Figure 1
Mean Quarterly Earned Income (Including Zeroes) 1999-2001:
by Diagnosis and by Functional Impairment

Earnings by Diagnosis

No Diagnosis: N=209

Diagnosis in One Wave: N=136

Diagnosis in Two/Three Waves: N=149

Earnings by Functional Impairment

Not Impaired: N=357

Impaired in One Wave: N=97
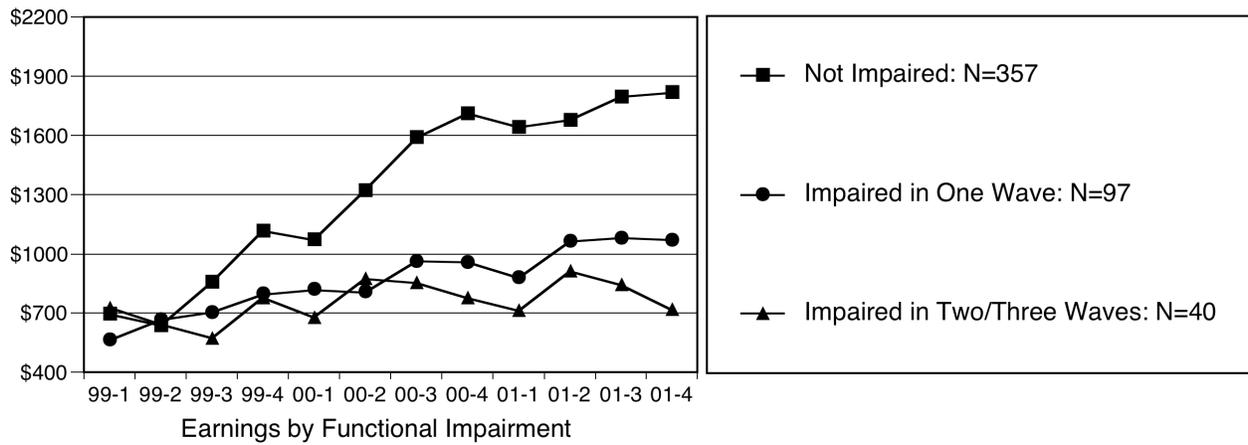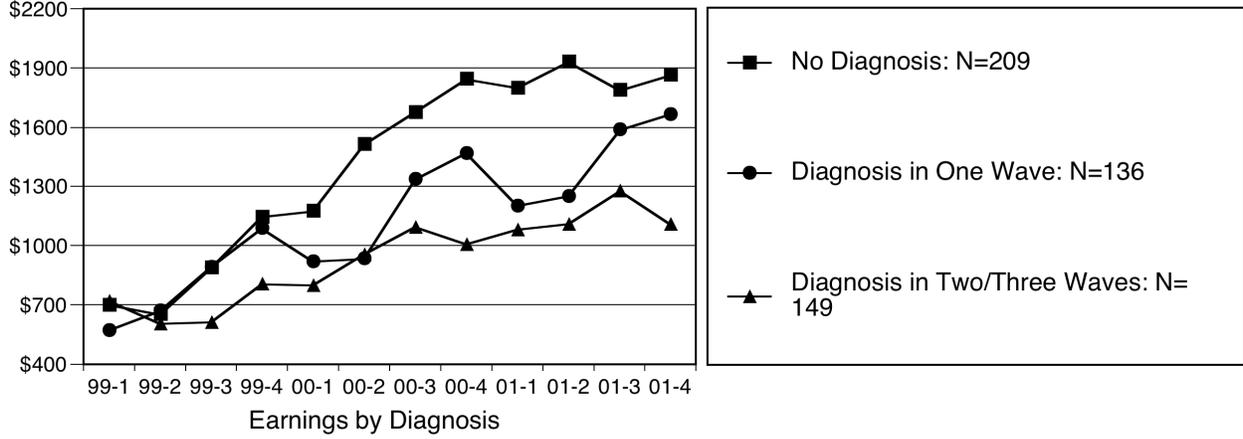
Impaired in Two/Three Waves: N=40

Table 8
Stanislaus County: Earnings Reported to Unemployment Insurance, by Occurrence of Mental Health Problems. Random Effects Cross-sectional Panel Multiple Regression Model Comparing Two Measures of Mental Health Status

Dependent variable: Quarterly Unemployment Insurance earnings in dollars: Stanislaus County	Model I using Functional impairment in 30 days prior to interview Coefficient and 95% *CI*	Model II using Any of five diagnoses during prior year Coefficient and 95% *CI*
Mental health problem in only one of three waves	-434.08	-38.73
	(-862.26 - -5.89)*	(-496.52 - 419.06)
Mental health problem in two or three waves	96.93	28.36
	(-496.04 - 689.91)	(-425.46 - 482.18)
Year two (year one omitted)	720.17	890.92
	(528.59 - 911.76)**	(598.42 - 1,183.41)**
Year three (year one omitted)	1,049.21	869.08
	(850.53 - 1,247.89)**	(573.71 - 1,164.45)**
Mental health problem one year & year two	Dropped from model	-237.81
		(-704.50 - 228.88)
Mental health problem one year & year three	Dropped from model	480.31
		(10.26 - 950.36)*
Mental health problem 2+ years & year two	Dropped from model	-310.43
		(-760.96 - 140.10)
Mental health problem 2+ years and year three	Dropped from model	286.19
		(-169.73 - 742.11)
Health problem	-402.91	-410.23
	(-651.97 - -153.85)**	(-656.97 - -163.50)**
Learning disability	-264.18	-267.25
	(-548.31 - 19.95)	(-555.47 - 20.98)
No driver's license	-619.38	-643.98
	(-863.59 - -375.16)**	(-889.94 - -398.03)**
Substance abuse	-388.34	-493.43
	(-733.43 - -43.26)*	(-840.16 - -146.69)**
Did not work in the year prior to wave 1 interview	-175.60	
	(-418.82 - 67.63)	
Three or less of 9 work skills	-271.49	-304.17
	(-554.51 - 11.54)	(-587.28 - -21.05)*
No Home of own during year	-224.30	-241.49
	(-429.45 - -19.14)*	(-446.72 - -36.26)*
Constant	2,242.83	2,163.91
	(1,992.64 - 2,493.02)**	(1,845.87 - 2,481.94)**
Observations	1674	1674
Number of cases	269	269
Overall R^2	0.13	0.14
Model χ^2 (Wald) , degrees of freedom and p value	χ^2 =215 *df*=10 *p*<.0001	χ^2 =225 *df*=12 *p*<.0001

*p<.05 **p<.01

Table 7
Kern County: Earnings Reported to Unemployment Insurance, by Occurrence of Mental Health Problems. Random Effects Cross-sectional Panel Multiple Regression Model Comparing Two Measures of Mental Health Status

Dependent variable: Quarterly Unemployment Insurance earnings in dollars: Stanislaus County	Model I using Functional impairment in 30 days prior to interview Coefficient and 95% *CI*	Model II using Any of five diagnoses during prior year Coefficient and 95% *CI*
Mental health problem in only one of three waves	-83.02	31.89
	(-591.34 - 425.31)	(-456.28 - 520.07)
Mental health problem in two or three waves	1,880.56	16.80
	(717.83 - 3,043.28)**	(-534.34 - 567.95)
Year two (year one omitted)	385.11	475.12
	(167.54 - 602.68)**	(219.51 - 730.74)**
Year three (year one omitted)	928.44	992.24
	(697.81 - 1,159.08)**	(725.43 - 1,259.04)**
Mental health problem one year & year two	-201.64	-378.73
	(-693.31 - 290.04)	(-841.43 - 83.96)
Mental health problem one year & year three	-336.76	-472.05
	(-850.47 - 176.96)	(-970.74 - 26.65)
Mental health problem 2+ years & year two	-2,232.53	-557.34
	(-3,393.59 - -1,071.46)**	(-1,085.71 - -28.97)*
Mental health problem 2+ years and year three	-3,911.69	-669.11
	(-5,178.55 - -2,644.83)**	(-1,230.86 - -107.36)*
Did not work in the year prior to wave 1 interview	-265.41	-336.52
	(-642.19 - 111.37)	(-714.49 - 41.45)
No driver's license	-518.58	-499.87
	(-784.26 - -252.89)**	(-768.38 - -231.35)**
Children under three years old	-275.44	-366.24
	(-529.15 - -21.73)*	(-622.86 - -109.63)**
Substance abuse		-324.46
		(-683.73 - 34.80)
Constant	2,107.51	2,201.61
	(1,822.65 - 2,392.37)**	(1,876.76 - 2,526.46)**
Observations	1291	1291
Number of ID	210	210
Model R^2	0.09	0.09
Model χ^2 (Wald), degrees of freedom & p value	χ^2 =134 df=11 p<.0001	χ^2=109 df=12 p<.0001

*p<.05 **p<.01

Time in jail during the three years	0.73	0.62
	(0.43 - 1.24)	(0.37 - 1.02)
Children under three years old	0.75	0.72
	(0.60 - 0.94)*	(0.56 - 0.92)**
Observations	6360	6360
Number of cases	574	574
Log likelihood		
Model χ^2 (Wald), degrees of freedom & p value	χ^2 =341 df=17 p<0.0001	χ^2 =356 df=17 p<0.0001

* *p*<.05 ** *p*<.01

Table 6

Any Earnings in Each of 12 Quarters of Unemployment Insurance Earnings, by Occurrence of Mental Health Problems. Random Effects Cross-sectional Panel Multiple Logistic Regression Model Comparing Two Measures of Mental Health Status (Both Counties Combined)

Dependent variable: any earnings per quarter: 1999-2001	Model I Functional impairment in 30 days prior to interview Odds Ratio and 95% *CI*	Model II Any of five diagnoses during prior year Odds Ratio and 95% *CI*
Mental health problem in only one of three waves	0.83	0.91
	(0.51 - 1.34)	(0.57 - 1.46)
Mental health problem in two or three waves	0.63	0.71
	(0.32 - 1.22)	(0.43 - 1.16)
Year two (year one omitted)	1.94	2.27
	(1.60 - 2.35)**	(1.76 - 2.92)**
Year three (year one omitted)	1.90	2.76
	(1.57 - 2.32)**	(2.12 - 3.59)**
Mental health problem in one year & year two	0.44	0.52
	(0.29 - 0.66)**	(0.35 - 0.76)**
Mental health problem in one year & year three	0.52	0.37
	(0.34 - 0.80)**	(0.25 - 0.55)**
Mental health problem 2+ years & year two	0.59	0.55
	(0.32 - 1.08)	(0.37 - 0.82)**
Mental health problem 2+ years and year three	0.41	0.39
	(0.21 - 0.78)**	(0.26 - 0.59)**
Less than high school	0.63	0.57
	(0.45 - 0.88)**	(0.39 - 0.84)**
Did not work in the year prior to wave 1 interview	0.17	0.18
	(0.12 - 0.25)**	(0.12 - 0.27)**
Race is Latino (White omitted)	1.41	1.67
	(0.97 - 2.05)	(1.16 - 2.40)**
Race is African-American	2.25	1.82
	(1.46 - 3.46)**	(0.88 - 3.74)
Other race	1.32	1.07
	(0.67 - 2.60)	(0.62 - 1.86)
No Drivers License	0.46	0.44
	(0.37 - 0.57)**	(0.34 - 0.57)**
Three or less of 9 work skills	0.59	0.63
	(0.46 - 0.74)**	(0.50 - 0.80)**

Table 5
Stanislaus County: Work 32 hours a Week at Time of Interview (Three Years Combined), by Occurrence of Mental Health Problems. Multiple Logistic Regression Model Adjusted for Repeated Measurements of the Same Individuals Comparing Two Measures of Mental Health Status

Dependent variable: Worked at least 32 hours a week at time of interview(s): Stanislaus County	Model I using Functional impairment in 30 days prior to interview Odds Ratio and 95% *CI*	Model II using Any of five diagnoses during prior year Odds Ratio and 95% *CI*
Mental health status	0.50 (0.25 - 1.00)*	0.89 (0.59 - 1.35)
Health problems	0.67 (0.44 - 1.04)	0.63 (0.41 - 0.97)*
No driver's license	0.51 (0.35 - 0.76)**	0.50 (0.33 - 0.75)**
No home of own during year	0.61 (0.41 - 0.92)*	0.62 (0.41 - 0.93)*
Three or less of 9 work skills	0.37 (0.22 - 0.61)**	0.36 (0.22 - 0.60)**
Wave 2 interview	15.16 (8.07 - 28.50)**	14.96 (7.91 - 28.29)**
Wave 3 interview	15.36 (7.84 - 30.09)**	15.25 (7.70 - 30.19)**
Race is African-American	1.95 (1.07 - 3.58)*	1.96 (1.06 - 3.64)*
Learning disability	0.55 (0.32 - 0.95)*	0.55 (0.31 - 0.95)*
Difficulties with English	6.04 (1.55 - 23.64)**	6.22 (1.59 - 24.25)**
Observations	780	780
Pseudo R^2	0.21	0.21
Model χ^2 (Wald), degrees of freedom & p value	$\chi^2 = 127$ df=10 p<.0001	$\chi = 125$ df=10 p<.0001

* $p<.05$ ** $p<.01$

Table 4

Kern County: Work 32 hours a Week at Time of Interview (Three Years Combined), by Occurrence of Mental Health Problems. Multiple Logistic Regression Model Adjusted for Repeated Measurements of the Same Individuals Comparing Two Measures of Mental Health Status

Dependent variable: Worked at least 32 hours a week at time of interviews: Kern County	Model I using Functional impairment in 30 days prior to interview Odds Ratio and 95% *CI*	Model II using Any of five diagnoses during prior year Odds Ratio and 95% *CI*
Mental health problem	0.21 (0.08 - 0.52)**	0.56 (0.34 - 0.90)*
Health problems	0.44 (0.25 - 0.77)**	0.43 (0.24 - 0.75)**
No high school degree	0.61 (0.39 - 0.98)*	0.60 (0.38 - 0.95)*
No driver's license	0.47 (0.31 - 0.73)**	0.47 (0.31 - 0.72)**
No home of own during year	0.42 (0.23 - 0.77)**	0.39 (0.21 - 0.71)**
3 or fewer of 9 work skills	0.58 (0.34 - 1.01)	0.60 (0.34 - 1.04)
Wave 2 interview	1.45 (0.96 - 2.21)	1.62 (1.07 - 2.45)*
Wave 3 interview	1.80 (1.16 - 2.79)**	2.05 (1.33 - 3.15)**
Race is African American	1.67 (1.04 - 2.68)*	1.58 (0.99 - 2.51)
Observations	676	676
Pseudo R^2	0.14	0.13
Model χ^2 (Wald), degrees of freedom & p value	χ^2=75 df=9 p<.0001	χ=55 df=9 p<.0001

* $p<.05$ ** $p<.01$

Table 3

Employment Outcomes, by Two Measures of Mental Health Problems

Employment measures	Functionally Impaired	Not Impaired		One or More Diagnosis	No Diagnosis	
			Categorical Measures			
	N %	N %	χ^{2a}	N %	N %	χ^{2a}
% Worked at all during the prior year						
Wave 2	39 54.2	337 75.2	13.73**	118 65.2**	258 76.1	7.02**
Wave 3	24 58.5	359 79.2	9.26**	99 72.8	284 79.3	2.42
% Lost a job during the year						
Wave 2	21 28.0	90 19.1	3.09	44 23.4	67 18.8	1.59
Wave 3	13 29.5	97 20.8	1.8	40 28.4*	70 19.0	5.33*
% Fired from job during the year						
Wave 2	5 6.7	9 1.9	5.81*	7 3.7	7 2.0	1.51
Wave 3	3 6.8	11 2.4	2.99	7 5.0	7 1.9	3.60
% Worked at least 32 hours a week at interview						
Wave 2	9 12.0**	169 36.0	17.00**	48 25.5**	130 36.5	6.74**
Wave 3	6 13.6**	185 39.7	11.66**	37 26.2**	154 41.7	10.45**
			Continuous Variable			
Median weeks worked during year prior to interview (diagnosis) or after interview (impairment), if worked at all			*z-score*			*z-score*
Wave 2	16.5	32	2.7**	27	32	1.1
Wave 3	24	40	2.8**	24	44	2.0*

*p<.05 **p<.01

[a]Tests are χ^2 if percentages are shown and Wilcoxon rank sum if medians are shown.

Table 1

Demographic and Mental Health Characteristics at Baseline Interview

Variable	N=632
	%
Age	
18-25	28.3
26-36	41.3
37-46	25.6
47-68	4.8
Race and ethnicity (%)	
White	40.2
Latino	37.3
African-American	14.9
Other	7.6
CIDI Diagnoses	
Major depression	27.7
Generalized anxiety disorder	9.5
Panic attack	10.3
Social phobia	9.8
Post-traumatic stress disorder	13.1
Any of the 5 diagnoses above	38.8
Impaired functioning at least 5 of past 30 days	16.9

Table 2

Potential Barriers to Employment at Wave 2 Interview, One Year After Welfare-to-Work Program Implementation, by County

	Combined N=573
	%
No high school diploma	36.6
Serious domestic violence	18.0
Alcohol or other drug dependence or abuse diagnosis	7.8
SF-12 functional health problems	29.7
Child under three at home	33.5
Self-esteem in bottom 16%	15.4
Difficulties with English	3.7
Learning disabled or was in special education	19.9
Child care problems cause not work	14.8
Less than 4 of 9 work skills	26.2
Spent time in jail or prison	3.1
No driver's license	39.3
No home of own during year	29.5

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Footnotes

1. Social security numbers are obtained from clients and verified by local welfare offices as part of the TANF and Medicaid eligibility process. Local MIS data is fed into the statewide MEDS system, which is then linked to the UI system. We verified all of our SSNs with the welfare office in each county. There should have been no differences between local and state data, but both local and state administrators informed us that such discrepancies are fairly common—for reasons that are unclear.

2. All of the multivariate models were estimated separately for Kern and Stanislaus participants in order to deal with the likelihood that residual variation differs across the study groups—a recently appreciated limitation of logistic regression (Allison, 1999; Hoetker, 2004). However, when findings do not differ by county, we combine the two samples for presentation. County-specific tables are available from the first author.

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A second implication is that the mental health status of TANF recipients should be considered before issuing sanctions. The fact that mental health problems are associated with negative paths out of welfare but not with duration of time on welfare suggests that efforts need to be proactive and oriented toward preventing exits for negative reasons rather than focusing entirely on a remaining pool of long-term recipients.

Because mental health problems may negatively affect employment, a third implication is that welfare staff should have the opportunity to count the hours TANF participants spend receiving mental health services as allowable work activities for the purposes of meeting the federal work participation rate. When recipients have to spend 32-hours in work-related activities (not including treatment hours), and also have to attend to their children's health, education and emotional needs, there is little time left to participate in treatment even when they are motivated to do so.

A final implication is that the basic philosophy of welfare reform—a fast track to getting any type of job with the assumption it will lead to better jobs—will be inappropriate for many persons with mental health problems. A practical solution adopted with success in some California counties is to substitute a professional vocational rehabilitation counselor for the usual welfare-to-work employment staff in cases where treating and accommodating mental health needs is a necessity.

50% of wave 2 respondents with neither type of income reported working at some time in the year. This pattern is consonant with leavers studies which have shown that only about a third of those leaving welfare worked all four quarters of the next year though 75% worked some (Moffitt, 2002). However, a Children's Defense Fund (2003) analysis of national Census data cites an overall increase of 17% from 2000 to 2001 in female householders with no work and no welfare. Our data suggest that those with mental health problems fare worse in these circumstances: for example, in wave 2, 58% of persons with no welfare and no job who also had functional impairment due to psychiatric symptoms reported having to skip meals in the past 30 days due to not having enough money to buy food; among those in this status who had no psychiatric impairment it was 18%.

Our study of the sample described in this article focused on three behavioral barriers: mental health, which is presented here, domestic violence (Meisel, Chandler, & Rienzi, 2003) and alcohol and drugs (Chandler, Meisel, Jordan, Rienzi, & Goodwin, 2004). While it is important to highlight the results for mental health alone, it is also crucial to recognize that the overlap among the three conditions is substantial. This overlap has implications for the design of services for the roughly 10% of TANF recipients we found who experience at least two of these conditions simultaneously (Chandler & Meisel, 2002).

Implications for addressing mental health needs among TANF recipients.

The findings of this study—that mental health problems are negatively associated with employment in the TANF population—have a number of policy implications. The first is that funding needs to be targeted federally and at the state level for providing mental health services to TANF participants. States should develop and fund efforts to screen, identify, assess and serve TANF recipients with mental health problems. Both Stanislaus County and Kern County were among the leaders in California in the identification and treatment of persons with mental health barriers to success in TANF. During 2000-2001, for example, Stanislaus County provided mental health services to 12% of all CalWORKs recipients and Kern County served 10% (Meisel,

study in Los Angeles County that this is the case (Chandler, Meisel, Jordan, 2004). As yet, however, the consequences of mental health treatment have not been the subject of experimental test.

Significance of the findings.

Aside from confirming the substantive hypotheses regarding mental health status, the study sheds light on the important methodological issue of whether to use 12 month diagnoses or impairment scale ratings in welfare reform outcome studies. Contrary to our expectations, there were not consistent difference in findings between the diagnosis measure (which covered the presence of any of five diagnoses over a 12 month period) and the functional impairment measure (inability to conduct daily activities due to psychiatric symptoms in five of the 30 days prior to being interviewed). However, results are in general stronger with respect to the smaller group reporting impairment: impairment findings were less likely to wash out in multivariate analysis. We conclude that it is desirable to include both types of measure if possible. Because of their standardization, diagnoses permit the prevalence of mental health problems to be compared across studies. However, the greater predictive power of impairment scales suggests they should be preferred in modeling the role of mental health in relationship to welfare reform outcomes.

To our knowledge, the Stanislaus sample is the only study sample on this issue described to date which consists entirely of persons entering welfare after welfare reform provisions were actually implemented. Nonetheless, the findings applied, with few exceptions, to both counties—in marked contrast to our findings for the effects of domestic violence on employment in the same samples in which the effect varied by county (Meisel, Chandler, & Rienzi, 2003).

The group of persons reporting not being employed *nor* receiving welfare requires discussion. About 8% of the entire sample in wave 2 actually received welfare support for their children but not themselves, so they did have some income. Others may have been between jobs:

full-family sanctions. It seems likely that findings with regard to employment will differ in states in which sanctioned clients lose their entire grant not just the adult's portion. Both Stanislaus County and Kern County are in regions of California with high unemployment rates and a great deal of seasonal employment. Employment consequences of mental health problems may differ in areas with greater demand for relatively unskilled workers. The population included in this study is in some ways transitional with respect to welfare reform. Clients were recruited after large drops in enrollment but just as welfare reform provisions were being implemented, so only the second and third interview waves occurred after new restrictions and programs were put into place.

Additionally, our sampling process was not optimal. Despite not having found major differences between the participants we were able to contact and those we were not, there may well be unmeasured differences that could be correlated with our measures. Since women we were unable to contact usually lacked phones or stable addresses, however, it seems likely that mental health problems and their relationship to employment are understated in our sample rather than overstated.

Finally, the question of whether the relationships documented here are causal is not resolved. Mental health problems might be a "marker" for one or more underlying causes. However, this is made less likely by the large number of such possible factors included in our multivariate analyses. The case for causal influence is also strengthened by the prospective and longitudinal nature of the study design. However, it is also possible that causality runs both directions: depression may, for example, be both a cause and a consequence of not working. One test of causality is to provide treatment to those with mental health problems and see if it increases the rate of employment. There is some survey and MIS-based evidence from our later

symptoms. The chart below summarizes the relationships we found between employment and welfare variables and two measures of mental health status (functional impairment due to psychiatric symptoms and having one of five diagnoses).

In general, the multivariate models showed that mental health problems in two or more years were strongly related to not working or lower income. Yet significant differences were found for those with a mental health problem that occurred in only one year as well; so policy-makers cannot limit attempts at identifying persons needing services to those with chronic problems. In addition, the relationship of mental health problems appears stronger with whether TANF participants work at all than with how much they work or earn. The multivariate analyses also suggest that the set of predictors for whether or not people earn are somewhat different from those predicting how *much* they earn. Factors predicting *both* were whether the person worked the year before the first interview, not having a driver's license, having a child under three years of age and mental health status. Other factors were predictive of whether people work at all—no high school degree, and race—but not of earnings. Substance abuse and homelessness predicted earnings but not whether or not persons worked.

Limitations of the findings.

The difficulties in using our study data to draw inferences regarding the role of mental health problems in other localities stem from 1) differences between California and other states in implementation of the TANF program, 2) the specific nature of the localities included in our sample, 3) the characteristics of persons either receiving or applying for TANF in 1999 when our sample was drawn, and 4) limitations in our sampling process.

Recent research has revealed that the effects of welfare reform can vary by locality (Sheldon Danziger & Wang, 2004). California's particular approach to TANF does not include

more likely than those with no problems neither to be working nor receiving welfare. In the wave 2 interview 35% of those functionally impaired had neither work nor welfare income compared to 15% of those not impaired (χ^2=17.77, df=1, p< 0.000); 23% of those with a diagnosis had neither work nor welfare income compared to 15% of those with no diagnosis (χ^2=5.9758, df=1, p<0.015). Results for the wave 3 interview were not statistically significant.

DISCUSSION

Summary of findings.

Table 9

Summary of findings

Hypothesis: Mental health problems (functional impairment or diagnosis) will be related to:	Impairment	Diagnosis
Welfare tenure		
Moving to SSI disability income	Yes	Yes
Leaving welfare for negative rather than good reasons	Yes	Yes
Having more spells on welfare ("cycling")	No	No
Continuous presence on welfare	No	No
Longer total duration of time on welfare	No	No
Employment		
Not working at all in the year prior to the second and the year prior to the third interviews	Mixed by wave	Mixed by wave
Lower number of weeks worked in a year, if any	Yes	Yes
Not working at least 32 hours a week when interviewed	Yes	Mixed by county
Losing jobs and being fired from jobs	Mixed by wave	Mixed by wave
Lower trajectory of earned income		
Having any earnings	Yes	Yes
How much is earned	Yes	Mixed by county
Greater likelihood of having no job and no welfare income	Mixed by wave	Mixed by wave

TANF participants in our samples had serious human capital, behavioral and situational impediments to moving from welfare to employment. One potential barrier is mental health status. At the time of the initial interview, approximately one third of the participants had a psychiatric diagnosis and almost a fifth had serious functional impairment due to psychiatric

statistically significant (Table 7). However, a strong relationship between earnings and those reporting functional impairment in two or more years occurred in both study years (year 2: χ^2=15.14, p<.000; year 3, χ^2=37.75, p<.000).

The relationship with diagnosis occurring in only one year in Kern was weak. Year 2 (main effect jointly with interaction): χ^2=3.15, p<.207; year 3, χ^2=4.19, p<.123. If a diagnosis was assigned in two years or more, however, the relationship was somewhat stronger: year 2, χ^2=5.94, p<.051, year 3, χ^2=7.55, p<.023.

In Stanislaus, having reported functional impairment in one year was significantly related to earnings (main effect only: χ^2=3.95, p<.0469). But functional impairment in two or more years was not significantly related to earnings (χ^2=0.10, p<.749). Having a diagnosis was not statistically significant in either year 2 or year 3 regardless of whether the diagnosis was assigned only one or in more years (Table 8).

In summary, the relationship between both measures of mental health problems and having earnings in a given quarter was generally statistically significant in both the study years occurring after welfare-to-work activities were required. The relationship between mental health problems and the amount earned was statistically significant for both measures in Kern, but only significant in Stanislaus for year 2 for one measure (functional impairment reported in only one year).

INSERT TABLES 7 AND 8 ABOUT HERE.

No work/no welfare. In a final analysis, we examine whether having a mental health problem was associated with having neither cash aid nor earnings. Not surprisingly, given the findings regarding employment and welfare analyzed separately, those with mental health problems are

We confirmed the difference in quarterly earnings with random effects cross-sectional panel regression. Because of the large number of quarters in which no income was reported, we modeled the amount of income, if any, separately from whether income was earned in the quarter. We assess the effects of time by interacting the mental health problem variables with the years corresponding to wave 1, wave 2 and wave 3 interviews (Tables 6 through 8). Because random effects models handle missing data well, the analyses were not restricted to persons present in all three years.

Looking first at whether mental health problems in one or more years were associated with having *no* earned income, we find a statistically significant result for both years 2 and 3 for both measures. (This finding was consistent in both counties, so a combined model is presented in Table 6 and below.) We tested the null hypothesis that the effect of functional impairment in only one year on working or not is zero (the main effect jointly with the interactions by year 2 and year 3). Results were statistically significant in both years (year 2, χ^2=21.79, p<.0001; and year 3: χ^2=13.63, p<.001). For functional impairment occurring in two or more years, the relationship was significant in both years (year 2, χ^2=8.78, p<.012; and year 3: χ^2=15.94, p<.0003). The effect of having a diagnosis in only one year (main effect jointly with interactions) is also significantly different from zero in both years. (Year 2, χ^2=13.91, p<.001; year 3, χ^2=28.20, p<.0001) as is the effect of having a diagnosis in two or more years (year 2, χ^2=15.91, p<.001; year 3, χ^2=31.75, p<.0001).

INSERT TABLES 6 ABOUT HERE.

Separate models for Kern and Stanislaus estimated earnings greater than zero in any quarter. In Kern, we tested whether the effect of functional impairment in one year on earnings was equal to zero (main effect jointly with year). Neither year was at all close to being

waves and using logistic regression adjusted for the fact that we include repeated measurements

on the same individuals (using the "cluster" option in the statistical package Stata). The models

for the two measures are shown in Table 4 for Kern and in Table 5 for Stanislaus. In Kern, over

the three years, those who were functionally impaired due to psychiatric symptoms were much

less likely to work 32 hours a week or more than those not impaired (odds ratio=0.31, z=-3.37,

p<.001), as were those with a diagnosis (odds ratio=0.56 z=-2.37, p<.018). In Stanislaus, those

who were functionally impaired were less likely to work 32 hours a week than those who were

not (odds ratio=0.50, z=-1.97, p<.049), but the same association was *not* found for those having a

diagnosis (odds ratio=0.89 z^2=-0.54, p<.591).

        INSERT TABLE 4 and TABLE 5 ABOUT HERE.

Earned income. Difficulties in finding or keeping a job or in the number of hours worked might

be expected to be reflected in a lower trajectory of earned income for persons with mental health

problems. For respondents who were present in all three interviews, Figure 1 presents the mean

quarterly earnings as supplied by employers to the Unemployment Insurance system over 12

quarters, including quarters when research participants had zero earnings.

INSERT FIGURE 1 ABOUT HERE.

        As seen in Figure 1, having a diagnosis and having functional impairment are each

associated with lower mean earned income. The overall trajectory of earned income for the

sample is substantially higher for those without mental health problems. Those with functional

impairment appear to have lower earnings over time than those with one of five diagnoses, and

those with either problem in two or more interview waves appear to have lower incomes over

time than those having a problem in only one year.

with both losing a job and being fired, but the statistical significance of the findings was not consistent. Impairment was significantly related to getting fired, but only in wave 2 (fired if impaired=6.8%, if not impaired=2.4%; χ^2=5.81, df=1, p<.05). Having a diagnosis was significantly related to losing a job, but only in wave 2 (28.4% vs. 19.0%, χ^2=5.33, df=1, p<.05).

For those who did work, we determined whether mental health problems were related to the total number of weeks worked (Table 3). Using the Wilcoxon rank sum test the median number of weeks worked was significant at p<0.001 in wave 3 for those having a diagnosis; impaired functioning was not significantly related to weeks worked in either interview wave. However, having impaired functioning in the wave *before* was highly predictive in both wave 2 (p<0.001) and wave 3 (p<0.001). In wave 2, those who were functionally impaired in the wave 1 interview worked a median of 16.5 weeks compared to 32 for those with no impairment; in wave 3 the respective figures were 24 and 40.

Working at least 32 hours per week. In 2000, California began requiring welfare-to-work participants to work or have work activities for 32 hours per week. Working 32 hours per week or more thus exempted participants from other work activity requirements—even though participants could continue to receive cash aid. In wave 1 interviews, only 12% worked at least 32 hours a week; by the wave 2 interview 33% did, and in wave 3, 37% did. As shown in Table 3 the bivariate relationship between having a mental health problem (of either type) is significantly related to *not* working at least 32 hours a week at the time of both the wave 2 and wave 3 interviews. (For the diagnosis measure: wave 2, any diagnosis=26.5% vs. no diagnosis=36.5%, χ^2=6.74, df=1, p<0.1; wave 3, 26.2% vs. 41.7%, χ^2=10.45, df=1, p<.05. For the impaired functioning measure: wave 2, 12.0% vs. 36.05, χ^2=17.00, df=1, p.<01; wave 3, 13.6% vs. 39.7%, χ^2=11.66, df=1, p<.01.) We confirmed these relationships by combining all three interview

who left welfare, participants with negative reasons comprised 21.0% in wave 2 and 14.8% in wave 3.

In wave 2 those with a diagnosis were significantly more likely to leave welfare for negative reasons than those without (12.8% vs. 6.2%; χ^2=6.89, df=1, p<0.009) as were those with impaired functioning due to mental health symptoms (17.3% vs. 7.0%; χ^2=8.86, df=1, p<0.003). This was true in wave 3 for those with a diagnosis (13.5% vs. 7.1%; χ^2=5.11, df=1, p<0.024), but not for those with impaired functioning (11.4% vs. 8.6%; χ^2=0.369, df=1, p<=0.544).

We also anticipated that mental health problems would cause cycling on and off welfare *or* continuous stays. Both possibilities were investigated using state MEDS monthly welfare status data, but there were no significant differences between those with mental health problems and those without.

INSERT TABLE 3 ABOUT HERE.

Employment

Patterns of work. In bivariate analysis both functional impairment due to psychiatric symptoms and having one or more of five diagnoses were statistically significantly related to whether participants reported in wave 2 that they had worked at all during the prior 12 months (Table 3). In wave 2, 54.2% of those functionally impaired due to psychiatric symptoms worked vs. 75.2% of those not impaired; 65.2% of those with a diagnosis worked compared to 76.1% with no diagnosis (Tests, in order, χ^2=13.73, df=1, p<.01; χ^2=7.02, df=1, p<.01). However, only functional impairment was statistically significantly related to reporting having worked in the year before wave 3. (58.5% vs. 79.2%; χ^2=9.26, df=1, p<.01.)

If persons worked at all during the year prior to wave 2 or wave 3 they were asked if they lost a job (quit, laid off, job ended or fired). As shown in Table 3, the number of those losing a job or being fired was small. In each interview wave, mental health problems were associated

child under three, 18% experienced serious domestic violence in the prior 12 months, and 8% were assigned a substance use disorder diagnosis. Overall, of 17 potential barriers the average woman had 3.75 in wave 2—about a year after welfare to work requirements were applied.

INSERT TABLE 2 ABOUT HERE.

Transition to Supplemental Security Income (SSI)

No study participant was receiving SSI at the time of the first interview. By December 2001, roughly 27 months later, 8 Stanislaus participants and16 Kern participants (3.8% of the wave 1 sample) received SSI instead of TANF. Wave 1 participants with mental health problems were significantly more likely to receive SSI during the course of the study than those without such problems. This finding was true for both those having one of five diagnoses (6.5% of those with a diagnosis got SSI vs. 2.6% of those with no diagnosis; χ^2=5.92, df=1, p<=0.015) and those with impaired functioning (9.4% of those with impaired functioning got SSI compared to 3.0% of those not impaired; χ^2=8.9381, df=1, p< 0.003). In fact, 29% of those who had impaired functioning due to psychiatric symptoms in all three waves ended up receiving SSI. This in itself is an important finding. However, policy interest focuses on TANF participants who remain eligible for welfare-to-work activities (or those who left welfare while still eligible). Therefore, in all subsequent analyses, the 24 person who received SSI any time during the study period are not included.

Welfare tenure.

Welfare-related outcomes divide into those that concern the reason for leaving welfare (sanction, for example) and those that measure welfare tenure and cycling. By the wave 3 interview 27 months after wave 1, 304 (59.6%) participants had left welfare. We classified having been sanctioned for failure to comply with welfare rules, having lost custody of children, or having lost benefits due to being incarcerated as "negative" reasons for leaving. As a percentage of those

The percentage of respondents with impaired functioning at least 5 of the prior 30 days was 16.9 in wave 1, 13.8 in wave 2, and 8.6 in wave 3.

At the time of the initial interview, there were 107 persons with functional impairment in the sample, 77% of whom also received a diagnosis. While 245 persons received a 12 month diagnosis, only 33% were judged functionally impaired in the 30 days prior to the interview. Thus the measure of impairment due to symptoms delineates a considerably smaller group than those with diagnoses and reflects the situation at the time of the interview rather than at varying times during the prior 12 months.

There was also substantial discontinuity across interview waves for both measures. Among the 534 persons present in all three interview waves, one or more of the five diagnoses was found in only one interview wave for 27.5%, in two waves in 16.8%, and in all three waves in 14.2%. For functional impairment, the comparable figures are 20.0% in one wave, 6.7% in two waves, and 2.6% in three waves.

In the following analysis, we do not distinguish between those with problems who received professional help and those who did not. It should be noted, however, that in wave 2 (a year after welfare reform requirements were applied) 42.7% of those with one of the five diagnoses we measured had received some mental health treatment in the past year, most commonly anti-depressant medications prescribed by a family practitioner.

Other potential barriers. Wave 2 interviews occurred approximately one year after welfare-to-work requirements began to be applied. We therefore examine potential barriers to employment as of that time. As shown in Table 2, one fifth have learning disabilities, a quarter have extremely limited work skills, 37% did not complete high school, and 39% have no driver's license. In terms of situational or behavioral barriers, 30% had health impairments, 33% had a

welfare spells, and percentage continuously receiving welfare. A "spell" is defined as a period

or term on welfare.

Analysis approach

Bivariate statistics are used when small subgroups make multiple logistic regression unstable

(Bagley, White, & Golomb, 2001); for example, when examining data on the number of persons

who lost a job or were fired in a year or who left welfare for negative reasons. Multivariate

analysis is used to confirm or adjust the bivariate findings relevant to three major hypotheses:

mental health status will be associated with whether participants work; with how much they earn;

and with whether they work 32 hours a week. We use the cross-sectional panel data commands

in the statistical package Stata to estimate random effects regression and logistic regression

models using earnings data.[2]

RESULTS

Prevalence of potential barriers to employment

  Mental health. As shown in Table 1, twelve-month major depressive disorder was found

in 27.7% overall, far higher than the current national rate of 6.6% (Kessler et al., 2003). The

overall percentage of study participants with any of the five diagnoses in wave 1, 2 and 3 was

38.8, 34.6, and 27.6, respectively. Although Kern and Stanislaus respondents differed

significantly on the percentage with any of the five diagnoses in wave 1 (Kern 43.8%; Stanislaus

32.5%, χ^2=8.77, p<.01) the differences were not significant in the two years during which

welfare-to-work had been implemented: wave 2 (Stanislaus 36.8%; Kern 31.2%, χ^2=1.85,

p<0.17) or wave 3 (Stanislaus 28.2%; Kern 27.6%, χ^2=0.20, p< 0.88).

  INSERT TABLE 1 ABOUT HERE.

situational/structural factors (being without a home of her own, having a very young child at home, lacking a driver's license, child care interfering with work, having been in jail during the year before the interview); and human capital factors—not working the year before the initial interview, less than a high school education, having a learning disability, difficulty with English (interviewer judgment), respondent-perceived work discrimination, and three or fewer of nine work skills (Holzer 1996).

   Employment and welfare. Employment status was assessed using two different data sources. Each interview included questions on the status of current employment (whether working at all and if working the number of hours per week working) and questions about employment over the preceding year (whether worked at all and if worked the number of weeks worked). The second source was Unemployment Insurance (UI) records of employer-reported quarterly earnings, obtained through the California Department of Social Services. Quarterly UI data has the advantage of covering the entire year and incorporating hours worked, weeks worked, and wages paid into one overall measure of earned income, although it does not include self-employment and some other earnings. The social security number of 38 of our research participants did not appear in the UI data base either during the study period or the three years prior to the study.[1] If any of these respondents reported not working in the relevant time period, then the quarterly earnings were coded as zero. For 7-9 persons in each year, there was no SSN match yet the client reported having worked during the year. Since the interview data does not allow us to assign quarterly (or annual) earnings, hotdeck imputation was used for these cases to assign random values from the non-missing in each quarter (Schonlau, 2003).

   Welfare status was drawn from interview questions and from the statewide MEDS data base of Medicaid and welfare eligibility. Measures include total time receiving welfare, number of

month diagnoses, generated by the CIDI-Short Form (Kessler, Andrews, Mroczek, Bedirhan, & Wittchen, 1998), for major depression, generalized anxiety disorder, social phobia, and panic attack. A fifth diagnosis, post-traumatic stress diagnosis (based on family or partner violence), was assigned using the long-form CIDI PTSD module (Wittchen, 1994). We did not measure schizophrenia or other serious mental illness diagnoses because of their low prevalence rates in this population.

Our second study measure is from a widely used psychiatric functional impairment scale (Kessler, Greenberg, Mickelson, Meneades, & Wang, 2001). First, respondents were asked to complete the BASIS-32 symptom scale regarding psychiatric symptoms experienced in the week prior to the interview. They were then asked the number of days in the past month, if any, they were unable to carry out activities of daily life due to the symptoms they had reported. We classified as having "functional impairment" those who reported that they had been *unable* to carry out activities of daily life on five or more days during the prior 30 days due to psychiatric symptoms.

Other barriers. The interview included measures of other factors that have been associated with reduced likelihood of working within a welfare population. These measures included: having a health problem sufficient to impair the functional capacity to work as defined by the SF-12 screening instrument (Ware, Kosinski, & Keller, 1995); serious domestic violence, based on an expanded Conflict Tactics Scale (Straus, Hamby, Boney-McCoy, & Sugarman, 1995); alcohol or other drug (AOD) dependence or abuse measured on the full CIDI (wave 1) or CIDI-SF (wave 2 and 3) (Kessler, Andrews, Mroczek, Bedirhan, & Wittchen, 1998; Wittchen, 1994) very low self-esteem, defined as lower than one standard deviation from the mean on the Rosenberg Self-Esteem Scale (Rosenberg 1979); demographic barriers (age over 35, race);

Of the 356 in the Stanislaus applicant sample, 32 were eligible and participating in Welfare-to-Work activities as applicants when interviewed but did not subsequently go on to receive cash aid. They are included here with respect to prevalence of mental health problems, but are omitted from employment and welfare tenure analyses. In Stanislaus, 311 (87%) were re-interviewed in wave 2; and 309 in wave 3 (87%). In Kern, comparisons of the study sample with state eligibility data showed 71 persons in the initial sample to have been ineligible for the Welfare-to-Work program, resulting in a final sample of 276. Of the 276 Kern research participants, 262, or 95% were re-interviewed in wave 2 and 243 (88%) were re-interviewed in wave 3. Overall, 84% of the Welfare-to-Work eligible clients interviewed in wave 1 in both counties had three interviews (N=534).

Measurement

Two types of mental health measures. Whether psychiatric diagnoses or symptom scales are more useful is still an open question in the field of mental health outcomes research. As proposed by Kessler (2002), we used both in hopes of clarifying some of the advantages and disadvantages of each for measuring the impact of mental health status on welfare reform outcomes.

Diagnosis and Statistical Manual of Mental Disorders (DSM) psychiatric diagnoses are the most widely recognized measure of mental health problems and are generally necessary in order to claim reimbursement for treatment under Medicaid or private insurance. Major depression is the most common diagnosis among welfare recipients and has been shown to affect welfare tenure in pre-reform populations (Lennon, Blome, & English, 2002). But common anxiety disorders—generalized anxiety disorder, social phobia, panic attack and post-traumatic stress disorder—can also be expected to directly affect capacities related to meeting welfare requirements and working (for example, see Salomon, Bassuk, & Brooks, 1996). We created 12

Study participants met the following criteria: aged 18-59; fluent in either English or Spanish; female head of household (relative caretakers and two-parent families were not included); and either a TANF applicant (in Stanislaus) or a recipient of cash assistance for at least one year (in Kern). Note, however, that 79% of Stanislaus "applicants" had at least one month during the years 1996-1998 during which they had received TANF.

Of the Stanislaus study-eligible applicants, 71% were interviewed (5% refusal rate), for a total of 356 interviews. Another 23 percent was comprised of a) persons who consented but who did not keep their appointments despite an incentive and multiple contacts or b) persons who could not be contacted by phone. In Kern, 55% of the sample was interviewed (7% refusal rate), for a total of 347 interviews; we were unable to contact 34% by letter or phone. The characteristics of the Stanislaus interviewees were compared with those who were eligible but who we were unable to interview in order to detect possible bias. In Stanislaus the groups did not differ to a statistically significant degree on any measure. In Kern we compared the sample to the population it was drawn from and those not interviewed. There were two statistically significant differences. Compared to the population, the percent speaking Spanish as first language was higher in the sample (15.5% in the interviewed sample, 10.6% in the population; $\chi^2=7.87$, df=1, $p\leq.01$). Those interviewed spent more time on welfare than those who were not interviewed (4.02 years vs. 3.38 years; t=2.364, p≤0.02). As a further test of non-response bias we replicated a series of our analyses using post-stratification weights from the population for race, age, and time on welfare. The raw percentages for a number of key variables and cross-tabulations usually did not differ more than one percentage point from the post-stratification adjusted percentages; in no case did they differ by more than 2 percent.

METHOD

Sites

The study sample was drawn from the TANF population in two California counties. Both counties are in California's Central Valley and share characteristics that make the employment goals of welfare reform particularly challenging. Both are large counties with dispersed populations and limited public transportation systems. Each has a high unemployment rate (10.6 percent in Stanislaus and 11.4 percent in Kern in 1999 dropping to 10.3 and 10.7 in 2001) and high rates of seasonal labor (with consequently inflated unemployment during the winter). Both are growing rapidly, but most new jobs are primarily in the low-paying retail service sector. Kern County has a population of 648,000. Its largest city, from which our sample was drawn, is Bakersfield, at 237,000. Stanislaus County has a population of 433,000; the largest city is Modesto, at 188,000, but the sample was from the entire county. The decline in the welfare rolls in Stanislaus between July 1996 and June of 1999 was 50%; in Kern 28%.

The research team visited two days in each county in the years 1999 through 2001 in order to interview welfare and mental health staff about the services they were providing under California's $100 million annual program for mental health and substance abuse treatment of TANF clients.

Sample attrition

After Institutional Review Board approval was obtained, a randomly selected group of TANF recipients from each county was interviewed three times: at baseline in summer of 1999, in summer of 2000, and 15 months later in the fall of 2001. We refer to these as wave 1, wave 2 and wave 3. Hour and a half long interviews were conducted by trained research staff.

to wash out. Measures of both mental health status and employment/income status have been limited. In particular, existing studies use either mental health diagnoses *or* an impairment scale, but not both. Finally, only the Utah, Alameda County and Florida studies (Boothroyd & Olufokunbi, 2001; Dasinger, Miller, Norris, & Speiglman, 2001; Taylor & Barusch, 2002) explicitly recognize the fact that an important minority of TANF recipients with mental health problems are identified and diverted to Supplemental Security Income (SSI) rather than TANF. However, the effect of diversion is not clear in their findings.

The research reported here addresses each of these issues. First, we hypothesize that mental health problems might be associated with: transfer to Supplemental Security Income benefits rather than TANF; with leaving welfare for negative reasons (such as being sanctioned); with cycling on and off welfare; or with remaining continuously on welfare during the 3 study years (thus using up a major part of their lifetime allotment of 5 years). Second, we hypothesize mental health problems are associated with negative employment outcomes: a lower percentage of participants who work at all during the year prior to survey, a lower number of weeks worked during that time, or a lower percentage working at least 32 hours a week. Subsidiary hypotheses include the expectation that persons with mental health problems may be more likely to lose jobs or be fired. Third, we hypothesize that over time the trajectory of participant earnings will be lower if participants have mental health problems. Fourth, we test the hypothesis that persons with mental health problems are more likely to have neither wage income nor welfare income. In each case, we also test whether a psychiatric diagnosis or a functional rating is more predictive of these results.

County California found at the time of a first interview in 1998 that 15.4% of those with a "high"

number of symptoms on the SCL-90 symptom scale worked at least 26 hours a week compared

to 28.5% of those with few or no symptoms—but in multivariate analysis the effect was not

statistically significant (Driscoll, Speiglman, & Norris, 2000). In a second interview 15 months

later—after welfare reform procedures were in place—22% of those with mental health problems

worked at least 32 hours a week versus 43% for those without the mental health barrier; but, no

multivariate analysis was reported (Dasinger, Miller, Norris, & Speiglman, 2001). Wilson (2002)

did extensive testing on 69 inner-city women who had repeatedly failed to find work. He found

67% met SCL-90 "caseness" criteria. Another investigator studied the effects of depression in

TANF populations in three states, including a county in California. If depression was severe

enough to have required treatment, rates of employment were lower (Richardson, 2002). Finally,

a Utah study of long-term welfare recipients found that only 11% of respondents who screened

positive for the presence of an anxiety disorder were working 20 hours a week compared to 37%

of those who did not have a disorder, a statistically significant difference. However, the

difference in work hours between those with *any* diagnosis of depression, anxiety, or post-

traumatic stress disorder and those with none was only marginally significant (Barusch, Taylor,

& Abu-Bader, 1999).

In summary, post-reform studies have demonstrated weak or inconsistent associations

between mental health status and poor welfare reform outcomes. Only three of the studies cited

in this review included more than one interview and provide some multivariate analysis

(Dasinger, Miller, Norris, & Speiglman, 2001; S. K. Danziger & Seefeldt, 2002; Taylor &

Barusch, 2002). It is unclear whether results in other studies would have been stronger or weaker

if more adequate methods were employed, though generally multivariate analysis caused results

analyzed, the relationship with months of employment was statistically significant but the relationship with welfare reliance was not (S.K. Danziger & Seefeldt, 2002). A regression analysis of the effects of various factors, including mental health diagnosis, on transitioning from poor to good quality jobs did not show mental health problems to have a statistically significant impact (Johnson & Corcoran, 2003). Finally, a regression analysis of how income changed when participants moved from welfare to employment found negative effects for such factors as domestic violence, health problems, transportation problems and lack of a high school diploma, but not for having one of three mental health diagnoses (Sheldon Danziger, Heflin, Corcoran, & Oltmans, 2001). Thus, the most methodologically sophisticated study has found relatively weak and inconsistent effects of mental health diagnosis on welfare tenure and employment.

Other recent welfare reform studies that have included mental health as a variable have appeared, for the most part, as policy briefs rather than being published in peer-reviewed journals. One type of research is the "leavers" study in which TANF participants are interviewed after leaving welfare. Such studies have found higher percentages of persons with mental health problems, variously defined, among those who left welfare through sanction or drop-out (Boothroyd & Olufokunbi, 2001; Gritz, Mancuso, Lieberman, & Lindler, 2001; Mancuso & Lindler, 2001; Moffitt, Cherlin, Burton, King, & Roff, 2002; Taylor & Barusch, 2002). Other leavers studies point to at least a weak association between failure of welfare recipients to find stable employment and mental health problems, especially symptoms of depression (Bowie et al., 2001; Holzer, Stoll, & Wissoker, 2001). These studies are limited by their retrospective method and the generally poor measures of mental health status employed.

Four studies have found an association between mental health problems and employment using stronger mental health measures than did the leavers studies. Investigators in Alameda

As caseloads have dropped, attention has increasingly shifted to families who are less likely to work *(Welfare reform: moving hard-to-employ recipients into the workforce,* 2001*)*. A persistent question since the enactment of welfare reform has been whether the presence of mental health problems reduces welfare participants' capacity to leave welfare for work. Evidence so far is limited.

While there are a number of recent reports which use pre-reform data to look at the prevalence and effects of mental health problems on the employment of welfare recipients (Jayakody & Stauffer, 2001; Zabkiewicz, Schmidt, Wiley, & Dohan, 2001; Coiro, 2001; Brooks & Buckner, 1996), we focus here on studies that took place post-reform—as both the requirements for welfare participation and the population receiving welfare changed significantly after welfare reform was enacted in 1996.

The most important study to date is the Women's Employment Study, which included 753 female welfare recipients from an urban area of Michigan. Design and methodology are strong, but results are complex. Bivariate findings from the original interview done several months after the sample was drawn in February 1997 showed major depression, but not PTSD or generalized anxiety disorder, to have a statistically significant negative effect on working 20 hours a week or more (Sheldon Danziger et al. Revised, 2000). In a second analysis, the impact of mental health issues on the number of months worked between the first and second wave of interviews was statistically significant only when mental health problems co-occurred with human capital or physical health deficits (Sandra K. Danziger, Kalil, & Anderson, 2000). In a third analysis, women with mental health problems which persisted during two years were disproportionately likely to receive welfare and not work or neither work nor receive welfare (S.K. Danziger, 2000). When the presence of a diagnosis in zero, one, two or three years was

MENTAL HEALTH, EMPLOYMENT AND WELFARE TENURE

In this report we use a longitudinal sample of 632 women who received welfare to ask three broad questions about welfare reform: 1) Whether mental health problems are associated with welfare tenure; 2) whether mental health problems are associated with welfare recipients' ability to find and maintain employment; and 3) whether welfare recipients with mental health problems have substantially lower earned income over time than those without such problems. The relevance of these questions stems from the recent history of welfare.

Historically, the primary purpose of Aid to Families with Dependent Children (AFDC) was to provide a minimum safety net for poor children. This changed with the 1996 Personal Responsibility and Work Opportunity Reconciliation Act (PRWORA). Cash assistance—now called Temporary Assistance for Needy Families (TANF)—became ancillary to moving parents from welfare to employment, with the rationale that leaving welfare for work would in itself benefit the children.

Since welfare reform was enacted, there have been major reductions in use of cash aid in all states. Studies also find on average 75 percent of those who have left welfare were employed at least part of the time in the next year although only 57 percent were employed at the time of leaving welfare. Only about one third of those leaving welfare worked in all four quarters of the next year (Moffitt, 2002).

California did not begin implementing its welfare reform legislation (called CalWORKs) until 1998. However, during the study years of 1999-2001, California recipients made up at least 22% of all TANF recipients in the United States (Ransdell & Boloorian, 2002). California, because of its high benefit level, high income disregard, and lack of a full-family sanction is representative of states with more liberal policies.

Abstract

This study determines the prevalence of mental health diagnosis and impairment among 632

participants in Temporary Assistance for Needy Families (TANF) and describes the relationship

between these problems and welfare tenure and employment. A random sample of female TANF

participants was surveyed in two California counties for three consecutive years, starting in

1999. TANF participants with mental health problems are more likely than those without to

leave welfare due to sanction and less likely to work at all. They also work fewer weeks in a year

and fewer hours per week. In the course of 36 months, their earned income is substantially lower

than those without mental health problems.

KEY WORDS: welfare reform, mental health, TANF, employment, epidemiology, longitudinal

WORKING PAPER: Mental Health, Employment and Welfare Tenure

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