

Evaluation of the Good Wheels Car Loan Program

Report prepared for Steve Telow and Barbara J. Van Burgel, Bureau of Family Independence,
Maine Department of Health and Human Services

Lisa Morris, Ph.D.¹
Assistant Research Professor
Muskie School of Public Service
University of Southern Maine

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Overview

Established October 1, 1999, Good Wheels to Work is a low interest car loan program offered to TANF participants. The objective of Good Wheels is to eliminate transportation as a barrier to employment. The program is funded by the Bureau of Family Independence, which contracted with Goodwill Industries of Northern New England (in partnership with the Maine Automobile Dealers Association and Key Bank) to administer the program. The financial structure of the program is a revolving loan fund administered by Key Bank, with the low-interest loans guaranteed by the Department of Health and Human Services. The maximum loan amount is \$5,000. In order to be eligible for the program, the person must be a TANF recipient, hold a valid Maine driver's license, and be employed or have a pending job offer.

As of January 2004, 511 loans had been issued. Using administrative data from the Maine Department of Health and Human Services systems, the Good Wheels program, and the Unemployment Insurance system supplemented with additional information collected through a telephone survey of a sub-sample of Good Wheels participants, we examined whether the Good Wheels program is having a positive impact on employment, earnings and independence from welfare. We also analyzed factors related to successful repayment and default.

Overall, the results of this analysis show that Good Wheels is having a net positive impact on employment and welfare use. However, the data also suggest that, for the majority of program participants, the gains may not persist over time. Whether net gains (savings in welfare costs and

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increased income earned by participants) observed in the shorter-run will in the longer-run outweigh the costs of running the program (administrative costs of the program and the money given out in loans minus that which comes back in as loan payments plus interest) will depend on several factors: the number of participants who continue to maintain earnings gains and decreased dependency on welfare over time and the ability of participants to successfully pay off the car loans.

This evaluation was an “in-the-short-run” analysis² and is therefore not able to answer these questions for sure; nonetheless, when comparing earnings and welfare receipt for up to one year before and one year after the car loan, we do find that, on average, participants increased their earnings and decreased their dependence on welfare. We also found that employment retention improved somewhat during the post-loan period. However, we also found that earnings growth over the longer term is driven by a declining number of participants and that, for a majority of Good Wheels participants, labor force attachment remains tenuous and earnings low. We also found that within 12 months, 35 percent of program participants have returned to TANF. Moreover, loan default rates are quite high. Of the 305 loans issued with the first two years of the program (between January 2000 and December 2001), 46 percent had defaulted, 43% had been successfully paid off, and 12 percent were still active.

Methodology

Ideally, when attempting to evaluate the impact of a program, random assignment of clients to control and participant groups is preferable for reliable and accurate analysis. Differences between the participant group and the control group on employment, earnings, and welfare use provide measures of what would have happened in the absence of the car loan; this information is necessary in order to isolate the impact of the program from other factors that impact employment, earning power, and welfare use. In the case of Good Wheels, however, random assignment was not feasible.³

Instead, this evaluation used a second-best alternative to random assignment and experimental design - a pre/post research design. We constructed longitudinal data files on individual participants and examined their earnings, employment, and welfare use before and after the purchase of the car. This methodology assumes that any differences are the result of the program. In addition to enabling a pre/post study design, longitudinal data enable more accurate analysis of labor market success. Employment, job duration (how long the person maintains non-zero earnings or remains in a specific job), and earnings

² We were able to reliably examine post-loan impacts for 12-18 months; post-loan analysis beyond this point is constrained by small samples sizes – the program has not been operating long enough to generate sufficient samples sizes for beyond 12-18 month impact analysis.

³ It is frequently the case that government agencies are unable to permit random assignment program evaluations. In addition, the evaluation of the Good Wheels program was not requested until the program had been up and running for 3 years. This evaluation then, demonstrates what policy researchers can do when asked to conduct evaluations after a program has been implemented and in the absence of a control or comparison group.

mobility over time (e.g., changes in monthly or quarterly earnings over time) reveal more information regarding labor force attachment than do point-in-time observations of earnings and employment (e.g., whether or not employed in the month following car purchase). To supplement the information available in the administrative files, we also conducted a survey of program participants in order to collect additional information regarding the impact of the car loan, employment, and ability to repay the loan.

Sample

As of the start of this evaluation, January 2004, there were 511 participants in the Good Wheels program. Participants are mostly white (96%) and female (94%), with an average age of 32. They have on average 2.2 children; 53 percent have a child less than 6 years old and 17 percent have a child less than one year. Because of the eligibility requirements of the Good Wheels program, Good Wheels participants appear to be a bit better off in terms of employability than the typical TANF recipient: Sixty-eight percent have a high school diploma and 10 percent have some education beyond high school; 49 percent earned at least \$1,000 in the quarter before they entered the program.

The observation period for this evaluation was 15 quarters, beginning Jan. 2000, when the first loans were disbursed and running through September 2003, the most recent date employment and earnings data were available. While some of the analyses were conducted on all 511 participants, most of the analyses were conducted on sub-samples. For example, in order to have balanced before and after information on earnings and employment, analysis samples included those persons for whom we had earnings information for the quarter before and the quarter after they received their loan (N=196) and those individuals for whom we had earnings information going back for a full year before their loan was issued and a full year after it was issued (N=131).⁴ The sample used for each analysis is designated in a footnote below each of the tables.

Because labor market research consistently shows differences in employment outcomes for men and women, all analyses were conducted both on full samples and on women-only samples.⁵ Also, the analyses of loan default were conducted separately on cohorts of participants, including those who received their loans in the programs first year (N=197), second year (N=108), and third year (N=116).

⁴ The availability of earnings and employment information depended on when the loan was received and the availability of data in the Unemployment Compensation files. While loans were issued starting with the 1st quarter of 2000 and our study sample includes participants who received loans through to the 3rd quarter of 2003, we had earnings data only for the 4th quarter of 2000 through to the 3rd quarter of 2003.

⁵ There are too few men (36) in the sample to conduct comparative analyses on female and male sub-samples.

Data

Administrative Data

Administrative data from multiple sources including the Maine Department of Health and Human Services system, the Good Wheels program, and the Unemployment Insurance system were used to construct longitudinal files on individuals tracking their welfare use, employment, and earnings. We also collected more in-depth information on a randomly selected 20 percent sub-sample (N=92) of Good Wheels participants through a telephone survey.

Information specific to the car loan, including car purchase date, loan amount, caseworker, county, and status (default, paid off, still in service), was obtained from Goodwill's Good Wheels administrative database. Individual and family level information on welfare benefits, demographics and family structure were obtained from the Automated Client Eligibility System (ACES), the management information systems used by the Bureau of Family Independence (BFI) to determine eligibility and track welfare program participation. Because ACES is a relatively new system, the data contained in ACES was in many cases incomplete or incorrect. Data from an earlier electronic system used by BFI (WELFRE), data from the system used by Maine's Bureau of Child and Family Services (MACWIS) and hard copies of client files were used to supplement the data in ACES.⁶

While ACES also contains information on income and employment while the family is receiving public assistance, it does not contain data on earnings and employment prior to entering welfare or after leaving the welfare rolls. Therefore, we used data from the Unemployment Insurance system to analyze employment and earnings. The Unemployment Insurance program (administered by the Maine Bureau of Unemployment Compensation) requires that employers submit quarterly payroll information on all employees; this information is used to run the Unemployment Insurance program, track eligibility and determine UI benefits. UI administrative data bases are therefore a useful source of individual-level, longitudinal employment and earnings data. They contain quarterly (3-months) earnings information for each job held by the person. The data also include the standard industry code (SIC) for each employer as well as information on UI benefit receipt.

The biggest limitation of these earnings data is that they do not include information on employment not covered by UI laws, nor do they include information on unreported work.⁷ Another

⁶ This added considerable time and effort to the dataset construction. Because of this we were unable to compile data on a non-random comparison (non-participating) group. We had originally planned to conduct both before and after the loan comparisons on participants as well as comparisons between participants and non-participating TANF recipients. Melanie LaPierre and Laura Hallet provided very capable data entry and quality assurance assistance for the extraction of the data from ACES and the hard files.

⁷ Of the 511 persons for whom we have UI earnings data from the Bureau of Unemployment Compensation, approximately 10 percent (52 persons) have no reported earnings for the entire observation period (12 quarters, 3 years). These people are either not working, are working "under-the-table", or in a job not covered by UI. They were

limitation of the UI earnings data was that the state of Maine BUC holds data for only 12 quarters (3 years) back. This meant that we could get earnings information only for the period spanning the 4th quarter of 2000 to the 3rd quarter of 2003 (October 2000 through September 2003). This meant we did not have sufficient before and after data on the full sample. To adjust for this limitation we analyzed employment and earning outcomes for sub-samples of the 511 program participants so that we had sufficient information to enable a pre/post loan analysis.⁸

Another limitation of the UI data is that it reports earnings in 3-month chunks (quarterly). This limited our ability to observe within-quarter job transitions. This limitation is more serious when analyzing employment among the working poor whose labor force attachment is especially tenuous. Unemployment insurance data also do not include information on occupation or job type, nor does it include information on hours worked or wage rates earned. The data collected during the phone survey was meant to supplement the UI data by asking the types of jobs participants held, the typical hours worked and the hourly wage earned.

It should be noted that there both advantages and disadvantages to using administrative data for analysis. Because they come from multiple sources with different formats, administrative data require fairly extensive programming, cleaning and testing before they are useable for analysis purposes. Moreover, because the information contained in administrative files is for management purposes and not evaluation purposes, the data generally require fairly extensive recoding before variable construction and analysis can begin. In this case, we also found a fair amount of missing or contradictory information in the different files which then required considerable cross-checking.

However, administrative data are still superior to survey and interview data for a number of reasons. First, administrative data provide longitudinal records of employment and welfare receipt on large samples, which enables more accurate and expansive quantitative analyses. Collecting accurate longitudinal information directly from program participants is expensive and often unreliable. We didn't have to rely on an individual's ability to recall past earnings and employment or their willingness to be forthcoming with information (for example, we found that many of the phone survey respondents were not forthcoming about having defaulted on their loan). Finally, the data have already been collected (for

excluded from the employment analyses; if they had been included as zero earnings their inclusion would have generated lowered estimates of average earnings and employment rates.

⁸ Ideally, we wanted earnings records on all Good Wheels participants for *at least* one year prior to car loan and at least 2 years of data post car loan. Since program participants apply for loans and receive cars at different times (the program has been in existence for approximately three and a half years) we had planned to ask the Bureau of Unemployment Compensation for data extractions for the period of January 1999 through the present for each person in our sample. This would have ensured that we have sufficient employment and earnings information for the entire sample, including those who entered the Good Wheels program earlier and those who entered later. For future BFI analysis, I would recommend that arrangements be made with BUC to request the extraction of and savings of earnings records *at the start* of any new program; this will ensure that sufficient baseline (i.e., before-program employment and earnings) information will be available and will enhance impact analyses.

use to manage programs) and are electronically stored making them relatively inexpensive to use (aside from the above mentioned costs for programming, cleaning, and testing).

Survey Data

To supplement the administrative data, additional information was collected from approximately 92 Good Wheels participants. A 40-percent random sample (approximately 200 individuals) was selected and asked to participate in 20-minute phone interview. They were offered a \$25 stipend.⁹ We contracted with the Survey Research Center (SRC) at USM to conduct the phone survey. Questions focused on analyzing before and after-loan employment information, including wage rates, typical hours worked, and types of jobs obtained. Respondents were also asked questions regarding what role the car has played in their ability to work and maintain employment and whether the car has helped them balance work and family responsibilities (transportation to workplace, child care, shopping, doctor's visits, etc.). They were also asked questions related to loan repayment.

Data Analysis Methods

Standard univariate and bivariate statistics were used to compare the employment and earnings and welfare use by participants before and after the car loan was issued and among those who defaulted and those who did not. We also examined employment before and after the loan and earnings growth over time during the post-loan period. In addition, we also examined program outcomes by place (county and labor market region) within the constraints of sub-sample size.

Multivariate regression techniques¹⁰ were used to examine the factors related to earnings gains, employment retention, welfare use, and loan default. Ordinary least squares regression techniques were used to compare the size of earnings gains before and after car loan. Logistic regression models were used to evaluate the factors related to earnings gains and loan default. Survival analyses (specifically, life table techniques and Cox regression) were used to examine the factors related to job retention and post-loan welfare and non-welfare spells. Survival analysis is a particular type of regression technique used to

⁹ The response rate of approximately 45 percent was largely the result of out-dated contact information. For approximately 50 of the 200 individuals, the phone and address information contained in the Good Will database was no longer accurate. We attempted to get updated contact information from Key Bank but, because of their confidentiality policies, they could not provide us with the updated information. Once contacted very few individuals declined to participate in the survey.

¹⁰ Regression techniques are used to simultaneously examine multiple factors assumed to influence outcomes like earnings gains, loan default and employment retention. For example, using regression models we can examine the impact of previous work experience on the likelihood an increase in earnings controlling for the person's education, number and age of children, sex, race, health status, and local labor market conditions. This means we can estimate separate impacts for each of these variables. Regression methods enable us to determine whether the independent variables (e.g., person's education, number and age of children, sex, race, health status, and local labor market conditions) have statistically significant and separate impacts on the dependent variables (in this case, earnings gains and employment and welfare spell length) and if so, in what direction (positive or negative) as well as the relative size of the variable's impact.

examine the factors related to the time it takes for something to happen: in this case, for a person to become unemployed or return to the welfare rolls.¹¹

Results¹²

We first examine earnings, employment (overall rates as well as retention) and welfare receipt before and after loan disbursement. We then examine earnings, employment and welfare receipt during the post-loan period. Finally, we examine default rates and the factors related to loan default. Throughout we integrate information and findings obtained from the phone survey.¹³

Employment and Earnings Before and After

One of the key objectives of the Good Wheels program was to remove unreliable transportation as a barrier to stable employment and, hopefully, upward wage mobility. The results of this study indicate that the program is indeed having a positive, though modest, impact on participants' financial situation. We find that on average, program participants' earnings increased after they got the car and the majority of participants experienced positive net gains in earnings; however, we also find that the gains are small because most participants are still working less than full-time and continue to have trouble retaining employment.

Table 1 displays "snap shots" of participants' earnings for 3 and 12 months before and after the loan is disbursed. As can be seen from these figures, the program is having a positive impact - on average

¹¹ Survival analysis is preferred to logistic regression and ordinary least square techniques when examining the length of employment or welfare spell. Using ordinary least squares to estimate the factors related to job duration is problematic because this method cannot handle censored cases – those that are not observed to transition during the study period (i.e., have not yet left the job). In effect, we don't have a value for the dependent variable for those who remain in the job at the end of the study's observation period. Excluding censored cases can lead to biased estimates, particularly if the proportion of censored cases is not small (which in this case, since the length of observation period post-loan is relatively short, the number of censored cases is high). Using logit regression to analyze the probability that the person remains in the job at, say, 12 months post-loan point ignores information regarding the length of time until the event of transition out of the job. In other words, it treats the case of the worker who leaves one month after the loan disbursement the same as the worker who leaves 11 months after receiving the loan. Ignoring information regarding the timing of the transition will at least compromise the precision of estimates, if not bias them altogether. Survival models, on the other hand, control for time in the job so far and incorporate information from censored cases. Therefore, it is the preferred method of analysis.

¹² The results reported here are a selected subset of the all the analyses conducted; in order not to overwhelm the reader with pages and pages of text, tables and statistics, I have included in this report the key findings, the ones that demonstrate most concisely the impact of the program. I conducted many additional statistical analyses in order to insure that the findings reported here are reliable and accurate. As a result, I feel confident that the summary of findings reported here reflects the reality of the Good Wheels program.

¹³ While a sub-sample of 200 program participants was randomly selected for the phone survey, only 92 actually completed the survey. Therefore, the reader should understand that the survey findings come from a sub-sample of individuals that is not fully representative of the full sample (N=511) of Good Wheels participants. In other words, the 92 who completed the survey are probably not fully representative of the typical participant. For example, the survey sub-sample was less likely to have defaulted. Those who we were unable to reach were very likely to be experiencing more severe employment and financial difficulties. That said, a sample size of 92 individuals is large enough relative to the full sample (511) that their experiences are still relevant and important to evaluating the impact of the car loan program.

program participants' earnings increase after they get the car. For example, in the 3 months before the loan, average earnings were \$1,252; in the 3 months after the loan average earnings increased to \$2,189. A 12-month snap shot shows that average annual earnings increased from \$5,473 to \$7,866.¹⁴ The earnings analysis was then redone on a women-only sample to examine whether the earnings gains were being driven by higher-earning male participants. As the figures in Table 1 show, this does not appear to be the case.

| Table 1: Before and After Earnings¹⁵ | | | | | | |
|--|-----------------|---------|---------|-----|----------|----------|
| | N ¹⁶ | Mean | Median | Min | Max | Std Dev. |
| Overall Sample | | | | | | |
| 3 months before | 196 | \$1,252 | \$835 | \$0 | \$7,130 | 1,403 |
| 3 months after | 196 | \$2,189 | \$2,080 | \$0 | \$8,055 | 1,844 |
| Year Before | | | | | | |
| Year Before | 131 | \$5,473 | \$4,507 | \$0 | \$28,515 | 4,710 |
| Year After | 131 | \$7,866 | \$6,294 | \$0 | \$30,783 | 7,050 |
| Women-Only | | | | | | |
| 3 months before | 180 | \$1,250 | \$959 | \$0 | \$6,975 | 1,360 |
| 3 months after | 180 | \$2,178 | \$2,080 | \$0 | \$8,055 | 1,815 |
| Year Before | | | | | | |
| Year Before | 119 | \$5,383 | \$4,477 | \$0 | \$28,515 | 4,577 |
| Year After | 119 | \$7,882 | \$6,238 | \$0 | \$30,783 | 7,082 |

Table 2 includes analysis of the size of earnings gains, both within the first 3 months before and after and for the year before and after. For example, the average gain in earnings between the first quarter after the loan compared to the quarter before the loan was \$936, with earnings changes ranging from a loss of \$7,006 to a gain of \$7,554. When we examine the difference in earnings between the first year after and the year before the loan we find the average gain over the course of the 12 months after the loan was \$2,392, with earnings changes ranging from a loss of \$8,085 to a gain of \$24,999.¹⁷ The information in Table 2 also shows that the majority of Good Wheels' participants experienced a gain in earnings after

¹⁴ Note that these figures include zero earnings; to exclude zero earnings would be to inflate positive impacts.

¹⁵ Mean: the average earnings; Median: the mid-point in the overall distribution of earnings; Standard Deviation: measure of dispersion around the mean (in both directions).

¹⁶ The sub-samples used for the analysis displayed in Table 1 include those persons for whom we have earnings information for the quarter before and the quarter after they received their loan (N=196) and those individuals for whom we have earnings information going back for a full year before their loan was issued and a full year after it was issued (N=131). The availability of earnings and employment information depended on when the loan was received and the availability of data in the Unemployment Compensation files. While loans were issued starting with the 1st quarter of 2000 and our study sample includes participants who received loans through to the 3rd quarter of 2003, we had earnings data only for the 4th quarter of 2000 through to the 2nd quarter of 2003.

¹⁷ Please note that the average difference is calculated at the individual level (in other words, it is not the difference between average earnings before and average earnings after).

they got the loan. Looking only at the quarter before and after the loan, 63 percent of participants had a gain in earnings; looking at a whole year before and after, 57 percent experienced earnings gains.¹⁸

| Overall Sample | | | | |
|--------------------------|-----------------|----------------|---------------------------|------------------|
| Difference Between.... | N ²⁰ | Average Change | Range in earnings changes | % with net gains |
| 1 qtr before/after | 196 | + \$936 | -\$7,006 to + \$7,543 | 62.8 |
| year before/after | 131 | + \$2,392 | -\$8,085 to + \$24,999 | 57.3 |
| Women-Only Sample | | | | |
| 1 qtr before/after | 180 | + \$927 | -\$3,252 to + \$7,543 | 62.8 |
| year before/after | 119 | + \$2,498 | -\$8,085 to + \$24,999 | 58.0 |

While it is a good sign that the majority of participants are able to increase their earnings as a result of participating in the car loan program, it is troublesome that gains are small and overall earnings remain low. For example, even after a year post-loan average annual earnings rise only to \$7,882 (Table 1). For point of reference, a person working full-time, full-year earning \$6.00 per hour would have earned \$12,480 annually. That the average annual income is only \$7,882 reflects considerable part-time employment²¹ and/or intermittent labor force attachment, as reflected in the employment rates and employment retention rates discussed below.

Table 3 presents a more longitudinal examination of earnings trajectories and employment rates leading up to the loan and after the loan for a full year out.²² The second column displays the average pre-loan quarterly earnings beginning with a year before the loan (4 quarters prior) up to the quarter during which the loan is disbursed. One year before the loan average quarterly earnings are a low of \$925 but by

¹⁸ Note that I again recalculated earnings gains after removing male participants from the sample; this was done to determine whether gains made were being driven by higher-earning men. As before, this does not appear to be the case.

¹⁹ Note: the average difference is calculated at the individual level (it is not the difference between average earnings before and average earnings after).

²⁰ The sub-samples used for the analysis displayed in Table 2 include those persons for whom we have earnings information for the quarter before and the quarter after they received their loan (N=196) and those individuals for whom we have earnings information going back for a full year before their loan was issued and a full year after it was issued (N=131).

²¹ This is somewhat speculative since the limitations of the UI data do not enable us to directly calculate hours worked by Good Wheels participants; however, the survey data collected as part of this study indicate that at least 40 percent of program participants work part-time (measured as less than 30 hours/week) after the loan. Moreover, there is a substantial body of research showing a lot of part-time work among the welfare-receiving population (for a review of welfare-to-work outcomes, see research contained in The New World of Welfare, edited by Rebecca Blank and Ron Haskins (2001).

²² Because separate analysis found little difference between the overall sample and the women-only sample, and because the large majority of Good Wheels participants are women, employment and earning results from here on out are tabulated for the women-only samples.

the time the loan is disbursed average quarterly earnings are up to \$2,047. The second column also displays post-loan quarterly earnings. After the loan, average quarterly earnings reach a high of \$2,152 but quickly begin to decline somewhat to \$1,953 by the 4th quarter after the loan. The employment rates also included in Table 3 display a similar pattern of increasing employment leading up to and right after the loan followed by a decline shortly after the loan. The good news is that the increase in earnings and employment leading up to the loan is larger than the decrease in earnings and employment after the loan. The bad news is that overall employment rates remain considerably less than 100 percent among Good Wheels participants.²³

| Table 3: Pre- and Post-Loan Quarterly Employment Levels (includes zero earners)²⁴ | | | | |
|---|-------------------------|--------------------------|--------------------------|----------------------------|
| | Mean quarterly earnings | % with non-zero earnings | % earning at least \$500 | % earning at least \$1,000 |
| Pre-Loan | | | | |
| 4 qtrs before loan | \$925 | 50.9% | 42.6% | 31.4% |
| 3 qtrs before loan | \$858 | 51.0% | 40.2% | 31.4% |
| 2 qtrs before loan | \$988 | 58.4% | 45.0% | 38.3% |
| 1 qtr before loan | \$1,282 | 70.7% | 60.5% | 50.4% |
| Qtr loan is disbursed | \$2,047 | 87.2% | 82.3% | 75.9% |
| Post-Loan | | | | |
| 1 qtr after loan | \$2,152 | 80.7% | 75.3% | 66.9% |
| 2 qtrs after loan | \$2,023 | 75.5% | 69.7% | 61.5% |
| 3 qtrs after loan | \$2,008 | 72.8% | 63.2% | 57.3% |
| 4 qtrs after loan | \$1,953 | 67.2% | 60.2% | 53.8% |

Table 3 also displays employment rates at three levels: among those with non-zero earnings, among those earning at least \$500/quarter and among those earnings at least \$1,000/quarter. This was done to demonstrate that the pattern of gains and declines is similar at all levels of employment and that even those with somewhat higher sustained earnings experience tenuous labor force attachment, as represented by declining employment rate in the period after the loan.

²³ The reader is reminded that some of what appears to be unemployment is actually a limitation of the UI data; some of the people with zero earnings according to the UI files are actually working in either an uncovered job or “under-the-table”. However, even if the actual employment rate is under estimated, the trend is what matters to the evaluation of the loan’s impact. The fact that a longitudinal examination of the employment rates shows increased employment levels after the loan indicates that the loan is having a positive impact on employment.

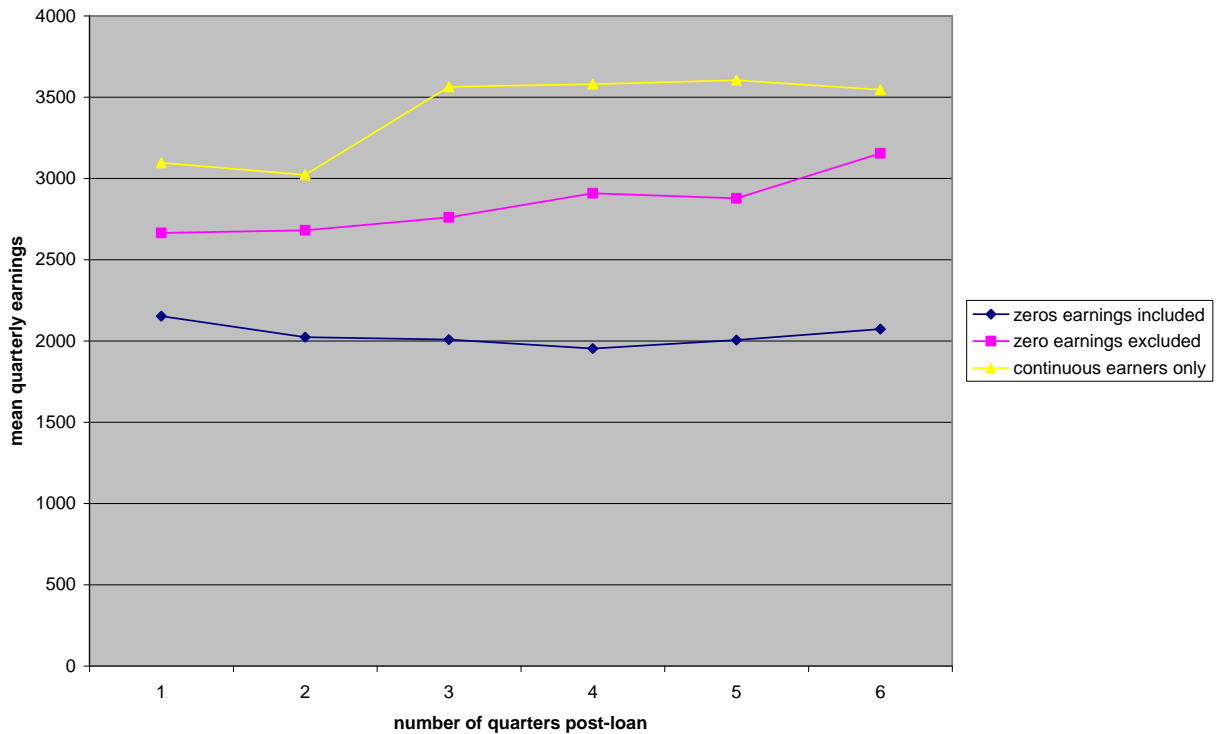
²⁴ The sub-sample used for the analysis displayed in Table 3 includes all female participants for whom we have earnings information for a full year before their loan was issued and a full year after it was issued (N=119).

Table 4 and Figure 1 present analysis of post-loan earnings trajectories in three different ways: for the overall sample, which therefore includes zero earnings, then only for those who had non-zero earnings for that particular quarter, and then only for those who were able to maintain non-zero earnings for the whole 6 quarter period post-loan (meaning only those with continuous labor force attachment). This was done to see if those with more continuous labor force attachment were realizing larger earnings gains.

| Table 4: Post-Loan Quarterly Earnings Trajectories ²⁵ | | | | | | |
|---|----------------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|
| | 1 st Qtr Post-Loan | 2 nd Qtr Post-Loan | 3 rd Qtr Post-Loan | 4 th Qtr Post-Loan | 5 th Qtr Post-Loan | 6 th Qtr Post-Loan |
| Zero earnings included | | | | | | |
| N | 275 | 275 | 241 | 229 | 192 | 168 |
| mean | \$2,152 | \$1,994 | \$2,057 | \$1,999 | \$2,005 | \$2,118 |
| minimum | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| maximum | \$8,055 | \$8,011 | \$9,481 | \$10,383 | \$10,558 | \$9,911 |
| Std. deviation | 1,812 | 1,891 | 2,215 | 2,251 | 2,263 | 2,380 |
| Zero earnings excluded | | | | | | |
| N | 222 | 206 | 168 | 150 | 128 | 109 |
| mean | \$2,665 | \$2,662 | \$2,952 | \$3,053 | \$3,038 | \$3,265 |
| minimum | \$39 | \$4 | \$31 | \$18 | \$32 | \$48 |
| maximum | \$8,055 | \$8,011 | \$9,481 | \$10,383 | \$10,558 | \$9,911 |
| Std. deviation | 1,642 | 1,731 | 2,096 | 2,126 | 2,145 | 2,231 |
| Only those who maintained non-zero earnings for all 6 quarters post-loan | | | | | | |
| N | 85 | 85 | 85 | 85 | 85 | 85 |
| mean | \$3,096 | \$3,021 | \$3,564 | \$3,580 | \$3,604 | \$3,546 |
| minimum | \$39 | \$5 | \$113 | \$18 | \$108 | \$81 |
| maximum | \$7,403 | \$7,844 | \$9,481 | \$10,383 | \$10,558 | \$9,911 |
| Std. deviation | 1,673 | 1,794 | 2,089 | 2,199 | 2,127 | 2,217 |

²⁵ The sample used for this analysis includes all female participants who received their loans between the 3rd quarter of 2000 and the 1st quarter of 2003. The sample sizes get smaller over the course of the 6 quarters analyzed because of the staggered availability of earnings data and loan dates: while loans were issued starting with the 1st quarter of 2000, we had earnings data only for the 4th quarter of 2000 to the 3rd quarter of 2003. This means that for those who received their loans earlier we have a data for all 6 months post-loan but for those who received their loans later, we have less than 6 quarters of post-loan data.

Figure 1: Post-Loan Earnings Trajectories



From Figure 1 and Table 4 we see that when zero earnings are included in the analysis, the earnings trajectory during the post loan period is virtually flat. The picture of earnings growth is improved somewhat when zero earnings (within that particular quarter) are excluded from the analysis: There is a shallow but steady increase over time in average quarterly earnings. When the analysis is restricted to those with continuous non-zero earnings, average earnings are higher overall but the trajectory flattens out pretty quickly after the second quarter post-loan. This probably reflects an earnings ceiling typical of low-skill work: those who start off relatively strong and maintain labor force attachment do not realize big gains because the jobs they occupy do not typically offer big wage rate increases. Also those with stronger labor force attachment are already more likely to be working full-time, thus their incomes cannot increase much by increasing work hours (As a point of reference: a person working full-time earning \$5.15 per hour would make \$2,472 in a quarter; a person earning \$3,500 in a quarter could be working 40 hours a week at \$7.29 per hour).

Another way to examine post-loan earnings trajectories is to determine how many participants were able to increase or at least maintain their earnings from one quarter to the next. Table 5 presents the percent of participants who were able to increase or at least maintain their earnings during the post-loan period for up to 4 quarters (12 months) out. The results displayed in Table 5 show that the modest earnings growth demonstrated above is being driven by a very small percentage of program participants.

Fifty-three percent of the participants were able to maintain or increase their earnings from the quarter the loan was disbursed to the first quarter after the loan, 36 percent were able to maintain or increase their earnings from post-loan quarter 1 to quarter 2 (6 months out), 17 percent from post-loan quarter 1 to post-loan quarter 3 (9 months out), and, by the time we get to 4 quarters post-loan, only 7 percent of the sample (16 individuals) was able to maintain their earnings.

| Qtr of loan to 1 st qtr post loan | 52.5% (121) |
|---|-------------|
| 1 st qtr post loan to 2 nd qtr post loan (6 months out) | 35.8% (82) |
| 1 st qtr post-loan to 3 rd qtr post loan (9 months out) | 17.5% (40) |
| 1 st qtr post-loan to 4th qtr post loan (12 months out) | 7.0% (16) |

Findings from the phone survey of 92 participants reveal some of the specific ways the car helped participants in terms of employment outcomes. First of all, almost all of the participants (97 percent) reported that they car did indeed help them obtain, keep, and/or improve their employment. In addition, 5 respondents reported that they were able to increase the number of hours they work and 7 were able to be more flexible and available for additional work hours. Ten respondents reported that they were more likely to get to work on time and 7 reported that they were less likely to lose the job. Four told us that they were able to take a better job or accept a promotion because of the car. A number of survey respondents indicated that they use the car for work-related travel and tasks and that having reliable transportation was important to their ability to keep the job. For example, one woman explained that she is self-employed and operates a day care and that she uses the care to pick up clients. Comment by a couple of woman illustrate the connections between a person’s financial security and personal and family well-being: one woman stated that felt safer getting to and from work and another reported that the car enabled her to become financially independent from her boyfriend: The car...”made me independent....didn’t need to rely on my boyfriend and was able to move out.”

²⁶ The sample for this analysis (N=229) is restricted to those women for whom we have at least 4 quarters of post-loan data (those who received their loan between the 3rd quarter of 2000 and the 2nd quarter of 2002).

Below are some additional direct quotes from survey respondents:

- “I travel 50 miles a day sometimes for work.”
 - “I work statewide”.
 - My “new job was 45 minutes away...”.
 - “It is easier for me to keep my job because the hours were after the bus service”.
 - “I am able to fill in for people who couldn’t work”.
 - “I can work farther from where I live because I have a reliable vehicle now.”
 - “I use the car for work.... take clients places...”
 - The car “helps me transport my clients”.
 - “I could not have got the job in Waterville without it.”
- “I did not have to rely on taxis or anyone to get me to work.”
 - “It would have been too far to travel without a car.”
 - “I live 35 miles from Portland...I needed the car to get to work.”
 - “I would not be able to work without it.”

Employment Retention

To examine the impact of the car loan on employment stability, we analyze overall employment spell durations and post-loan employment spell durations separately.²⁷ Employment spell duration analysis (conducted using life table survival analysis techniques) is displayed in Table 6. Column 2 displays duration analysis for overall employment spells (employment during the course of the entire study period for which we have sufficient earnings data) and column 4 displays duration analysis for post-loan employment spells only. Note that the figures in Table 6 reflect *continuous* employment (non-zero earnings) as opposed to the cross-sectional, quarter-by-quarter “snap shots”, provided in Table 3.²⁸

The good news is that, while employment retention remains a problem for this group of workers, there is some, albeit slight, improvement in employment retention in the post-loan period. For example, when overall employment is analyzed, 77 percent of program participants are able to remain continuously employed for at least 2 quarters (6 months) while 83 percent of participants are able to remain

²⁷ Because of limitations in data availability (BUC holds data for only 12 quarters back) we do not have sufficient data to examine pre-loan employment spells and post-loan employment spells separately. However, examination of overall employment spells and post-loan employment spells separately does give us reliable information whether employment retention is improved in the post-loan period.

²⁸ Survival models (aka hazard analysis) is a longitudinal analysis as opposed to a cross-sectional, point-in-time statistic. This is a more accurate way to examine employment spell length because of the way it handles censored cases. See footnote #11 for a fuller explanation of hazard models and censoring.

continuously employed for at least 6 months when only post-loan employment spells are examined. However, after one year, employment retention rates in the post-loan period are the same as those when overall employment is examined: in both cases, 63 percent remain continuously employed for 4 consecutive quarters (12 months). The situation improves somewhat in the second year with overall employment retention rates continuing to decline at a faster rate than post-loan employment retention rates. For example, 43 percent are able to remain employed continuously for two years when overall employment retention is examined, compared to 50 percent who are able to remain continuously employed for two years in the post-loan period.

| Table 6: Employment Retention²⁹, continuous employment spells³⁰ | | | |
|--|--------------------------------------|--|------|
| | Overall Employment Spell Duration | Post-Loan Employment Spell Duration | |
| % that remain employed through 1 st quarter | 85.9 | % that remain employed through 1 st Post-Loan Qtr | 93.3 |
| % that remain employed for 2 qtrs | 77.5 | % that remain employed for 2 qtrs post-loan | 82.8 |
| % that remain employed for 3 qtrs | 70.2 | % that remain employed for 3 qtrs post-loan | 70.9 |
| % that remain employed for 4 qtrs | 62.9 | % that remain employed for 4 qtrs post-loan | 62.7 |
| % that remain employed for 5 qtrs | 59.5 | % that remain employed for 5 qtrs post-loan | 58.9 |
| % that remain employed for 6 qtrs | 52.8 | % that remain employed for 6 qtrs post-loan | 54.6 |
| % that remain employed for 7 qtrs | 47.6 | % that remain employed for 7 qtrs post-loan | 50.8 |
| % that remain employed for 8 qtrs | 42.8 | % that remain employed for 8 qtrs post-loan | 50.0 |

²⁹ The sample for this analysis (N=135) is restricted to those women for whom we had at least 8 quarters of post-loan earnings.

³⁰ These statistics are calculated using survival models (aka hazard analysis). Therefore they represent a longitudinal analysis as opposed to a cross-sectional, point-in-time statistic. This is a more accurate way to examine spell length because of the way it handles censored cases: those cases that are not observed to transition during the study period (i.e., have not yet left the job).

Nonetheless, while the loan does appear to be having a small positive impact on employment stability, employment retention still falls off relatively quickly indicating substantial job turnover in spite of the car loan. For example, from Table 6 we see that only 63 percent of loan recipients are able to maintain employment all the way through the 4th quarter (12 months) post-loan. This means that nearly 37 percent have by this time become unemployed, though approximately half of them eventually go on to get another job. Another indication of tenuous job attachment is that, among program participants, the average number of jobs held over the course of the 3-year observation period is 3.7, with a range of 1 to 12.

The survey data also provide additional evidence of high job loss. Among the survey respondents (N=92) we found that only 29 percent still held the job they had at the time of the loan while 62 percent had already moved on to a second or third job. Twenty-four percent (22 respondents) were currently unemployed. When asked the reasons why they were not working, 7 reported the reason they were not working had to do with family and care-giving responsibilities, 6 said it was due to a lack of transportation, 5 said they cannot find work, 4 reported that they had a health condition or a disability, and 3 were going to school full-time. The following are the direct quotes from survey respondents when asked why they were not currently working:

- “I had a baby.”
- “I am completely on TANF and don’t have a car.”
- “Family responsibilities. I’m taking care of my grandfather.”
- “I can’t find a job.”
- “I’m a full-time student and the car is not running at this time.”
- “I have 3 children and 2 of them are small.”
- “I have no transportation and no one wants to hire me.”
- “I was looking for something, but then I stopped...because of my health. I just had surgery.”
- “I needed some time off to spend with my son.”
- “Not much in the economy in Lewiston.”
- “I’m taking care of children and finishing my first year at UMM.”
- ...”not having a car and I lost my license.”
- “I’m disabled.”
- “...health reasons...”
- “I’m full-time, in college.”

Welfare Receipt

We find that, overall, Good Wheels participants are less dependent on TANF and Food Stamps after they get the car loan. There are net declines in the amount of benefits received. However, while the benefit amounts are reduced for a majority of program participants, a majority also continues to receive some TANF benefits and Food Stamps after they receive the car loan. This is because their earnings are low and workforce attachment is tenuous and intermittent, meaning they are still eligible for reduced benefits.

Table 7 displays the average annual TANF and Food Stamp benefits before and after the loan, as well as the changes, and the percentage of participants who saw their dependence on public assistance reduced. The good news is that, for the majority of Good Wheels participants, welfare benefits decrease after the loan is disbursed. For example, the average annual TANF benefit before the loan is \$3,866 and after the loan it is \$2,547. The average decline is \$1,318, with a range in annual TANF benefits changes from a decline of \$7,610 to a gain of \$5,456. (Note: differences are calculated at the individual household level; it is not the difference between average benefits before and average benefits after.) Moreover, 70 percent of Good Wheels participants reduced their dependence on TANF in the year after the loan. The same pattern holds for Food Stamp receipt. The average annual Food Stamp allotment before the car loan is \$2,213 and after the loan it is \$1,736. The average decline is \$476 and 65 percent of all Good Wheels participants saw their Food Stamps allotment go down.

| Table 7: Before and After Loan Annual TANF and Food Stamp Benefits³¹ (Average and Range)³² | | | |
|---|----------------|----------------|-------------------------|
| | Before | After | Difference |
| TANF | | | |
| average | \$3,866 | \$2, 547 | - \$1,318 |
| range | \$0 to \$9,661 | \$0 to \$9,338 | - \$7,610 to + \$5, 456 |
| Percentage of sample receiving less TANF after loan compared to before | | | 70% |
| Food Stamps | | | |
| average | \$2,213 | \$1,736 | - \$476 |
| range | \$0 to \$4,999 | \$0 to \$5,220 | - \$3,551 to + \$3,949 |
| Percentage of sample receiving less food stamps after loan compared to before | | | 64% |

³¹ The sample used for this analysis included all participants who had received their loan in the first two years of the program, by September 2001 (N=268).

³² Note: Differences are calculated at the individual household level (it is not the difference between average benefits before and average benefits after)

Table 8 displays longitudinal analyses (conducted using life table survival analysis techniques) of post-loan *on-welfare* and *off-welfare* spells. The first two columns of Table 8 analyze post-loan TANF spells.³³ Overall this analysis shows that many participants remain attached to TANF during the post-loan period, though the majority does exit within one year after the loan. For example, six months after the loan is disbursed, 59 percent of Good Wheels participants remain on TANF and 41 percent have left. After one year, 41 percent are still collecting benefits, although, as we see above, their benefit amounts are on average lower.

| Months Post-Loan | Post-Loan TANF spells ³⁵ | | Post-Loan Off-TANF Spells | |
|------------------|-------------------------------------|------------------------|---------------------------|----------------------|
| | % remaining on TANF | % who have exited TANF | % remaining off TANF | % that have returned |
| 3 | 74.2 | 25.8 | 78.0 | 22.0 |
| 6 | 58.9 | 41.1 | 70.0 | 29.5 |
| 9 | 45.0 | 55.0 | 65.5 | 34.5 |
| 12 | 41.4 | 58.6 | 64.6 | 35.4 |

The third and fourth columns in Table 8 analyze post-loan non-welfare spells and returns to TANF among those who left in the first place.³⁶ For example, 6 months into a post-loan non-welfare spell, 70 percent remain off and 29 percent have returned to TANF. After a year, 65 percent remain independent from TANF and 35 percent have returned.³⁷ Another thing to note is that when comparing exits from TANF and returns to TANF, returns are less likely and slower. This is determined by comparing the rate at which people exit TANF and the rate at which they return (columns 3 and 5 of Table 8).

³³ Survival models (aka hazard analysis) is a longitudinal analysis as opposed to a cross-sectional, point-in-time statistic. This is a more accurate way to examine spell length because of the way it handles censored cases. See footnote #11.

³⁴ The sample used for this analysis included all participants who had received their loan in the first two years of the program, by September 2001 (N=268).

³⁵ These statistics are calculated using survival models (aka hazard analysis). Therefore they represent a longitudinal analysis as opposed to a cross-sectional, point-in-time statistic. This is a more accurate way to examine spell length because of the way it handles censored cases.

³⁶ Note: only those who have actually been issued a TANF check for some non-zero dollar amount are designated as having returned to the TANF rolls.

³⁷ It would be useful to compare exit and re-entry rates for program participants with those of a non-participating comparison group, as we had planned. We recommend that subsequent analysis should incorporate this sort of comparison.

Loan Default

Another outcome important to the evaluation of the Good Wheels program is the ability of participants to successfully pay off the car loan. Tables 9 and 10 display the analysis of loan status (defaulted, paid-off, and still in service) as of the start of this evaluation (January 2004). When we examine the default rate among the whole sample (N=511) we find that 36.4 percent have defaulted and approximately 30 percent have successfully paid off the loan. However, if we constrain the sample to those who received their loans by September 2002 (N=384), thereby giving participants more time to default or pay off their loan, the default rate increases to nearly 44 percent. If we constrain the sample even further - to those who received their loan by September 2001 (N=268) - the default rate climbs to 46 percent.³⁸

| | N | Default | Paid Off | Still In Service |
|---|-----|-------------|-------------|------------------|
| Overall Sample (Loans disbursed between January 2000 and September 2003) | 511 | 36.4% (186) | 29.7% (152) | 33.9% (173) |
| Loans disbursed between January 2000 and September 2002 | 384 | 43.5% (167) | 37.0% (142) | 19.5% (75) |
| Loans disbursed between January 2000 and September 2001 | 268 | 45.5% (122) | 44.8% (120) | 9.7% (26) |

³⁸ It should be noted that to date (May 13, 2005) 135 of the cars on which a participant defaulted have been returned to the Good Wheels program or otherwise recovered and resold to other participants. The loan value of those recovered and resold is \$376,422 (as per email exchange with Bill Mitchell, Good Wheels.)

Table 10 redoes this analysis on separate cohort (by year of loan receipt) samples and updates the analysis to include more recent loans. This was done to investigate whether changes in program operation (i.e., more careful screening of loan recipients) were having an impact the default rate.

| Table 10: Default and Paid-Off Rates by cohort³⁹ | | | | | |
|---|-----|------------|-------------|------------------|-------|
| | N | Default | Paid Off | Still In Service | Other |
| Received loan during first year of program (January 2000 and December 2000) | 205 | 87 (42.4%) | 118 (57.6%) | 0 | 0 |
| Received loan during second year of program (January 2001 and December 2001) | 116 | 57 (49.6%) | 58 (50.4%) | 0 | 1 |
| Received loan during third year of program (January 2002 and December 2002) | 120 | 53 (44.2%) | 44 (36.7%) | 23 (19.2%) | 0 |
| Received loan during fourth year of program (January 2003 and December 2003) | 129 | 54 (41.9%) | 34 (26.3%) | 41 (31.8%) | 0 |

The default rate for the first year cohort was 42 percent, rising to 50 percent for the second year cohort. The default rates (so far) for the third and fourth year cohorts are 44 percent and 42 percent, respectively, suggesting that program changes are having the desired, albeit small, effect.⁴⁰ However, these statistics also show that despite an apparent decrease in the likelihood of default, at least 40 percent of program participants are still defaulting on their loans.⁴¹

³⁹ Default information was updated and analyzed through April 2005.

⁴⁰ Since defaults generally occur within the first year of the loan (as reported by Bill Mitchell, Good Wheels director) the default rate at this point in time are probably close to what they will be when all the loans are closed (defaulted or paid off).

⁴¹ When a participant defaults on their loan, it is not necessarily a total loss to the Good Wheels program. A certain percentage [Bill is working on this #] of the cars are recovered by the Good Wheels program and resold to later program participants.

To examine some of the possible reasons for this relatively high rate of default, we then compared the individual characteristics, employment, and welfare outcomes of those who defaulted and those who had paid off their loans (those who still had current loans were excluded from this analysis). In order to have given every one time to default or not, the sample used for this analysis was restricted to those who had received their loan by September 2002 (N=384). These results are displayed in Table 11.

| Table 11: Defaulters versus Non-Defaulters (means and percentages)⁴² | | |
|--|----------------|-----------------|
| | Default | Paid-off |
| Number of kids | 2.3 | 2.2 |
| Percent with a child less than 1 year old | 14.9 | 8.5 |
| Percent with a child less than 6 years old | 47.0 | 43.3 |
| Percent with a high school diploma | 62.1 | 78.0 |
| Number of jobs in 12 quarter period | 4.1 | 3.3 |
| Overall employment spell length (quarters) | 5 | 7 |
| Earnings 1 qtr before loan | \$1,048 | \$1,544 |
| Earnings 1 qtr after loan | \$1,881 | \$2,400 |
| Earnings difference between the 3 months Before/After | + \$617 | + \$1,244 |
| Earnings year before loan | \$3,914 | \$4,763 |
| Earnings year after loan | \$5,149 | \$10,865 |
| Earnings difference between the year Before/After | + \$619 | + \$4,145 |
| Percentage with earnings gain (qtr before and after) | 59.7 | 71.1 |
| Percentage with earnings gain (year before and after) | 53.3 | 69.2 |
| Percentage earning at least \$1,000 qtr before loan | 41.6 | 52.4 |
| Percentage earning at least \$1,000 qtr after loan | 55.4 | 72.6 |

In general, those who paid off their loans appear to be more employable than those who default. Non-defaulters have stronger employment histories prior to coming into the program, they have more education, and their children are older. For example, 62 percent of those who default have a high school diploma compared to 78 percent of the non-defaulters. In addition, while both groups have, on average, the same number of children, the children of defaulters are younger than those of the non-defaulters.

⁴² The sample used for this analysis included all participants who had received their loan by September 2002 (N=384).

Forty-two percent of defaulters earned at least \$1,000 in the quarter before their loan was issued compared to 52 percent of those who paid off their loans. The average pre-loan quarterly earnings for defaulters was \$1,048 compared to \$1,544 for non-defaulters, and in the year before the loan, defaulters earned an average of \$3,914 compared to non-defaulters' \$4,763.

Defaulters also appear to get a slower start after the loan is disbursed. Those who later go on to default are less likely to realize a post-loan gain in earnings compared to those who paid off their loans (60 percent compared to 71 percent) and the size of the earnings increase from the quarter before the loan to the quarter after the loan is smaller for defaulters compared to non-defaulters (\$617 and \$1,244, respectively).

Those who default are also quicker to change (or lose) jobs compared to those who pay off their loans. The average number of jobs held by defaulters over the course of the 12-quarter study period is 4 compared to 3 among non-defaulters, and the average employment spell length is 5 quarters for defaulters compared to 7 for non-defaulters.

The higher job turnover rates among defaulters are also borne out by duration analysis of employment spells (conducted using life table survival analysis techniques) displayed in Table 12. The first two columns display duration analysis for overall employment spells (employment during the course of the entire study period for which we have sufficient earnings data) for defaulters and non-defaulters; the third and fourth columns display duration analysis for post-loan employment spells only. Again, the figures in Table 12 reflect *continuous* employment (non-zero earnings) as opposed to the, quarter-by-quarter, cross-sectional “snap shots”.

| Number of qtrs out | Overall Employment Spells ⁴⁴ | | Post-Loan Employment Spells | |
|--------------------|---|----------------------|-----------------------------|----------------------|
| | Default | No Default | Default | No Default |
| | % remaining employed | % remaining employed | % remaining employed | % remaining employed |
| 1 | 82.9 | 86.2 | 88.5 | 95.0 |
| 2 | 69.8 | 79.4 | 75.6 | 85.0 |
| 3 | 60.6 | 74.1 | 57.7 | 76.1 |
| 4 | 53.3 | 65.6 | 46.1 | 68.0 |
| 5 | 48.7 | 60.8 | 44.9 | 64.3 |
| 6 | 42.0 | 55.9 | 38.4 | 62.9 |

⁴³ The sample (N=159) used for this analysis included all female participants for whom we had earnings data for a full 6 quarters post-loan (those who received their loans between September 2000 and March 2002).

⁴⁴ These statistics are calculated using survival models (aka hazard analysis). Therefore they represent a longitudinal analysis as opposed to a cross-sectional, point-in-time statistic. This is a more accurate way to examine spell length because of the way it handles censored cases.

Not surprisingly those who go on to default on their car loans have shorter employment spells compared to those who are able to pay off their loans, both overall and when examining post-loan spells. For example, two quarters (6 months) into a post-loan employment spell, 76 percent of the defaulters are still employed compared to 85 percent of the non-defaulters (in other words, at 6 months, 24 percent of defaulters have lost their job compared to 15 percent of the non-defaulters). A year out post-loan, only 46 percent of the defaulters remain employed compared to 63 percent of the non-defaulters.

Taken together, these findings - lower earnings post-loan (see Table 11) and the lower rates of employment retention (Table 12) – both suggest that lower incomes are significant factor in loan default. This is supported by the feedback provided us by the 92 survey respondents: 44 percent said they were having a (very to somewhat) difficult time making loan payments, 36 percent they were having an okay, though not easy time making payments, and 20 percent reported that they had no problem making loan payments.

Loan default may also be related to the types of jobs Good Wheels participants are obtaining. If defaulters are more likely to end up in temporary or “dead-end” jobs they may be less inspired or less able to remain employed. Our analysis of job type is limited by the data available to us (UI data do not contain information on occupational type; they contain information on industry type only), but we are able to offer some suggestive, albeit tentative, findings. We found that, for the overall sample, the large majority of jobs are being obtained in the service (49 percent) and retail (34 percent) sectors, with 10 percent in manufacturing. We also found that approximately 5 percent of all jobs were obtained through temporary agencies.⁴⁵ When we analyzed the data separately for those who had defaulted on their loans and those who had successfully paid off their loans we found some differences: those who have successfully paid off their loans were more likely to have found jobs in manufacturing (14 percent) compared to those who had defaulted (10 percent), and defaulters appear to be somewhat more likely to have obtained jobs job through a temporary agency (7 percent compared to 3.6 percent). It also appears that defaulters may be somewhat less likely to have obtain jobs in the retail sector and more likely to obtain service sector jobs, compared to those who had paid off their loans, but these differences were not statistically significant.

While the UI data do not contain information on occupational type, we did collect information on job type from the 92 survey respondents. The types of jobs that survey respondents overall, defaulters, non-defaulters, and those who’ve paid off their loans, reported obtaining were, for the most part, those typically held by welfare recipients and other low-skilled workers: non-professional service and retail

⁴⁵ Note: this under-estimates the number of temporary jobs because many of the jobs designated as “business service” sector jobs, though not obtained through a temporary agency intermediary, are actually temporary positions.

jobs; only a few respondents reported obtaining management or professional sales jobs, and only two reported being self-employed (one opened her own day care home and the other started a DJ business).

Table 13 lists the types of jobs obtained by respondents who reported having either defaulted or had the car repossessed or recovered by Good Will and those who had paid off their loans. While the number of respondents who reported having either defaulted or lost the car (N=17) or paid off their loans (N=13) was not large enough to conduct a statistical analysis of job types, there does appear to be some differences in the types of jobs the two groups are obtaining (See Table 13).

| | Defaulters (N=17, 36 jobs) | Paid off (N=13, 28 jobs) |
|---|----------------------------|--------------------------|
| | Number of jobs | Number of jobs |
| Teachers aide/social services aide/intern | 1 | 4 |
| Restaurant/ fast food (supervisor, assistant manager, waitress, bartender, dishwasher, cashier, cook) | 9 | 5 |
| Personal Care Attendant/ CNA | 6 | |
| Medical secretary | | 1 |
| Book Store Supervisor | | 1 |
| Cook/institutional | | 2 |
| Housekeepers, chambermaid, or janitor | 9 | 1 |
| Receptionist/administrative assistant/secretary/clerical | 4 | 8 |
| telemarketing | 2 | |
| Product inspector/factory | | 1 |
| retail clerk/retail sales floor representative/retail sales | | 4 |
| Delivery person | 2 | |
| carpentry | 1 | 1 |
| Self-employed - DJ | 1 | |
| Taxi driver | 1 | |

Those who've defaulted on their loans appear to be obtaining less desirable jobs in terms of skill level and potential for skill development and in terms of degree of unpleasantness and difficulty. For example, those who've defaulted on their loans are more likely to have taken jobs as chambermaids and housekeepers or personal care attendants and nurses' aides, while those who've successfully paid off their loans were more likely to report working as teachers' aides, social service interns, administrative assistants or clericals, and as retail sales associates. Defaulters were more also more likely to be working in the restaurant and fast food industry while non-defaulters were more likely to be working in retail sales.

However, we must stress again that the data do not support a definitive analysis of job types; this is a very tentative, at best, analysis.⁴⁶

The data collected from the survey of a sub-sample of program participants provides additional information on default. Of the 8 who told us that they had defaulted on the loan, 4 respondents reported that they were unable to make the payments because their income was too low, 2 reported that they had been fired or laid off from their job for reasons unrelated to the car, and 2 reported that they had lost their job for reasons related to the car breaking down or being otherwise unreliable.⁴⁷

Analysis of welfare receipt among those who defaulted on their loans and those who paid off their loans reveals that, while there is not much difference in welfare dependence (see Table 14) in the year before and the year after the loan (in fact, those who do not default are less likely to reduce their dependence on Food Stamps), defaulters are more likely to return to TANF, after having left, in the post-loan period.

Table 14: Welfare Outcomes, by Default Status (means and percentages)⁴⁸

| | Defaulted | Paid-Off |
|---|------------------|-----------------|
| TANF benefit in the year before the loan | \$4,148 | \$3,838 |
| TANF benefit in the year after the loan | \$2,719 | \$2,612 |
| Change in annual TANF benefits pre- to post-loan | - \$1,429 | - \$1,226 |
| % with a decline in TANF benefits post-loan | 71.0 | 73.1 |
| Food Stamps benefit in the year before the loan | \$2,460 | \$2,079 |
| Food Stamps benefit in the year after the loan | \$1,961 | \$1,653 |
| Change in annual Food Stamps benefits pre- to post-loan | - \$498 | - \$425 |
| % with a decline in Food Stamps benefits post-loan | 67.3 | 62.2 |

⁴⁶ We do not have sufficient data to quantitatively analyze job type and the role it might play in retention and subsequent default. We recommend that BFI consider having caseworkers collect more information from TANF recipients on past jobs and reasons for leaving. This would enable a more reliable analysis of the role job type plays in employment retention, earnings, and loan default.

⁴⁷ We suspect that more than 8 of the 92 survey respondents defaulted on their loan. Of the 92 participants surveyed, thirty-nine (42 percent) no longer have the car they obtained through the Good Wheels program. Eleven of the 39 reported that the car had been recovered or repossessed by Good Will and 2 more reported that they had to return the car to Good Wheels because they couldn't pay the loan. We suspect that some of these folks probably defaulted on their loan but were unwilling to reveal that information.

⁴⁸ The sample used for this analysis included all participants who had received their loan by September 2002 (N=384).

Table 15 displays the results of post-loan *off-welfare* spells by default status.⁴⁹ From the statistics contained in Table 15 we can see that the risk of returning to the welfare rolls is greater for those who default on their loans compared to those who are able to pay off their loans. For example, after 6 months off welfare, 15 percent of those who are able to pay off their loan have returned to TANF compared to 31 percent of those who default. After a year off TANF, nearly half of those who default have returned compared to 33 percent of those who paid off their loan.

| Number of months | Defaulted | | Paid Off | |
|------------------|-----------------------|-----------------------------|-----------------------|-----------------------------|
| | % who remain off TANF | % who have returned to TANF | % who remain off TANF | % who have returned to TANF |
| 1 | 92.6 | 7.4 | 95.7 | 4.3 |
| 2 | 88.7 | 11.3 | 93.9 | 6.1 |
| 3 | 79.8 | 20.2 | 88.2 | 11.8 |
| 4 | 76.7 | 23.3 | 88.2 | 11.8 |
| 5 | 71.3 | 28.7 | 86.1 | 13.9 |
| 6 | 69.1 | 30.9 | 85.0 | 15.0 |
| 7 | 63.5 | 36.5 | 77.9 | 22.1 |
| 8 | 58.9 | 41.1 | 76.6 | 23.4 |
| 9 | 55.4 | 44.6 | 74.0 | 26.0 |
| 10 | 52.9 | 47.1 | 72.7 | 27.3 |
| 11 | 52.6 | 47.4 | 68.6 | 31.4 |
| 12 | 50.5 | 49.5 | 67.2 | 32.8 |

We also conducted an analysis of default rates by county and by region, grouped according to Good Wheel’s caseworker, and found no statistically significant difference, although this analysis was constrained by small sub-sample sizes (As we demonstrate above, in order to conduct a reliable and accurate analysis of default rates one has to conduct a cohort analysis – cases grouped according to loan date - this generated sub-sample sizes by region too small for statistical analysis). Among the Good Wheels caseworkers, five had large enough caseloads to warrant statistical analysis (T. Hogan, G. Perkins, C. Snow, M. Brown, and R. Carr). Two of them have a slightly higher success in terms of lower than average default rates and higher than average paid-off rates, though not statistically significant because of sample size constraints (C. Snow, for example, and R. Carr). However, because sample sizes

⁴⁹ These statistics are calculated using survival models. They therefore represent a longitudinal analysis as opposed to a cross-sectional, point-in-time statistic. This is a more accurate way to examine spell length because of the way it handles censored cases.

⁵⁰ These statistics are calculated using survival models (aka hazard analysis). Therefore they represent a longitudinal analysis as opposed to a cross-sectional, point-in-time statistic. This is a more accurate way to examine spell length because of the way it handles censored cases.

⁵¹ The sample used for this analysis was restricted to those who had received their loan by September 2002 (N=384).

did not permit cohort analysis, this finding should be taken as very rough and probably not very reliable. Additional analysis of this sort will have to wait until cohort sub-sample sizes are larger.

Regression Analysis

Regression techniques⁵² were used to determine which factors were most influential in determining positive employment, welfare, and loan outcomes. Although a number of different regression models were tested, only the statistically significant and key findings are reported here. Regression analysis indicates that previous workforce attachment and the presence of a young child are the most important factors related to employment success as well as the likelihood of loan default.

Participants who earned at least \$1,000 in the quarter prior to receiving the loan were more likely to experience earnings gains and had longer post-loan employment spells. In certain of the regression analyses it was determined that the presence of a young child (one year or less) had a negative effect on labor market success. Women who had young children had shorter employment spells (the presence of a baby did not, however, significantly impact earnings levels). Having a high school diploma was found not to be statistically related to earnings gains or employment retention when the variable measuring pre-loan earnings was also included in the equation. This is because the two variables are highly correlated and because pre-loan workforce attachment was found to be a better predictor of labor market success than is a diploma.

Logistic regression analysis (a multivariate technique that enables us to simultaneously examine the influence of a number of factors on the likelihood of default) showed that those who earned at least \$1,000 the quarter prior to the loan being disbursed were less likely to default. The same analysis also showed that those with a child younger than 1 were more likely to default. That the same variables that predict employment duration also predict default indicates, not surprisingly, that default is strongly related to employment success. This is not unexpected, of course, but it is always useful to have statistical verification.

While it is not surprising that employment success and the ability to pay off the loan are linked, the question remains: which comes first, employment troubles or repayment troubles? We turn to the survey data to try and find some answers. First of all, we found that those who participated in the survey were not completely forthcoming about their default status; of the 34 survey respondents who had,

⁵² We ran various regression models testing the significance of the following independent variables: age of person, marital/partner status, race, number of children, presence of a child less than 6, presence of a child less than 1, presence of a child older than 15, diploma, more than a high school diploma, earnings the quarter before the loan, and whether they had a personal/medical problem or a family member with a problem. Different regression models are used for different dependent variable types. OLS and logistic regression were used to examine earnings gains pre and post-loan and Cox regression was used to examine employment retention and post-loan returns to TANF. Women-only samples were used in these analyses; there were too few male Good Wheels participants to enable reliable analysis by gender.

according to Good Will's records, defaulted, only 17 told interviewers that they had and then only 9 were willing to answer the question asking what had caused them to default. Of the nine: 3 said their income was too low, 3 said they defaulted because they had lost their job, 2 said they defaulted because the car broke down or was unreliable, and 1 said she had an unexpected large bill that prevented her from making loan payments.

Cox regression models were used to examine the factors that influence both on-welfare and off-welfare spell durations. While we found that similar factors - before-loan work experience and the presence of a very young child - played some role in post-loan welfare use, none of the relationships were found to be statistically significant. This could be the result of relatively small sample sizes or the lack of a direct effect. It may be that what leads a person back on to welfare is more complicated than what causes them to lose a job.

A number of variables that welfare-to-work researchers generally find to be significantly related to employment and welfare outcomes were not found to be significant. For example, the variables indicating whether the person had a spouse or partner, the sex and race of the person, number of children, and whether the person had medical problem or a family problem (child disability, spouse or other family member with medical problems, etc.) were not found to be significantly related to employment or welfare outcomes. However, this may be due to the fact that large numbers of cases had missing data on these variables (the information was missing or incorrect in ACES or hard copy file) or that there is little variation on these variables among this sample (the majority are white, female, and single, etc.). Either of these factors can lead to statistical insignificance. Also, the sample sizes by region were too small to conduct a reliable regional analysis and to control for the influence of local labor market conditions.

Survey Results

In addition to the survey results reported above to supplement the quantitative analyses, in this section we report additional survey information important to the assessment of the Good Wheels program. The reader is reminded, however, that the survey findings come from a sub-sample of individuals that is not fully representative of the full sample (N=511) of Good Wheels participants (see footnote 13). In other words, the 92 who completed the survey are probably not fully representative of the typical participant. For example, the survey sub-sample was less likely to have defaulted and those who we were unable to reach were very likely to be experiencing more severe employment and financial difficulties. That said, a sample size of 92 individuals is large enough relative to the full sample (511) that their experiences are still relevant and important to evaluating the impact of the car loan program.

Survey Data on Status of the Car

Of the 92 participants surveyed, thirty-nine (42 percent) no longer have the car they obtained through the Good Wheels program. Eleven of the 39 reported that the car had been recovered or

repossessed by Good Will and 2 more reported that they had to return the car to Good Wheels because they couldn't pay the loan. In addition, 16 of the 39 reported that the car broke down and was no longer useable (of these 16, 3 said that Good Wheels helped them get another car and 4 said they returned the car to Good Wheels but did not get another). Five respondents said they no longer had the car because it had been "totaled" or badly damaged in an accident. On the brighter side, 5 survey respondents reported that they had sold or traded in the car.

Survey Data on Other, Non-Employment Outcomes

In addition to questions regarding how the car had assisted them in ways related to employment, the 92 survey respondents were also asked to discuss the impact of the car on their and their family's overall well-being. In response to the question "Besides getting to work, did the car help you in other areas of your life", 67 respondents (74 percent) reported that the car made it easier to shop and get to appointments. Twenty-eight (31 percent) reported that the car helped get their kids to and from child care or school. Fifteen (16 percent) reported that the car enabled them to have more of a social life and to visit friends and family. Five (5 percent) said they used the car to take their children on trips and recreational excursions. In addition, 19 survey respondents gave the following alternative responses:

- "I am able to get up to Skowhegan to see my mom."
- "The car enables me to go to school."
- "The car helps in all areas, including getting to work and going out on my own."
- "I am able to select the best day care..."
- "...I helped a neighbor get a job because I took her to work."
- "I get the kids to appointments."
- "I help out with my grandkids..."
- "I go to University of Maine and it helps me to get there, and to just get around".
- "The car helps me..."to do laundry".
- "My son lives out of state and I can see him more often now that I have a reliable vehicle."
- "The car saved me money because now I can go to Auburn to get groceries instead of right here in town where it is more expensive."
- "I can take college courses now."
- "I took classes at adult ed."
- I used the car for "visitations with the kids' father."
- "I used the car "to do volunteer work, giving rides to doctors appointments."
- "I was able to buy a home because of full-time employment."
- "We can travel as a family now."

Survey Respondents Assessment of the Good Wheels Program

Information collected from the 92 survey respondents indicates that Good Will is with few exceptions providing intensive and direct assistance to program participants as they go through process of obtaining a loan, choosing and buying a car, and getting it inspected and insured. Almost all the respondents reported that Good Wheels staff provided direct help in applying for the loan, including accompanying them to the bank and helping them deal with the loan officers. Sixty-four of the respondents (70 percent) reported that Good Wheels staff had helped them choose a car and 21 (23 percent) reported that Good Wheels staff directly helped them deal with car sales people. Eight of the survey respondents reported that Good Wheels had also assisted them in getting the car repaired. Specific comments made by the respondents include:

- “They came to work to fill out the paperwork, picked me up at home to go to the bank, and took me to pick up the car. And everything went quite fast.”
- “They came around to pick me up and they explained every thing.”
- “They helped me with the registration and getting insured.”
- “Everything went fast. I got a car and loan in three days.”
- “They got a car from the dealership and brought it to me to test drive.”
- They checked the car all out and helped with the inspection.”
- “”They helped me find the car that was exactly right for me.”
- “They picked me up to get the car and to do the paperwork.”
- They helped me see my options and...what I could afford.”
- “They really promptly helped me get a vehicle.”
- “They took me on a test drive, helped with inspection, and when the car quit they helped to get it fixed and fixed the loan.”
- “They checked on me after to make sure things were going okay.”
- “They took back the lemon and cancelled the loan.”
- “They transported me to see the vehicle and brought me to the bank.”
- “They transported me back and forth to look for a car and to the bank.”
- “They went over the car before I got it, and they were there for everything, asked all the questions and then took me to get the car.”
- “They explained when and how to keep the car maintained.”

When asked if they had any feedback or advice for Good Wheels staff, survey respondents were also very forthcoming. Sixty three of the 92 respondents provided 67 specific comments. Of the 67 comments, 33 were very positive in nature, 24 were negative or constructive criticism, 8 comments were related to the difficulty low-income individuals have in paying loans, and 2 comments were made regarding communication difficulties between Good Wheels staff and program participants. By far, the large majority of the critical comments were related to the low quality of the cars and the high rate of break down. Below are specific comments made by survey respondents:

- “extremely good program...motivating for people to gain their independence.”
- “Good Wheels staff was very good to me.”
- “Have to keep in mind that giving loans to usually single moms with low income. I missed 2 payments and they took the car. I think they should know that I had very low income and [yet] they set me up with a car I couldn’t afford.”
- “I had negative treatment by the car salesman due to the nature of the program. Good Wheels staff handled it well. They should tell salespeople to treat us the same as others.”
- “I think it’s a great program. It helped me out when I needed it.”
- “I think it’s an awesome program. I love my car. I was impressed with them and pleased.”
- “I would not have kept the first job if not for the car. They helped me a lot.”
- “It would be helpful if they helped participants learn about the vehicle instead of taking the first vehicle.”
- “Make sure it’s a good and safe car or don’t bother helping. The car I got was not reliable or safe. I own the car now but it’s not running. I have a list of things I need to have fixed.
- Make sure the cars are in good condition. I got a lemon.”
- “Just think it’s a wonderful program to help people get back on their feet and teaches people to be responsible.”
- Keep up the good work! The car was such a blessing and a God-send to me and my family of 5 children. It’s incredible, we have enough space and we can travel legally and safely. We would like to be your poster children...”
- Need better communication process. I had difficulty getting in touch with Good Wheels person. I had problems with the car and he never got back to me to help me in a timely way.”
- “It is the best assistance program in the state. It provides self sufficiency and progressives. It gives the opportunity to get self respect back.”
- “There was no follow-up. They did not help me when I had problems with the car.”

- “There was no help for upkeep for the car. The car needed a new muffler and I did not know about this when I bought it.”
- “Program really helped me a lot. I recommend it to other people.
- “They should help inspect the car more. Test drive is not enough. I needed help with repairs.”
- “It’s the best program. I was given a second chance.”
- “The person who helped me was excellent. I have nothing but praise. It was an excellent program. It helped me greatly.”
- “Car fell apart.”
- “They need to check out the cars better. I’ve had a lot of problems with the car.”
- “They need to have staff that know what they are doing with cars so that they can pick reliable ones. I know others who had unreliable cars through this program too.”
- “They did a good job helping me get the vehicle. I would not have it if not for them. They helped me through the whole process.”
- “They did a really great job. They looked for the type of vehicle I needed, at a price I could afford. They were there for me the whole time.”
- “Program employees are not patient with the people they work with.”
- “I think we should have looked at more vehicles first. This one wasn’t worth the money.”
- “The person assigned to me was excellent, was a blessing.”
- “very good program”
- “Good program on paper but it does not help in reality.”

Conclusion and Recommendations

This evaluation reveals both good news and bad news in terms of the effectiveness of the Good Wheels car loan program. The good news is that the majority of participants realize earnings gains after the loan and employment retention is improved. Further good news is that welfare dependence does decline in the period after the loan. The bad news is that only a minority of participants continues to realize earnings gains in the longer-run. Also, there continues to be considerable part-time work and tenuous labor force attachment among program participants. Therefore, average earnings remain low and the default rate high. In a nutshell, the car appears to be helping many participants, though not the majority, and it appears to be having better luck with those who are already relatively more employable.

While it is unlikely that any welfare-to-work program is going to be able to help large numbers of this hard-to-employ population (the reasons for their inability to maintain earnings and retain jobs are myriad and complicated and often costly to solve), to be cost effective, or at least financially sustainable,

Good Wheels will have to ensure that enough participants continue to maintain earnings gains over time and thus the ability to successfully pay off the car loans and afford the ongoing maintenance that is typical of cars valued at \$5,000 and under. There are two ways to ensure the financial solvency of the program and improve its cost effectiveness: target the program to welfare recipients with fewer barriers to sustained employment or combine the car loan with other employment services. For example, if the program were targeted to those for whom the lack of reliable transportation was the primary barrier to employment retention, the program would be more likely to be cost effective. Another strategy might be to more tightly link the car loan program with employment retention and job-placement services. For example, if participants were simultaneously provided services to help them obtain better jobs and also to help them retain jobs once they have them, more of them might achieve some financial security and the ability to repay their loans.

