Appendix

This appendix provides additional information about three subjects: (1) performance measures for major workforce programs that are not presented in the main evaluation report (starting on p.1); (2) further details on our methodology for the comparison analysis presented in Chapter 2 (p. 9); and (3) complete tabulations for our surveys of individuals that received workforce services (p. 16).

PERFORMANCE MEASURES FOR OTHER MAJOR WORKFORCE PROGRAMS

In Chapter 2 of our evaluation report, we focused on how Minnesota had performed on the federal performance measures for the Adult, Youth, and Dislocated Worker programs and for Adult Basic Education. In this section, we briefly summarize Minnesota's outcomes on performance measures for other key federally funded programs.

Vocational Rehabilitation Services and State Services for the Blind

Vocational Rehabilitation Services and State Services for the Blind both provide workforce services under the Workforce Investment Act. However, unlike most other workforce programs (including the Adult, Dislocated Worker, and Youth programs), these programs receive funding and oversight from the U.S. Department of Education instead of the U.S. Department of Labor.

The U.S. Department of Education has promulgated seven performance measures for vocational rehabilitation programs and state programs for the blind. These seven measures are divided into two categories: (1) Employment Outcomes and (2) Equal Access to Services. The same measures are used to assess the two programs' performance, but the targets differ on many of the measures because the two populations face different challenges. To achieve successful performance, state programs must meet targets for a subset of the measures, as described more fully in Table A.1. The targets are constant and do not change regardless of the health of the economy. If a state program does not meet enough performance targets, it may be required to develop and implement a program improvement plan in conjunction with the U.S. Department of Education to address the low outcomes. Only states that fail to complete or implement an improvement plan are subject to financial penalties.

As shown in Table A.2, Minnesota had met the required level of performance on these targets in all years since 2003 in the employment outcomes category until

Table A.1: Federal Performance Measures for Vocational Rehabilitation Services and State Services for the Blind, 2003 to 2009

Performance Measures	Federal Targets: Vocational Rehabilitation Agencies	Federal Targets: Agencies Serving the Blind
(1) Employment Outcomes		
1.1. Number of program participants that achieve an employment outcome and exit the program in the current year compared to the number that did so the previous year.[a]	Equal or exceed previous period	Equal or exceed previous period
1.2. Percentage of program exiters that have achieved an employment outcome.	55.8%	68.9%
1.3. Of those achieving employment outcomes, the percentage earning at least the minimum wage.	72.6%	35.4%
1.4. Of those achieving employment outcomes and earning at least minimum wage, the percentage with significant disabilities.	62.4%	89.0%
1.5. Of those achieving employment outcomes and earning at least minimum wage, the ratio of average hourly earnings to statewide average hourly earnings for all employees.	0.52	0.59
1.6. The difference between (a) the percentage of program exiters whose largest source of income was self-earned and (b) the percentage of the same participants that had reported their largest source of income was self-earned at program entry.	53.0	30.4
(2) Equal Access To Services		
2.1. The ratio of the service rate for individuals from minority backgrounds to the service rate for nonminority individuals.	0.80	0.80

NOTES: The shaded measures are “primary” measures. In order to successfully meet the U.S. Department of Education's performance criteria, a state must do all of the following: (1) meet at least four of the six targets under Employment Outcomes, (2) meet at least two of the three primary targets under Employment Outcomes, and (3) meet the target under Equal Access to Employment. Descriptions of the measures are condensed from the more precise language in the Code of Federal Regulations.

[a] For agencies serving the blind, the comparison is between the current two-year period and the previous two-year period.

SOURCE: 34 *CFR* 361.84 and 361.86 (2009).

the most recent year. However, it has struggled to meet targets for equal access to services, with both programs failing several times to meet the required target. Vocational Rehabilitation Services developed and implemented a program improvement plan with federal approval. State Services for the Blind has not been required to develop a formal program improvement plan; the U.S. Department of Education has approved its ongoing efforts to ensure that individuals from minority backgrounds have equal access to its services.

Table A.2: Federal Performance Targets Met by Vocational Rehabilitation and State Services for the Blind, 2003 to 2009

Vocational Rehabilitation	2003	2004	2005	2006	2007	2008	2009
Employment Outcomes							
All targets (must meet at least 4 of 6 targets)	4	4	4	5	4	5	3
Primary targets (must meet at least 2 of 3 targets)	3	2	2	2	2	2	2
Equal Access To Services (must meet the 1 target)	1	1	0	0	0	1[a]	1
State Services For The Blind							
Employment Outcomes							
All targets (must meet at least 4 of 6 targets)	5	4	5	4	4	4	4
Primary targets (must meet at least 2 of 3 targets)	3	3	3	3	3	3	3
Equal Access To Services[b] (must meet the 1 target)	1	0	0	0	0	0	0

[a] Vocational Rehabilitation Services achieved an outcome of 0.797 in 2008, just shy of the target of 0.80. U.S. Department of Education policy is unclear on whether outcomes are rounded to the nearest hundredth, but an agency official stated in an e-mail to a Department of Employment and Economic Development administrator that Minnesota had met the target "for all intents and purposes."

[b] State Services for the Blind has not met the federal equal access standard in many years because a state automatically fails the standard if the total number of exiting minority participants is too low. The U.S. Department of Education has not required Minnesota to adopt a program improvement plan to address its inability to meet this target in any of the years shown.

SOURCE: Office of the Legislative Auditor, analysis of U.S. Department of Education, Rehabilitation Services Administration, "Evaluation Standards and Performance Indicators for the Vocational Rehabilitation Services Program" (multiple documents), http://www.ed.gov/rschstat/eval/rehab/standards.html, accessed January 4, 2010, and Department of Employment and Economic Development data.

Minnesota Family Investment Program Employment and Training Services

The Work Participation Rate and the Self-Support Index are the two key performance indicators for Minnesota Family Investment Program (MFIP) employment and training services. Both measures can affect the amounts that counties and Native American tribes receive from the MFIP Consolidated Fund, which provides funding for a variety of employment-related services.

Work Participation Rate

The U.S. Department of Health and Human Services requires states to submit monthly individual- and case-level information about participants in the

Temporary Assistance for Needy Families program, known in Minnesota as MFIP. It uses these data to compute a Work Participation Rate, which is intended to show the percentage of MFIP recipients engaged in employment or employment-related activities.[1] The department sets a target for each state; the target is initially set at 50 percent but is then lowered by applying a "caseload reduction credit," under which states are rewarded for reducing their overall caseload. For federal fiscal year 2009, Minnesota's target was 27.9 percent.

States that do not meet their targets may have their funding reduced, although low-performing states may avoid the penalty by applying for an exception or submitting a corrective compliance plan. According to Minnesota law, if Minnesota is penalized for not meeting its federal Work Participation Rate target, the state pays 88 percent of the penalty and counties pay 12 percent.[2]

The federal calculation of the Work Participation Rate was altered for federal fiscal year 2007. As a result, Work Participation Rate outcomes are not comparable before and after 2007. Minnesota, like many states nationwide, did not meet its new Work Participation Rate target in the first year following the change in federal policy. However, Minnesota met its Work Participation Rate target in the following year.

The federal requirement applies only to states, not to smaller units of government. However, in an effort to prompt better statewide performance, the Minnesota Department of Human Services (DHS) calculates a county-level Work Participation Rate. Counties and Native American tribes are able to earn an additional 2.5 percent of their MFIP Consolidated Fund allocations by meeting the statewide Work Participation Rate target or by improving at least five percentage points from the previous year's outcome.[3] Prior to 2008-09, DHS did not apply the caseload reduction credit to the county targets, so the county targets were often much higher than the target the state was required to meet.

As shown in Figure A.1, relatively few counties have been able to earn the automatic performance bonus. However, counties that fall below the target may still earn the bonus by having a program improvement plan approved by DHS. Most counties and tribes that have not met the target have received the 2.5 percent of additional funding through this alternative process.

Self-Support Index

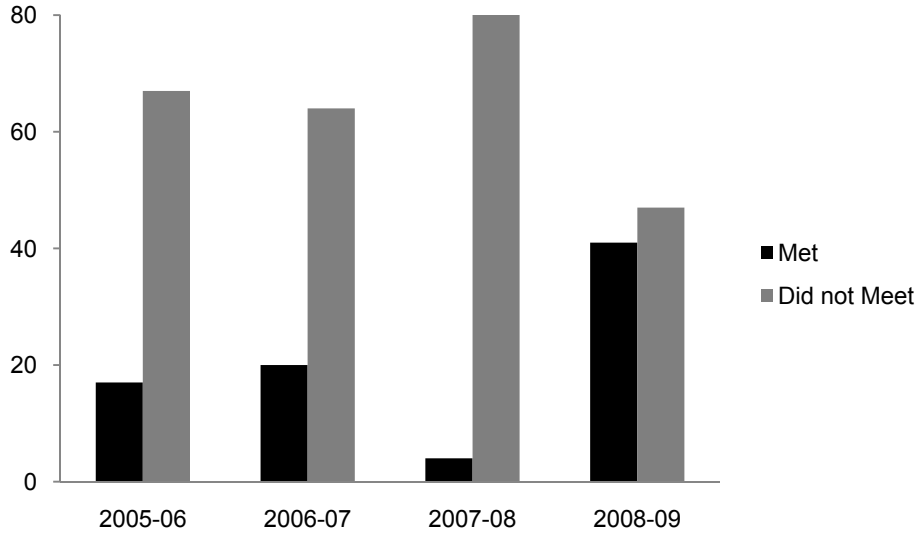
DHS introduced the Self-Support Index in 2002. This state-required measure is calculated by tracking MFIP recipients for three years after each quarter in which they received benefits. A person is counted as a success in the self-support index

[1] The measure only applies to "caregiver" recipients (i.e., it does not apply to children). Some recipients that meet certain criteria are excluded from the calculation, such as caregivers of disabled children not attending school.

[2] *Minnesota Statutes* 2009, 256J.751, subd. 5a.

[3] For further details on the TANF Work Participation Rate in Minnesota, see Minnesota Department of Human Services, "The TANF Work Participation Rate," *MFIP Evaluation Notes*, Issue 18 (St. Paul, April 2009), http://edocs.dhs.state.mn.us/lfserver/Legacy/DHS-4064T-ENG.

Figure A.1: Number of Minnesota Counties Meeting Work Participation Rate Targets for the Minnesota Family Investment Program, 2005 to 2009



NOTES: Two groups of counties that operate jointly are counted above as if they were single counties: (1) Lincoln, Lyon, and Murray and (2) Faribault and Martin. For 2007-08 and 2008-09, the programs administered by the White Earth, Minnesota Chippewa, Leech Lake, and Red Lake tribal nations were counted separately from the counties in which they were located. Prior to 2008-09, counties and tribes had to achieve a Work Participation Rate of 50 percent or a 5 percentage point increase from the previous year in order to meet the target. For 2008-09, the target was reduced to 39.4 percent, the state's target for that year, or a 5 percentage point increase from the previous year.

SOURCE: Office of the Legislative Auditor, analysis of Department of Human Services performance data.

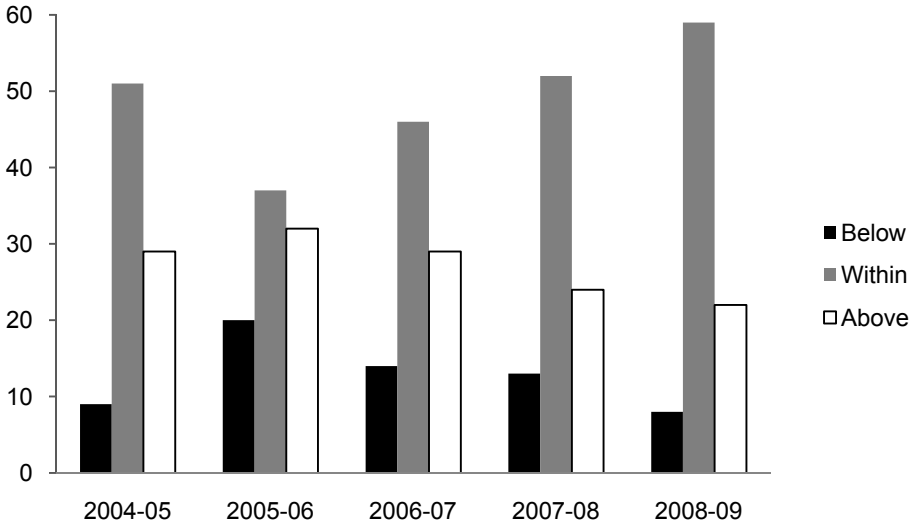
if, for all three months of the quarter three years after the quarter in which benefits were received, the individual is either (1) employed an average of 30 or more hours a week or (2) no longer receiving the cash portion of MFIP (though they may still receive other aid, such as assistance with child care).

Each county's or tribe's self-support index number is then compared to an "expected range." The range is calculated separately for each county using a statistical regression analysis that takes into account characteristics of each county and of each MFIP participant tracked for the three-year period. For each year measured, there are three possible outcomes: a county's self-support index can be within the expected range, above the range, or below the range.[4] Counties and tribes are able to earn an additional 2.5 percent of their MFIP Consolidated

[4] For a more thorough explanation of how the self-support index and expected ranges are calculated, see Minnesota Department of Human Services, "Leveling the Playing Field: A Regression Model for Comparing the Effectiveness of TANF Employment Services Across Minnesota Counties and Tribal Programs," *MFIP Evaluation Notes*, Issue 19 (St. Paul, April 2009), http://edocs.dhs.state.mn.us/lfserver/Legacy/DHS-4064U-ENG.

Fund allocations by achieving self-support index numbers that lie within or above the expected range. Counties that fall below their expected ranges must, by state law, carry out corrective action planning with the assistance of the department.[5] They cannot receive the additional 2.5 percent of funding until the plan is completed. As shown in Figure A.2, the number of counties and tribes performing below the expected range of performance has gradually declined over the past four years.

Figure A.2: Number of Minnesota County and Tribal Minnesota Family Investment Programs with Self-Support Index Scores Below, Within, and Above Expected Ranges, 2004 to 2009



NOTES: The expected ranges are calculated by the Department of Human Services using a statistical regression analysis. Two groups of counties that operate jointly are counted in the figure as if they were single counties: (1) Lincoln, Lyon, and Murray and (2) Faribault and Martin. Tribal nations depicted in the figure are White Earth, Minnesota Chippewa, Leech Lake, Red Lake, and Mille Lacs.

SOURCE: Office of the Legislative Auditor, analysis of Department of Human Services performance data.

Services Funded by the Wagner-Peyser Act

States are required to report outcomes for clients who are not enrolled in a workforce program but who receive basic services funded by the Wagner-Peyser Act. In Minnesota, Wagner-Peyser Act funds are used in combination with Workforce Investment Act Title 1-B Adult funds to support the services available to anyone. Services available to all include self-service resources, such as the

[5] *Minnesota Statutes* 2009, 256J.751, subd. 5c and 5d.

online job bank, and services provided with minimal staff assistance, such as job search workshops. The measures applied to the basic services are the same as those applied to other workforce programs for adults, such as the Dislocated Worker and Adult programs. These measures include the entered employment rate, the employment retention rate, and average earnings.[6]

States negotiate targets with the U.S. Department of Labor for the services available for everyone. Although the reporting of these measures is required, states do not face financial consequences for not meeting their targets. As with the Adult, Youth, and Dislocated Worker performance measures described in Chapter 2, a state's performance is considered acceptable if it achieves at least 80 percent of each of its targets. In program years 2007 and 2008, Minnesota met or exceeded targets on all three measures for clients receiving basic services, as shown in Table A.3.[7]

Table A.3: Outcomes for Clients Using Workforce Services Available to All, 2007 to 2008

	Program Year 2007			Program Year 2008		
Measure	Target	Outcome	Met Target	Target	Outcome	Met Target
Entered Employment Rate[a]	60%	63%	✓	61%	63%	✓
Employment Retention Rate[b]	82	84	✓	83	83	✓
Average Earnings[c]	$13,443	$13,750	✓	$13,577	$12,978	✓

NOTES: Minnesota met or exceeded targets on all three measures each year by achieving outcomes at or above 80 percent of the target. Participants reported in these outcomes include clients not enrolled in workforce programs that either (1) used the online job bank from any location or (2) used self-serve services or received general staff assistance at workforce centers. Program year 2008 ran from July 1, 2008, to June 30, 2009.

[a] Entered employment rate is defined as: of those participants not employed at the start of participation in the program, the number employed in the first quarter after exiting the program divided by the total number of participants who exit the program during the quarter.

[b] Employment retention rate is defined as: of those participants employed in the first quarter after exiting the program, the number employed in both the second and third quarters after exit divided by the number of participants employed in the first quarter after the quarter of exit.

[c] Average earnings is defined as: of those participants who are employed after the first, second, and third quarter after the exit quarter, total earnings in the second quarter plus total earnings in the third quarter after the exit quarter divided by the number of participants who exit during the quarter.

SOURCE: Office of the Legislative Auditor, analysis of Department of Employment and Economic Development and U.S. Department of Labor data.

Veterans Employment Services

Veterans Employment Services reports outcomes for veterans served by various programs. As with services funded by Wagner-Peyser Act funds, the

[6] For more detailed definitions of each measure, see Table 2.4 in Chapter 2.

[7] The U.S. Department of Labor made changes to Wagner-Peyser performance measurements for program year 2007 that affected the definition of performance results. Because performance outcomes are not comparable to previous years, we present only outcomes for 2007 and 2008 in this appendix.

performance measures include entered employment, employment retention, and average earnings.[8] States report these measures for two categories of service: (1) all veterans served by the "one-stop delivery system" and (2) veterans served by Disabled Veterans Outreach Program (DVOP) specialists or Local Veterans Employment Representatives (LVERs), positions that funded through federal grants. The second category is a subset of the first.

Measures for the first category of service are intended to demonstrate how well the workforce system as a whole is serving veterans. The participants included in the outcomes include both (1) veterans using basic workforce services offered online or at a workforce center and (2) veterans receiving assistance from either a DVOP specialist or LVER.[9] States report outcomes on the three performance measures for all veterans as well as for disabled veterans as a subgroup, as shown in Table A.4.

Measures for the second category of service are based on outcomes for only those veterans that receive staff assistance from DVOP specialists and LVERs.[10] The entered employment measure is weighted to give states more credit for veterans who entered employment after receiving "intensive" staff services, such as individualized résumé assistance or career counseling.[11] The measure tracks only veterans who were unemployed when they began receiving services from a DVOP specialist or LVER and counts them after they have stopped receiving services.

States also report outcomes on two of the common measures—entered employment and employment retention—for certain subpopulations of veterans served by the either a DVOP specialist or LVER. For DVOP, states report outcomes for disabled veterans. For LVER, states report outcomes for "recently separated" veterans, defined as individuals who left military service within three years of entry in the workforce program.

According to DEED staff, states are considered to have met their targets if they achieve outcomes within five percent of the targets. States that fall below the targets on one or more measures do not face funding penalties but are required to work with the Director of Veterans Employment and Training to improve outcomes. For example, states may receive technical assistance to explore the problems that may have led to low performance and recommendations to improve outcomes. If states continue to miss one or more targets after receiving technical assistance for two consecutive years, they may be placed under a

[8] The average earnings measures was piloted in program year 2008, so states did not negotiate targets for that measure until program year 2009.

[9] The first group of veterans also includes participants reported in the outcomes for services funded by the Wagner-Peyser Act.

[10] The measures for all participants served by a DVOP specialist or LVER were piloted in program year 2008, so states did not negotiate targets for these measures until program year 2009.

[11] The weighting is calculated by multiplying 1.25 by the number of veterans who entered employment after receiving intensive services and adding that result to the number of veterans who entered employment and had been helped by a DVOP specialist or LVER but had not received individualized assistance. To arrive at the weighted entered employment rate, the sum is divided by the number of veterans who received any amount of help from a DVOP specialist or LVER.

Table A.4: Veterans Employment Services' Performance Targets and Outcomes, Program Year 2008

	Entered Employment Rate[a]			Employment Retention Rate[b]			Average Earnings[c]	
	Target	Outcome	Met Target	Target	Outcome	Met Target	Target	Outcome
One-Stop Delivery System[d]								
All Veterans	61%	61%	✓	82%	84%	✓	N/A	$16,695
Disabled Veterans	54	54	✓	81	81	✓	N/A	15,789
Grant-Based Programs[e]								
All Veterans (Served by DVOP/LVER)[f]	N/A	68	N/A	N/A	82	N/A	N/A	17,200
Disabled Veterans (Served by DVOP)	56	54	✓	81	79	✓	–	–
Recently Separated Veterans[g] (Served by LVER)	67	71	✓	76	73	✓	–	–

NOTES: For the measures in which Veterans Employment Services had targets in program year 2008, Minnesota met or exceeded all targets by achieving outcomes within 5 percent of the target. Program Year 2008 ran from July 1, 2008, to June 30, 2009.

[a] Entered employment rate is defined as: of those participants not employed at the start of participation in the program, the number of participants employed in the first quarter after exiting the program divided by the total number of participants who exit the program during the quarter.

[b] Employment retention rate is defined as: of those participants who are employed in the first quarter after exiting the program, the number employed in both the second and third quarters after exit divided by the number of participants employed in the first quarter after the quarter of exit.

[c] Average earnings is defined as: of those participants who are employed after the first, second, and third quarter after the exit quarter, total earnings in the second quarter plus total earnings in the third quarter divided by the number of employed participants who exit during the quarter. The average earnings measure for veterans programs was piloted during program year 2008, so states did not negotiate targets for this measure. For the grant-based programs, average earnings are reported for all veterans, but are not reported separately for disabled veterans served by a Disabled Veterans Outreach Program (DVOP) specialist or recently separated veterans served by a Local Veterans' Employment Representative (LVER).

[d] The one-stop delivery system outcomes are intended to demonstrate how well the workforce system as a whole serves veterans.

[e] Grant-based programs refer to services provided by DVOP specialists or LVERs.

[f] The measures for all veterans served by either the DVOP or LVER programs were piloted during program year 2008, so states did not negotiate targets for these measures. The entered employment rate for veterans served by DVOP/LVER is weighted to give states more credit for participants who receive intensive services, such as individualized assessments of a veteran's skills.

[g] Recently separated veterans are service members who left military service within three years of their entry into a workforce program.

SOURCE: Office of the Legislative Auditor, analysis of Department of Employment and Economic Development and U.S. Department of Labor data.

corrective action plan. In program year 2008, Minnesota met the targets on all measures for which it had negotiated targets.

COMPARISON ANALYSIS

In Chapter 2 of our evaluation report, we compared outcomes for individuals participating in workforce programs with individuals who did not participate. We provide a more detailed description of our analysis here.

Research Literature

As noted in the chapter, the econometric research literature on the effectiveness of workforce programs has centered around two different approaches: (1) comparison studies in which individuals receiving services are statistically matched with comparison groups of individuals that do not receive services, and (2) experimental studies in which individuals are randomly assigned to receive workforce services or be part of "control groups" that do not receive services.

Neither method is perfect. Some comparison studies have been shown to be significantly biased due to the inexactness of the matching procedures used or systematic differences between the comparison groups and the groups receiving services.[12] Experimental studies can use simpler statistical calculations, but they have been bedeviled by implementation difficulties. For example, local program managers and staff are often reluctant to follow random assignment procedures, individuals denied services and placed in control groups sometimes receive similar services through other providers or programs, and the logistical complications of randomly assigning participants at many different sites have posed obstacles.[13]

More recent work to improve statistical matching techniques has improved the quality and consistency of estimates generated by comparison studies.[14] A number of different proposals to further refine statistical matching algorithms are currently under debate in the statistical research literature; although there is not a consensus among economists working in this field, comparisons of competing matching approaches have produced relatively similar results.[15]

The U.S. Department of Labor has funded studies using both matching and experimental approaches, including two large-scale comparison studies of Workforce Investment Act programs in the past decade. A major experimental study is also planned, although it may not be completed until 2015. We modeled our analysis on the most recent comparison analysis study of Workforce Investment Act programs completed for the U.S. Department of Labor, which

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[12] See, for example, Thomas Fraker and Rebecca Maynard, "The Adequacy of Comparison Group Designs for Evaluations of Employment-Related Programs," *Journal of Human Resources,* 22, no. 2 (1987): 194-227. With regard to the entire discussion in this section, see also the overall summaries of the research literature cited in the main report (Chapter 2, page 28, footnote 3).

[13] See, for example, James J. Heckman and Jeffrey A. Smith, "Assessing the Case for Social Experiments," *Journal of Economic Perspectives*, 9, no. 2 (1995): 85-110.

[14] See Peter R. Mueser, Kenneth R. Troske, and Alexey Gorislavsky, "Using State Administrative Data to Measure Program Performance," *The Review of Economics and Statistics*, 89, no. 4 (2007): 761-783; and Guido W. Imbens, "Nonparametric Estimation of Average Treatment Effects Under Exogeneity: A Review," *The Review of Economics and Statistics*, 86, no. 1 (2004): 4-29.

[15] Mueser, Troske, and Gorislavsky, "Using State Administrative Data to Measure Program Performance" and Kevin Hollenbeck, "Sensitivity Testing of Net Impact Estimates of Workforce Development Programs Using Administrative Data," Upjohn Institute Staff Working Paper No. 08-139 (Kalamazoo, MI: W.E. Upjohn Institute, 2008).

was conducted by IMPAQ, Inc.[16] We were greatly aided by the willingness of this study's authors to answer our questions and share extensive details of their analysis, including the computer routines they used to perform the statistical matching and calculate confidence intervals.

Data Sources and Variables Used in Matching

We used three main sources of data, all obtained originally from DEED:[17]

- Records of all individuals receiving workforce services through the federal Adult program or the state or federal Dislocated Worker programs between 2002 and 2007.

- Records of all individuals applying for unemployment insurance (UI) benefits between 2002 and 2007. We removed from this group all applicants who indicated that they were seasonally unemployed or who indicated they had a recall date to return to work.

- Records of wages earned by all individuals in the state (taken from UI records) between 2002 and 2009.

We combined data from these three data sets to construct master data sets of (1) workforce program participants and (2) potential comparison group members (i.e., individuals who had applied for UI benefits but who did not participate in workforce programs at that time).[18] The groups included individuals that had entered a workforce program or applied for UI benefits between July 2004 and June 2007. The individual characteristics we drew from the data sets for matching purposes are listed in Table A.5. We also created a large number of "interaction variables" by combining matching variables together (for example, geographic region combined with education).

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[16] Carolyn J. Heinrich, Peter R. Mueser, and Kenneth R. Troske, *Workforce Investment Act Non-Experimental Net Impact Evaluation: Final Report* (Columbia, MD: IMPAQ International, December 2008), http://wdr.doleta.gov/research/keyword.cfm?fuseaction=dsp_resultDetails&pub_id=2419, accessed June 10, 2009.

[17] Because Minnesota was one of the states used in the IMPAQ study, we were able (with IMPAQ's cooperation) to use some of the data originally provided by DEED to IMPAQ. Although we needed to get other data directly from DEED, using these previously created data sets reduced the burden on DEED staff of supplying the data.

[18] For ease of discussion, we refer to workforce program participants as a single group. However, we analyzed Adult participants and Dislocated Worker participants separately.

Table A.5: Variables Used in the Matching Process

Variable	Possible Values
Number of days event occurred after January 1, 2000	Positive integer
Gender	Male/Female
Age (at time of event)	Positive integer
Age squared	Positive integer
Age: exclusive categories	
Age 18-25	Yes/No
Age 26-35	Yes/No
Age 36-49	Yes/No
Age 50 or over	Yes/No
Age missing	Yes/No
Race: exclusive categories	
White	Yes/No
African American or Black	Yes/No
Other race	Yes/No
No race identified	Yes/No
Hispanic origin	Yes/No
Veteran	Yes/No
Years of education	10,12,14,16,17
10: Less than high school education	
12: High school diploma/General Equivalency Degree (GED)	
14: Some postsecondary education	
16: Bachelor's degree	
17: Any post-baccalaureate education	
Education: exclusive categories	
Less than high school	Yes/No
High school or GED	Yes/No
Some postsecondary	Yes/No
Bachelor's degree	Yes/No
Post-baccalaureate	Yes/No
Industry of employer(s) in previous four quarters: exclusive categories	
Manufacturing	Yes/No
Services	Yes/No
Trade	Yes/No
Construction	Yes/No
Other	Yes/No
More than one industry	Yes/No
Geographic location: exclusive categories	
Northwest	Yes/No
Northeast	Yes/No
Central	Yes/No
Southwest and South Central	Yes/No
Southeast	Yes/No
Metropolitan area	Yes/No
No location identified	Yes/No
Unemployment insurance (UI) experience in 1st quarter prior to event: exclusive categories	
Applied for and received UI benefits	Yes/No
Applied for but did not receive UI benefits	Yes/No
Did not apply for but received UI benefits	Yes/No
No UI experience	Yes/No
UI experience in 2nd quarter prior to event: exclusive categories	
Applied for and received UI benefits	Yes/No
Applied for but did not receive UI benefits	Yes/No
Did not apply for but received UI benefits	Yes/No
No UI experience	Yes/No

Table A.5: Variables Used in the Matching Process (continued)

UI experience in 3rd and 4th quarters prior to event: exclusive categories	
Applied for and received UI benefits	Yes/No
Applied for but did not receive UI benefits	Yes/No
Did not apply for but received UI benefits	Yes/No
No UI experience	Yes/No
UI experience in 5th through 8th quarters prior to event: exclusive categories	
Applied for and received UI benefits	Yes/No
Applied for but did not receive UI benefits	Yes/No
Did not apply for but received UI benefits	Yes/No
No UI experience	Yes/No
UI experience in 9th through 12th quarters prior to event: exclusive categories	
Applied for and received UI benefits	Yes/No
Applied for but did not receive UI benefits	Yes/No
Did not apply for but received UI benefits	Yes/No
No UI experience	Yes/No
UI experience in 13th through 16th quarters prior to event: exclusive categories	
Applied for and received UI benefits	Yes/No
Applied for but did not receive UI benefits	Yes/No
Did not apply for but received UI benefits	Yes/No
No UI experience	Yes/No
Any UI experience in 1st or 2nd quarter prior to event	Yes/No
Any UI experience in 1st through 4th quarters prior to event	Yes/No
Any UI experience in 1st through 8th quarters prior to event	Yes/No
No UI experience in 1st through 4th quarters prior to event	Yes/No
Participated in workforce programs in the first year prior to event	Yes/No
Participated in workforce programs in the second year prior to event	Yes/No
In each of the eight quarters prior to event:	
Total wages earned per quarter	Positive integer
Squared wages earned per quarter	Positive integer
Employment (were any wages earned?)	Yes/No
Employment transitions: exclusive categories	
Employed 1st through 5th quarter prior to event and event quarter	Yes/No
Employed in any of 1st through 5th quarters prior to event but not employed event quarter	Yes/No
Not employed in any of 1st through 5th quarters prior to event but employed in event quarter	Yes/No
Not employed in 1st through 5th quarter prior to event and not employed event quarter	Yes/No
Employed in both 1st and 2nd quarters prior to event	Yes/No
Employed in 1st through 3rd quarters prior to event	Yes/No
Employed in 1st through 4th quarters prior to event	Yes/No
Not employed in 1st through 3rd quarters prior to event	Yes/No
Not employed in 1st through 4th quarters prior to event	Yes/No

NOTES: We use the term "event" to refer to either (1) registration for a workforce program (for the participant group) or (2) filing an application for unemployment insurance benefits (for the comparison group). We did not use disability as a matching category because of differences in how workforce programs and the unemployment insurance system measure disability status.

SOURCE: Office of the Legislative Auditor.

Matching Procedure

The matching procedure we used was a modified "propensity score" approach.[19] Before we began the matching process, we subdivided our data sets by gender and "event quarter" (the quarter the individual either registered to participate in a workforce program or applied for UI benefits). Segregating the data in this manner ensured that every match made using the propensity score method would always match a workforce program participant to a UI applicant of the same gender and with an event date in the same quarter. Separation of analyses by gender has been used by several other matching studies because of the differing outcomes for men and women found by previous studies.

The next step in the matching process was to place both the program participants and the UI applicants in the same data file (although still segregated by gender and event quarter). We then conducted a logistic regression analysis, with the dichotomous outcome variable being program participation. This analysis produced estimates of how different values of the matching variables were correlated with program participation.

We used these estimates to create a propensity score for each individual observation—essentially, a numerical prediction for how likely it was that a person with that combination of characteristics would register to participate in a workforce program in that time period.[20] We then matched each workforce program participant to the comparison group individual with the closest possible propensity score, within a maximum (or "radius") set so that no match would be made if no comparison group individual had a close enough propensity score.

Checking the Quality of the Match

After completing the matching process, we assessed the matches by comparing the group of matched comparison group members to the entire pool of (both matched and unmatched) workforce program participants. Thus, our comparisons did not examine the quality of individual matches, but instead ensured that the final comparison group, when taken as a whole, was not significantly different from the group of all workforce participants across the matching variables.

Assessing match quality involved three different comparisons. First, we compared the means of the matching variables for the two groups. Second, we compared the means for the squares of the nondichotomous matching variables

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[19] As noted above, we modeled our approach on that of IMPAQ, Inc. For a thorough discussion of IMPAQ's matching procedure, including a comparison of that approach with possible alternatives suggested in the theoretical literature, see Heinrich, Mueser, and Troske, *Workforce Investment Act Non-Experimental Net Impact Evaluation*, 3-39. For extensive technical discussions of propensity score matching techniques, see the February 2004 issue of *The Review of Economics and Statistics* (vol. 86, no. 1), which included ten articles on the econometrics of matching.

[20] As IMPAQ did, we used the log odds of the propensity score, which has the effect of requiring a much closer match across all matching variables when individuals participated in a workforce program even though their background suggested that participation was unlikely. See Heinrich, Mueser, and Troske, *Workforce Investment Act Non-Experimental Net Impact Evaluation*, 8-9.

for the two groups. Third, we compared the means for a large number of interaction variables (including many interaction variables beyond those used in the matching process) for the two groups. IMPAQ considered a matching procedure successful if it found no more than 8 percent of the differences were statistically significant; we used the same standard.[21] If we found too many statistically significant differences between the two groups for any of the comparisons above, we rejected the matched comparison group.

When a match was rejected, we repeated the matching procedure using adjusted parameters. In particular, we tried (1) using different values for the radius to restrict the match to comparison group members with nearer propensity scores and (2) adding or subtracting interaction terms from the set of matching variables. However, these parameter changes also affected the number of matches found. We conducted dozens of matching analyses in attempts to find parameters that matched the highest possible number of cases while maintaining an acceptably low number of statistically significant differences between the comparison group and the entire pool of participants. For our final comparison groups, the largest proportion of statistically significant differences was 6 percent.

We assessed separately the matches for Adult participants and Dislocated Worker participants and made separate changes to the parameters for each matching routine to reduce statistically significant differences between the comparison group and the pool of participants. As a result, the final matching parameters for the two programs were different; the final matching parameters for the Adult program used a larger radius value and a smaller number of interaction variables than the parameters for the Dislocated Worker program.

Results

An acceptable match resulted in two groups—matched program participants and comparison group members. For each group, we had earnings data for many quarters following the individual event quarters. We used this earnings information in two ways: (1) we measured "employment" using a yes/no variable, assuming that any amount of nonzero earnings in a quarter constituted employment in that quarter, and (2) we measured the amount of wages earned in each quarter, adjusted for inflation. We calculated the differences between program participants and matched comparison group members for each of these two variables, then combined the results across all of the entry quarters to provide a single estimate for each program and gender.

The individuals in our analysis had event quarters between July 2004 and June 2007—that is, they entered workforce programs or applied for UI benefits between those two dates. The earnings data we used in our analysis extended through June 2009. Thus, we were not able to measure the difference in earnings for all sixteen post-event quarters for all individuals in our analysis. As a result,

[21] Heinrich, Mueser, and Troske, *Workforce Investment Act Non-Experimental Net Impact Evaluation*, 35.

our estimates for the eighth through sixteenth quarters following events are based on fewer individuals than our estimates for the first seven quarters.

Following IMPAQ's lead, we used three different procedures to calculate confidence intervals for our estimates, finding only minor differences among the three approaches. The confidence intervals used in our report were generated using a procedure proposed by Harvard economist Guido Imbens.[22]

SURVEY OF WORKFORCE CLIENTS

For our evaluation of workforce programs, we wanted to know how people who used the services felt about them. To do this, we surveyed a sample of recent users. Although we initially planned to survey clients from a broad cross section of programs, limited availability of data restricted us to only a few of the key programs.

Sampling Methodology

Our survey focused on three groups. One group included people who had enrolled in the Workforce Investment Act's Adult program during the two most recent fiscal years (July 1, 2007 through June 30, 2009). The second included enrollees in the state or federal Dislocated Worker programs during that same time period. The third group consisted of individuals who, from January 1, 2009 through June 30, 2009, had used basic workforce services available to any Minnesotan without enrolling in a workforce program. The third group included people who had visited one of the state's workforce centers and used the online job bank, attended a workshop, or used another service open to all. It also included people who were registered users of the online job bank by having logged on from a remote computer, such as at home or a library. Because these self-service clients' contact with workforce services could have been very brief (especially when compared with clients enrolled in programs), we surveyed those who had used services recently enough to allow them to recall their experiences.

Data available through the DEED's databases showed that the self-service group was very large, with more than 75,000 users in the first half of 2009. The populations for people enrolled in the Adult or Dislocated Worker programs were much smaller, about 3,300 and 25,400, respectively, even though our timeframe for them stretched over a two-year period. For clients enrolled in programs, we wanted a longer time period to allow for (1) people who might be enrolled in training classes and (2) differences in attitudes due to the nationwide economic recession that deepened in 2008 and continued into 2009.

For each of the three groups in which we were interested, we requested from DEED participants' names, contact information, and certain demographic characteristics, such as race and education level. Data came from three DEED databases: the Workforce One database (which DEED uses to track enrollment in workforce programs), the Customer Registration System (for people who walk

[22] See Heinrich, Mueser, and Troske, *Workforce Investment Act Non-Experimental Net Impact Evaluation*, Appendix 2.

into workforce centers for basic services), and the MinnesotaWorks database (for people accessing services via the Internet). To avoid sending multiple surveys to a single client who may have used more than one service, our data request specified data for only those self-service workforce center clients who had not been enrolled in programs during the previous two years. Similarly, we requested only those clients in the MinnesotaWorks database who had not been in the Customer Registration System.

When we received the data sets, we removed cases for whom no name or contact information was available or when the individual was not a resident of Minnesota. Our populations consisted of 23,968 clients in the dislocated worker programs, 3,188 in the Adult program, and 70,927 self-service clients (including both Internet users and visitors to workforce centers).

We drew random samples from the three populations, stratified by age and geographic location. To stratify by age, we divided the populations into three groups: clients up to age 30, those between 31 and 49 years of age, and those 50 years and older. For clients without ages entered in the data set, we randomly assigned an age and then apportioned them into the three age groups. To stratify by location, we used Minnesota's 16 workforce service areas. For clients who had enrolled in programs or visited a workforce center, we used the workforce service area associated with that workforce center. For clients accessing services online, however, DEED had assigned a workforce center location based on proximity to the address entered by the client. A small number of clients did not have a workforce center assigned, and we grouped them together. For only this particular group (those who had accessed services online), we had 17 groups of workforce service areas representing each of the 16 service areas in the state plus one with clients for whom a workforce center had not been assigned. The sample size for each stratum was based on the proportion that group represented of the full population.

We drew the stratified samples using statistical software. Our sample from the Workforce Investment Act Adult program contained 805 clients. The sample from the population of dislocated workers had 1,030 clients. Finally, the sample of walk-in and online visitors had 1,048 clients.

Because our populations of interest contained people who did not have easy access to computers, we mailed the survey request and gave respondents a choice between completing an online survey or filling out a one-page survey. We designed the survey instrument so that the online questions were identical to those in the hard copy. Employment counselors and clients from three different workforce service areas tested our survey instrument and provided feedback to ensure that the questions were understandable and relevant.

We mailed a total of 2,883 surveys in early September 2009. About two weeks after the mailing, we sent an e-mail reminder to those in the sample who had not yet responded and for whom we had e-mail addresses. About a week following that, we mailed a postcard reminder to people who had yet to respond.

We received responses from 810 individuals. A small number of responses came in after we began our analysis and were not included in our results. The response

rates were: 40 percent of our sample of dislocated workers, 17 percent of our sample in the Adult program, and 24 percent of the sample of self-service clients. We were unable to identify the program in which two respondents received services. Also, we excluded 29 survey respondents who stated they had not used workforce services and 2 respondents who were missing geographic data.

Weighting Procedure

For each workforce program, the response rate by workforce service area and age category varied. To avoid over- or underrepresenting respondent opinions in certain age categories and workforce service areas, we weighted responses by demographic characteristics to reflect the total population of participants. Because we selected our sample according to the proportion of participants in each age group in a workforce service area, we used these characteristics to weight our data. However, we did not receive a sufficient number of responses from each combination of age category and workforce service area for all programs. Therefore, to calculate the weights, we grouped workforce service areas into seven groups based on proximity and for areas in the metropolitan region, whether they primarily serve clients in the suburban area or in the cities.

To calculate the weights for each program, we divided the number of individuals in the program population in each combination of workforce service area group and age category by the number of respondents from the same combination of workforce service area and age group. When reporting the percentages for respondents that participated in either the Dislocated Worker program or the Adult program, the weighting allowed us to ensure that the responses of each program's participants were proportionate to their representation in the total population of all program participants.

Survey Results

Our survey asked six questions. Question 1 asked for the questionnaire ID number, which we used to match responses to respondents' demographic characteristics and identify who had completed the survey so we would not send them reminders. Question 6 obtained information on respondents' education level; those results are not presented here. Questions 2 through 5 are reprinted below along with aggregate results. Respondents could choose "not applicable" for any question.

Results for Clients Enrolled in a Workforce Program and Clients Not Enrolled in Programs but Using Basic Services

In Table A.6, we present the responses of clients who were enrolled in either the Workforce Investment Act Adult program or the state or federal Dislocated Worker programs. This is followed by Table A.7, which displays the responses of clients who were not enrolled in a program but who had visited a workforce center or used the online job bank. Individuals that did not respond to a question are not included in the results for that question. Standard errors, which are estimates of how much measurement error exists in a response due to sampling rather than surveying the entire population, are reported in parentheses.

Table A.6: Survey Responses of Clients Enrolled in a Program

2. Within the past two years, have you used any of the following services? (Mark one in each row.)

	Yes		No		Unsure or Not Applicable	
	N	%	*N*	%	*N*	%
a. Used the online Minnesota Works.net web site to search for jobs	432	81% (1.7)	86	15% (1.5)	16	3% (0.8)
b. Wrote or updated my résumé using the Minnesota Works.net web site	249	44 (2.2)	272	53 (2.2)	14	3 (0.9)
c. Visited in person a Minnesota workforce center or related office	507	95 (1.1)	26	5 (1.1)	2	<1 (0.4)
d. Used computers, fax machines, or copiers at a workforce center or related office	346	61 (2.2)	184	38 (2.2)	5	1 (0.4)
e. Received help from staff at a workforce center or related office	492	91 (1.4)	36	7 (1.3)	7	2 (0.6)
f. Attended a workshop, such as on job searches or résumé writing, in a workforce center or related office	358	67 (2.2)	166	31 (2.1)	10	2 (0.7)
g. Attended a job club at a workforce center or related office with others seeking work	180	33 (2.1)	331	63 (2.2)	25	5 (1.0)
h. At a workforce center or related office, looked through books or other written materials on job openings or how to find work	319	58 (2.3)	204	40 (2.2)	10	2 (0.7)
i. Enrolled in the Workforce Investment Act (WIA) Adult program or Dislocated Workers program	379	75 (1.8)	113	18 (1.6)	42	7 (1.0)
j. Worked with workforce center staff to develop an employment plan	390	74 (2.0)	125	22 (1.9)	19	3 (0.8)
k. Took classes or other training to further my education or improve my work skills, as suggested in my employment plan	381	72 (2.0)	130	25 (2.0)	18	3 (0.7)
l. Other (Please specify.) *N*= 77 responses						

3. How strongly do you agree or disagree with the following about the services you received or resources you used from a workforce center or the Minnesota Works.net web site? (Mark one in each row.)

	Strongly Agree		Somewhat Agree		Neither Agree Nor Disagree		Somewhat Disagree		Strongly Disagree		Not Applicable	
	N	%	*N*	%	*N*	%	*N*	%	*N*	%	*N*	%
a. I received the help or found the information I needed.	291	53% (2.2)	180	33% (2.1)	32	7% (1.3)	15	3% (0.8)	10	2% (0.9)	6	1% (0.4)
b. I did not have to wait too long for help or to use the service.	311	57 (2.3)	151	28 (2.0)	32	6 (1.2)	18	4 (1.0)	9	2 (0.6)	12	2 (0.7)
c. The quality was as good as or better than I expected.	269	50 (2.2)	168	32 (2.1)	49	9 (1.3)	26	6 (1.2)	15	3 (1.0)	5	1 (0.4)
d. I would go back if I needed help again.	366	68 (2.1)	108	21 (1.9)	30	5 (1.0)	11	2 (0.9)	10	2 (0.8)	8	1 (0.5)
e. Staff knew how to help me.	308	57 (2.2)	141	26 (2.0)	38	8 (1.3)	22	4 (1.0)	14	3 (0.9)	10	2 (0.6)

NOTES: Standard errors are reported in parentheses. We excluded respondents who did not answer the question. Percentages are weighted by demographic characteristics to reflect the total population of participants in the two programs.

Table A.6: Survey Responses of Clients Enrolled in a Program (continued)

4. Overall, how satisfied were you that the services helped you to do the following? (Mark one in each row.)

	Very Satisfied		Satisfied		Neither Satisfied nor Dissatisfied		Dissatisfied		Very Dissatisfied		Not Applicable	
	N	%	*N*	%	*N*	%	*N*	%	*N*	%	*N*	%
a. Get a good job	89	16% (1.7)	120	23% (2.0)	133	25% (2.0)	45	9% (1.5)	26	5% (1.1)	110	21% (1.8)
b. Learn about schools, career planning, or jobs in demand	157	30 (2.0)	189	34 (2.1)	100	20 (1.9)	34	6 (1.2)	16	3 (1.0)	31	5 (1.0)
c. Connect me with employers who were hiring	66	12 (1.5)	111	21 (1.9)	163	31 (2.1)	65	13 (1.7)	45	9 (1.4)	76	14 (1.6)
d. Take the classes or training or further the education I needed	222	43 (2.2)	139	26 (2.0)	70	13 (1.5)	23	5 (1.2)	20	4 (1.0)	56	9 (1.2)
e. Improve my job-seeking skills	159	30 (2.1)	179	34 (2.2)	116	23 (1.9)	18	4 (1.1)	12	2 (0.9)	43	7 (1.2)
f. Advance my career or get a better job	103	20 (1.8)	106	21 (2.0)	146	28 (2.2)	46	9 (1.3)	33	6 (1.2)	86	16 (1.7)
g. Learn about resources, such as transportation or child care, for job seekers or workers	112	21 (1.7)	109	20 (1.8)	132	27 (2.1)	23	5 (1.0)	16	2 (0.6)	132	26 (2.1)
h. Other (Please specify.) *N*= 46 responses												

5. Do you have suggestions for what you would like to see changed or comments about the services you received? (*N*=272 valid responses)

NOTES: Standard errors are reported in parentheses. We excluded respondents who did not answer the question. Percentages are weighted by demographic characteristics to reflect the total population of participants in the two programs.

SOURCE: Office of the Legislative Auditor.

Table A.7: Survey Responses of Clients Not Enrolled in a Program but Using Basic Services

2. Within the past two years, have you used any of the following services? (Mark one in each row.)

	Yes		No		Unsure or Not Applicable	
	N	%	*N*	%	*N*	%
a. Used the online Minnesota Works.net web site to search for jobs	224	96% (1.3)	9	3% (1.2)	1	<1% (0.3)
b. Wrote or updated my résumé using the Minnesota Works.net web site	115	49 (3.8)	110	47 (3.8)	9	4 (1.5)
c. Visited in person a Minnesota workforce center or related office	143	58 (3.5)	89	42 (3.5)	1	<1 (0.4)
d. Used computers, fax machines, or copiers at a workforce center or related office	89	37 (3.6)	144	63 (3.6)	1	<1 (0.4)
e. Received help from staff at a workforce center or related office	121	50 (3.6)	110	49 (3.6)	3	1 (0.8)
f. Attended a workshop, such as on job searches or résumé writing, in a workforce center or related office	56	23 (3.1)	172	74 (3.3)	6	3 (1.2)
g. Attended a job club at a workforce center or related office with others seeking work	23	9 (2.0)	204	89 (2.2)	6	2 (0.8)
h. At a workforce center or related office, looked through books or other written materials on job openings or how to find work	71	29 (3.1)	157	70 (3.2)	5	2 (0.8)
i. Enrolled in the Workforce Investment Act (WIA) Adult program or Dislocated Workers program	24	8 (1.7)	198	86 (2.3)	12	6 (1.8)
j. Worked with workforce center staff to develop an employment plan	38	15 (2.5)	188	81 (2.7)	8	4 (1.3)
k. Took classes or other training to further my education or improve my work skills, as suggested in my employment plan	33	13 (2.4)	187	82 (2.6)	13	5 (1.3)
l. Other (Please specify.) *N*=18 responses						

3. How strongly do you agree or disagree with the following about the services you received or resources you used from a workforce center or the Minnesota Works.net web site? (Mark one in each row.)

	Strongly Agree		Somewhat Agree		Neither Agree Nor Disagree		Somewhat Disagree		Strongly Disagree		Not Applicable	
	N	%	*N*	%	*N*	%	*N*	%	*N*	%	*N*	%
a. I received the help or found the information I needed.	87	38% (3.6)	87	39% (3.7)	22	8% (1.8)	18	7% (1.6)	4	2% (0.9)	10	6% (2.0)
b. I did not have to wait too long for help or to use the service.	87	38 (3.5)	72	30 (3.4)	29	12 (2.4)	8	3 (1.1)	6	2 (1.0)	27	15 (2.7)
c. The quality was as good as or better than I expected.	65	27 (3.1)	82	39 (3.6)	42	16 (2.6)	18	8 (1.9)	8	3 (1.1)	14	7 (2.1)
d. I would go back if I needed help again.	95	43 (3.7)	73	32 (3.5)	23	9 (1.8)	8	4 (1.5)	10	4 (1.4)	18	9 (2.1)
e. Staff knew how to help me.	63	25 (3.1)	51	22 (3.1)	35	15 (2.5)	9	3 (1.1)	13	5 (1.5)	58	29 (3.3)

NOTES: Standard errors are reported in parentheses. We excluded respondents who did not answer the question. Percentages are weighted by demographic characteristics to reflect the total population of clients who were not enrolled in a program but went to a workforce center or used the job bank.

Table A.7: Survey Responses of Clients Not Enrolled in a Program but Using Basic Services (continued)

4. Overall, how satisfied were you that the services helped you to do the following? (Mark one in each row.)

	Very Satisfied		Satisfied		Neither Satisfied nor Dissatisfied		Dissatisfied		Very Dissatisfied		Not Applicable	
	N	%	*N*	%	*N*	%	*N*	%	*N*	%	*N*	%
a. Get a good job	19	10% (2.3)	34	16% (2.7)	77	32% (3.5)	28	12% (2.1)	17	8% (2.1)	54	24% (3.1)
b. Learn about schools, career planning, or jobs in demand	23	10 (2.4)	55	25 (3.2)	55	22 (3.0)	16	6 (1.4)	10	5 (1.8)	68	32 (3.5)
c. Connect me with employers who were hiring	22	11 (2.4)	53	26 (3.2)	75	32 (3.5)	28	11 (2.3)	15	7 (1.9)	33	13 (2.3)
d. Take the classes or training or further the education I needed	12	5 (1.8)	31	12 (2.2)	60	26 (3.4)	17	7 (1.8)	9	4 (1.6)	99	45 (3.6)
e. Improve my job-seeking skills	19	9 (2.2)	59	25 (3.1)	64	29 (3.5)	15	6 (1.4)	10	5 (1.7)	62	28 (3.3)
f. Advance my career or get a better job	18	8 (2.2)	33	14 (2.5)	74	33 (3.6)	20	8 (1.9)	20	9 (2.1)	62	27 (3.3)
g. Learn about resources, such as transportation or child care, for job seekers or workers	12	6 (2.0)	38	16 (2.4)	63	26 (3.3)	4	1 (0.7)	11	6 (2.1)	100	45 (3.5)
h. Other (Please specify.) *N*= 9 responses												

5. Do you have suggestions for what you would like to see changed or comments about the services you received? (*N*=99 responses)

NOTES: Standard errors are reported in parentheses. We excluded respondents who did not answer the question. Percentages are weighted by demographic characteristics to reflect the total population of clients who were not enrolled in a program but went to a workforce center or used the job bank.

SOURCE: Office of the Legislative Auditor.

Comparisons of Clients Who Exited Programs Before the Recession with Those Who Exited During the Recession

We compared the responses of workforce program clients who exited prior to the deepening of the recession to those who exited after to assess whether responses were affected by the recession. The analysis included only clients who enrolled in either the Adult or Dislocated Worker programs; it excluded clients who only visited a workforce center or the online job bank. We used June 2008 as the turning point. Both rising unemployment and the drop in the number of job vacancies in Minnesota suggested that the economic recession may have begun impacting job seekers more heavily by the end of June 2008 (see Figure 1.4 in Chapter 1). We used the exit date provided in the client data to assign individuals into one of two groups: those who exited on or before June 30, 2008, and those who exited after. For clients with incomplete exit dates, we imputed an

exit date by adding the average number of days other participants were in the program to the enrollment date. We excluded clients missing both enrollment and exit dates in our data.

Since we received a small number of responses from participants who exited before the recession worsened, we had to regroup participants to calculate the weights. We combined all workforce service areas into one of two regions—greater Minnesota or the metropolitan area. We also combined the two younger age groups (18 to 30 and 31 to 49) after determining that the responses of each age group were only several percentage points different on most questions related to outcomes. In calculating the weights, we divided the total number of enrolled program participants by the number of respondents for each region and age group combination.

Next, for questions about satisfaction with the outcomes of services, we compared the responses of those who exited before the recession deepened to those who exited after. We grouped responses into (1) satisfied or very satisfied, (2) neither satisfied nor dissatisfied, and (3) dissatisfied or very dissatisfied. We calculated the difference between the percentages satisfied or very satisfied of each group for every outcome question and noted where the difference was statistically significant at or near the 5 percent level.

For this portion of the analysis, we limited our comparisons to questions related to clients' satisfaction with what the services helped them accomplish because our initial results showed program participants were less likely to be satisfied with outcomes of workforce services, such as getting a good job. Also, responses to questions about outcomes are likely to be affected by the more difficult job search conditions job seekers have faced in the recession.

We report responses for the two groups of clients in Table A.8. For some items, individuals did not respond to the question and those omissions are not included in the results.

Table A.8: Survey Responses of Clients Who Exited the Program Before and After the Recession Worsened

4. Overall, how satisfied were you that the services helped you to do the following?

	Satisfied or Very Satisfied				Neither Satisfied Nor Dissatisfied				Dissatisfied or Very Dissatisfied				Not Applicable			
	Exit By June 2008		Exit After June 2008		Exit By June 2008		Exit After June 2008		Exit By June 2008		Exit After June 2008		Exit By June 2008		Exit After June 2008	
	N	%	*N*	%	*N*	%	*N*	%	*N*	%	*N*	%	*N*	%	*N*	%
a. Get a good job	36	50% (6.2)	157	37% (2.4)	15	21% (4.9)	111	27% (2.3)	4	6% (3.0)	56	14% (1.7)	16	23% (5.3)	87	22% (2.1)
b. Learn about schools, career planning, or jobs in demand	44	62 (6.0)	276	66 (2.4)	19	26 (5.3)	74	19 (2.0)	2	4 (2.7)	40	9 (1.5)	6	8 (3.4)	24	5 (1.0)
c. Connect me with employers who were hiring	20	25 (5.3)	145	34 (2.4)	28	41 (6.2)	127	31 (2.4)	9	15 (4.6)	86	21 (2.1)	13	18 (4.8)	56	14 (1.7)
d. Take the classes or training or further the education I needed	49	70 (5.5)	288	71 (2.3)	9	12 (4.0)	53	13 (1.7)	3	3 (1.9)	33	8 (1.4)	11	14 (4.2)	41	9 (1.4)
e. Improve my job-seeking skills	36	49 (6.2)	277	66 (2.4)	25	37 (5.9)	81	21 (2.1)	3	4 (2.2)	24	6 (1.2)	8	10 (3.7)	31	7 (1.2)
f. Advance my career or get a better job	27	37 (6.0)	169	42 (2.5)	21	31 (5.7)	114	28 (2.3)	7	10 (3.8)	59	14 (1.8)	17	22 (5.0)	63	16 (1.9)
g. Learn about resources, such as transportation or child care, for job seekers or workers	26	36 (6.0)	182	42 (2.4)	12	16 (4.3)	111	29 (2.3)	7	8 (3.2)	27	7 (1.3)	26	40 (6.1)	91	23 (2.1)

NOTES: Standard errors are reported in parentheses. We excluded respondents who were missing dates for both program enrollment and exit and respondents who did not answer the question. Percentages are weighted by demographic characteristics to reflect the total population of participants in the two programs.

SOURCE: Office of the Legislative Auditor.