah K. Marsh for her assistance.
Table of Contents

1. Table of Contents and Index of Tables and Charts
2. Introduction
3. Section 1: Substance Abuse and Dependence Instruments
   a. The Composite International Diagnostic Interview (CIDI)
   b. DSM-IV definitions of substance abuse and dependence
4. Section 2: Alcohol Abuse and Dependence
   a. Alcohol abuse and dependence in 2003 (wave 5), across survey years (1997-2003), and in respondents’ lifetimes
   b. Coexistence of alcohol abuse and dependence
   c. Merging 12-month and lifetime alcohol dependence data
   d. Onset and persistence of alcohol dependence
   e. Preliminary descriptive comparisons for alcohol dependence
5. Section 3: Drug Abuse and Dependence
   a. 12-month measures of drug abuse and dependence in 2003 (wave 5) and across years
   b. Lifetime measures of drug abuse and dependence
   c. Coexistence of drug abuse and dependence
   d. Merging 12-month and lifetime drug dependence data
   e. Onset and persistence of drug dependence
   f. Preliminary descriptive comparisons for drug dependence
6. Section 4: Drug Use
   a. Drug use in 2003 (wave 5), across years, and over respondents’ lifetimes
   b. Preliminary descriptive comparisons for drug use
7. Section 5: Conclusion and Policy Implications
8. Appendix A: Comparison of dependence symptoms in the CIDI short- and long-forms
9. Appendix B: Coding and measurement of lifetime and 12-month dependence and abuse variables
10. Reference List
Index of Tables and Charts

Tables
Table 1 First and last reported age of symptoms, relative to 1997, for respondents with Abuse or dependence diagnosis
Table 2 Descriptive comparisons for respondents with and without alcohol dependence
Table 3 First and last reported age of symptoms, relative to 1997, for respondents with drug abuse or dependence diagnosis
Table 4 Descriptive comparisons for respondents with and without drug dependence
Table 5 Descriptive comparisons for respondents with and without drug use
Table 6 Descriptive comparisons for respondents with and without hard drug use

Charts
Figure 1 Percent of wave 5 respondents with alcohol abuse and dependence, in 2003 and in lifetime
Figure 2 Percent of wave 5 respondents with alcohol dependence diagnosis, across years
Figure 3 Ever alcohol dependent, wave 5 respondents only
Figure 4 Percent of wave 5 respondents with drug abuse and dependence, in 2003 and in Lifetime
Figure 5 Percent of wave 5 respondents with drug dependence diagnosis, across years
Figure 6 Ever drug dependent, wave 5 respondents only
Figure 7 First and most recent onset of abuse/dependence symptoms, relative to first wave of WES interviews
Figure 8 Drug use across waves and in lifetime
Figure 9 Types of drugs used, among drug users
Lifetime and Annual Substance Use, Abuse and Dependence among Current and Former Welfare Recipients

Introduction

The Personal Responsibility and Work Opportunity Reconciliation Act (PRWORA) of 1996 aimed to end needy families’ dependence on government cash welfare benefits by promoting job preparation, work, and marriage. PRWORA replaced the entitlement program Aid to Families with Dependent Children (AFDC) with Temporary Assistance to Needy Families (TANF), a block grant program that tied welfare benefits to work activities and imposed cumulative 60-month lifetime limits on the receipt of cash assistance. The legislation also granted states considerable flexibility in dictating program rules and gave them the authority to institute partial or complete sanctions against recipients who failed to meet program requirements.

Many researchers and policy advocates argued that recipients with substance abuse and dependence disorders would be particularly vulnerable to losing benefits under PRWORA as they are likely to have greater difficulty complying with work requirements (in part because some employers utilize drug tests) and other program rules. In addition to PRWORA, in 1996 Congress amended the Social Security Disability (SSDI) and Supplemental Security Income (SSI) programs and eliminated substance use disorders as qualifying conditions for benefits (Schmidt, 2004). Other legislative changes limited the ability of those with drug-related felony convictions, or current drug users, to receive federal aid from other programs.

Because these changes reduced access to cash assistance, increased attention has been paid by researchers and policy makers to the prevalence of drug and alcohol abuse and dependence among current and former welfare recipients, and the ability of substance users to
make the transition from welfare to work (Jayakody, Danziger and Pollack, 2000; Metsch, Pereyra, Miles, and McCoy, 2003; Pollack, Danziger, Jayakody and Seefeldt, 2002). Prior to the 1996 reform, there was little discussion of this issue because those with substance use problems were eligible for cash assistance and tended to be exempted from work requirements.

In this paper, we examine the extent of substance use, abuse, and dependence disorders among respondents in the Women’s Employment Study (WES). The Women’s Employment Study is a panel study of 753 women who received cash welfare in an urban Michigan county in February 1997, just after the state began implementing the 1996 federal welfare reform. Between 1997 and 2003 WES gathered five waves of data on alcohol use and dependence and drug use and dependence during the year prior to the survey interview. In addition, the fifth survey in 2003 gathered information on substance-related problems over each respondent’s lifetime.

The WES data reveal low rates of alcohol and drug dependence at each of the survey years—1997, 1998, 1999, 2001 and 2003. However, a greater number of respondents report having been dependent in at least one survey wave between 1997 and 2003 or at some earlier point before the first survey wave. For example, 2.6 percent of the 536 respondents who participated in all five waves met the diagnostic screening criteria for alcohol dependence at the 2003 wave, whereas 8.5 met these criteria at some point between 1997 and 2003, and 14.0 percent reported having met the screening criteria for alcohol dependence at some point during their lifetime. Similarly, 2.2 percent of respondents met the diagnostic screening criteria for drug dependence in 2003, 9.5 percent met these criteria in one or more of the five survey years, and 11.4 percent at some point during their lives.

In total, at some time in their lives, 20.5 percent of respondents from the 2003 survey satisfied criteria for drug and/or alcohol dependence, and 34.1 percent satisfied criteria for substance abuse or dependence. Thus, while most current and former welfare recipients do not
presently have a substance-related problem, a significant minority have experienced such a problem at some point in their lives.

Note that our analyses are based on self-reports, and may therefore underestimate of the true prevalence of both substance use and substance-related problems. For a survey of methodological concerns regarding under-reporting of substance use, see Johnson and Fendrich (2005). Less data are available to explore under-reporting of use disorders. In the case of alcohol, Wiseman and Heithoff (1996) compare items from self-administered diagnostic questionnaires with parallel items on the Structured Clinical Interview (SCID) for DSM-III-R and with clinician interviews. Subjects endorsed fewer symptoms per category than either the SCID or the clinician interview.

This paper is organized as follows. The first section describes the survey instruments used to measure substance use, abuse, and dependence and the construction of lifetime and 12-month substance abuse and dependence measures. The second and third sections describe patterns of abuse and dependence for alcohol and drugs, respectively. The fourth describes drug use in 2003 and over respondents’ lifetimes, and the fifth section concludes. Unless otherwise noted, all statistics are calculated for the 536 women who completed all five surveys.

Section 1: Substance Abuse and Dependence Instruments

The Composite International Diagnostic Interview (CIDI)

Information on alcohol and drug use, abuse and dependence was gathered with the Composite International Diagnostic Interview (CIDI), a structured interview tool designed by psychiatric epidemiologists to be administered by nonclinicians. The CIDI provides reliable information on psychiatric diagnoses consistent with the definitions and criteria of the International Classification of Diseases (ICD) and the Diagnostic and Statistical Manual (DSM) of Mental Disorders (Wittchen, 1994; Robins et al., 1988; Kessler et al., 1999).
Two different CIDI instruments were used over the course of the Women’s Employment Study. The CIDI Short Form interview (CIDI-SF), used in 1997, 1998, 1999, and 2001, measures the extent to which respondents met diagnostic screening criteria for alcohol and drug dependence in the 12-months prior to the interview. The CIDI-SF can be administered in a matter of minutes. The CIDI long form, used in 2003, measures a wider range of substance-related diagnoses, including lifetime use, abuse, and dependence of alcohol and drugs, as well as alcohol and drug use, abuse, and dependence in the past 12 months. The long form also measures the extent and duration of substance-related diagnoses.

Reliability and validity studies on the full CIDI reveal that the instrument is highly effective in diagnosing most psychiatric disorders (Wittchen, 1994). Although similar studies were not conducted on the CIDI-SF, analyses of the National Co-Morbidity Study (NCS) reveal that the CIDI-SF is both sensitive and specific in diagnosing disorders indicated by the full CIDI. The CIDI-SF correctly classified 77 percent of CIDI drug dependence cases and 99.9 percent of CIDI drug dependence non-cases, and 93.6 percent of alcohol dependence cases and 96.2 percent of alcohol dependence non-cases (Kessler et al., 1998).

There are important differences between the CIDI short and long form. First, the two forms yield different substance-related diagnoses. While the long form measures substance use, abuse, and dependence problems in the past 12 months and over a respondent’s lifetime, the short form does not distinguish between abuse and dependence and focuses only on use and dependence in the 12 months prior to the interview.

Second, dependence symptoms are measured differently in each form. In both, a respondent satisfies the criteria for alcohol or drug dependence if she reports between three and seven symptoms of dependence. However, the seven possible dependence symptoms are not identical in the long and short forms. For example, in the short form, the use of alcohol or drugs
in a potentially dangerous situation is a symptom of dependence; in the long-form, this is a symptom of abuse. Appendix A provides a comparison of the seven symptoms that are used to define alcohol and drug dependence in the short and long forms.

Third, the two instruments impose different requirements for determining dependence. In the short form, a respondent is coded as meeting the diagnostic screening criteria for dependence if she reports experiencing three or more symptoms in the last 12 months. The long form requires a respondent to have (a) met the criteria for lifetime dependence, and (b) had one or more symptoms in the past year or experienced three or more symptoms for the first time this year. Thus, the 12-month CIDI-SF dependence measure requires the clustering of dependence symptoms within the last 12-months; the long form does not require this. The result is a potential overestimation of dependence in the year prior to the 2003 survey compared to the annual measure from the other waves. Only in wave 5 are all respondents who report one or more symptoms (as opposed to 3 or more) in the past 12 months defined as satisfying dependence criteria if they had met the lifetime dependence criteria. The long form does not ask about the clustering of symptoms within the past 12 months.

With respect to lifetime dependence, assessed in 2003, a respondent meets the criteria for dependence at some point in her life if she reports three or more symptoms of dependence at any point in her life. While these symptoms are required to cluster within a given year for drug dependence (making this definition consistent with the CIDI-SF 12-month diagnoses as well as DSM-IV definition), they are not required to cluster within a given year for alcohol dependence. This difference in coding is the result of clinical validity tests by National Co-morbidity Survey researchers, who found a closer match to the clinical diagnosis of alcohol dependence if CIDI symptoms were not required to cluster within a given year.

*DSM-IV Definitions of Substance Abuse and Dependence*
We distinguish between substance dependence and abuse when we use the long form.

The DSM-IV diagnostic criteria define substance abuse as:

A. A maladaptive pattern of substance use leading to clinically significant impairment or distress, as manifested by one (or more) of the following, occurring within a 12-month period:
   1. Recurrent substance use resulting in a failure to fulfill major role obligations at work, school, or home (e.g. repeated absences or poor work performance related to substance use; substance-related absences, suspensions, or expulsions from school; neglect of children or household);
   2. Recurrent substance use in situations in which it is physically hazardous (e.g., driving an automobile or operating a machine when impaired by substance use);
   3. Recurrent substance-related legal problems (e.g., arrests for substance-related disorderly conduct);
   4. Continued substance use despite having persistent or recurrent social or interpersonal problems caused or exacerbated by the effects of the substance (e.g., arguments with spouse about consequences of intoxication, physical fights);

B. The symptoms have never met the criteria for substance dependence for this class of substance (American Psychiatric Association, 1994).

Substance dependence is defined as:

A maladaptive pattern of substance use, leading to clinically significant impairment or distress, as manifested by three (or more) of the following, occurring at any time in the same 12-month period:

1. Tolerance, as defined by either of the following:
   a. A need or markedly increased amounts of the substance to achieve intoxication or desired effect,
   b. Markedly diminished effect with continued use of the same amount of the substance;

2. Withdrawal, as manifested by either of the following:
   a. The characteristic withdrawal syndrome from the substance,
   b. The same (or a closely related) substance is taken to relieve or avoid withdrawal symptoms;

3. The substance is often taken in larger amounts or over a longer period than was intended;

4. There is a persistent desire or unsuccessful efforts to cut down or control substance use;

5. A great deal of time is spent in activities necessary to obtain the substance (e.g., visiting multiple doctors or driving long distances), use the substance (e.g., chain-smoking), or recover from its effects;

6. Important social, occupational, or recreational activities are given up or reduced because of substance use;

7. The substance use is continued despite knowledge of having a persistent or recurrent physical or psychological problem that is likely to have been caused
or exacerbated by the substance (e.g., current cocaine use despite recognition of cocaine-induced depression, or continued drinking despite recognition that an ulcer was made worse by alcohol consumption (American Psychiatric Association, 1994).

Survey questions corresponding to these DSM-IV definitions are included in Appendix B below.

Broadly speaking, substance abuse operationalizes the concept of socially or personally harmful misuse. Dependence combined with abuse operationalizes the concept of socially harmful addiction. Some substances, such as caffeine, may elicit widespread dependence without corresponding symptoms of abuse.\(^1\) Absent specific adverse consequences of such use, one would not ordinarily describe this pattern as addiction.

Although the DSM-IV definitions of abuse and dependence are mutually exclusive (a respondent cannot meet the criteria for abuse if she meets the criteria for dependence), we do not exclude respondents who are dependent in our calculation of substance abuse. We provide these data because abuse and dependence, though frequently co-occurring, have different implications for public policy and for clinical intervention.

**Section 2: Alcohol Abuse and Dependence**

This section examines the extent of alcohol abuse and dependence in the 12 months prior to the 2003 survey, across the 1997-2003 panel study, and over respondents’ lifetimes. Additionally, we examine the age of onset of dependence symptoms and briefly compare women who satisfy dependence criteria to those who never meet these criteria.

*Alcohol Abuse and Dependence in 2003 (wave 5), across the Panel Study (1997-2003), and in Respondents’ Lifetimes*

As mentioned above, the 2003 survey (5\(^{th}\) wave) used the CIDI-long form for the first time. Consistent with past waves, very few respondents met diagnostic screening criteria for

\(^1\) Some substances are not pharmacologically associated with withdrawal, but are associated with dependence based upon other criteria on the above list.
alcohol dependence in the previous 12 months. The bars on the left side of Figure 1 show that of 536 respondents, 1.5 percent met the criteria for abuse but not dependence; 0.4 percent met the criteria for dependence but not abuse, and 2.2 percent met the criteria for both dependence and abuse at some point in the prior 12 months. Combining these categories, 4.1 percent satisfied the criteria for one or more of the 12-month alcohol disorders.

Reports based on the respondent’s entire lifetime are shown in the bars to the right in Figure 1. Relative to the 12 month measures, a larger percent of respondents meet the criteria for lifetime abuse or dependence of alcohol. Among wave 5 respondents, 11.6 percent met the criteria for lifetime abuse of alcohol but not dependence, 0.6 percent met lifetime dependence criteria but not abuse criteria, and 9.0 percent met the criteria for both lifetime dependence and abuse. Slightly more than one-fifth of respondents, 21.1 percent, met the lifetime abuse and/or dependence criteria at some point in their lives.

Figure 2 shows the extent of alcohol dependence at each of the five survey years, and the percent of respondents satisfying the diagnostic screening criteria for dependence criteria in one or more years. Alcohol dependence was low in each year – it varies between 0.8 percent (1998) and 3.0 percent (1997). Most of those who were dependent at one of the waves satisfied the dependence criteria only once, as 8.4 percent of respondents were alcohol dependent one or more of the years between 1996 and 2003.

Few studies measure the extent of substance disorders in welfare populations – those that do show levels of alcohol abuse and dependence similar to those found in WES. For example, using data from the 1992 National Longitudinal Alcohol Epidemiologic Survey (NLAES), Grant and Dawson (1996) found that 7.3 percent of female welfare recipients met DSM-IV criteria for alcohol abuse or dependence in the 12-months prior to the interview. This is slightly higher than the 4.1 percent found in the WES data.
We examined the prevalence of alcohol abuse or dependence among women between the ages of 18 and 49 who were caring for children and who responded to the nationally-representative 2003 National Survey of Drug Use and Health (NSDUH). Our results (data not shown) are similar to those obtained by Grant and Dawson from the 1992 NLAES. Among TANF recipients in NSDUH, 7.2 percent satisfied criteria for either dependence or abuse; 3.1 percent reported abuse without dependence; 1.3 percent, dependence without abuse symptoms, and 2.8 percent, both abuse and dependence. Among mothers not receiving TANF in the NSDUH, 4.8 percent satisfied criteria for abuse or dependence; 2.3 percent reported abuse without dependence; 0.8 percent, dependence without abuse symptoms, and 1.6 percent, both abuse and dependence. Alcohol use disorders (defined as abuse or dependence) were significantly higher among TANF recipients than among non-recipients (p<0.01).

Age provides one possible reason for the lower reported WES prevalence. By wave 5, WES respondents were slightly older than a representative cross-section of 2003 TANF recipients, and alcohol disordered displayed an inverse relationship with age.

Some studies find that relative to other women, a greater proportion of welfare respondents satisfy criteria for some alcohol disorder (Jayakody, Danziger, and Pollack, 2000). When WES data are compared to data on female respondents in the National Co-morbidity Survey (NCS), this holds true for lifetime diagnoses only. For example, Kessler (1998) found that 1.6 percent of women met criteria for alcohol abuse and 3.7 for alcohol dependence, in the prior 12 months. In WES, 1.5 percent of respondents met the criteria for abuse and 2.3 percent met the criteria for dependence in the year prior to the 2003 survey. With respect to lifetime alcohol dependence, Kessler (1998) found that 6.4 percent of women satisfy criteria for alcohol abuse, and 8.2 percent for alcohol dependence. The respective percentages in WES – utilizing data from both 12-month and lifetime measures – are 11.6 and 14 percent.
Coexistence of Alcohol Abuse and Dependence

As indicated by the statistics in Figure 1, nearly all WES respondents who satisfy dependence criteria also satisfy abuse criteria. Among those with a lifetime dependence diagnosis, 94 percent also meet criteria for a lifetime abuse diagnosis (48 of 51 respondents); among those with alcohol dependence in 2003, 85.7 percent also satisfy abuse criteria in that year (12 of 14 respondents). In WES, abuse almost always coexists for women who meet dependence criteria. In contrast, many respondents satisfy the criteria for abuse but never dependence.

These patterns lead us to divide respondents into two mutually-exclusive groups: (1) those that either experience both abuse and dependence, or experience dependence alone, and (2) those that experience abuse criteria alone. Because this definition of abuse excludes respondents who are dependent, it is consistent with the DSM-IV criteria for substance abuse.

Merging 12-month and Lifetime Alcohol Dependence Data

Lifetime data (assessed in 2003) and 12-month data (assessed five times between 1997 and 2003) were merged to determine the number of respondents who ever satisfied dependence criteria for alcohol. These statistics are shown in Figure 3. About 1.9 percent of respondents reported dependence prior to 1997 only, while 12.1 percent met the criteria for alcohol dependence at one of the five survey waves. Summing across the measures, 14 percent met the criteria for alcohol dependence during their lifetime. The number of respondents with dependence after 1997, in addition to the early age of onset of dependence symptoms (discussed below), suggests that alcohol dependence persists through time for those who are dependent at some point in their lives.

The merged data also identify respondents who satisfied the diagnostic screening criteria for lifetime alcohol dependence but who did not meet these criteria when dependence
information was collected using the CIDI-SF in earlier survey waves; and alternatively, respondents who satisfied dependence criteria in one or more survey waves but did not meet the lifetime dependence criteria.

Of the 51 respondents who met the criteria for lifetime alcohol dependence as measured in 2003, 10 report experiencing dependence symptoms only prior to 1997, and 21 report experiencing dependence symptoms after 1997 and satisfy one or more dependence measure from earlier survey waves. The remaining 20 respondents report experiencing lifetime dependence symptoms sometime after 1997 (i.e. during the first four waves of data collection), but are not picked up by any 12-month dependence measure from 1997 to 2003. These respondents retrospectively report experiencing dependence symptoms between 1997 and 2003, and yet most do not report experiencing any dependence symptoms at individual survey waves. These women may have been reluctant to admit to a drinking problem until after some time had passed. Or, they may have not been able to recognize problematic behavior while in the midst of a spell of dependence.

Of the 45 respondents who report dependence in one or more waves, 24 do not satisfy criteria for the lifetime dependence measure. Measurement error may account for some of this discrepancy, as 6 of the 24 respondents either satisfy the criteria for lifetime alcohol abuse, or have one or two symptoms of lifetime alcohol dependence. However, the remaining 18 individuals report an average of approximately 4.2 out of 7 possible symptoms of alcohol dependence at the wave in which they met the dependence criteria, but report no symptoms when the CIDI long-form was administered in wave 5. This may be due to problems in recollection or an unwillingness to admit to or relive problems that occurred in the past.

---

2 Four of the twenty respondents report experiencing between 1 and 2 symptoms of dependence at individual survey waves. Differences in the coding of lifetime alcohol dependence may explain why these individuals satisfied lifetime dependence criteria but not criteria for dependence in waves 1-4. However, the remaining 16 respondents report no symptoms of dependence at any survey wave. It is likely that these respondents were underreporting alcohol problems at individual survey waves.
Onset and Persistence of Alcohol Dependence

The CIDI long form includes questions pertaining to the onset and persistence of alcohol dependence symptoms for those who reported one or more symptoms. Most of these respondents first experienced symptoms of abuse and dependence in their teens. For respondents with an abuse diagnosis, approximately 56 percent were under the age of 21 when they first reported symptoms of alcohol abuse. For those with a dependence diagnosis, approximately 43 percent were under the age of 21 the first time they experienced any symptom of dependence.

The first two rows of Table 1 describe the onset of dependence and abuse symptoms, relative to the 1997 survey. Most respondents first experienced symptoms of dependence and abuse prior to 1997: 74.5 percent of those with a lifetime alcohol dependence diagnosis (38 of 51 respondents) first experienced dependence symptoms prior to 1997, and 87.1 percent of those with a lifetime alcohol abuse diagnosis (54 of 62 respondents) report experiencing abuse symptoms before 1997. The second two rows show the persistence of dependence and abuse symptoms through the WES data collection period. Of respondents who met dependence and abuse criteria, 19.6 percent (10 of 51 respondents) last experienced symptoms of alcohol dependence prior to 1997, while 60 percent (37 of 62 respondents) last had symptoms of abuse prior to 1997. This suggests that, on average, abuse symptoms appear earlier than dependence symptoms but are less likely to persist through time, relative to symptoms of dependence.

Descriptive Comparisons for Alcohol Dependence

We now focus on comparisons between respondents who satisfied any criteria for alcohol dependence and those who never satisfied dependence criteria. These basic demographic and outcome statistics are shown in Table 2.

---

3 We are unable to report age of onset for respondents who reported dependence in an earlier survey wave but did not report dependence symptoms in 2003 because the CIDI short-form used in the first four waves does not ask about age of onset or duration of alcohol dependence.
Respondents with an alcohol dependence diagnosis differ from other respondents in important respects. Respondents who met the criteria for alcohol dependence worked an average of 62 percent of months between February 1997 and Fall 2003. Those who never met alcohol dependence criteria worked on average in 68 percent of months (p<0.10). Respondents with a dependence diagnosis had fewer children (1.5 compared to 2.0 for those with no dependence diagnosis, p<.05), had less education (36 percent had less than a high school education compared to 20.8 percent for those with no dependence diagnosis, p<.05), and were more likely to be poor based on their monthly income in fall 2003 (53.3 vs. 42.5 percent, p<.10). Respondents with a lifetime dependence diagnosis were twice as likely to have experienced severe domestic abuse in the past 12 months (23 vs. 10.5 percent, p<.05), were significantly more likely to be in poor health (77.3 vs., 54.4 percent, p<.01) and to have been evicted or homeless at some point between 1997 and 2003 (45.3 vs. 27.8 percent, p<.01).

Respondents with alcohol dependence diagnoses did not differ significantly from other respondents with respect to race (50.1 compared to 55.3 percent), age (both groups had an average age of 36), or receipt of welfare since 1997 (received welfare 37.4 percent of months since 1997 compared to 40.9 percent of months). Respondents with and without alcohol dependence did not differ significantly with respect to the percent of months spent without work or welfare since 1997--14.7 vs. 13.5 months.

**Section 3: Drug Abuse and Dependence**

We now turn to an analysis of the extent of drug abuse and dependence, as well as patterns of onset and persistence for drug disorders, for WES respondents.

*Drug Abuse and Dependence in 2003 (wave 5), across Survey Years (1997-2003), and in Respondents’ Lifetimes*

---

4 For these descriptive comparisons, total number of care-given children, education, poverty status, abuse, and health were assessed at wave 5 (Fall 2003).
The bars at the left of Figure 4 show the extent of drug abuse and dependence in the 12 months prior to the 2003 interview. About 1.1 percent of 536 respondents satisfied criteria for drug abuse but not dependence, 0.6 percent met criteria for dependence but not abuse, and 1.7 percent met criteria for both abuse and dependence. In total, 3.4 percent satisfied some drug abuse and/or dependence diagnosis in 2003.

The 2003 data reveal levels of drug dependence similar to those found in earlier years. Figure 5 shows the trend in drug dependence between 1997 and 2003. The prevalence of drug dependence ranges from 2.2 percent in 2003 to 4.3 percent in 1997. Similar to patterns found for alcohol, most respondents meet the criteria for drug dependence only once; 9.5 percent met the criteria for dependence at 1 or more waves.

The bars at the right side of Figure 4 show that some women met the criteria for dependence prior to the start of the WES panel—9.7 percent met the criteria for lifetime drug abuse but not dependence, 0.2 percent met the criteria for lifetime drug dependence but not abuse, and 5.8 percent met the criteria for both lifetime drug abuse and dependence. In total, 15.7 percent met criteria for lifetime drug abuse or dependence.

Relative to alcohol, fewer respondents report meeting criteria for lifetime abuse or dependence of drugs: 21.1 percent met criteria for some alcohol-related disorder compared to 15.7 percent for some drug disorder. On average, 3.1 percent of respondents met drug dependence criteria in any given year, compared to 2.2 percent for alcohol dependence.

The WES data show levels of drug abuse and dependence in the past 12 months that are similar to those found by other researchers. In their analysis of welfare respondents in the NLAES, Grant and Dawson (1996) found that 3.3 percent of female welfare recipients experience either drug abuse or dependence in the 12 months prior to interview – very similar to the 3.4 percent shown in Figure 4.
We also compared WES dependence and abuse patterns to our nationally representative 2003 NSDUH sample (data not shown). Among TANF recipients in NSDUH, 3.6 percent satisfied criteria for either dependence or abuse; 0.6 percent of recipients reported abuse without dependence; 1.0 percent, dependence without abuse symptoms, and 2.0 percent, both abuse and dependence. Among mothers not receiving TANF surveyed in the NSDUH, 2.1 percent satisfied criteria for abuse or dependence; 0.6 percent reported abuse without dependence; 0.7 percent reported dependence without abuse symptoms, and 0.7 percent, both abuse and dependence. Drug use disorders were significantly higher among TANF recipients than among non-recipients (p<0.01) in our NSDUH sample.

WES respondents show higher levels of lifetime drug abuse and dependence relative to other women. Using data from the National Co-morbidity Study, Kessler (1998) found that 3.5 percent of women satisfied criteria for lifetime drug abuse and 5.9 percent for lifetime drug dependence; in WES, 9.7 percent met criteria for lifetime drug abuse and 11.4 percent for lifetime drug dependence. With respect to 12-month measures of abuse and dependence, Kessler (1998) found that for the 12-month measures, 0.3 percent of women met the criteria for drug abuse, and 1.9 for drug dependence. For WES respondents, 1.1 percent met the criteria for drug abuse and 2.2 percent for drug dependence in the 12 months prior to fall 2003.

Coexistence of Drug Abuse and Dependence

As is the case with alcohol, nearly all respondents who met the criteria for lifetime drug dependence criteria also satisfied abuse criteria, and significantly fewer respondents who met drug abuse criteria also met dependence criteria. Of those with a lifetime dependence diagnosis, 97 percent also met criteria for lifetime abuse. Of the 83 individuals with a lifetime abuse diagnosis, 37 percent also met the criteria for lifetime drug dependence. In 2003, 9 of 12
respondents who met drug dependence criteria also met abuse criteria, while 9 of 15 respondents who met the abuse criteria also met dependence criteria.

Because so few individuals satisfied drug dependence criteria alone, respondents are divided into two non-overlapping groups: (1) those that experienced dependence symptoms with or without abuse, and (2) those that experienced abuse symptoms alone.

*Merging 12-month and Lifetime Drug Dependence Data*

To determine the overall prevalence of drug dependence, we merged information on 12-month and lifetime measures. Figure 6 shows that 1.5 percent met dependence criteria prior to 1997 only, and 9.9 percent met dependence criteria sometime between 1997 and 2003. Thus, 11.4 percent met dependence criteria at some time in their lives. Because most respondents first experienced drug dependence symptoms prior to 1997 (discussed below), this suggests that drug dependence symptoms persist through time for the majority of those ever drug dependent.

As is the case with the alcohol dependence measures, inconsistencies emerge when lifetime drug dependence measures are compared to 12-month measures assessed at each wave. Specifically, those who satisfy drug dependence criteria in earlier waves do not always satisfy lifetime criteria measured in 2003, and those who retrospectively report experiencing drug problems after 1997 do not always meet 12-month dependence criteria assessed in earlier waves.

For drug dependence, a majority of the inconsistent responses arise from individuals who met the dependence criteria at one or more waves, but did not meet the lifetime dependence criteria. For the 51 respondents with drug dependence in one or more waves, 29 did not satisfy the criteria for lifetime dependence. While some of the discrepancy may result from measurement error and/or changes in the survey instrument, much of the difference also appears to result from underreporting in the lifetime measure.

---

5 This can be contrasted with the alcohol measure, in which approximately 50 percent of inconsistent responses arise from individuals who report dependence at one or more wave but not when asked about lifetime problems and 50 percent arise from individuals reporting lifetime dependence after 1997 but do not appear dependent at any wave.
For example, of the 29 respondents who met criteria for dependence in one or more waves but not in the lifetime measure, 8 individuals show symptoms of lifetime dependence or satisfy the lifetime abuse criteria. For these individuals, measurement error may account for a dependence diagnosis between 1997 and 2003 but no lifetime diagnosis. The remaining 21 respondents report an average of 3.9 symptoms at the wave of dependence, but report no symptoms of lifetime abuse or dependence. Additionally, 17 of the 21 respondents report that they have either used no drugs or marijuana alone in their lifetime, yet 13 of these 17 respondents report using additional drugs at the wave of dependence. As is the case with alcohol, these individuals may be reluctant to relive and admit to past problems with drugs.

*Onset and Persistence of Drug Dependence*

The 2003 survey reveals that most respondents who met criteria for drug abuse and dependence initially developed symptoms prior to 1997.6 As shown in the first two rows of Table 3, 84.4 percent of those with a lifetime drug dependence diagnosis, and 84.3 percent of those with a lifetime drug abuse diagnosis, first experienced symptoms prior to 1997. Respondents with an abuse diagnosis were more likely to have last experienced abuse symptoms prior to the first wave of data collection—54.2 percent last experienced abuse symptoms prior to 1997 compared to 34.4 percent of those with dependence symptoms. This suggests that drug dependence symptoms are more likely than drug abuse symptoms to persist through time.

Patterns of onset and persistence of abuse and dependence are similar for drugs and alcohol. Figure 7 compares onset and persistence patterns, by substance diagnosis. This figure shows that over three-quarters of respondents with any substance disorder first experienced symptoms prior to 1997 (four bars to the left of figure). Dependence symptoms are much more likely to persist through time, relative to abuse symptoms. For example, only 19.6 percent of

---

6 Onset and persistence patterns are reported only for individuals who reported lifetime dependence symptoms in 2003 (wave 5), as the CIDI-SF, used in waves 1-4, did not include questions pertaining to onset and persistence.
those who were ever alcohol dependent and 32.3 percent of those who were ever drug dependent had a most recent onset of symptoms prior to 1997. In contrast, about 60 percent of those who met the criteria only for drug abuse had their most recent symptoms prior to 1997.

_Preliminary Descriptive Comparisons for Drug Dependence_

Table 4 compares respondents who were drug dependent at some time to those who have never met dependence criteria. Those with a drug dependence diagnosis worked an average of 55 percent of months between February 1997 and Fall 2003, while those without a dependence diagnosis worked an average of 69 percent of months (p<0.01). Respondents with a lifetime drug dependence diagnosis are also more likely to have received welfare for more months since 1997 (43 vs. 37 percent of months), are much less likely to have a high school education (34.4 vs. 21.5 percent, p<.05), and are markedly more likely to have been evicted or homeless (63.8 vs. 37 percent, p<.01). Additionally, drug dependent respondents are more likely to have spent more time without work and welfare: 18.7 vs. 13.1 percent, p<0.05) Respondents with and without dependence diagnoses do not differ with respect to race or poverty status.

Section 4: Drug Use

_Drug Use in 2003 (wave 5), across Waves and over Respondents’ Lifetimes_

In the first four waves of WES, respondents were asked about their use of sedatives, tranquilizers, amphetamines, analgesics/other prescriptions, inhalants, marijuana, cocaine/crack, LSD/hallucinogens, and heroin in the previous 12 months. In the 2003 survey wave, drugs were grouped into six categories: sedatives/tranquilizers, stimulants, analgesics, marijuana/hashish, cocaine, and other drugs including heroin, opium, glue, LSD, peyote. For these six drug types, respondents were asked about age of first and last use, how many days used in life, and use in the past 12 months.

---

7 Descriptive characteristics are assessed at wave 5 (Fall 2003).
Figure 8 shows which drugs were used at each wave and over their lifetimes. The frequencies for drug use in each wave are calculated from the 12-month drug use measures assessed in waves 1-5, while the frequencies for lifetime drug use are determined from the lifetime drug use questions assessed in 2003. In 2003, the percent of respondents who used any drugs in the past 12 months was 17.7 percent. This is slightly lower than earlier waves, in which the percent who used drugs in the past 12 months varies between 18.8 percent (1999) and 22 percent (1997). About 69.6 percent of respondents report using drugs in their lifetime.\(^8\)

Figure 8 also shows the percent of respondents who have used marijuana alone, or any hard drugs (cocaine, stimulants, other drugs including heroin and LSD), over the five waves and/or in their lifetime. The percent of respondents who used marijuana alone in the year prior to each survey is between 10 and 12.5 percent; about 48 percent report using marijuana alone in their lifetime. The percent of respondents who used hard drugs is considerably lower – it achieves a high of 4.7 percent in 1998 and a low of 2.1 percent in 1999; 17.5 percent report using hard drugs in their lifetime.

The statistics on drug use are repeated in Figure 9, but here the percentages for each group are calculated among drug users at each wave, rather than all 2003 respondents. Most drug users have used marijuana but not other drugs--between 50 and 60 percent of drug users at each wave, and approximately 70 percent among lifetime users.

The prevalence of prescription drug use without a prescription alone varies from 15.9 percent in 1998 to 23.8 percent in 1999. However, the numbers of respondents who report using prescription drugs alone drops considerably in the lifetime measure – 0.8% of drug users have used prescription drugs alone in their lives. Hard drug use among users ranges from a low of 11

---

\(^8\) The lifetime drug use questions *any* drug use in lifetime, even if the respondent only tried the drug once.
percent in 1999 to 22.7 percent in 1998. Among lifetime users of any drug, 25.2 percent report use of hard drugs.

Wave 5 results appeared similar (though not identical) to patterns reported by TANF recipients in the 2003 NSDUH. Among TANF recipients reporting use in the previous year, 43.8 percent reported marijuana use alone; 21.4 percent reported some “hard’ drug use, and 20.4 percent reported prescription drugs alone.

The average age of first use ranges from 17 years for marijuana to 25 years for analgesics. For the remaining types of drugs, the average age of first use is 24.2 years for sedatives/tranquilizers; 20 years for stimulants; 23.5 years for cocaine; and 17.6 years for other hard drugs.

The reported age of last use also allowed researchers to examine trends in drug use by subtracting a respondent’s age of last reported use from her current age. By comparing across drugs, it is possible to examine the extent to which use of different drugs is concentrated over particular time periods. An examination of use of marijuana, cocaine, and other illicit drugs (such as heroin or LSD) reveals that respondents who had ever used any drugs last used cocaine an average of 10.5 years ago, marijuana an average of 12.8 years ago, and other illicit drugs an average of 13.6 years ago. Between forty and fifty percent of respondents, depending upon the specific substances examined, last used these drugs between 1985 and 1995. Specifically, 48 percent of those using drugs other than cocaine and marijuana last used them during these years. Forty-six percent of respondents who use marijuana last did so during this time period, and 40.9 percent last used cocaine during these years.9

The finding that drug use is concentrated in the late 1980s and early 1990s is consistent with past research on trends in drug use. For example, using data from the National Household

9 The average age of last use for each drug are as follows: 23.4 (7.6) for marijuana, 26.4 (6.85) for cocaine and 22.8 (7.71) for other hard drugs.
Survey on Drug Abuse (NHSDA), Pollack and colleagues (2002) find that drug use declined over the 1990s among welfare recipients. The WES data also reveal that although use of marijuana and other drugs is concentrated between 1985 and 1995, most cocaine use occurred in the past 10 years.

**Descriptive Comparisons for Drug Use**

Tables 5 and 6 are similar to Table 4, but focus on drug use rather than drug dependence. WES respondents who reported using any drug in their lifetime did not differ significantly on most of the comparisons shown in Table 5 from respondents who reported no drug use. The only significant difference is in having been evicted or homeless during the 1997-2003 study period--34.6 of drug users and 20.3 percent of nonusers, *p*<.01).

Table 6 presents differences between respondents who have used “hard drugs” (defined as stimulants, cocaine, or drugs such as heroin) from those who report never using these types of drugs. Respondents who used hard drugs reported working 61 percent of the months since wave 1, while respondents who reported never using these drugs worked 69 percent of the months since wave 1 (*p*<0.05).\(^{10}\) Hard drug-users were less likely to be African American – 39 percent vs., 58 percent (*p* < .01), more likely to have been evicted or homeless, 43.6 vs. 27.4 percent (*p*<.01) and spent a greater percentage of the survey months without work or welfare, 18.1 vs., 12.8 percent (*p*<.01).

**Section 5: Conclusion**

This analysis reveals that very few respondents satisfy criteria for drug or alcohol disorders in any given year, but that a significant minority has a disorder at some point in their lifetime. Specifically, 20.5 percent respondents satisfy criteria for drug or alcohol dependence at

\(^{10}\) Interestingly, if hard drug use is calculated from the measures at each wave, rather than the lifetime measure, there is no significant different in percentage of months worked since 1997. This may reflect the fact that 92 respondents report using hard drugs in their lifetime, but 125 individuals report using hard drugs if the individual wave measured are added. Using the wave measures, respondents who report using hard drugs worked an average of 66 percent of months, while respondents who never report using hard drugs worked an average of 68 percent of months.
some point in their lifetime, and 34.1 percent satisfy criteria for any lifetime or 12-month drug or alcohol dependence problem.

Relative to those with drug dependence and abuse problems, WES respondents with alcohol disorders are more likely to develop symptoms later in life. Close to two-thirds of drug users first develop symptoms of abuse and dependence prior to the age of 21, while a majority or near majority of alcohol users develop symptoms of abuse and dependence after the age of 21. In addition, more individuals satisfy the lifetime alcohol dependence measure (6.0 percent satisfy drug criteria and 9.6 percent satisfy alcohol criteria, see figures 1 and 4).

The association of substance dependence with a range of outcome measures including housing stability, domestic violence, work behavior, and welfare receipt suggests that substance abuse may be an important variable to consider for researchers and policymakers interested in the welfare-to-work transition (see Tables 2 and 4). Because this analysis reports descriptive relationships only, further analysis is needed to determine the true causal impact of substance abuse and dependence on work behavior, welfare receipt, and other outcome measures.
Appendix A
Comparison of Dependence Symptoms in the CIDI Short- and Long-Forms

Table 1.

<table>
<thead>
<tr>
<th>CIDI Short-Form</th>
<th>CIDI Long-Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Tolerance</td>
<td>1. Tolerance</td>
</tr>
<tr>
<td>2. Emotional/psychological problems</td>
<td>2. Withdrawal</td>
</tr>
<tr>
<td>3. Used larger amounts than intended</td>
<td>3. Larger amounts than desired</td>
</tr>
<tr>
<td>4. Strong desire to use substance</td>
<td>4. Persistent desire or unable to stop</td>
</tr>
<tr>
<td>5. Great deal of time spent using</td>
<td>5. Great deal of time spent in substance-related activities</td>
</tr>
<tr>
<td>substance or getting over its effects</td>
<td></td>
</tr>
<tr>
<td>6. Under effects of substance at work/school/with children</td>
<td>6. Important activities given up for drinking/drug use</td>
</tr>
<tr>
<td>7. Under effects of substance in dangerous situation</td>
<td>7. Continued use despite problems</td>
</tr>
</tbody>
</table>
**Appendix B**

**Coding and Measurement of Lifetime and 12-month Dependence and Abuse Measures**

**Lifetime Dependence:** A respondent meets the criteria for lifetime [alcohol/drug] dependence if three or more of the following seven symptoms are met at any point in respondent’s life.

- **(1) Tolerance** (symptom is met if 1 = yes)
  1. Did you ever need to drink a large amount of alcohol to get an effect, or did you ever find that you could no longer get a ‘buzz’ or a high on the amount you used to drink?

- **(2) Withdrawal** (symptom is met if 1 or 2 = yes)
  1. People who cut down or stop drinking after drinking steadily for some time may not feel well. These feelings are more intense and can last longer than a hangover. Did you ever have times when you stopped, cut down, or went without drinking and then experienced symptoms like fatigue, headaches, diarrhea, the shakes, or emotional problems?
  2. Did you ever have times when you took a drink to keep from having problems like these?

- **(3) Larger amounts than desired** (symptom is met if 1 or 2 or 3 = yes)
  1. Did you have times when you started drinking even though you promised yourself you wouldn’t, or when you drank a lot more than you intended?
  2. Were there ever times when you drank more frequently or for more days in a row than you intended?
  3. Did you have times when you started drinking and became drunk when you didn’t want to?

- **(4) Persistent desire or unable to stop** (symptom is met if 1 = yes, or 2 is greater than 3)
  1. Were there times when you tried to stop or cut down on your drinking and found that you were not able to do so?
  2. Starting from the time you first began having any of these problems, how many different times did you ever make a serious attempt to quit drinking?

- **(5) Great deal of time spent in alcohol-related activities** (symptom is met if 1 = yes)
  1. Did you ever have periods of several days or more when you spent so much time drinking or recovering from the effects of alcohol that you had little time for anything else?

- **(6) Important activities given up** (symptom is met 1 = yes)
  1. Did you ever have a period of a month or longer when you gave up or greatly reduced important activities because of your drinking – like sports, work, or seeing friends and family?

- **(7) Continued use despite problems** (symptom is met if 1 = yes, or 2 = a lot)
  1. Did you ever continue to drink when you knew you had a serious physical or emotional problem that might have been caused by or made worse by drinking?
  2. How much has your physical health been harmed by your drinking – a lot, some, a little, or not at all?
12-Month Alcohol/Drug Dependence for wave 5: A respondent meets the criteria for alcohol/drug dependence in wave 5 if Part 1 and Part 2 are met.

- (1) Respondent meets criteria for lifetime alcohol/drug dependence
- (2) Respondent meets criteria for part 2 if A equals “in the last 12 months” or B is equal to the respondent’s current age.

  A. How recently did you have any of these problems – in the last 12 months, or more than 12 months ago?
  B. How old were you the first time you had three (or more) of these problems in the same year?

12-Month Alcohol/Drug Dependence for waves 1-4: A respondent meets the criteria for dependence in the past 12 months if she reports experiencing three or more of the following seven symptoms. These symptoms questions are only asked of women who report four or more drinks in one day in the past 12 months, and are not casual/social drinkers.

- (1) In the past 12 months, have you often been under the effects of [alcohol/drugs] or suffering its after effects while at work or school while taking care of children?
  A. If “yes,” how often: once or twice, between 3 and 5 times, 6 to 10 times, 11 to 20 times, or more than 20 times in the past year? (symptom is met only if A = 3 or more times)
- (2) During the past 12 months, were you ever under the effects of [alcohol/drugs] or feeling its after-effects in a situation which increased your chances of getting hurt – like when driving a car or boat, using knives or guns or machinery, crossing against traffic, climbing or swimming?
- (3) During the past 12 months, did you have any emotional or psychological problems from using [alcohol/drugs] – such as feeling uninterested in things, feeling depressed, suspicious of people, paranoid, or having strange ideas?
- (4) During the past 12 months, did you have such a strong desire or urge to use [alcohol/drugs] that you could not resist it or could not think of anything else?
- (5) During the past 12 months, did you have a period of a month or more when you spent a great deal of time using [alcohol/drugs] or getting over its effects?
- (6) During the past 12 months, did you often use much larger amounts of [alcohol/drugs] than you intended to when you began, or did you use it for a longer period of time than you intended to?
  A. How often, once or twice, between 3 or 5 times, 6 to 10 times, 11 to 20 times, or more than 20 times in the past year? (symptom is met only if A = 3 or more times)
- (7) During the past 12 months, did you ever find that you had to use more [alcohol/drugs] than usual to get the same effect, or that the same amount had less effect on you than before?
**Lifetime Alcohol/Drug Abuse:** A respondent meets the criteria for lifetime alcohol/drug abuse *with the hierarchy rule* if Criteria A and B are met. A respondent meets the criteria for lifetime alcohol/drug abuse *without the hierarchy rule* if Criterion A is met.

**Criteria A:** met if respondent experienced 1 or more of the following four symptoms.
- (1) Was there ever a time in your life when your [drinking or being hung over/use of drugs] frequently interfered with your work or responsibilities at school, on a job, or at home?
- (2) Were there times in your life when you were often under the influence of [alcohol/drugs] in situations where you could get hurt, for example, when riding a bicycle, driving, operating a machine, or anything else?
- (3) Were you more than once arrested or stopped by the police because of [drunk driving or drunk behavior/driving under the influence of drugs or because of your behavior while you were high]?  
- (4) Respondent answers “yes” to both of the following questions
  - A. Was there ever a time in your life when your [drinking/use of drugs] caused arguments or other serious or repeated problems with you family, friends, neighbors, or coworkers?
  - B. Did you continue to [drink/use drugs] even though it caused problems with these people?

**Criteria B:** met if the respondent has never met the criteria for drug dependence.

**Wave 5 Alcohol/Drug Abuse:** A respondent meets the criteria for alcohol/drug abuse in wave 5 if Part 1 and Part 2 are met.
- (1) Respondent meets criteria for lifetime alcohol/drug abuse
- (2) Respondent meets criteria in Part 2 if (a) equals ‘in the last 12 months’, or is either question in (b) is equal to respondent’s current age:
  - (a) How recently did you have [this problem] because of drinking/drug use?
  - (b) How old were you the very first time you had this problem?  
    How old were you the last time you had this problem?
REFERENCE LIST:


Figure 1: Percent of Wave 5 Respondents (N=536) with Alcohol Abuse and Dependence, at Wave 5 and in Lifetime

<table>
<thead>
<tr>
<th>Wave 5 Alcohol</th>
<th>Lifetime Alcohol</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dependence, No Abuse</td>
<td>21.1%</td>
</tr>
<tr>
<td>Dependence and Abuse</td>
<td>0.6%</td>
</tr>
<tr>
<td>Abuse, No Dependence</td>
<td>0.6%</td>
</tr>
<tr>
<td>Total Abuse and/or Dependence</td>
<td>0.4%</td>
</tr>
</tbody>
</table>

0.4% 2.2% 1.5% 4.1% 9.0% 11.6% 21.1%
Figure 2: Percent of Wave 5 Respondents (N=536)
Meeting Alcohol Dependence Criteria across Survey Years

*These statistics are calculated from the 12-month measures of dependence, assessed at each survey wave*
Figure 3: Ever Alcohol Dependent, Wave 5 Respondents Only (N=536)

** These statistics are calculated from the 12-month measures of dependence (assessed at each wave), and the lifetime measures of dependence (assessed in 2003)
Table 1: First and Last Reported Age of Symptoms, Relative to Wave 1 (1997), for Respondents with Abuse or Dependence Diagnosis

<table>
<thead>
<tr>
<th></th>
<th>%</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Onset</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Respondent first experienced dependence symptom prior to wave 1</td>
<td>74.5%</td>
<td>38 of 51</td>
</tr>
<tr>
<td>Respondent first experienced abuse symptom prior to wave 1</td>
<td>87.1%</td>
<td>54 of 62</td>
</tr>
<tr>
<td><strong>Persistence</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Respondent last experienced dependence symptoms prior to wave 1</td>
<td>19.6%</td>
<td>10 of 51</td>
</tr>
<tr>
<td>Respondent last experienced abuse symptom prior to wave 1</td>
<td>60.0%</td>
<td>37 of 62</td>
</tr>
</tbody>
</table>

** These statistics are calculated for those respondents who meet lifetime dependence criteria only.

Respondents meeting the 12-month measures of dependence from 1997-2001 are therefore excluded.
Table 2: Descriptive Comparisons for Respondents with and without Alcohol Dependence

<table>
<thead>
<tr>
<th></th>
<th>Alcohol Dependence in Lifetime (N=75)</th>
<th>No Alcohol Dependence in Lifetime (N=461)</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percent of months worked since 1997</td>
<td>62.0%</td>
<td>68.0%</td>
<td>&lt;.10</td>
</tr>
<tr>
<td>Percent of months received welfare since 1997</td>
<td>37.4%</td>
<td>40.9%</td>
<td></td>
</tr>
<tr>
<td>Total number of care-given children in household in 2003</td>
<td>1.5</td>
<td>2</td>
<td>&lt;.05</td>
</tr>
<tr>
<td>Less than high school education</td>
<td>36.0%</td>
<td>20.8%</td>
<td>&lt;.05</td>
</tr>
<tr>
<td>Below poverty line in fall 2003</td>
<td>53.3%</td>
<td>42.5%</td>
<td>&lt;.10</td>
</tr>
<tr>
<td>Severe abuse in year prior to 2003 interview</td>
<td>23.0%</td>
<td>10.5%</td>
<td>&lt;.05</td>
</tr>
<tr>
<td>Poor health</td>
<td>77.3%</td>
<td>54.4%</td>
<td>&lt;.01</td>
</tr>
<tr>
<td>Evicted or homeless in waves 1-5</td>
<td>45.3%</td>
<td>27.8%</td>
<td>&lt;.01</td>
</tr>
<tr>
<td>African American</td>
<td>50.1%</td>
<td>55.3%</td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>36</td>
<td>36</td>
<td></td>
</tr>
<tr>
<td>Percent of works with no work/no welfare</td>
<td>14.7%</td>
<td>13.5%</td>
<td></td>
</tr>
</tbody>
</table>
Figure 4: Percent of Wave 5 Respondents (N=536) with Drug Abuse and Dependence, at Wave 5 and in Lifetime

0.6% Drug Abuse and Dependence, No Abuse
1.1% Drug Abuse, No Dependence
1.7% Total Abuse and/or Dependence
3.4% Wave 5 Drugs
9.7% Lifetime Drugs
15.7%

Dependence and Abuse
Dependence, No Abuse
Abuse, No Dependence
Total Abuse and/or Dependence
Figure 5: Percent of Respondents with Drug Dependence Diagnosis
(Wave 5 Respondents only)

** These statistics are calculated from the 12-month measures of dependence, assessed at each survey wave
Figure 6: Ever Drug Dependent, Wave 5 Respondents (N=536)

**These statistics are calculated from the 12-month measures of dependence (assessed at each wave), and the lifetime measures of dependence (assessed in 2003)**
Table 3: First and Last Reported Age of Symptoms, Relative to Wave 1 (1997), for Respondents with Drug Abuse or Dependence Diagnosis

<table>
<thead>
<tr>
<th></th>
<th>%</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Onset</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Respondent first experienced dependence symptom prior to wave 1</td>
<td>84.4%</td>
<td>27 of 32</td>
</tr>
<tr>
<td>Respondent first experienced abuse symptom prior to wave 1</td>
<td>84.3%</td>
<td>70 of 83</td>
</tr>
<tr>
<td><strong>Persistence</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Respondent last experienced dependence symptoms prior to wave 1</td>
<td>34.4%</td>
<td>11 of 32</td>
</tr>
<tr>
<td>Respondent last experienced abuse symptom prior to wave 1</td>
<td>54.2%</td>
<td>45 of 83</td>
</tr>
</tbody>
</table>

** These statistics are calculated for those respondents who meet lifetime dependence criteria only. Respondents meeting the 12-month measures of dependence from 1997-2001 are therefore excluded.
Figure 7: First and Most Recent Onset of Abuse/Dependence Symptoms, Relative to First Wave of WES Interviews (Wave 5 Respondents Only)

- Onset: First onset of symptoms was prior to 1997
  - Alcohol Abuse: 87.1%
  - Alcohol Dependence: 88.2%
  - Drug Abuse: 74.5%
  - Drug Dependence: 83.9%

- Persistence: Most recent onset of symptoms was prior to 1997
  - Alcohol Abuse: 60.0%
  - Alcohol Dependence: 19.6%
  - Drug Abuse: 64.0%
  - Drug Dependence: 32.3%
Table 4: Descriptive Comparisons for Respondents with and without Drug Dependence

<table>
<thead>
<tr>
<th>Category</th>
<th>Drug Dependence in Lifetime (N=61)</th>
<th>No Drug Dependence in Lifetime (N=475)</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percent of months worked since 1997</td>
<td>55.0%</td>
<td>69.0%</td>
<td>&lt;.01</td>
</tr>
<tr>
<td>Percent of months received welfare since 1997</td>
<td>43.0%</td>
<td>37.0%</td>
<td></td>
</tr>
<tr>
<td>Percent of months with no work/no welfare since 1997</td>
<td>18.7%</td>
<td>13.1%</td>
<td>&lt;.05</td>
</tr>
<tr>
<td>Total number of care-given children in household, 2003</td>
<td>1.6</td>
<td>1.9</td>
<td>&lt;.05</td>
</tr>
<tr>
<td>Less than high school education</td>
<td>34.4%</td>
<td>21.5%</td>
<td>&lt;.05</td>
</tr>
<tr>
<td>Below poverty line in fall 2003</td>
<td>45.9%</td>
<td>43.8%</td>
<td></td>
</tr>
<tr>
<td>Severe abuse in year prior to 2003 interview</td>
<td>20.0%</td>
<td>11.2%</td>
<td>&lt;.10</td>
</tr>
<tr>
<td>Poor health</td>
<td>44.3%</td>
<td>25.2%</td>
<td>&lt;.01</td>
</tr>
<tr>
<td>Evicted or homeless in waves 1-5</td>
<td>63.8%</td>
<td>37.0%</td>
<td>&lt;.01</td>
</tr>
<tr>
<td>African American</td>
<td>52.0%</td>
<td>56.0%</td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>37</td>
<td>36.2</td>
<td></td>
</tr>
</tbody>
</table>
Figure 8: Drug Use across Waves and in Lifetime, of Wave 5 Respondents
(N=536)

Any Drug Use, Including Marijuana
Marijuana Use Alone
Hard Drug Use
Figure 9: Types of Drugs Used, Among Drug Users (W5 Respondents)

<table>
<thead>
<tr>
<th>Wave</th>
<th>Marijuana Use Alone</th>
<th>Hard Drug Use</th>
<th>Prescription Drugs Alone</th>
</tr>
</thead>
<tbody>
<tr>
<td>1, Fall '97</td>
<td>18.6%</td>
<td>22.7%</td>
<td>0.8%</td>
</tr>
<tr>
<td>(N=118)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2, Fall '98</td>
<td>17.8%</td>
<td>15.9%</td>
<td>15.9%</td>
</tr>
<tr>
<td>(N=113)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3, Winter '99</td>
<td>15.9%</td>
<td>11.0%</td>
<td>11.0%</td>
</tr>
<tr>
<td>(N=101)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4, Fall '01</td>
<td>19.1%</td>
<td>16.4%</td>
<td>16.4%</td>
</tr>
<tr>
<td>(N=110)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5, Fall '03</td>
<td>19.0%</td>
<td>17.9%</td>
<td>17.9%</td>
</tr>
<tr>
<td>(N=95)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lifetime Drug</td>
<td>69.2%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Use (N=373)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 5: Descriptive Comparisons for Respondents with and without Drug Use

<table>
<thead>
<tr>
<th>Variables</th>
<th>Drug Use in Lifetime (N=373)</th>
<th>No Drug Use in Lifetime (N=163)</th>
</tr>
</thead>
<tbody>
<tr>
<td>African American</td>
<td>52.8%</td>
<td>58.9%</td>
</tr>
<tr>
<td>Age</td>
<td>29.84</td>
<td>31.23</td>
</tr>
<tr>
<td>Less than high school education</td>
<td>31.1%</td>
<td>27.0%</td>
</tr>
<tr>
<td>Below poverty line in fall 2003</td>
<td>43.7%</td>
<td>46.6%</td>
</tr>
<tr>
<td>Poor health in 2003</td>
<td>37.0%</td>
<td>31.3%</td>
</tr>
<tr>
<td>Evicted or homeless in waves 1-5</td>
<td>34.6%</td>
<td>20.3%</td>
</tr>
<tr>
<td>Percent of months worked since 1997</td>
<td>67.5%</td>
<td>68.0%</td>
</tr>
<tr>
<td>Percent of months received welfare since 1997</td>
<td>37.0%</td>
<td>39.9%</td>
</tr>
<tr>
<td>Percent of months with no work/no welfare</td>
<td>13.8%</td>
<td>13.5%</td>
</tr>
</tbody>
</table>

Table 6: Descriptive Comparisons for Respondents with and without Hard Drug Use

<table>
<thead>
<tr>
<th>Variables</th>
<th>Hard Drug Use in Lifetime (N=94)</th>
<th>No Hard Drug Use in Lifetime (N=442)</th>
</tr>
</thead>
<tbody>
<tr>
<td>African American</td>
<td>39.4%</td>
<td>57.9%</td>
</tr>
<tr>
<td>Age</td>
<td>31.2%</td>
<td>30.1%</td>
</tr>
<tr>
<td>Less than high school education</td>
<td>27.7%</td>
<td>30.3%</td>
</tr>
<tr>
<td>Below poverty line in fall 2003</td>
<td>48.9%</td>
<td>43.7%</td>
</tr>
<tr>
<td>Poor health in 2003</td>
<td>44.7%</td>
<td>33.3%</td>
</tr>
<tr>
<td>Evicted or homeless in waves 1-5</td>
<td>43.6%</td>
<td>27.4%</td>
</tr>
<tr>
<td>Percent of months worked since 1997</td>
<td>61.0%</td>
<td>69.0%</td>
</tr>
<tr>
<td>Percent of months received welfare since 1997</td>
<td>36.2%</td>
<td>38.2%</td>
</tr>
<tr>
<td>Percent of months with no work/no welfare</td>
<td>18.1%</td>
<td>12.8%</td>
</tr>
</tbody>
</table>