

Impacts of Washington State's WorkFirst Post-Employment Labor Exchange

Final Report

Prepared for:

Washington State Employment Security Department

Prepared by:

THE LEWIN GROUP

MARY FARRELL

MIKE FISHMAN

ASAPH GLOSSER

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POLICY RESEARCH**

DAVID STAPLETON

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EXECUTIVE SUMMARY

Washington State has long been committed to helping welfare recipients find employment, stay employed, advance in their jobs, and become self-sufficient. The state has implemented several programs over the last decade to provide post-employment services to welfare recipients with these goals in mind. The largest and most enduring program is the WorkFirst Post-Employment Labor Exchange (WPLEX), a statewide program providing post-employment services to welfare recipients after they begin working at least 20 hours per week.

The state implemented WPLEX in 1998 to provide post-employment services through a centralized call center. The staff contact individuals to provide them with guidance on career advancement, tips on specific job opportunities in the customer's labor market, vouchers for certain support services, and referrals to social services and education providers.

Washington's Employment Security Department (ESD) hired The Lewin Group and its subcontractor, Cornell University, to conduct an evaluation of WPLEX. This report presents an overview of the program, an in-depth examination of the program's implementation and costs, and analysis of the effectiveness of WPLEX in moving individuals from welfare to work.

A. Overview

In August 1998, ESD staff began contacting working individuals who were enrolled or formerly enrolled in WorkFirst, Washington's Temporary Assistance for Needy Families (TANF) program, to offer them post-employment services. All staff work at a telephone call center located in Seattle, and all interaction between staff and individuals (referred to as *customers* throughout this report) occurs over the phone or via mail.

Staff offer customers the following types of services:

- **Department of Social and Health Services (DSHS) Referrals:** Staff might remind customers of their eligibility for child care and transportation assistance, food stamps, and Medicaid.
- **Earned Income Tax Credit (EITC):** Staff provide customers with information regarding the EITC and how it can help them get a bigger annual refund or more take-home pay each month, as long as they are working.
- **Education or Training:** If customers lack a GED, they might be referred to a school in the area that prepares them for the test; WPLEX pays for the testing fees. Staff also refer customers with GEDs to skills training courses offered at the local community or technical college.
- **ESD Referral (WorkFirst):** When a customer loses his or her job, staff might provide immediate job search assistance, as appropriate, and then refer the customer back to the local ESD WorkFirst office for more customized job search.
- **Job Promotions:** Staff might work with customers, and in some cases, employers, to identify opportunities for promotion, increases in hours, increases in wages, and receipt of benefits.

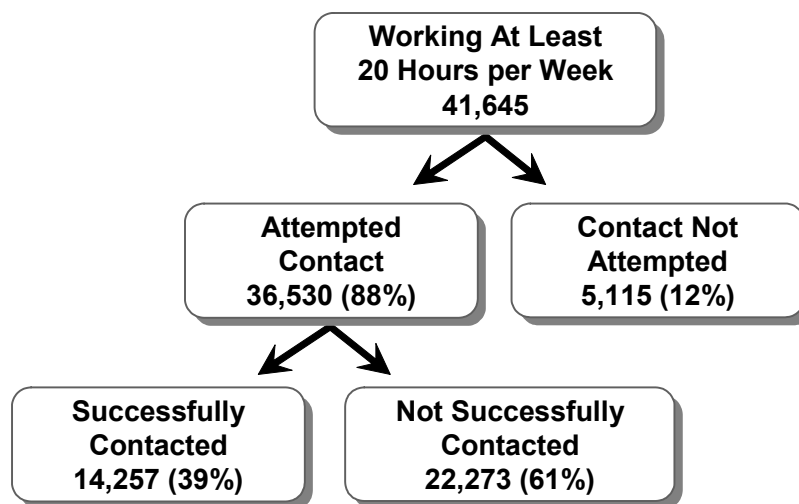
- **Job Referrals:** When there are few opportunities for advancement in their current jobs, staff might connect customers to resources to help them find better jobs. Staff also provide customers with job leads.
- **Resume Updates, Interview Techniques:** Staff might request a copy of customers' resumes to keep on file. Staff review the resumes and provide customers with guidance on how they might improve them. They also provide advice on how to approach an upcoming interview (e.g., how to dress appropriately, how to answer questions, what types of questions to ask the employer, and how to negotiate the starting wage).
- **Support Services:** WPLEX can provide support service vouchers to customers for work-related expenses for up to one year after leaving TANF.

WorkFirst customers enter the WPLEX "queue" shortly after they begin working at least 20 hours per week. Staff are supposed to attempt to contact new customers soon after they appear in the queue. The policy for contact is as follows. During the first six months, WPLEX staff are supposed to contact available customers a minimum of once every 30 days. After six months, staff determine contact frequency on a case-by-case basis.

B. Attempts and Successful Contacts

The report's analysis focuses on a cohort of customers who began working 20 or more hours per week between October 1998 and December 2001 (referred to as the *report sample*). Among the 41,645 customers in the report sample, WPLEX attempted to contact 36,530 (or 88 percent) within one year of queue entry (see *Exhibit ES.1*). Of the group of customers whom WPLEX attempted to contact, 14,257 (or 39 percent) were *successfully* contacted. A successful contact is one in which the WPLEX staff person makes phone contact with the participant and provides some type of assistance.

**Exhibit ES.1: Flow of Customers First Year After Queue Entry
(Customers Entering Queue October 1998 to December 2001)**



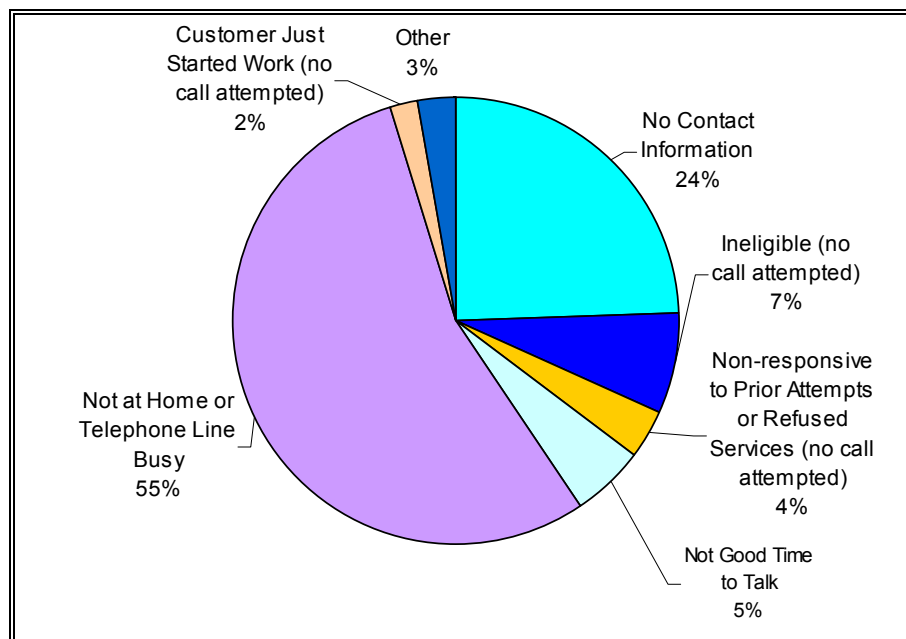
WPLEX staff attempted to contact most of the customers in the queue (88 percent within one year of entering the queue), although they only *successfully* contacted about four out of ten. The

rate of contact improved over time as staff gained more experience, the initial backlog of customers in the queue diminished, and policy changes placed new customers at the top of the queue, rather than at the bottom. As a result, 43 percent of customers who entered in 2001 were contacted within the first year, compared with just 25 percent of WPLEX customers entering in 1998.

One issue we examined was why they were not reaching a higher share of customers. From a review of calls conducted in March 2003, we identified 875 customers whom WPLEX did not reach. As *Exhibit ES. 2* shows, among this sample, the top two reasons WPLEX did not reach a customer who appeared in the queue are:

- The customer was not at home when WPLEX called or the phone line was busy (55 percent).
- Contact information was not available or was wrong (24 percent).

Exhibit ES.2: Reasons for Not Reaching Customers



In 13 percent of the cases, staff did not attempt to contact the customer either because the customer appeared to be ineligible, the customer had previously refused services or did not respond to previous messages or mailings, or the customer had just started work and it was deemed too early to begin discussing retention and advancement services.

While staff spend more time with successful calls than with cases in which no contact is made (14 minutes versus 4 minutes per call, respectively), more than half of their time is spent on the no contact cases. This is because most calls result in no contact.

C. WPLEX Service Receipt

Once they reach the customer, staff provide a variety of services. From staff interviews, reviews of case notes and phone calls, and analysis of program and financial data, we assessed the services provided and the costs of these services. The key findings from this analysis include the following:

- Most calls begin by staff updating the customer's contact information and discussing the customer's current employment status. However, after this initial discussion, the information and types of services provided by staff differ tremendously. For example, some staff tend to advocate advancement through additional education and training, while others provide job leads.
- Providing support service vouchers is not emphasized in the calls reviewed; during our review of calls, just 6 percent of the calls discussed issuing transportation vouchers. This is due in part to the time required to issue vouchers, and in part to some staff's opinion that customers need to learn to be self-sufficient and identify alternative ways to fund support services. State budget cuts that reduced the amount available for support services reinforced the importance of reducing customers' reliance on this assistance.
- Most customers who are contacted do not receive many subsequent calls. Staff contact successful customers just three times, on average, and about 40 percent receive just one call. On average, participants are contacted about 5 months after they begin a new job, and by the second year, only about 10 percent continue to interact with WPLEX.
- The cost of WPLEX, about \$88 per contact, or \$273 per participant, is low relative to other welfare-to-work and post-employment programs. This reflects the low intensity of the intervention, which is delivered entirely by telephone.
- While this might be considered a low-intensity intervention, from our review, there are indications that customers benefit from these contacts. Most customers were at least somewhat receptive to the call (84 percent), seemed appreciative of assistance (76 percent), and were at least somewhat engaged in the call (78 percent). At least one issue was discussed intensely during 58 percent of the calls and about 17 percent of calls included an intense discussion concerning either job search or job growth. Although 58 percent of the calls ended with unresolved issues, 92 percent of these calls also ended with an action plan and our reviewers predicted that 82 percent of the customers with action plans would follow through.

D. Participation Analyses

A linear regression model was used to look more closely at how characteristics affect the likelihood of WPLEX participation. The probability analysis indicates that the following characteristics result in increased likelihood of being successfully contacted:

- Being female;
- Aged 45 years or more ;

- Being African American (relative to white);
- Having at least some college education (relative to high school diploma);
- Having more than one child in the TANF household;
- Having a child under the age of three; and
- Increases in earnings prior to and at the quarter of queue entry.

Those traits that had a negative relationship with the probability of a contact being successful include:

- Being Native American (relative to white);
- Having less than a high school diploma;
- Increases in TANF payments at the quarter of queue entry; and
- Having a primary language other than English.

Many of the variables that positively affect the probability of successful contact are traits associated with job retention (e.g., higher education and higher earnings). However, we also found that traits associated with being disadvantaged – being female, being African American, having more children and younger children – were positively associated with a contact.

E. Two-Year Impacts

To estimate impacts, we compared mean observed outcomes for WPLEX participants (customers who were contacted at least once) to those who were not successfully contacted. We estimated impacts of WPLEX on several key outcomes: employment, wages, TANF receipt and payments, food stamp payments, other service expenditures, and community college enrollment.

As determined by the probability analysis, key differences exist between the characteristics of the two groups. In addition, there might be other unmeasured differences not observed in the data that affect outcomes. Unmeasured differences could reflect factors that are related to contact success, perhaps including job loss or other job-related changes. These factors are difficult to control for because they are not measured, but failure to control for them could result in impact estimates that are systematically different from the true impacts.

To estimate impacts, we used two approaches to adjust for measured and unmeasured differences between the two groups:

- **Measured characteristics:** The first approach uses regression analysis to adjust for measured characteristics. Regression analysis uses the observed relationship between outcomes and measured characteristics within the participant and non-participant groups to make the adjustments for differences in observed characteristics.
- **Unmeasured characteristics:** The second approach uses instrumental variables (IVs) to adjust for unmeasured characteristics. This method relies on the existence of a measured variable – the “instrument” – that is believed to affect participation, but that has no direct effect on outcomes. Successful contact by WPLEX is dependent, in part, on the quarter when the customer entered the WPLEX queue and the sub-region where they

lived. The value of the instrument we used is determined by the quarter in which the customer entered the queue, and the sub-queue the customer entered; the latter is determined by sub-region. The instrument is the proportion of customers entering the same sub-queue and in the same quarter that is successfully contacted. We assume that all variation in this variable which is independent of sub-queue and entry quarter would affect outcomes only through its effect on participation. This approach is discussed in more detail in the full report.

1. Employment and Wage Impacts

After adjusting for measured characteristics only, we find very substantial, statistically significant differences between wage outcomes for participants and non-participants. As *Exhibit ES.3* (first column) shows, the estimated impact on share with wages is 7.8 percentage points in the eighth quarter after entry, and the estimated impact on mean wages is \$337. Over the first two years, the estimated impact on mean wages is \$2,157.

**Exhibit ES.3: Estimates of Impacts on
Share with Wages and Mean Wages
Adjusted for Measured and Unmeasured Characteristics**

Outcome Quarter	Share with Wages		Mean Wages	
	Measured Only	Measured & Unmeasured	Measured Only	Measured & Unmeasured
Q1	0.042 ***	-0.016	16	-120
Q2	0.082 ***	-0.046	191 ***	-154
Q3	0.092 ***	0.001	246 ***	-141
Q4	0.107 ***	0.002	353 ***	-86
Q5	0.103 ***	0.007	388 ***	11
Q6	0.087 ***	-0.013	329 ***	322
Q7	0.079 ***	0.051	297 ***	371
Q8	0.078 ***	0.087 **	337 ***	507 **
	Mean for Period Indicated		Sum for Period Indicated	
First Year	0.081 ***	-0.015	806 ***	-501
Year Two	0.087 ***	0.033	1,351 ***	1,211
Two Years	0.084 ***	0.009	2,157 ***	710

* Indicates statistical significance at the 0.10 level, ** at the 0.05 level, and *** at the 0.01 level or lower, based on two-tailed tests.

However, there is convincing evidence that these differences reflect substantial selection effects. The most convincing evidence in this regard is the fact that the share with wages and mean wages for those first contacted in quarters two, three, and four after queue entry are higher in the quarters before contact is made than the corresponding values for those not contacted. After adjusting for unmeasured as well as measured characteristics, we find little definitive evidence of impacts. These estimates show no evidence of impacts in the first year after queue entry, and weak evidence of impacts in the second year, for both employment and wages. The evidence of

selection effects give us confidence that any real impacts are substantially smaller than those obtained by adjusting for measured characteristics only. Unfortunately, the data do not allow us to say how much smaller, or even rule out the possibility that they are essentially zero.

We see some evidence that is consistent with an increase in impacts when WPLEX made a concerted effort to contact customers earlier after they entered the queue, starting in 2001. This evidence is intriguing, but not definitive.

2. TANF, Food Stamps, and Other State Support Impacts

Exhibit ES.4 presents the mean impact estimates on benefit expenditures – TANF, food stamps, and state services (child care, transportation, exit bonuses, and miscellaneous other services), after adjusting for measured and unmeasured characteristics. For the most part, estimates on mean TANF expenditures are small and insignificant, but there is some evidence of a positive impact. The estimates adjusted for measured characteristics only are negative in each quarter, and significant, but not large. When we use instrumental variables to also adjust for unmeasured characteristics, we obtain a qualitatively different result: positive estimates that are statistically significant in three of the eight quarters. It is plausible that WPLEX increases TANF expenditures by providing customers with information and advice about TANF reinstatement.

The evidence also indicates that WPLEX has a small positive impact on mean food stamp expenditures and state expenditures.

**Exhibit ES.4: Estimates of Impacts on Mean Benefit Expenditures
Adjusted for Measured and Unmeasured Characteristics**

Outcome Quarter	TANF		Food Stamps		State Services	
	Measured Only	Measured & Unmeasured	Measured Only	Measured & Unmeasured	Measured Only	Measured & Unmeasured
Q1	8	74	17 ***	10	1	34
Q2	-20 *	132 **	12 **	54 *	19 ***	41
Q3	-16	122 *	20 ***	72 **	18 ***	80 **
Q4	-25 ***	111	19 ***	52	21 ***	57
Q5	-28 ***	146 **	14 ***	92 **	14 **	45
Q6	-22 **	72	11 *	55	10 *	55
Q7	-16 *	68	11 **	19	6	61
Q8	-13	-6	10 *	3	7	30
Sum for Period Indicated						
First Year	-54 *	439	67	189	59	212
Year Two	-79 *	280	46	169	35	191
Two Years	-133 *	719	113	358	94	402

3. Community College Enrollment

The estimates suggest that WPLEX increased the share of participants enrolled in community college, at least in the first year after queue entry (see *Exhibit ES.5*). The estimates adjusted for

measured characteristics are positive and statistically significant in all quarters after queue entry. Those that adjust for all characteristics are larger and also significant in the first three quarters.

Exhibit ES.5: Estimates of Impacts on Share Enrolled in Community College Enrollment

Outcome Quarter	Measured Only		Measured & Unmeasured	
Q1	0.013	***	0.020	*
Q2	0.007	***	0.029	***
Q3	0.011	***	0.028	**
Q4	0.012	***	0.014	
Q5	0.008	***	0.006	
Q6	0.006	***	0.001	
Q7	0.004	***	-0.009	
Q8	0.005	***	0.005	
Mean for Period Indicated				
First Year	0.043	***	0.091	**
Year Two	0.023	***	0.003	
Two Years	0.066	***	0.094	

F. Conclusion

As discussed above, the findings from the impact analysis are inconclusive, but suggest that the program might have had an impact on employment and earnings. When we controlled for measured characteristics, we found that WPLEX had a relatively large and positive impact on these outcomes. However, after we attempted to control for selection effects, these impacts, for the most part, disappeared. There are a number of potential explanations for these inconclusive results. Three potential hypotheses were considered:

- 1) WPLEX had an impact on employment and earnings, but given the non-experimental evaluation design and the selection effects, we cannot rule out the hypothesis that WPLEX had no impact.
- 2) WPLEX was not implemented as effectively as it could have been and improvements to the program would result in more conclusive impacts.
- 3) Using a call center approach to providing post-employment services is not an effective model; a more intensive approach is required.

1. Evaluation Design

The evaluation seeks to answer the question: Did WPLEX have a positive impact on employment retention and advancement and a negative impact on welfare recidivism? To

answer this question, the researcher must identify what would have happened in the absence of the WPLEX intervention, referred to as the *counterfactual*.

Identifying the counterfactual is especially difficult when everyone who meets particular criteria is eligible for the services. We considered several alternatives. As mentioned above, the counterfactual used for this evaluation included the group of individuals eligible for WPLEX who were not successfully contacted, either because they could not be reached, chose not to participate in the program, or became ineligible for the program before WPLEX contacted them. We recognize that differences exist between these two groups that might affect the outcomes, and have attempted to control for both measured and unmeasured characteristics (using instrumental variables). However, the instrumental variable analysis resulted in imprecise estimates. That is, the confidence intervals around the instrumental variables were very wide. As a result, we could not reject the hypothesis that the impacts were zero at even the 90 percent level.

2. Program Operations

The second hypothesis is that WPLEX has not been implemented as effectively as it could have been and improvements to the program would result in more conclusive impacts. We identified several barriers that could be addressed to increase the effectiveness of the WPLEX program. These include the following:

- **The lack of standardization reduces consistency.**

From interviews with staff, the case notes review, and first-hand observations, we found wide variation in how WPLEX staff provide services to customers in their queues. While it is beneficial to give staff some flexibility to meet the diverse needs of individuals in their queue caseload, it is also important for the program to provide administrative guidelines on the services to be provided and the manner of delivering the services. Communicating a defined process for service delivery and the types of services offered based on what past research has found to be effective would increase the consistency and quality of services provided to customers.

- **The majority of staff's time is spent reviewing cases and trying to contact customers who are never reached.**

Staff spend most of their time in a typical day attempting, unsuccessfully, to reach customers. This also includes the time spent reviewing the case prior to the call. While this is a problem that will always exist for voluntary programs, it could be reduced if the staff were to contact customers when they are most likely to be at home. We found that staff were more successful in reaching customers when they called during nonstandard work hours (e.g., mornings, evenings, and weekends).

- **Multiple computer systems take up substantial amount of staff time.**

WPLEX staff have access to several different computer systems that they use for particular purposes, to varying degrees. These computer systems do not interface; when staff update information in one system (such as a new address and telephone number), this does not update information in the other systems. Some staff spend a considerable amount of time and effort accessing all potential systems to find all potential information or update fields after a call. In addition, some staff are unaware of how to use all of the systems and/or the type of information that can be obtained in other systems. Improving the systems so that they “talk to each other” would increase efficiency and perhaps increase staff’s contact rate.

- **Staff performance is measured by the volume of calls completed; the quality of services delivered is not regularly assessed.**

WPLEX supervisors receive reports that chart call volume by staff. This allows the call center manager and the supervisors to monitor high- and low-performing staff. The preoccupation with call volume results in some staff taking short cuts to increase their volume. For example, they might not spend as much time on a call so that they can get to the next call. From our review of calls, we found that queue penetration was not indicative of high quality services. Perhaps an increase in the monitoring of calls by supervisors and clear guidelines on the level of services to be provided in the calls would reduce the variability in quality.

- **A substantial amount of time lapses before the first contact is made; once contact is made, subsequent contacts are infrequent.**

Customers are typically contacted about five months after they began a new job. On average, participants experience about three contacts within the first two years; 40 percent of this group only speak with a WPLEX person once. To have the largest impact on retention, staff should make contact with customers shortly after they find employment and make contact more frequently during the follow-up period.

- **Providing support services is not emphasized.**

Research has found that access to child care and other support services is often the critical factor in helping welfare recipients stay employed. However, support services are not uniformly emphasized by WPLEX. Providing support services from a call center makes sense. More states are realizing the efficiency in providing benefits such as unemployment insurance using a call center model, since the paperwork can generally be completed without an in-person visit. To reduce the burden on all staff, WPLEX could create a special unit within the call center to respond to support service requests.

3. Call Center Approach

There are several benefits to using a call center approach to service delivery. First, centralizing all services at the call center allows the state to reach a large number of clients. This allows WPLEX to provide services at a low cost to the state, relative to more intensive programs. A call center also provides convenience to customers, who can receive assistance without leaving their

home. In addition, some customers may feel more comfortable discussing their personal problems and the barriers they face, anonymously, over the phone.

The call center model, however, might make it more difficult to provide an intensive level of services to customers. In some situations, customers might only feel comfortable discussing issues with staff with whom they have developed a close relationship, obtained through lengthier face-to-face meetings. Housing staff in one location means staff are not living in the area where their customers live, resulting in staff being more removed from and less knowledgeable about the customer's job market and cultural environment.

While the call center model has not been rigorously evaluated as a method of providing services to customers, many states are experimenting with this approach. Further research on this type of model is warranted and would greatly inform state policy makers and administrators considering this service delivery approach.

4. Next Steps

WPLEX is an innovative program designed to help welfare recipients not only leave welfare, but also increase their earnings and obtain supports they need to continue to work. It can reach large numbers of eligible workers across the state at a relatively low cost.

Given the non-experimental nature of this evaluation, we cannot declare WPLEX a success or failure. We also cannot say whether a call-center approach, even if effectively implemented, would improve the outcomes of this population. The state of Washington has pursued several different initiatives to target welfare recipients, and former welfare recipients with post-employment services, including several that were designed to provide a more intensive level of services. It is important to test these initiatives to learn which policy initiatives are working and which need to be revamped or abandoned.

To test the three hypotheses presented above, the state of Washington could make improvements to the WPLEX model to more effectively reach customers and provide them with a higher intensity of services. This program could then be tested more formally using an experimental design. This design, which is the design of choice among most researchers, would randomly assign eligible customers to the WPLEX program and be offered services or to a control group that is not offered the intervention. The benefit of this type of design is that it eliminates selection bias in the analysis. The researcher merely needs to compare the average outcomes for the program and control groups and any differences can be attributed, with reasonable confidence, to the intervention.

One of the following two designs is recommended.

- Randomly assign new entrants to the WPLEX queue into two groups: a group that is contacted quickly by WPLEX, and a control group that is not called for at least a year. Random assignment ensures that the two groups are similar and the only systematic difference between the two groups is their access to WPLEX. The difference between the mean outcomes of the two groups would capture the true impact of the program for at least the first year.

- Randomly assign the WPLEX queue into three groups: a group that is contacted by WPLEX, a group that receives post-employment services from a more intensive, in-person program, and a control group that receives no extraordinary post-employment services (but receives services provided at local offices). Comparing the means of all three groups not only assesses the effectiveness of WPLEX relative to a no post-employment service group, but also assesses the effectiveness of a call center approach relative to a more intensive program.

It is possible to implement random assignment in ways that are not costly or overly burdensome on state staff. For instance, implementation of a design like the first one suggested above would not require additional data collection or any intrusion on call center operations. All that is needed is a fool-proof process to randomly remove selected customers from the WPLEX queue when they enter, before a staff member could see their name, and make sure the customer does not enter the queue at a later date, for the duration of the study. Such a process would need to be applied to new entrants for a period of one to two years. Designs that require more intense interventions, such as the second of those described above, would require more resources and be more burdensome. That burden might be justified, however, by the value of the findings to policy officials, who need to know which interventions help welfare recipients become self-sufficient in a cost effective manner.

CHAPTER 1 INTRODUCTION

Washington State has long been committed to helping welfare recipients find employment, stay employed, advance in their jobs, and become self-sufficient. The state has implemented several programs over the last decade to provide post-employment services to welfare recipients with these goals in mind. The largest and most enduring program is the WorkFirst Post-Employment Labor Exchange (WPLEX), a statewide program providing post-employment services to welfare recipients after they begin working at least 20 hours per week.

The state implemented WPLEX in 1998 to provide post-employment services through a centralized call center. Staff contact individuals to provide them with guidance on career advancement, tips on specific job opportunities in the customer's labor market, vouchers for certain support services, and referrals to social services and education providers.

Washington's Employment Security Department (ESD) hired The Lewin Group and its subcontractor, Cornell University, to conduct an evaluation of the WPLEX program. This report presents an overview of the program, an in-depth examination of the program's implementation and costs, and analysis of the effectiveness of WPLEX in moving individuals from welfare to work.

A. Overview of WPLEX

In August 1998, ESD staff began contacting working individuals who were enrolled or formerly enrolled in WorkFirst, Washington's Temporary Assistance for Needy Families (TANF) program, to offer them post-employment services. All staff work at a telephone call center located in Seattle, and all interaction between staff and individuals (referred to as *customers* throughout this report) occurs over the phone or via mail. Staff offer customers the following types of services:

- **Department of Social and Health Services (DSHS) Referrals:** Staff might remind customers of their eligibility for child care and transportation assistance, food stamps, and Medicaid. When customers need these benefits, have eligibility questions, or have other specific needs (e.g., substance abuse problems), staff refer them to DSHS.
- **Earned Income Tax Credit (EITC):** Staff provide customers with information regarding the EITC and how it can help them get a bigger annual refund or more take-home pay each month, as long as they are working.
- **Education or Training:** If customers lack a GED, they might be referred to a school in the area that prepares them for the test; WPLEX pays for the testing fees. Staff also refer customers with GEDs to skills training courses offered at the local community or technical college.
- **ESD Referral (WorkFirst):** When a customer loses his or her job, staff provide immediate job search assistance, as appropriate, and then refer the customer back to the local ESD WorkFirst office for more customized job search. (WPLEX has up to 30 days to work with the customers.) WPLEX coordinates with the local ESD office to provide continued job search service.

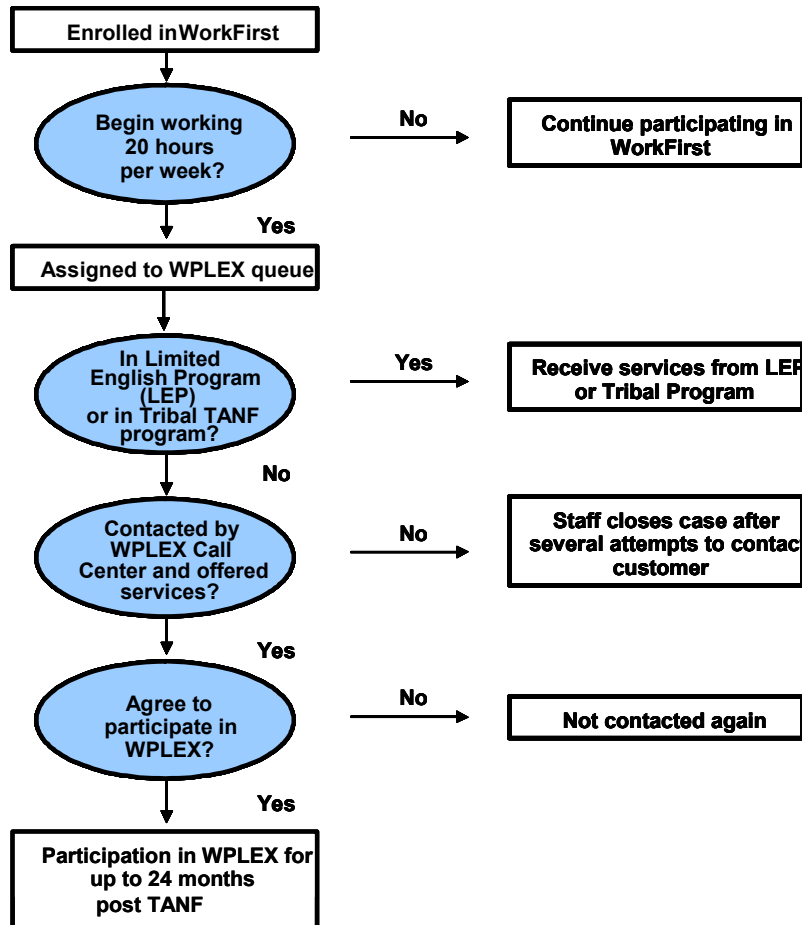
- **Job Promotions:** Staff might work with customers, and in some cases, employers, to identify opportunities for promotion, increases in hours, increases in wages, and receipt of benefits.
- **Job Referrals:** When there are few opportunities for advancement in their current jobs, staff might connect customers to resources to help them find better jobs. Staff also provide customers with job leads.
- **Resume Updates, Interview Techniques:** Staff might request a copy of customers' resumes to keep on file. Staff review the resumes and provide customers with guidance on how they might improve them. They also provide advice on how to approach an upcoming interview (e.g., how to dress appropriately, how to answer questions, what types of questions to ask the employer, and how to negotiate the starting wage).
- **Support Services:** WPLEX can provide support service vouchers to customers for work-related expenses for up to one year after leaving TANF. WPLEX provides vouchers for car repairs, clothing for work, tools if required by their job, liability auto insurance, and union initiation dues. Payments to customers cannot exceed \$3,000 in a program year (*Appendix Exhibit A.1* lists the dollar limit for each type of support service).

Exhibit 1.1 illustrates the basic sequence of events leading to participation in WPLEX as it was implemented prior to August 2002 – when the research sample entered the WPLEX program and when it was purely a voluntary program.¹ As this exhibit shows, WPLEX did not target customers enrolled in the Limited English Proficiency (LEP) and Tribal TANF programs – these customers received post-employment services directly from their respective programs. Also, as will be discussed below, the state operated other post-employment services for WorkFirst customers, and participants in these other programs were not targeted by WPLEX.

WPLEX participants continue receiving post-employment services as long as they are working 20 hours per week for up to two years after leaving TANF.

¹ Since August 2002, customers working at least 20 hours per week, but less than 32 hours per week (and who continue to receive TANF), are required to participate in WPLEX or are subject to a financial sanction.

Exhibit 1.1: Sequence of Events Leading to Participation in WPLEX



B. Other Post-Employment Services in Washington

As mentioned above, Washington State has been committed to providing post-employment services to welfare recipients for many years. While WPLEX has been in operation, the state operated several programs, discussed briefly below, in certain regions of the state or targeting particular populations. It is important to note that individuals in these other programs were not eligible for WPLEX services during the evaluation period, and to the extent feasible, are not included in the WPLEX research sample analyzed in this report.

- Re-Employ Washington Workers:** ESD administrators designed a program to re-employ former TANF recipients and other low-wage workers while they were receiving unemployment insurance benefits. The program, Re-Employ Washington Workers (RWW), operated in 1999, and included individual attention, job club participation, computerized labor market information, job search assistance, and bonuses for rapid re-employment. A voluntary program, RWW suffered from low take-up rates – achieving only 37 percent of its enrollment goal. After several attempts to reorganize the program, the state abandoned the model in June 2000.

- **The Spokane Initiative:** The Spokane Post-Employment Services Model, operating in Spokane and parts of Lincoln County in 1999 and 2000, emphasized early contact with customers and involvement with local employers. A team of ESD and DSHS staff provided services. The model called for customer contact during the job search phase, immediate engagement with customers upon employment, and personalized post-employment counseling that included job site visits to discuss retention and progression goals with customers and employers. According to a study conducted by the Joint Legislative Audit and Review Committee, Spokane consistently enrolled the highest percentage of WorkFirst clients in post-secondary services.²
- **The Job Success Coach Initiative:** In July 2000, the state launched the Job Success Coach Initiative (JSCI), which was based, in part, on the Spokane model for post-employment services. The state designed JSCI to address shortcomings that administrators perceived in other post-employment programs: namely high caseloads per caseworker and the resulting long delays before initial customer contact. The JSCI program was delivered through “coaches” who provided intensive, personalized service to a targeted group of customers deemed at higher risk of losing their jobs and returning to welfare. Depending on the area, private contractors or ESD, or both, provided the services. Similar to the Spokane model, JSCI emphasized customer contact during the pre-employment period. Funding for this program ended in spring 2002.
- **Limited English Proficiency Pathways:** Operated by DSHS and delivered by private and public providers, the LEP program includes a JSCI program that is available to non-English speakers who qualify for services based on their score on an English proficiency test. While the JSCI program closed in spring 2002, the LEP continues to operate their program. Because of the diversity of languages spoken by customers, caseloads can be very small. In contrast with WPLEX and the statewide JSCI program, LEP coaches have responsibility for placing customers in jobs, and consequently, their pre-employment interaction with customers is more intensive. Moreover, given the limited language skills of their customers, LEP coaches tend to have more contact with employers and social service providers and can serve both as interpreters and negotiators.
- **Tribal Programs:** The state contracts with sovereign Indian tribes across Washington to provide post-employment services to its residents. The state currently has agreements with four tribes to provide services: Upper Skagit, Lummi, Nooksack, and Spokane. Through the contractual agreements, a tribe receives a flat payment for each customer it anticipates to enroll in the program during a year. Then, on a quarterly basis, the state reviews the actual program participation data and makes an additional payment if the tribe meets its enrollment goals. Service providers are typically tribal members.

C. Evaluation

The state commissioned an evaluation of WPLEX and asked us to provide a scientifically valid, reliable, and generalizable assessment of the implementation and net impacts of this program. The WPLEX evaluation encompasses a process study and an impact study.

² Joint Legislative Audit and Review Committee (2000). “WorkFirst Evaluation Phase III Post-Employment Services,” Report 00-4, June 28, 2000.

The process study tracks the design, implementation, costs, and management of WPLEX. The analysis describes the rules and procedures that govern entry to and exit from the program and the characteristics of the program caseloads. The study also describes the WPLEX treatment by documenting the nature and frequency of staff contact with customers. Through both descriptive and statistical methods, the process study is designed to help policy makers and administrators identify aspects of the program that are operating as intended and areas that could be improved. Moreover, the process study, by better defining the nature of the WPLEX treatment, can assist administrators in interpreting the findings of the impact study.

The impact analysis estimates the impact of WPLEX on key outcomes that the intervention is expected to affect. These outcomes include employment and wages, TANF receipt and payments, other service receipt and expenditures, food stamp expenditures, and community college enrollment. To estimate the impacts, the outcomes for the WPLEX participants are compared to those of non-participants, controlling for measured and unmeasured differences in characteristics between the two groups. The methodology for the impact study is discussed in more detail in Chapter 5.

D. About This Report

This section describes the data used in this report, the research sample, and a brief outline of the contents of the rest of the report.

1. Data Sources

The analysis of this report relies on several administrative data sources listed in *Exhibit 1.2*:

- **Jobs Automated System:** The Jobs Automated System (JAS) is a relational database used by DSHS and ESD to track customers' progress in WorkFirst and WPLEX. It includes many different data sets that include information on customers' demographics, referrals to activities, participation levels, and information from the customers' Individual Responsibility Plan.
- **Automated Client Eligibility System:** The Automated Client Eligibility System (ACES) database includes information on customers' welfare benefit receipt, employment, income, and individual and family characteristics that is recorded by DSHS eligibility staff. For the analysis presented in this report, we have examined customer characteristics and monthly TANF and food stamp benefit receipt.
- **Unemployment Insurance:** The Unemployment Insurance (UI) file includes information on individuals' quarterly earnings reported by employers to the UI system. While UI wage records provide the most complete data source of earnings available, there are some limitations with these records. First, the transmission of the UI data is lagged behind the transmission of other data, generally from one to three quarters. Second, state UI wage records will not capture all employment of individuals. Specifically, the UI data will not include employment of some agricultural workers (working on "small" farms), workers who are self-employed, household workers of employers who pay less than \$1,000 per quarter, and individuals who are employed outside of Washington State. Finally, it will not capture informal employment that is unreported to the state (i.e., work conducted "off the books").

Exhibit 1.2: Administrative Data Sources

Data Source	Record Level	Data Fields
Jobs Automated System		
Component file	Individual component spell	ESD program activities' and services' start date, end date, completion code
Key file	Individual	Crosswalk between JAS identifier and SSN, sex, race
Case file	Individual	Education grade and year, participation status (e.g., exemption code or non-exempt), literacy level
Employment file	Individual employment spell	Employment code, hourly wage, hours working/week, start date, end date, subsidized code, insurance code, termination reason
Job service financial file	Individual program spell	Type of support service other than child care (e.g., transportation, clothing, tools, car reports, haircuts, diapers), benefit amount
WPLEX activity file	Individual action	Action codes (e.g., no contact, letter sent; loss of contact; no longer eligible; refer to job; refer to school activities)
WPLEX post-employment file	Individual	Post-employment start-date, date of first contact, exit codes, queue priority, WPLEX eligibility
Automated Client Eligibility System		
Client file	Individual	Client characteristics (race, gender, marital status, primary language, veteran status, years of education, citizenship, age)
Client AU monthly file	Individual month	Relationship to head of household, case status (e.g., open, closed), type of recipient
AU monthly file	Assistance unit month	Monthly benefit amount, CSO, benefit program (e.g., TANF, food stamps, GA, Medicaid), number of adults and children, age of youngest child
Client monthly file	Individual month	Benefit month, earned income, hours worked, unearned income
Unemployment Insurance		
Wage records	Individual quarterly	Quarterly wages, quarterly hours

In addition to the administrative data discussed above, we compiled data through a number of site visits. In March 2003, Lewin staff conducted a review of 1,019 calls placed during a one-week period. Lewin conducted other site visits in June 2002 and September 2002. During these site visits, Lewin staff spoke with WPLEX supervisors and staff about their experiences at WPLEX and their attitudes about the program. During the March 2003 visit, Lewin staff interviewed 33 of the 34 staff members employed at the time.

2. Report Sample

Customers were contacted after they began working at least 20 hours per week and were assigned to the WPLEX queue. A total of 131,600 customers were assigned to the WPLEX queue from when the program was first implemented in August 1998 until December 2002. The report's analysis focuses on a subset of these customers, referred to as the *report sample*. The report sample consists of 41,645 WorkFirst customers who began working 20 or more hours per week between October 1998 and December 2001, for whom we have four quarters of follow-up data. In addition to limiting the sample to a particular cohort, we did not include customers in the queue who were unlikely to be contacted by WPLEX because of their assignment to JSCI or the Spokane Initiative, or who we could not match to one of the required data sources. For a detailed discussion on who is included in the report sample, see the discussion in Appendix B.

3. Organization of this Report

The remainder of this report is organized as follows:

- **Chapter 2: Reaching Customers Through a Call Center** examines how customers enter the WPLEX queue and the extent to which staff are able to contact them.
- **Chapter 3: WPLEX Participation and Service Receipt** examines the characteristics of the individuals successfully contacted by WPLEX, describes the types of services provided, and examines the costs of the services.
- **Chapter 4: Participation Analyses** estimates the probability of participating in WPLEX, given demographic characteristics, education levels, and past employment and welfare experience.
- **Chapter 5: Two-Year Impacts of the WPLEX Program** estimates of the impacts of WPLEX on employment, wages, state payments (i.e., TANF, food stamps, child care, transportation, and other support services), and community college enrollment.
- **Chapter 6: Lessons From WPLEX Study** summarizes the major findings from the study and the implications for further research.

CHAPTER 2 REACHING CUSTOMERS THROUGH A CALL CENTER

This chapter examines how customers enter the WPLEX queue and the extent to which staff are able to contact them. The information for this chapter comes primarily from field research conducted in March 2003 at the WPLEX call center and analysis of the WPLEX activity file. During the visit to the WPLEX call center, Lewin staff conducted interviews with staff and their supervisors and spent at least two hours observing each staff member, 33 of the 34.³ Sitting next to staff, we were able to listen to their conversations with customers. In addition, we observed how each staff member reviewed and entered customer information, including those cases where they reviewed the case and decided not to call the customer. During our visit we observed 1,019 cases—992 were customers who appeared in the queue and 27 incoming calls.

A. The WPLEX “Queue”

WorkFirst customers enter the WPLEX queue shortly after they begin working at least 20 hours per week. WPLEX uses the queue process to prioritize which customers are served first, with names of customers placed in the following order:

- Follow-up calls scheduled by WPLEX, which are considered time sensitive;
- Individuals who were recently hired;
- Individuals who have not yet been contacted; and
- Follow-up calls that are not time sensitive.

WPLEX staff are supposed to attempt to contact new customers soon after they appear in the queue. After the first call, if the customer is not home, staff tend to mark the contact “time sensitive,” which places him or her at the top of the queue to be contacted by staff working a later shift.

The policy for contact is as follows. During the first six months, WPLEX staff are supposed to contact available customers a minimum of once every 30 days. After six months, staff determine contact frequency on a case-by-case basis. Staff remove customers’ names from the queue only if they refuse services, become ineligible (e.g., lose their job), or cannot be contacted after several attempts.

By centralizing all services at the WPLEX call center, the state hoped to offer services to a large number of customers. During the summer of 2001, call logs show that the staff at the call center averaged about 30,000 calls per month. In addition to being able to serve a high volume of customers, the call center offers other benefits. First, the center has established hours of operation during both working and non-working hours; the WPLEX call center is open from 8:00 a.m. to 8:00 p.m., Monday through Friday, and from 9:00 a.m. to 6:00 p.m. on Saturdays. Second, working customers with limited free time can obtain assistance quickly, without having to leave their home. Third, some customers may feel more comfortable discussing their personal problems and the barriers they face, anonymously, over the phone. (Alternatively, some

³ One of the 34 staff employed at the time of our visit refused to let us listen to her make calls.

customers may only feel comfortable discussing issues with staff with whom they have developed a close relationship.)

B. Program Staffing Structure

The WPLEX call center houses about 34 telephone agents (as of March 2003), three supervisors, and the call center manager. On average, each agent makes about 40 or 50 calls per day. Staff call volume is charted weekly so that the call center manager and the supervisors are aware of the high- and low-performing staff.

Staff are divided into 18 teams comprised of two or three staff, each covering a particular region.⁴ The region covers a geographic area encompassing one to six Community Service Office (CSO) areas. WPLEX teams are expected to learn about opportunities in their regions, and visit the local ESD WorkFirst offices, if the budget permits. They will also visit local partners, community resources, and community-based organizations in their regions.

As *Exhibit 2.1* shows, from a recent survey of staff conducted in March 2003, the typical WPLEX staff member has been with WPLEX for over two and a half years and has attended some college—over half have obtained at least an associate degree and 16 percent have a graduate degree. Although most staff indicated that they had at least some relevant work experience prior to working at WPLEX, staff come from many different employment backgrounds. For example, staff's previous experience includes: customer service, counseling and social work, medicine, labor relations, publishing, sales, ESD caseworker, military, and market research.

Exhibit 2.1: Staff Characteristics

Staff Characteristic	Value
Average Years of Experience at Call Center	
At Call Center	2.7
Education Level (%)	
High School/GED	6.7
Some college or professional school	40.0
AA	6.7
BA/BS	30.0
Masters or Law	13.3
Doctorate	3.3

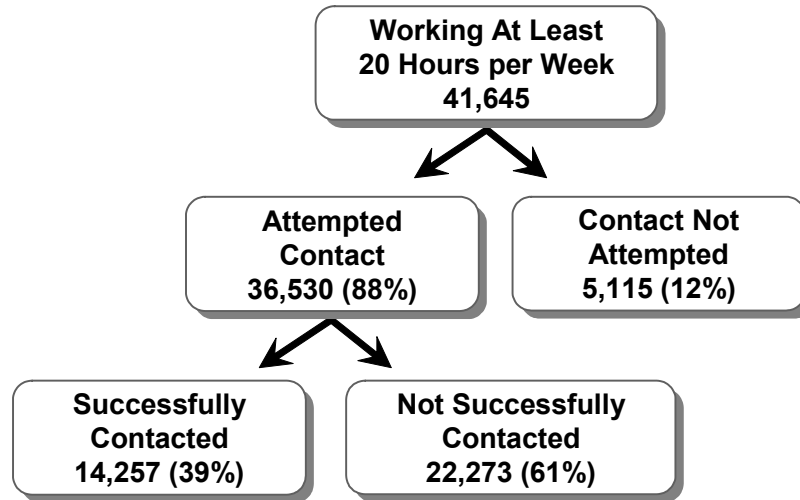
C. Experience Contacting Customers

Exhibit 2.2 provides an overview of the numbers and shares of customers in the queue who staff attempt to contact and are eventually contacted. As this exhibit shows, among the 41,645 customers in the report sample, WPLEX attempted to contact 36,530 (or 88 percent) within one year of queue entry. Of the group of customers whom WPLEX attempted to contact, 14,257 (or 39 percent) were *successfully* contacted. A successful contact is one in which the WPLEX staff

⁴ Some staff are assigned to one queue region, but will also serve as a back-up to another queue region.

person makes phone contact with the participant and conducts one of 15 activities described in the accompanying text box on the following page.

**Exhibit 2.2: Flow of Customers First Year After Queue Entry
(Customers Entering Queue October 1998 to December 2001)**



This section provides background information on why staff attempted to contact some customers, but not others, and after they attempted to contact the customers, why they were unable to successfully contact some individuals.

1. Staff Attempts

There are several reasons why staff might not attempt to contact a customer. The period when the customer entered the queue affected whether they were contacted promptly or lingered in the queue with no attempt made. The region of the state where the customers lived also affected when staff attempted to contact them. Also, staff will typically review a case prior to making the call and may not contact customers based on this review.

a. Date of Queue Entry

The date when customers entered the queue affects whether an attempt was made for two reasons. First, during WPLEX's initial period, the queue included a backlog of all WorkFirst customers who had begun working prior to the start of WPLEX. Because of the initial high volume, staff were unable to attempt to contact these customers as quickly as they were once the queue size stabilized. Second, the state changed policy dictating the order in which customers would be contacted in January 2001. Prior to 2001, new customers were given the lowest priority; their names were placed at the bottom of the queue, and staff did not attempt to contact them until they had attempted to contact customers already in the queue. After the policy change, new customers entered toward the top of the list, after time sensitive follow-up calls.

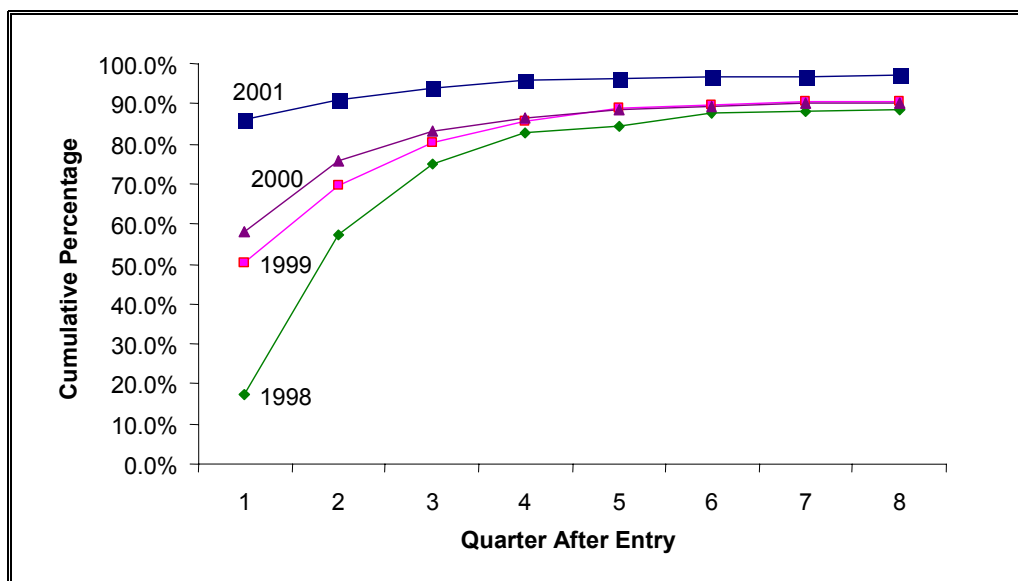
WPLEX Successful Contacts

1. **Assist with resume update:** Customers are provided assistance for update or creation of resumes. If customers have supplied a resume, staff use this time to talk about changes or improvements. If they do not have a current resume, staff request job and school information and assist them in creating a resume that is flexible for the local job market.
2. **Assist with interview skills:** Customers are provided assistance with interview skill development. Staff discuss with the customers how to approach an upcoming interview, including subjects such as: how to dress appropriately for the interview; how to answer questions on the application; what types of questions to ask the employer; and how to negotiate salaries.
3. **EITC letter mailed:** Staff mail brochures to customers interested in receiving information on the EITC and/or the Advance EITC. In addition, they will provide a referral to the EITC Unit (operating in the call center) if the customers wish to speak with a representative.
4. **Enrolled in school:** Customers are identified as enrolled in a community or technical college program.
5. **Employment promotion:** Staff assist customers in learning what steps are needed to get a promotion for themselves (e.g., discuss the company's requirements with supervisor and/or human resources staff).
6. **Follow-up activity:** Staff provide customers with retention/wage progression services. Staff use this category when other activity categories are not appropriate, such as the creation and issuance of support services, and referrals to other service providers. This category is also used to record the first contact staff make with customers to discuss the services available to them, when no other services are initially provided. In addition, staff will record this activity after they leave a follow-up message for customers, providing additional information on issues that could affect retention or advancement goals (such as a new job, wage progression, and voucher information).
7. **Food stamp, medical, child care assistance:** Staff provide customers with information on food stamps, medical benefits and child care. A referral must be made to DSHS or a community-based organization or a letter is sent to the customer with program information.
8. **Job development:** Staff contact the employer and present the customer's skills to obtain an interview that results in a new position. This category is used only when customers obtain new employment.
9. **Labor market information:** Staff provide customers with labor market information such as information on salary trends, statistics on a field and/or industry, and details of required skills.
10. **Referral to community college:** Staff refer customers to adult basic education ABE, GED, English as a second language ESL, literacy, pre-college training, vocational training, or pre-employment training courses.
11. **Referral to job:** Staff refer customers to potential jobs listed on the internet, in newspapers, on Government Job Line, and other sources.
12. **Referral to Tribe:** Staff refer customers identified as eligible for tribal assistance to the tribal liaison. The customers' names are removed from the queue.
13. **Wage Progression:** Staff identify that the customer has had an increase in wages (hourly, monthly, or hourly) or an increase in the number of hours worked.
14. **Referral to DSHS:** Staff refer customers to DSHS for services or assistance.
15. **Referral to WorkFirst:** Staff refer customers to the WorkFirst program (ESD staff) primarily for job search assistance if they lost their job

Toward the end of 2001, staff were given the authority to override the automatic prioritization of customers in the queue and order the customers differently. During our March 2003 site visit we found some variation in the order in which WPLEX staff proceeded through their queues. While many of the staff choose to work their queues in the order presented, others have developed their own methods for selecting which customers to call.

Exhibit 2.3 provides information on the share of customers that WPLEX had attempted to contact by number of quarters since their queue-entry quarter and by the calendar year in which they entered the queue. As this exhibit shows, staff attempted to contact queue entrants earlier in the later years than in the earlier years. Specifically, WPLEX attempted to contact 86 percent of the 2001 entry cohort within their first quarter of queue entry, compared with 58 percent of the 2000 cohort, 50 percent of the 1999 cohort, and 17 percent of the 1998 cohort. The large shift from 1998 to 1999 reflects the reduction in the backlog at program startup, and the large shift from 2000 to 2001 reflects the change in queue policy.

Exhibit 2.3: Share of Queue Entrants that Staff Attempted to Contact by the end of the Quarter since Queue Entry and Year of Entry-Quarter



Source: WPLEX post-employment file merged with WPLEX activity file.

While staff attempted to contact the vast majority of the 1999 and 2000 cohorts eventually (89 percent by quarter six), staff had attempted to contact 89 percent of the 2001 cohort by quarter two. By contacting the 2001 cohort earlier in their employment spell, staff may have been in a better position to help the customers stay employed.

b. Region of State

The queue is divided into 18 sub-queues, by region, that have different staffing levels. We observed differences in contact rate by sub-queue.

As *Exhibit 2.4* shows, the percent of the queue entrants that staff attempted to contact in the first quarter after queue entry ranges from 30 and 31 percent in sub-queue 09J and 09K (the

southwestern area of the state) to 83 percent in sub-queue 09E (the Seattle area). Perhaps some sub-queues were not as well staffed relative to the number of entrants as other queues, or the differences in rates reflect variation in calling practices across staff.

Exhibit 2.4: Percent of Entrants that Staff Attempted to Contact by Sub-Queue and Quarter After Queue Entry

Sub-queue	CSO Area ^a	Quarter After Queue Entry			
		1	2	3	4
09A	Auburn, Federal Way, Kent	65.7	86.4	90.5	92.1
09B	Burien, West Seattle	47.5	61.8	80.6	85.9
09C	Everett, Sky Valley, Smokey Point	64.2	88.9	92.8	93.3
09D	Alderwood, Belltown, King North (Ballard and Lake City)	68.5	85.6	91.2	93.4
09E	Capitol Hill, Rainier, Renton	83.2	91.3	94.7	95.4
09F	Pierce North, Pierce West, Puyallup Valley	46.8	62.0	81.1	88.0
09G	Dayton, Grandview, Kennewick, Pasco, Walla Walla	61.9	86.7	90.5	92.1
09H	Bellingham, Friday Harbor, King Eastside, Mount Vernon, Oak Harbor	74.5	92.3	93.8	94.4
09I	Olympia, Port Angeles, Port Townsend, Shelton	48.9	69.4	79.1	88.0
09J	Elma, Long Beach, Orchards, South Bend, Vancouver	30.2	53.6	74.3	82.6
09K	Aberdeen, Chehalis, Goldendale, Kelso, Stevenson, White Salmon	30.5	39.6	48.1	60.0
09L	Moses Lake, Okanogan, Othello, Republic, Wenatchee	65.0	80.2	87.2	90.7
09M	Ellensburg, Sunnyside, Toppenish, Wapato, Yakima, Yakima/Kittitas	66.0	88.8	91.6	92.9
09N	Bremerton, Pierce South	50.5	70.3	84.1	87.9
09O	Clarkston, Colfax, Colville, Davenport, Newport	60.6	91.0	88.5	90.0

^a WPLEX operated three other queues in the Spokane area. Customers living in these areas were excluded from the analysis because a substantial share of them were served by the Spokane Initiative, and thus were ineligible for WPLEX.

c. Other Reasons for Not Attempting to Call

As mentioned earlier, we conducted a review of 1,019 cases in March 2003. The vast majority of the cases (992) were customers who appeared in the queue; the other 27 were incoming calls. Of the cases we reviewed, staff chose to call the customer 82 percent of the time (814 customers). *Exhibit 2.5* shows the various reasons why staff did not attempt to call customers in the remaining 178 cases.

Ineligibility was the most common reason for not attempting to reach a customer (35 percent). Of these ineligible customers (based on the information in JAS), over half were ineligible due to their participation in LEP. In almost one-quarter of the cases, staff did not attempt a call because there was no contact information available. About 19 percent of customers were not called because they expressed no interest during previous attempts (either refusing services or not responding to previous messages or mailings). In about 9 percent of the cases, staff opted not to call the customers so soon after they began working, believing the customers needed time to adjust to their new jobs.

Exhibit 2.5: Reasons Why WPLEX Staff Did Not Attempt Calls

Reason	Percent
Customer ineligible:	34.8
<i>Enrolled in LEP</i>	18.5
<i>Other ineligibility reason</i>	16.3
No number available	23.6
Lack of interest by customer:	18.6
<i>Customer previously refused services</i>	9.0
<i>Previous 'last attempt' letter sent</i>	9.6
Customer just started work	9.0
Contact timing (reschedule for more suitable time)	2.8
Other	11.2
Total	100.0
<i>Sample Size</i>	<i>178</i>

2. Successful Contacts

As was true for attempted contacts, the period when the customer entered the queue and the region of the state where the customers lived affected the successful contact rate. In addition, there are other reasons why staff might be successful in reaching a customer and offering them services discussed in this section.

a. Date of Queue Entry

Exhibit 2.6 provides information on the share of customers in the report sample who staff were successfully contacted by quarter since entry and year of entry. As was true for attempted contacts, WPLEX was more likely to successfully contact customers quickly who entered the queue in the later years of the program. Specifically, WPLEX successfully contacted 30 percent of the 2001 entry cohort by the end of the first post-entry quarter, compared with 11 percent of the 2000 cohort, 8 percent of the 1999 cohort, and 1 percent of the 1998 cohort.

Exhibit 2.6: Percent of WPLEX Customers Successfully Contacted by Year of Queue Entry and Quarter after Queue Entry

Year	Quarter after Queue Entry			
	1	2	3	4
1998	1.3	7.1	19.2	25.2
1999	8.0	17.9	24.5	28.5
2000	11.2	23.7	30.2	33.8
2001	30.2	38.6	41.5	43.3

b. Region of State

As *Exhibit 2.7* shows, the percent of the queue that WPLEX successfully contacted in the first quarter after queue entry ranges from 11 percent in sub-queues 09L and 09K to 30 percent in sub-queue 09E, reflecting in part the rates of attempted contacts seen in *Exhibit 2.4*. With a few exceptions, the success rate in each sub-queue is roughly one-third of the attempt rate.

Exhibit 2.7: Percent of WPLEX Queue That Staff Successfully Contacted by Sub-Queue and Quarter after Queue Entry

Sub-queue	CSO Area ^a	Quarter After Queue Entry			
		1	2	3	4
09A	Auburn, Federal Way, Kent	24.0	36.3	41.2	44.5
09B	Burien, West Seattle	16.1	24.0	31.1	35.7
09C	Everett, Sky Valley, Smokey Point	25.7	38.5	42.2	43.8
09D	Alderwood, Belltown, King North (Ballard and Lake City)	22.7	30.8	34.9	37.2
09E	Capitol Hill, Rainier, Renton	29.8	35.8	39.5	41.9
09F	Pierce North, Pierce West, Puyallup Valley	15.8	21.5	28.8	31.7
09G	Dayton, Grandview, Kennewick, Pasco, Walla Walla	18.5	31.4	36.0	38.8
09H	Bellingham, Friday Harbor, King Eastside, Mount Vernon, Oak Harbor	14.1	20.1	23.0	24.5
09I	Olympia, Port Angeles, Port Townsend, Shelton	18.9	26.7	30.3	33.3
09J	Elma, Long Beach, Orchards, South Bend, Vancouver	13.1	21.2	28.4	32.2
09K	Aberdeen, Chehalis, Goldendale, Kelso, Stevenson, White Salmon	11.4	14.5	17.3	21.1
09L	Moses Lake, Okanogan, Othello, Republic, Wenatchee	11.3	16.3	19.8	22.6
09M	Ellensburg, Sunnyside, Toppenish, Wapato, Yakima, Yakima/Kittitas	18.0	30.3	34.6	37.6
09N	Bremerton, Pierce South	17.4	25.8	32.0	35.2
09O	Clarkston, Colfax, Colville, Davenport, Newport	21.6	31.4	37.0	40.1

^a WPLEX also operates three queues in the Spokane area. Customers living in these areas were excluded from the analysis because a substantial share of them were served by the Spokane Initiative, and thus were ineligible for WPLEX.

c. Other Reasons For No Successful Contact

Of the 814 cases we reviewed in March 2003 where staff either contacted the customer or were unsuccessful in their attempt, WPLEX staff successfully contacted customers just 15 percent of the time (see *Exhibit 2.8*). This is less than half the share reported in *Exhibit 2.2* because *Exhibit 2.8* reports success after one attempt whereas *Exhibit 2.2* reports success within the first year.

WPLEX staff experienced varied levels of success in contacting customers depending on what time of the day they attempted the call. Staff were most likely to successfully contact customers in the late afternoon and early evening; staff were successful in their attempts to contact customers approximately 20 and 19 percent of the time when they made the call between 6:00 p.m. and 8:00 p.m. and 4:00 p.m. and 6:00 p.m., respectively. Our analysis shows that staff were least successful in the late-morning and early afternoon. Between 10:00 a.m. and noon, 13

percent of attempts were successful, and between noon and 4 p.m., 12 percent of attempts were successful.⁵ By calling customers early in the day or in the evening, staff are able to reach customers before they go to work or after they have come home for the day.

**Exhibit 2.8: Success Rates for Outgoing Calls
by Time Period**

Time Period	Success Rate
All outgoing calls	15.0
Time of call:	
8:00 a.m. - 9:59 a.m.	16.7
10:00 a.m. - 11:59 a.m.	12.9
12:00 p.m. - 3:59 p.m.	11.5
4:00 p.m. - 5:59 p.m.	18.6
6:00 p.m. - 8:00 p.m.	19.8

Exhibit 2.9 shows the reasons why WPLEX staff were unable to contact 85 percent of the customers they attempted to reach. Our results indicate that the most common problem was that customers were not home when WPLEX staff called; 43 percent of the time there was either a busy signal or no answer, and 26 percent of the time the WPLEX staff member got an answering machine or was informed by another resident that the customer was not home. The other common barrier that staff encounter is incorrect contact information. Although staff are sometimes able to determine that the contact information is incorrect without actually calling, staff usually find this out only after calling the number provided. Of the unsuccessful contacts, 25 percent were the result of bad contact information. These problems often occur when customers have changed residences without leaving a forwarding number, the customer was unable to pay their telephone bill and service was discontinued, or state staff (e.g., DSHS eligibility workers, local ESD staff, other WPLEX staff) incorrectly entered contact information into JAS. Although rare, we found some instances – roughly 6 percent of the unsuccessful attempted calls – where the staff member would get the customer on the phone, but the customer indicated that it was not a good time to talk.

⁵ We observed the majority of the calls in the noon to 4:00 p.m. time period after 2:00 p.m.

Exhibit 2.9: Features of Unsuccessful Calls

Feature	Percent
Reasons WPLEX could not reach customer:	
Bad number	24.7
Customer unavailable	5.9
No answer or busy	42.7
Not home (call answered by other resident)	26.0
Other	0.7
Action taken after WPLEX failed to reach customer:	
Left message	40.8
Sent mailing	45.0
Called employer to verify employment	1.0
Contacted case manager for information	0.3
Exited client	6.2
Scheduled for call back only	15.7
Search for number in barcode or directory assistance	1.2
None	3.1

Exhibit 2.9 also shows the different actions WPLEX staff took when they were unable to contact a customer. Staff members were most likely to send the customer a mailing or leave a message to call WPLEX back (45 and 41 percent, respectively).⁶ Any time a staff member records an unsuccessful call, JAS automatically schedules a call back, and in 16 percent of the unsuccessful calls, the staff member took no additional action other than recording the unsuccessful call in JAS. Far less frequently, staff would try to locate the correct number if the one listed in JAS was incorrect (1.2 percent of the 25 percent of calls with bad numbers). Staff could access an online database available to all DSHS and ESD staff as well as on-line directory assistance web-sites to locate customers' phone numbers.

D. Conclusion

In summary, this chapter found that WPLEX attempted to contact most of the customers in the queue (88 percent within one year of entering the queue), although only *successfully* contacted about one-third of all customers. The rate of contact improved over time as staff gained more experience, the initial backlog of customers in the queue diminished, and policy changes placed new customers at the top of the queue, rather than at the bottom. As a result, 43 percent of WPLEX customers who entered in 2001 were contacted within the first year, compared with 25 percent of customers entering in 1998.

From the review of calls conducted in March 2003, we identified 875 customers whom WPLEX attempted to contact but did not reach or whom they made no attempt to contact. As *Exhibit*

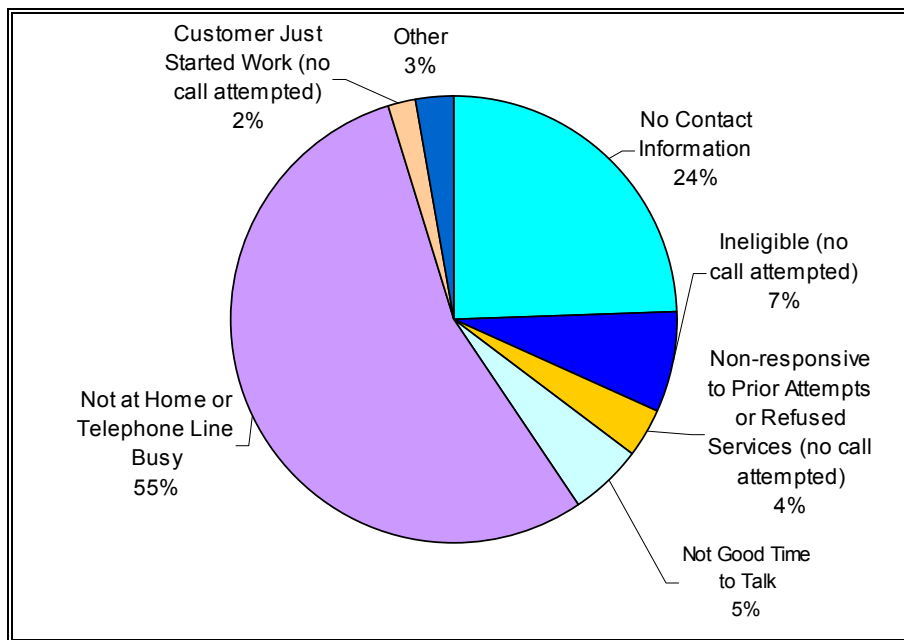
⁶ The sum of the percentages in Exhibit 2.9 is greater than 100 because, in 90 cases, the WPLEX staff member sent a mailing and left a message.

2.10 shows, among this sample, the top two reasons WPLEX did not reach a customer who appeared in the queue are:

- The customer was not at home when WPLEX called or the phone line was busy (55 percent).
- Contact information was not available or was wrong (24 percent).

In several instances (13 percent), staff did not attempt to contact the customer either because the customer appeared to be ineligible, the customer had previously refused services or did not respond to previous messages or mailings, or the customer had just started work and it was deemed too early to begin discussing retention and advancement services.

Exhibit 2.10: Reasons for Not Reaching Customers



CHAPTER 3 PROGRAM PARTICIPANTS AND SERVICES RECEIVED

This chapter examines the characteristics of the individuals successfully contacted by WPLEX, provides information on their employment and wages, and describes the types of services WPLEX staff provide to them. It also examines the costs of WPLEX services and compares the service receipt by the group successfully contacted to that of those not contacted.

The information provided in this chapter comes from several sources. The characteristics information comes from the state's ACES, an eligibility system that DHHS staff access and update. The information on service receipt comes primarily from the review of calls conducted in March 2003 and interviews with WPLEX staff members about the services they provide and their impressions of WPLEX.⁷ The cost data comes from financial information provided by ESD. Finally, the comparison of service receipt by the contacted and not-contacted groups comes from a review of 200 case notes of individuals entering the queue in July 2001.

A. Participants

1. Characteristics

Exhibit 3.1 provides information on the characteristics of the customers contacted by WPLEX. The majority of WPLEX customers were women, although men made up about one-quarter of those contacted. The relatively high proportion of men is also related to the high share of those contacted who were living in households with two adults (33 percent).⁸ The vast majority of contacted customers (90 percent) had three or fewer children in the household at the time of queue entry. Nearly half of the customers had a child aged 2 years or less.

Most contacted customers (70 percent) were under the age of 35 when they entered the queue. Two-thirds were white, 5 percent were Asian, and 13 percent were African American; about 11 percent identified their ethnicity as Hispanic. Roughly 10 percent of WPLEX customers reported that English was not their primary language.

Although contacted customers were in the queue because they had found work, many were probably working in relatively low-skill jobs when they entered the queue. According to ESD's records, 29 percent of all contacted customers had no high school education and 10 percent had just a GED.

⁷ For each call we reviewed, we recorded information about the customer's employment, wage, and eligibility status; the activity, topic, or issue discussed; the intensity of the services provided; and the extent to which the customer was actively engaged in the call.

⁸ Washington State has a higher proportion of TANF cases with two adults than most other states. According to the U.S. Department of Health and Human Services (HHS), in federal fiscal year 2000, 4 percent of all TANF families in the U.S. had two or more adults, compared with 12 percent of all TANF families in Washington State. (HHS, Characteristics and Financial Circumstances of TANF Recipients, October 1999 - September 2000).

**Exhibit 3.1: Selected Characteristics of
Successfully Contacted Customers**

Characteristic	Successfully Contacted
Demographics	
Sex	
Female	76.6
Male	23.4
Age	
Under 20	8.3
20 – 24	24.4
25 – 34	37.6
35 – 44	24.1
45 and over	5.7
Race	
White	65.4
African American	12.9
Asian or Pacific Islander	5.0
Native American	3.2
Other	13.5
Hispanic ethnicity	11.4
English is not primary language	9.5
Education	
Highest education attained	
Less than high school	29.1
GED	9.7
High school	46.6
Some college or greater	14.6
Household composition	
Number of adults	
0 - 1 adult	67.1
2 adults	32.9
Number of children	
0 - 1 child	46.4
2 - 3 children	43.8
4 or more children	9.7
Age of youngest child	
2 years and under	48.9
3 - 5 years	17.6
6 years and over	33.4
Household residence	
Region of state	
West	25.7
Southwest	17.1
Cascade East	23.0
Puget Sound	34.2
Lives on Indian reservation	2.3

The state is divided into four regions (Cascade East, Puget Sound, West, and Southwest), for purposes of ESD service delivery and administration. All four ESD regions were served by WPLEX, although more than half of the customers lived in the northwestern area of the state (the West and Puget Sound regions). This is an area that experienced substantial growth in the labor market during most of the late 1990s and losses of jobs in the aerospace and high-tech sectors in 2000 and 2001.⁹ About 2 percent of WPLEX customers lived on Indian reservations, but most TANF recipients living on reservations are served by Tribal post-employment programs and not included in our research sample.

2. Employment and Wages

Of the 1,019 calls we reviewed during our March 2003 site visit, 144 resulted in contact with customers. *Exhibit 3.2* shows that the majority of customers contacted (82 percent) were working at least part-time; only 18 percent were unemployed when contacted.

Staff differ in terms of how they deal with customers who are not meeting the eligibility requirements. Some staff indicated that as soon as they learn that a customer has lost his or her job, they exit the customer from the queue and refer him or her to the local WorkFirst office for job search services. However, most staff indicated that they conduct a courtesy job search for the customer during the 30-day post-separation eligibility period.

Exhibit 3.2: Employment Status of Successfully Contacted Customers

	Percent
Employed	82.2
Full-time	55.9
Part-time	26.3
Unemployed	17.5

Note: These statistics are based on those who reported the information during the telephone conversation. Of the 144 who were interviewed, 118 reported their employment status.

Exhibit 3.3 shows the reported hourly wages of those customers who indicated that they were employed. The majority of customers (60 percent) reported that they were earning between \$7.02 and \$9.99 per hour, 16 percent reported wages between \$10.00 and \$14.99, while 18 percent were earning minimum wage.¹⁰

⁹ Historically, eastern Washington (east of the Cascades) has had much higher unemployment rates than western Washington—in August 2001, the rate was 7.0 percent in eastern Washington and 5.7 percent in western Washington. However, in the last year, unemployment rates in the western part of the state have increased to the levels found in the eastern part—in August 2002, the rate was 6.8 percent in eastern Washington and 6.6 percent in western Washington (from *Washington Labor Market, September 2002*; prepared by ESD’s Labor Market and Economic Analysis Branch). This is largely attributed to the loss of jobs in the aerospace industry (primarily Boeing) and the crash of the “dot.coms.”

¹⁰ Minimum wages in Washington was \$7.01 per hour as of January 1, 2003.

Exhibit 3.3: Wages of Successfully Contacted Customers

	Total (%)
\$7.01 (minimum wage)	17.7
\$7.02 to \$9.99	60.3
\$10.00 to \$14.99	16.2
\$15.00 to \$20.00	4.4
Over \$20.00	1.5

Note: These statistics are based on those who reported the information during the telephone conversation. Of the 118 who reported their employment status, 68 reported their wages.

B. Services Provided by WPLEX

To augment our understanding of the services that WPLEX provides to customers, we recorded the main activities, topics, and issues that staff discussed with the customer during the successful contacts we observed.

1. Initial vs. Follow-up Calls

Exhibit 3.4 shows that WPLEX staff were contacting the customer for the first time in approximately one-third of the successful calls we observed. The remaining two-thirds of the calls were follow-up calls. Not surprisingly, staff's conversations with new customers are slightly different than with existing customers.

Exhibit 3.4: Initial and Follow-Up Calls

Purpose of Call	Percent
<i>Initial Call</i>	36.4
<i>Follow-up Call</i>	63.6
General Check-in	89.9
Old Issue	10.1

a. Initial Interviews

When speaking with a new customer, staff generally begin the conversation by describing WPLEX's services. Staff offered a variety of responses when asked what types of information they attempt to obtain from customers during the initial interview. Generally, staff ask customers about their background (e.g., employment history, job skills, education level, and medical history) and their current circumstances (e.g., income sources, TANF status, employment status, job satisfaction, family situation, and support service needs) in order to detect any immediate problems or potential barriers customers might face that affect their ability to maintain and improve their employment situation.

Some staff members also indicated that they begin pressing customers about their goals and aspirations. They ask about customers' employment, education, and training goals. One staff member said she asks customers "where they see themselves five years from now" and pushes them to "dream a little." Another said that he asks all new customers he speaks with to send him a copy of their resume so that they can start exploring opportunities for advancement; if they do not have a resume, helping the customer to create one becomes one of his top priorities. Many staff, however, reported that they are only interested in the immediate issues that their customers face, and they do not even consider broaching the topic of long-term goals until much later in the process.

b. Follow-up Calls

Roughly two-thirds of the successful contacts we observed were follow-up calls. As Exhibit 3.4 shows, 90 percent of these calls were general check-ins with customers; the rest were in reference to an issue that arose in an earlier call.

Despite the varied service delivery methods of different staff, almost all of them begin follow-up calls by updating the customers' contact information. In addition, for follow-up calls that are not in response to a specific issue, most staff ask the customer about his or her employment status. Some staff try to confirm the existing employment information in JAS, while others are less concerned with updating this information. During our visit, we observed a few staff members who never asked customers about their employment status; instead, they immediately asked the customers about their support service needs.

Collecting and Updating Customer Information

Based on our observations and discussions with staff, it appears that one of their primary roles is to collect and update customers' employment and contact information. This task is especially time consuming due to the wide array of automated systems used to track customer information.

In part due to the number of customers that WPLEX serves, a substantial amount of time often passes between successful contacts with customers.¹¹ Because some WPLEX customers move often and experience high job turnover, it requires a concerted effort on the part of staff to maintain accurate contact and employment data. As we discussed earlier, incorrect contact information is one of the main barriers to customer participation.

Depending on the staff member, the rest of the conversation usually deals with employment, education, or support service issues – often emerging from the customer's employment situation.

¹¹ Using data from the WPLEX activity file, we determined the average number of days between successful contacts with a customer – 59.4 days for those customers who were contacted more than once (roughly 60 percent).

Only a small percentage of the calls we observed were in reference to an existing concern. Usually, the staff member would be prompted to call the customer for a regular check-in. Once the staff member reviewed the case, he or she would identify a specific issue within the case notes. Consider the example in the following text box.

Example: Existing Issue¹²

Before calling the next customer in her queue, Ethel briefly reviewed the last few notes entered in the customer's (Helen) file. While reviewing the case notes, Ethel saw that Helen was working toward her GED. When Ethel called, she immediately asked Helen about how she was doing in her GED preparation class. Helen mentioned that she was having a hard time paying for the course. Ethel suggested some possible sources of funding so that Helen could remain enrolled, and she stressed how much it easier it would be for Helen to get raises or better jobs with a GED.

Less frequently, a customer would call WPLEX about an issue they had. Most often, these were cases where the customer was in the process of applying for a voucher, and usually they would call to inquire about its status.

2. Topics Covered

This section focuses on the various issues – employment-related, education-related, and support services – that staff discuss with customers. *Exhibit 3.5* lists these issues and shows the number and percent of calls in which staff discussed them with customers.

¹² To preserve their anonymity, we have changed the names of the customers and staff we profile throughout the report.

Exhibit 3.5: Issues Discussed in Calls

Activity, Topic, or Issue Discussed:	Number of Calls	Percent of Calls
Employment Status	123	85.4
Employment-related	70	48.6
Job search activity	46	31.9
Specific job opportunity	12	8.3
Job growth	24	16.7
Resume assistance	16	11.1
Employer issues	10	6.9
Education and Training	82	56.9
Education unspecified	47	32.6
Vocational education	34	23.6
GED	11	7.6
ESL	4	2.8
College degree program	14	9.7
Support Services	65	45.1
Child care	27	18.8
Housing	11	7.6
Transportation	39	27.1
Material assistance	5	3.5
Other	8	5.6
Means-Tested Benefits	52	36.1
TANF	17	11.8
Food stamps	30	20.8
Medicaid	21	14.6
EITC	23	16.0
UI	8	5.6
Other	7	4.9
Other support issues	41	28.5
Child behavior	7	4.9
Domestic abuse	4	2.8
Child support	18	12.5
Medical problems	11	7.6
Other personal issues	14	9.7

a. Employment-Related Issues

During the telephone calls we observed, staff most often discussed employment-related issues with their customers. As Exhibit 3.5 shows, customers discussed their employment status with staff in 85 percent of all successful calls.

Based on our conversations with staff, these general discussions with customers about their employment status play a key role in the retention services that staff provide. Many of the staff

members felt that one of the most important services they offer customers is giving them someone to talk to about issues that concern them. Staff suggested that these discussions with customers about employment status during general check-ins allow staff to identify and help resolve potential issues or barriers to retention before they escalate.

Staff discussed employment-related issues, other than employment status, with customers in 49 percent of successful calls. Thirty-two percent of calls dealt with customers' job search activity and 17 percent addressed issues related to job growth. As we will discuss later in the report, these issues often emerge from an initial discussion about customers' employment status.

Less frequently, staff discussed specific job opportunities available in the community. Of the calls we observed, staff only referred 5 customers to a specific job opportunity. On occasion, staff also talked with customers about their resumes (e.g., whether they need assistance in completing one) or issues surrounding the customer's current employer.

b. Education and Training Issues

When we asked staff to describe the typical career advancement services that they provide to customers, education and training were the most common services they mentioned. Specifically, staff indicated that they discuss education and training possibilities, refer clients to specific programs, and help clients obtain financial aid. Staff usually stressed the importance of education and training in the context of helping customers develop skills that will prepare them for employment opportunities in the local labor market.

Consistent with staff members' comments, education and training was a common topic of conversation during the calls we observed. Exhibit 3.5 shows that, overall, staff and customers discussed education in 57 percent of all calls. Conversations about vocational education occurred in 24 percent of the calls.

Of the various education and training programs that staff mentioned during our interviews with them, GED was mentioned most frequently. However, only 8 percent of conversations we observed addressed customers' efforts to obtain their GED.

c. Support Services

Staff discussed support services with customers in 45 percent of successful calls. As seen in Exhibit 3.5, transportation was the only other support service issue that WPLEX staff and customers discussed in at least 20 percent of the successful calls in our sample (27 percent). Besides transportation, child care was the most common support service that staff and customers discussed – 19 percent of calls. Considering that WPLEX staff identified lack of transportation and childcare as two of the most common barriers to job retention, it is surprising that these issues did not figure more prominently in the calls we observed.

Many staff suggested that vouchers represent an important part of WPLEX services. More than half of all staff indicated that they spend a significant amount of their time working on support service vouchers. However, during the calls we observed staff rarely issued vouchers. The one exception was transportation-related services, for which staff issued vouchers to 8 customers (roughly 6 percent of all successful calls).

Vouchers

Issuing vouchers is a very time consuming activity for staff and can take weeks to complete. For example, if a customer requests a voucher for car repair, he or she must provide WPLEX with information about the nature of the problem, quotes from multiple repair shops, and proof of insurance.

Many staff, especially the most recently hired, are unfamiliar with the process for issuing vouchers. Many of the junior staff indicated that they have yet to begin work on a voucher. Others said that they had begun the process for one or two customers, but were still waiting for the proper information from the customer.

Some staff, although familiar with the process, are hesitant to provide customers with vouchers. They feel that the state has already given WPLEX participants enough financial support and should not be paying for customers' car repairs and work clothing. These staff members often emphasized the importance of identifying alternative ways to fund support services.

As we mentioned earlier, staff identified a lack of child care as one of the main barriers to job retention that customers face, and they said that they often refer customers to various community organizations that assist parents with child care. While listening to WPLEX staff's conversations, we found that when talking about childcare-related issues, staff rarely directed the customer to a specific organization or person within an organization. Often staff would reference an online database of local service providers and give the customer a list of a few organizations that they could call.

d. Means-Tested Benefits and other Support Issues

Means-tested benefits did not play a prominent role in the discussion during the majority of the calls we observed; staff discussed these issues with customers during roughly one-third of all successful calls. When benefit issues did emerge, it was usually because the customer had issues concerning their eligibility for a specific program (e.g., TANF, Medicaid, food stamps). Most often, WPLEX would give the customer the names of local organizations that provide assistance, but because WPLEX staff do not have any control over customers' eligibility for these benefits, there is little that they could do to assist customers.

The most common benefits that staff discussed with customers were food stamp benefits—21 percent of calls. Staff also discussed each of TANF, Medicaid, the EITC, and child support with customers in over 10 percent of all calls.

Varying Staff Views on the Role of Advancement Services and Long-term Career Planning

For some staff, advancement is secondary to retention. These staff think that it is hard enough for many customers to remain employed and they need to concentrate on establishing a consistent work history before focusing on advancement.

Other staff begin talking to customers about advancement immediately. One staff member suggested that the constant reminder to customers about the importance of advancement is an effective incentive for them to remain employed. The staff that do emphasize advancement will usually work with customers to explore the potential for advancement within their current job. However, some staff urge their customers to switch jobs – pushing them toward jobs that might offer room for advancement.

As with advancement, the extent to which WPLEX staff work with customers to develop long-term career goals varies. Some staff report that they will help customers develop goals that look as far as five years into the future, while others will focus on the immediate future, looking no further than 6 months ahead.

Staff stated that they often determine the degree to which they want to stress long-term goals depending on the customer’s specific situation. Factors affecting their decision can include a customer’s: skill level, work experience, education, job turnover rate, self-esteem, and satisfaction with current job.

Each WPLEX staff member has a different philosophy when it comes to WPLEX’s role in advancement and long-term career planning. However, based on our conversations with them, most staff’s primary concern is keeping their customers employed.

C. Customer Engagement

In this chapter, we detail the types of services that WPLEX staff provide to customers and the intensity of these services. However, the efficacy of WPLEX’s services depends, in large part, on the ability of staff to effectively engage participants.

During our interviews with staff, some indicated that they actively attempt to “sell” WPLEX services to customers. They feel that the services are valuable, and they do their best to persuade customers to take advantage of them. Other staff said that they explain the program to a customer and then allow the customer to make the decision as to whether he or she wishes to participate. Although initially many customers are hesitant, most staff indicated that very few individuals refuse WPLEX’s services.

We used a number of variables to help guide our assessment of the extent to which staff were able to engage their customers, yet it is difficult to objectively measure the rapport between

WPLEX staff and their customers. While listening to WPLEX staff conversations with customers, we recorded:

- The customer's initial receptiveness to the call;
- How receptive to assistance the customer was;
- Whether the customer was appreciative of assistance;
- The extent to which the customer was engaged in the conversation; and
- Who initiated most of the discussion.

We recorded our assessment of each call – based on these issues – while the call was in progress or immediately after the call. As the data we collected are largely qualitative, coding and measurement of intensity of services is fairly subjective.

Because the majority of the individuals eligible for WPLEX's services are not required to participate, customers have to want to participate if services are to be effective. We found that customers' initial reception to a call from WPLEX was positive roughly two-thirds of the time (see *Exhibit 3.6*). By comparison, after the introduction, 85 percent of customers were at least somewhat receptive to assistance, and over 75 percent appeared appreciative of assistance. These findings indicate that customers' attitudes shift slightly over the course of a call. As we explain below, the results of our interviews with WPLEX staff members bolster this conclusion.

When we asked WPLEX staff what they thought were the main barriers to customer participation, the most common response was that customers have had bad experiences in the past with state agencies. Most staff indicated that they make sure to describe WPLEX and the services available to customers in detail. When the customers do not have a good understanding of the benefits of the program, staff suggested that it is often because the customers do not see the difference between WPLEX and other state agency services. One staff member indicated that these customers are dealing with so many different programs that by the time they get to WPLEX they are overwhelmed. As such, once staff are able to clarify what the program is, customers are more likely to trust them and accept WPLEX services.

In order for WPLEX services to be effective, customers have to be actively engaged in the process. We attempted to quantify the extent to which customers were engaged in their conversations with WPLEX staff. Based on our observations, we felt that customers were at least somewhat engaged in roughly 78 percent of discussions. In addition, for each call, we noted who initiated the majority of the discussion – the staff member, the customer, or both equally. As *Exhibit 3.6* shows, staff initiated most of the discussion in over half of the calls, yet in almost a third of the calls, the staff member and the customer played equal parts.

Exhibit 3.6: Customer Engagement

	Number	Percent
How receptive to the call was the customer initially?		
Warm	93	66.4
Cool	47	33.6
How receptive to assistance did the customer appear to be?		
Very	65	47.5
Somewhat	51	37.2
Not very	17	12.4
Not at all	4	2.9
Did the customer appear appreciative of assistance?		
Yes	102	75.6
No	33	24.4
How engaged was the customer?		
Very	53	39.6
Somewhat	52	38.8
Not very	21	15.7
Not at all	8	6.0
Who initiated most of the discussion?		
WPLEX staff	80	58.8
Customer	15	11.0
Both equally	41	30.2
At the end of the call were there any concrete issues that still needed to be addressed?		
Yes	78	58.2
No	56	41.8
Did the staff member give the customer an action plan?		
Yes	72	92.3
No	6	7.7
Did you sense that the customer would take action?		
Yes	59	81.9
No	13	18.1

Because WPLEX’s contact with customers is often infrequent and sporadic, WPLEX’s services will be most effective when customers take the initiative to act on the information and suggestions given to them by WPLEX staff. As an additional measure of staff’s ability to engage clients, we paid specific attention to any issues that still needed to be addressed at the conclusion of calls, and we recorded our impression of whether customers would take action on their own to resolve these issues.

There were still issues that needed to be addressed at the conclusion of the call in roughly 58 percent of the successful contacts we observed. In almost all of these calls, the staff member gave the customer an action plan. In approximately 82 percent of the calls where the staff

member gave the customer an action plan, we concluded that the customer was likely to act upon the plan presented.

The following is an example of a case where we felt that the customer *would* act upon the action plan suggested by the staff member:

Rita is a voluntary WPLEX participant working full-time in a botanical laboratory earning \$8.00 an hour. When Colin called her to check-in, she indicated that she was not currently looking for work but was interested in going back to school. Working in a lab setting, Rita had become interested in studying chemistry. Colin immediately gave her the name and phone number of one of his contacts at the local community college so that she could inquire about classes.

Although her initial reception to Colin's call was tepid, Rita became more engaged in the conversation when Colin offered to help her pursue her educational goals. By the end of the call she sounded very appreciative of Colin's help, and it seemed likely that she would follow-up on his referral.

The following is an example of a case where we felt that the customer *would not* act upon the action plan suggested by the staff member:

George called Sally, a voluntary WPLEX participant, to check-in. Sally indicated that, in addition to working full-time, she was also about to start school to be a beautician. Sally's major concern was that she was no longer eligible for food stamps or state-subsidized childcare; the agencies told her that they had reason to believe that her ex-husband was living with her, thereby making her ineligible for these services. She insisted that she had no idea where her ex-husband was and was frustrated because she had no way to prove this to the state agencies.

George expressed concern for Sally's situation but indicated that there was nothing he could do to affect her eligibility status. He did give her the names and phone numbers of a few community-based organizations that help low-income families and single mothers pay for child care. However, Sally was very discouraged by the end of the call, and sounded as though she was ready to give up on the process. She was so pessimistic that it seemed unlikely she would follow-up with the organizations George had recommended.

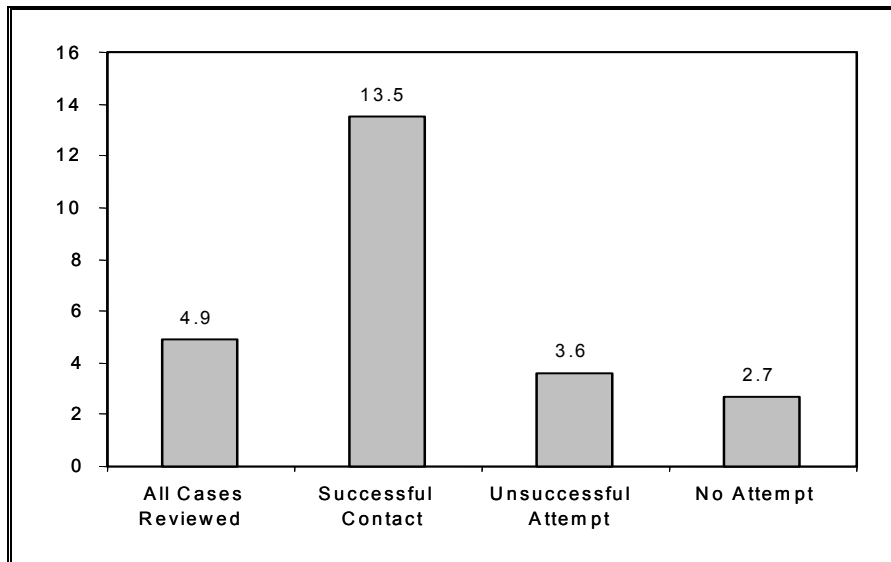
D. Intensity of Services

1. Amount of Time Spent per Case

Exhibit 3.7 shows the average amount of time staff spent with each customer’s case. Overall, staff spent about 5 minutes per case. The amount of time varies by whether the call was successfully completed or not. Staff spent about 14 minutes on successful calls – just under 9 minutes actually speaking with the customer and about 5 minutes reviewing the case before the call and updating the computer system following the call.

Staff spent just under 4 minutes per case when they attempted to call customers, but were unsuccessful, and about 3 minutes per case when they decided not to call the customer. The unsuccessful calls took slightly more time presumably because, after unsuccessful calls, staff spent some time leaving messages, sending mail, calling employers to verify employment, searching for better contact information when they had incorrect telephone numbers, and logging the call in the computer system.

Exhibit 3.7: Average Number of Minutes Spent Per Case



We found that staff spent more time reviewing cases and entering data when they were able to successfully contact customers. This is not surprising given that a customer contact generally yields substantially more information that staff must enter into the computer system.

While staff spent more minutes with a successful call than with a case in which no contact is made, more than half of staff time is spent on the no contact cases. This is because most calls result in no contact. Overall, staff spend 45 percent of their time working on cases where a contact is made (including time spent reviewing cases and updating information in the system); staff spend slightly less than 29 percent of their time on the phone with customers.¹³

¹³ Staff case time includes all time spent reviewing cases, attempting to contact customers, and updating the computer system. It does not include time spent working on vouchers, attending staff meetings, attending training, and other non-case related work.

Review Process Prior to Call

Staff have access to a wealth of information about each customer through a wide array of automated systems. They can review the previous case notes entered by WPLEX staff, local ESD caseworkers, and DSHS eligibility workers. In addition, they can access information about a customer's demographics, TANF and Food Stamp status, family situation (e.g., marital status and number of children), employment history, and education level.

We observed considerable variation among WPLEX staff in terms of the extent to which they reviewed each customer's information prior to making a call. Some staff would conduct a thorough review of each customer's employment status and past WPLEX case notes prior to making each call. Other staff would immediately call the customer, skimming the most recent case notes while dialing and – if they were able to successfully contact the customer – during the call. There are disadvantages to both approaches.

We found that many staff spend a significant amount of time reviewing customers' cases, only to discover that the customer is unavailable. Based on our observations, staff are only able to successfully contact customers 16 percent of the time.

Conversely, staff take certain risks when they only conduct a cursory review of a customer's case prior to attempting a call. If staff appear unprepared or misinformed during a call, it can irreparably damage a customer's impression of WPLEX – especially considering the initial apprehension that many customers have about participating in WPLEX.

2. Level of Support

Along with the types of services that WPLEX provides, we also explored the level of support that the staff members provided to customers. We categorized services as being either high or low intensity, with the following criteria:

- *High Intensity* – Staff member offered a high level of support, guidance, or problem solving
- *Low Intensity* – Staff member checked in or just mentioned an item/activity

We determined that, in 58 percent of all successful calls, WPLEX staff provided a high level of support services to the customer (see *Exhibit 3.8*). The exhibit also shows that, of this 58 percent, staff most often provided a high level of services relating to only one issue. Overall, there was an average of 1.3 intensely discussed issues per call.¹⁴

¹⁴ This average includes calls where we did not feel that the staff member provided any “high intensity” issues.

Exhibit 3.8: Level of Intensity

Intensely discussed issues	Frequency	Percent
No intensely discussed issue	61	42.4
At least 1 intensely discussed issue	83	57.6
1	34	23.6
2	23	16.0
3	12	8.3
4	4	2.8
5	7	4.9
6	3	2.1

Example of High Intensity Services

Ellen is a mandatory customer who reported that she was working part-time earning \$8.00 per hour. She is actively looking for a new job where she can increase her hours and earnings. She called Phil, one of the two WPLEX staff members responsible for her queue, to report on her recent job search activity.

During their conversation, Phil and Ellen discussed what skills she would need in order to qualify for the jobs she was pursuing. Ellen was particularly concerned about her computer skills; she indicated that she has minimal experience with email and spreadsheet applications. Phil probed at length to assess Ellen’s skill level and raised the possibility of her obtaining a grant for part-time computer training. Phil explained the eligibility requirements for the tuition assistance and instructed Ellen to speak with her TANF case manager about whether her TANF status would be affected if she enrolled in the classes.

Example of Low Intensity Services

A voluntary WPLEX customer, Charlotte has had minimal interaction with WPLEX since she left TANF. Joan called Charlotte to check-in and see how she was doing. Charlotte reported that things were fine and she was working full-time; Joan did not inquire about how many hours per week Charlotte was working or how much she was earning. When Joan asked if Charlotte had any work-related issues, Charlotte mentioned that the last time she spoke WPLEX she had inquired about receiving a voucher for work clothes she needed. However, Charlotte decided not to wait to hear back from WPLEX and bought the clothes on her own. The entire telephone call lasted less than two minutes.

In *Exhibit 3.9*, we show some of the most common services that WPLEX staff provided and the percent that represented a high level of services. The exhibit shows that the most common services are not necessarily the ones where WPLEX staff provide the most intense level of services. For example, customers talked about their employment status with staff in 85 percent of all successful calls, but we only categorized these services as “high intensity” 33 percent of the time. By comparison, when staff talked about job growth with customers, almost half of all discussions were high intensity.

Exhibit 3.9: Level of Intensity by Issue

Activity, Topic or Issue Discussed:	Level of intensity			Percent Discussed Activity	Percent High Intensity
	High	Low	Total		
Employment Status	40	83	123	85.4	32.5
Employment-related issues					
Job search activity	18	28	46	31.9	39.1
Job growth	11	13	24	16.7	45.8
Education and Training issues					
Education unspecified	14	33	47	32.6	29.8
Vocational education	14	20	34	23.6	41.2
Support Services					
Child Care	5	22	27	18.8	18.5
Transportation	14	25	39	27.1	35.9
Means-Tested Benefits					
Food stamps	0	30	30	20.8	0.0
EITC	4	19	23	16.0	17.4
Other support issues					
Child support	2	16	18	12.5	11.1
Other personal issues	3	11	14	9.7	21.4

The lower level of intensity among discussions about employment status is not surprising. Conversations about employment status were quite common, but these were usually preliminary and would help uncover other issues that the staff member needed to address (see following text box for an example).

Cheryl had been a voluntary WPLEX customer for roughly four months when she contacted the call center in response to a message a staff member had left her. When Allen (the staff member who answered the phone when Cheryl called) inquired about Cheryl's employment status, she reported that her employer had reduced her hours from 40+ to only 24 hours per week. As a result, she (reluctantly) had to go back on TANF and had just reapplied for food stamps.

Allen asked Cheryl about her current job (she was making \$7.50 an hour in a nursing home) and what skills she had. Cheryl indicated that she has been taking nursing classes and was interested in obtaining a better job in the healthcare industry. Allen and Cheryl discussed potential job opportunities and strategies for advancing in the field. He suggested that Cheryl tell her supervisor about the classes she was taking and of her interest in a career in healthcare. Allen also gave her the names of some other nursing homes in the area.

As we discussed earlier, staff were less likely to help customers with means-tested benefits and other support issues than with other types of problems. When staff did discuss these issues with customers, it was also less likely that they would be "high intensity" services. The short vignette above demonstrates the limited services WPLEX staff provide in relation to means-tested benefits. In their discussion, the WPLEX staff member and customer talk at length about various employment issues and strategies. Although the customer mentioned the need to reapply for food stamps, this issue was secondary to the larger issue at hand.

We observed 30 calls where the WPLEX staff member discussed food stamps with the customer, but in each case the staff member and customer only briefly mentioned food stamps and there was never any in-depth discussion or problem-solving. Similarly, we only coded 4 of the 23 discussions about the EITC as "high intensity."

E. Participation over Time

To understand how participation in services varies over time, we analyzed the WPLEX Activity File. From this analysis, we found that roughly 40 percent of all customers who were successfully contacted only spoke with a WPLEX staff person once within the first two years after their first contact. On average, they were first contacted about 5 months after they began a new job.¹⁵ Of those customers who spoke with WPLEX staff on multiple occasions, there was approximately two months between contacts, on average.

Exhibit 3.10 shows the percent of successfully contacted customers who received each type of service during the two-year follow-up period, according to the WPLEX Activity File. The first

¹⁵ This figure was estimated by comparing the job start date listed in the queue (which represents the first time they entered the queue) with the first successful contact date. This might overestimate the number of months between job start and contact date because some customers left their job without being contacted and later returned and were contacted. The queue job start date retains the job that led to their first entry into the queue.

column shows the type of assistance offered in the first contact, which often covered a number of different activities in one call. More than half were provided information on the labor market in their region. Thirty-six percent were sent an EITC letter, 34 percent received a referral to an education or training program offered at their local community college, and about one-quarter were provided information on food stamp benefits, medical assistance, or child care assistance.

Exhibit 3.10: Type of Assistance WPLEX Customers Received During Two-Year Follow-Up Period

Type of Assistance	First Contact	In Months 1 to 6 ^a	In Months 7 to 12	In Months 13 to 18	In Months 19 to 24	In Two-Year Follow-up Period
Assisted with resume update	8.3%	5.4%	1.5%	0.3%	0.1%	13.6%
Assisted with interview skills	5.9%	3.5%	1.1%	0.3%	0.0%	9.8%
Mailed EITC letter	35.6%	8.0%	2.9%	1.0%	0.5%	43.1%
Identified as being enrolled in school	6.5%	4.5%	1.6%	0.5%	0.2%	12.4%
Assisted with employment promotion	3.6%	3.1%	2.4%	0.7%	0.2%	9.0%
Conducted follow-up activity	38.5%	43.0%	19.3%	9.3%	4.7%	67.6%
Provided information on food stamp, medical, and child care assistance	26.4%	10.4%	4.8%	2.3%	0.9%	36.4%
Conducted job development	0.5%	0.3%	0.1%	0.0%	0.0%	0.9%
Provided labor market information	54.7%	25.0%	9.6%	3.5%	1.3%	65.0%
Referred to community college	34.0%	13.1%	5.2%	2.0%	0.8%	44.0%
Referred to job	8.3%	8.0%	2.5%	1.0%	0.4%	16.8%
Referred to Tribe	0.1%	0.0%	0.0%	0.0%	0.0%	0.1%
Referred to DHS/ESD	9.4%	5.1%	1.4%	0.4%	0.1%	14.7%
Any Activity	100.0%	51.0%	22.0%	10.5%	5.3%	100.0%

Source: WPLEX activity file.

^a Excludes first contact.

Of the group that was successfully contacted, staff recontacted 51 percent in the first six months after the first contact. The share dwindles to 22 percent in months 7 to 12, and 11 percent in months 13 to 18. In the last six months of the two-year follow-up period, WPLEX staff contacted 5 percent of the customers.

Over the two-year follow-up period, almost two-thirds of the customers received labor market information, 44 percent were referred to community colleges, 43 percent received information on EITC, and 36 percent were provided information on food stamp benefits, medical assistance, and child care. Presumably, WPLEX also helped many customers obtain support services,

although the percent cannot be determined from the data (this activity is included with other activities in the “Conducted Follow-up Activity” category).¹⁶

F. Costs of WPLEX

We estimated the costs of providing services to successfully contacted individuals over a two-year period following their entry into the WPLEX queue. It is important to note that this does not include the costs of all services provided to the sample by ESD and DSHS. For example, it does not include the costs of welfare and support service receipt, job search services provided by the ESD local offices, and community college enrollment.

1. Unit Costs

The first step in the cost analysis is to estimate the unit cost of WPLEX, represented in this case as the average cost per contact. To do this, we examined WPLEX operating costs from July 1999 through June 2002, when most of the research sample was receiving services.

Exhibit 3.11 presents the total WPLEX operating costs during this period. The total cost excludes support services, but includes staff wages, employee benefits, employee development, and other costs. The other category encompasses the basic costs of running the call center, including the costs of telecommunications and computer systems, rent, and travel.

Exhibit 3.11: WPLEX Total Costs

	7/99 - 6/00	7/00 - 6/01	7/01 - 6/02	Total
Personal Services	\$1,675,211	\$1,968,010	\$1,883,065	\$5,526,285
Employee Benefits	411,464	516,289	460,086	1,387,839
Employee Development	21,456	16,024	10,722	48,202
Other Costs	808,563	645,298	507,239	1,961,099
Total	\$2,916,693	\$3,145,621	\$2,861,112	\$8,923,425

^a WPLEX costs exclude costs of support services paid in the form of vouchers that are part of the WPLEX budget.

¹⁶ We have data showing support service receipt (in Chapter 5). However, customers may have obtained these services from their local CSO, ESD office, or WPLEX.

The cost per contact is simply calculated by taking the total cost in Exhibit 3.11 and dividing it by the total number of successful contacts over the same time period. Thus, the cost per contact is:

$$\frac{\$8,923,425}{101,758 \text{ contacts}} = \$88 \text{ per contact}$$

Given the limited time spent with each customer during a successful contact (about 15 minutes), the \$88 might seem expensive. However, it is important to include in this estimate the cost of staff time spent trying to reach customers not contacted. The unsuccessful attempt costs reflect part of the cost of providing services to those eventually contacted.

2. WPLEX Cost per Participant

To estimate the cost per participant for WPLEX services, we multiplied the cost per contact by the average number of contacts with the participants in the research sample.¹⁷ The cost per participant is:

$$\$88 \text{ per contact} \times 3.1 \text{ contacts per participant} = \$273 \text{ per participant.}$$

This is a relatively low cost compared with other job search and post employment programs studied in the past. Over a two-year period, for example, the costs of job search services provided to participants in three National Evaluation of Welfare-to-Work Strategies (NEWWS) programs that emphasized a WorkFirst approach, ranged from \$506 to \$1,731.¹⁸ The job search component encompassed job club activities and individual job search, all in-person.

A cost analysis of programs receiving welfare-to-work (WtW) grant funds from the U.S. Department of Labor found that in most WtW programs, post-employment support consisted of brief staff contacts with participants and employers. Costs were modest—ranging from \$241 to \$419 per participant in 11 programs. In seven other programs that provided more intensive post-employment services, wage supplements, or retention incentives to participants, the costs for post-placement services ranged from \$473 to \$1,520 per participant. Thus, the WPLEX costs are somewhat lower than those of the least costly WtW programs reviewed.

G. Use of WorkFirst Services by Those Contacted and Those Not Contacted

In a preliminary analysis, we reviewed the case notes for 200 individuals eligible for WPLEX services who entered the queue in July 2001. We coded every attempted and successful contact related to post-employment services by WPLEX staff, local-office ESD caseworkers, and DSHS eligibility workers in the year following the date the customer entered the WPLEX queue. We

¹⁷ The participants include all individuals in the research sample who were successfully contacted within one year after entering the queue.

¹⁸ Calculations come from estimates included in Hamilton et al. (1997) for Atlanta, Georgia Grand Rapids, Michigan, and Riverside, California Labor Force Attachment programs. These estimates were calculated by taking the cost per LFA member (including those who never participated in job search) and dividing it by the job search participation rate, resulting in an estimate of the cost per person participating in job search.

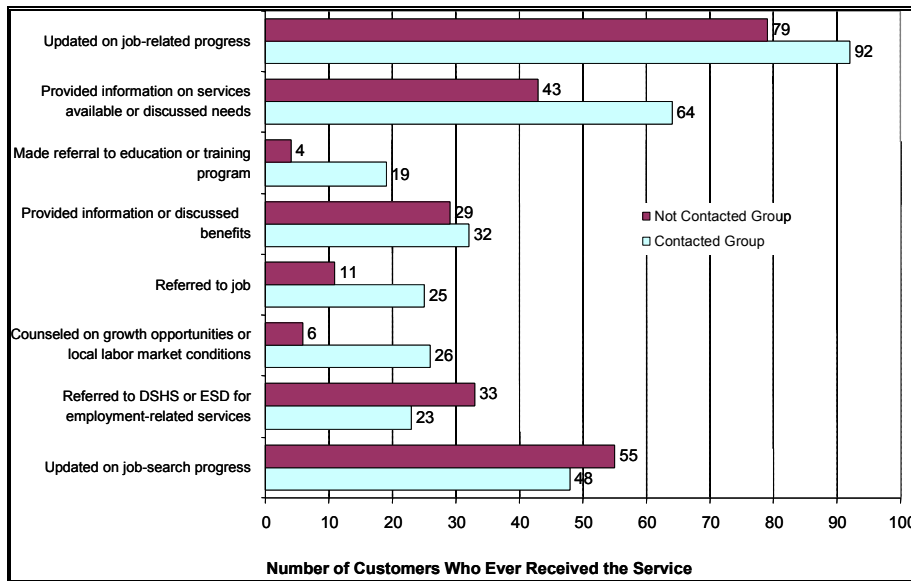
generated a random sample composed of two groups of individuals. One hundred of the cases are individuals who, according to administrative data provided by ESD, WPLEX staff were able to successfully contact (“contacted group”); the other half are individuals who, although eligible for WPLEX services at the time they entered the queue, were not successfully contacted by WPLEX within one year of queue entry (“not contacted group”).

Our analysis focused on services intended to facilitate job retention and advancement. We examined the extent to which staff in all agencies referred customers to programs, offered them guidance and information about various resources and opportunities, referred them to specific programs and service providers, and updated their progress within these areas.

This section describes the differences between services received from *any* WorkFirst staff by customers in the contacted and not contacted groups. The results from our case notes review help demonstrate the extent to which individuals who do not receive WPLEX services, yet are eligible for them, still receive post-employment services.

Overall, a higher number of individuals in the contacted group received services than those in the not contacted group (*Exhibit 3.12*).

Exhibit 3.12: Service Receipt by Sample



Employment-related assistance was the most common service received by individuals in both samples. As outlined, staff updated the job-related progress of 92 of the customers in the contacted group and 79 of the customers in the not contacted group. Exhibit 3.13 also shows that customers in the contacted group were more likely to receive a job referral than those in the not contacted group. Similarly, staff discussed growth opportunities and local labor market conditions with a higher percentage of the customers in the contacted group. However, more of the individuals in the not contacted group were referred to DSHS and ESD’s Job Search program. While WorkFirst staff received updates on job search progress from almost half of the

contacted group, Exhibit 3.13 shows that they updated the job search progress of 55 customers in the not contacted group.

While a substantial number of customers in both groups discussed their support service needs or received information on available services, 21 more customers in the contacted group received these services. Customers in the contacted group were slightly more likely to receive information about benefits.

Education- and training-related services were also more commonly received by customers in the contacted group. For example, Exhibit 3.13 shows that customers in the contacted group were more likely to be referred to an education or training program.

This analysis shows that many customers who were not contacted by WPLEX nonetheless received substantial WorkFirst services. Although contacted customers received more services than those not contacted, we cannot infer that WPLEX contact is the cause of the difference; perhaps some more limited use of WorkFirst services is simply related to other factors that make WPLEX contact less likely (e.g., early job loss that perhaps is caused by failure to use services).

H. Conclusion

As this chapter and Chapter 2 discussed, one of the greatest challenges in providing services to customers is reaching customers. Once staff reach a customer, most are receptive to the services offered during the call. Other challenges include continuing to provide services over the two-year follow-up period and providing a consistent level of services to customers.

The key findings from this chapter include the following:

- While staff spend more time with successful calls than with cases in which no contact is made (14 minutes versus 4 minutes per call, respectively), more than half of their time is spent on the no contact cases. This is because most calls result in no contact.
- Once they reach the customer, most calls begin by updating the customer's contact information and discussing the customer's current employment status. However, after this initial discussion, the information and types of services provided by staff differ tremendously. For example, some staff tend to advocate advancement through additional education and training, while others provide job leads.
- Providing support service vouchers is not emphasized in the calls reviewed; during our review of calls, just 6 percent of the calls discussed issuing transportation vouchers. This is due in part to the time required to issue vouchers, and in part to some staff's opinion that customers need to learn to be self-sufficient and identify alternative ways to fund support services. State budget cuts that reduced the amount available for support services reinforced the importance of reducing customers' reliance on this assistance.
- Most customers who are contacted do not receive many subsequent calls. WPLEX contact successful customers just three times, on average, and about 40 percent receive just one call.

- The cost of WPLEX, about \$88 per contact, or \$273 per participant, is low relative to other welfare-to-work and post-employment programs. This reflects the low intensity of the intervention, which is delivered entirely by telephone.
- While this might be considered a low-intensity intervention, from our review, there are indications that customers benefit from these contacts. Most customers were at least somewhat receptive to the call (84 percent), seemed appreciative of assistance (76 percent), and were at least somewhat engaged in the call (78 percent). At least one issue was discussed intensely during 58 percent of the calls and about 17 percent of calls included an intense discussion concerning either job search or job growth. Although 58 percent of the calls ended with unresolved issues, 92 percent of these calls also ended with an action plan and our reviewers predicted that 82 percent of the customers with action plans would follow through.

CHAPTER 4 PARTICIPATION ANALYSES

This chapter examines estimates the probability of participating in WPLEX, given demographic characteristics, education levels, and past employment and welfare experience. A linear regression model was used to examine the probability of both attempted and successful contact; in doing so, the relationship between the probability of an attempted/successful contact and each characteristic can be interpreted holding all other variables included in the model constant.

For each, the first model contained variables to represent the following:

- Sex
- Age
- Race
- Hispanic origin
- Education level
- Number of adults in the household
- Number of children in the household
- Age of youngest child
- Queue region
- Earnings (both in the two year period prior to queue entry and in the quarter of queue entry)
- Amount of most recent TANF payment
- Months of TANF receipt
- Whether or not one had positive earnings in the prior to queue entry
- Timing (quarter) of queue entry
- The unemployment rate in the customer's county one year after queue entry

For the three models, nearly all of the variables were broken up into groupings of dummy variables (e.g. number of children in the household was broken into five groups, no children, one child, two children, three children, and four or more children).¹⁹ To prevent exact collinearity in the regression models, one variable from each group was dropped. This omitted variable becomes the base to which coefficients of the related variables are compared. Because the group with one child was dropped, coefficients are reported only for the other groups.

The second model contained the variables listed above except that the model also included a variable that reflects variation in attempts (or successful contacts) that is associated with the

¹⁹ TANF households where the mother is pregnant with no other children in the home would be recorded as having 0 children.

quarter in which the customer entered the queue and the sub-queue that the customer entered. For the probability of attempted contact model, the variable is the proportion of all such customers that WPLEX had attempted to contact by the end of the fourth calendar quarter after the quarter of queue entry. For the probability of success model, the variable is the proportion of those that WPLEX attempted to contact by the end of the first four quarters.

The final model has the same specification as the first model, except that it also includes quarter of entry and sub-queue interaction terms. These terms allow the model to control not only for the overall changes in the attempt or success rates over time, but also control for variation in changes over time and across queues. The purpose of estimating the last two models is to see if the coefficients of the customer characteristic variables are sensitive to the inclusion of the interactions or instrumental variables. If they are, then the coefficients of customer characteristics in the first model partially reflect unobserved factors that are related to queue and quarter, but if they are not, we can be confident that such factors are essentially independent of customer characteristics.

A. Probability of Attempted Contact

The regression models affirm that there are some differences between individuals whom WPLEX did and did not attempt to contact. However, the regression reveals that, when holding all other characteristics constant, the magnitude of the effect of many of the demographic characteristics decreases. For example, looking at the table below (*Exhibit 4.1*), we see that 89.3 percent of households with four or more children had an attempted contact. Comparing this to the base variable (1 child in this case) we see that, ignoring all other characteristics, households with four or more children had an attempted contact rate that was 2.2 percentage points higher than households with 1 child (column 1). The last three columns in the table report regression coefficients for each of the three regression models specified above. The coefficient of 0.022 in the first model, 0.020 in the second, and 0.020 in the third reveal that when all other characteristics are held constant, the effect of having four or more children in the household, rather than one, increases the probability of contact by about 2 percentage points.

Exhibit 4.1
Probability of Attempted Contact

Characteristic	Proportion Attempted		Regression Coefficient		
	For Category	Proportion for Category - Proportion for Base	Using Quarter of Queue Entry and Region	Using Proportion Attempted	Including Interaction
Number of Children in Household					
0	86.6%	-0.005	-0.020**	-0.016**	-0.016**
1	87.1%	Base	base	base	base
2	88.0%	0.009	0.013***	0.011***	0.011***
3	88.2%	0.011	0.012***	0.011**	0.011**
4 or more	89.3%	0.022	0.022***	0.020***	0.020***

* Significant at the 0.10 level; ** significant at 0.05 level; *** significant at the 0.01 level

The complete table of attempted contact rates as a percent of the category and as calculated using the regression models is outlined in *Appendix Exhibit C.1*.

It is important to note that most of the relationships between individual characteristics and attempted contact, while they may be statistically significant, are relatively small in magnitude. Nevertheless, the relationships are worth examining. Holding all other variables constant, both models indicate that the following characteristics result in an increased likelihood of having an attempted contact:

- Having less than two adults in the household;
- Having more than one child in the household; and
- Having earnings at the time of entry into the queue.

The following were related to decreased rates in the probability of attempted contact:

- Being Native American;
- Having Hispanic ethnicity;
- Having low levels of education (relative to having a high school diploma); and
- Increases in the amount of the most recent TANF payment.

When we added the proportion attempted in the individual's sub-queue and quarter of entry, we found that its coefficient was highly significant (see *Appendix Exhibit C.1*). As we would expect, holding other characteristics constant, the chance of an attempt increased by 1.0 percentage points for every percentage point increase in the proportion attempted. Changes in the coefficients of the characteristics are small. When we add interaction terms, instead, the coefficients are essentially the same as when we add the proportion attempted.

B. Probability of Successful Contact

After running regressions to determine the characteristics of the population that was attempted, we ran similar regressions to examine the characteristics of the population that was successfully contacted by the WPLEX program.

Looking again at the number of children in the household (*Exhibit 4.2*) we see that the increased rate of successful contact rate is 1.9 percentage points for families with four or more children (compared to those with one child). Using regression analysis to control for other variables reveals that, in fact, the presence of four or more children in the household has a much stronger effect on the likelihood of successful contact – up to 3.3 percent (see *Appendix Exhibit C.2* for a detailed table of all characteristics).

Exhibit 4.2
Probability of Successful Contact

Characteristic	Proportion Successfully Contacted		Regression Coefficient		
	For Category	Proportion for Category - Proportion for Base	Using Quarter of Queue Entry and Region	Using Instrumental Variable	Including Interaction
Number of Children in Household					
0	42.0%	0.036	0.016	0.018	0.018
1	38.4%	base	base	base	
2	38.8%	0.005	0.012**	0.010**	0.010**
3	39.9%	0.016	0.024***	0.021***	0.021***
4 or more	40.3%	0.019	0.033***	0.029***	0.030***

* significant at the 0.10 level; ** significant at 0.05 level; *** significant at the 0.01 level

Holding all other variables constant, both models indicate that the following characteristics result in increased likelihood of a successful contact (most relationships, while statistically significant, are not very substantial):

- Being female;
- Aged 45 years or more ;
- Being African American (relative to white);
- Having at least some college education (relative to high school diploma);
- Having more than one child in the TANF household;
- Having a child under the age of three; and
- Increases in earnings prior to *and* at the quarter of queue entry.

Those traits that had a negative relationship with the probability of a contact being successful include:

- Being Native American (relative to white);
- Being a non-native English language speaker;
- Having less than a high school diploma; and
- Increases in TANF payments at the quarter of queue entry.

When we replaced the area and quarter variables with the proportion contacted, conditional on attempt, we found that, holding other variables constant, a 1 percentage point increase in this proportion was associated with a 1 percentage point increase in the probability of a successful contact (see *Appendix Exhibit C.2*). Coefficients on the other variables change little. Perhaps those variables having positive relationships with the probability of successful contact are ones

that make an individual more likely to be home to receive a call or more receptive to receiving WPLEX treatment.

In addition, the reason that this group is more likely to have a successful contact may be related to their ability to retain a job long enough to remain active in the queue and receive a call from WPLEX. Many of the variables that positively impact the probability of successful contact (e.g. higher education and higher earnings) are associated with having longer spells of employment.²⁰

Furthermore, the regressions raise the possibility that the population with the greatest need for the services that WPLEX provides has a higher probability of being successfully contacted. Such individuals are more likely to take up WPLEX assistance. The positive relationships between number of children in the household, presence of young children in the household, some college education, and earnings indicate the need for services such as child care, referrals to community college, and assistance with job progression.

²⁰ Martinson, Karin (2000), *The Experiences of Welfare Recipients Who Find Jobs*, New York, NY: MDRC.

CHAPTER 5

TWO-YEAR IMPACTS OF THE WPLEX PROGRAM

In this chapter we present estimates of the impacts of WPLEX on mean outcomes for participants (customers successfully contacted by WPLEX) for each of the following variables over the eight quarters following the quarter in which the participants enters the queue: employment, wages, TANF payments, food stamp payments, child care payments, transportation payments, payments for miscellaneous other services, and community college enrollment.

Estimation of impacts presents a difficult technical challenge because of the limited availability of comparison groups. Comparison groups are needed to estimate “counterfactual” mean outcomes – what mean outcomes would have been in the absence of WPLEX. The best available comparison group for participants consists of non-participants, but their outcomes might differ from those of participants for reasons that are related to their non-participation – “selection effects.” Thus, if we simply compare mean outcomes for participants and non-participants, differences would likely reflect both impacts and selection effects.

Multiple regressions, as well as various other statistical techniques, can be used to readily control, or adjust, for selection effects to the extent that they are determined by observable characteristics of customers. For instance, we know that the probability of participating increases with the number of children (Chapter 4), which implies that participants, on average, have more children than non-participants. We can use multiple regressions to determine whether outcomes are related to the number of children, holding participation and other measured characteristics constant, and essentially use the findings to adjust mean outcomes for participants and non-participants to eliminate differences due to differences in the number of children.

Unfortunately, selection effects are not likely to be determined by measured customer characteristics alone. It is important to go beyond methods to adjust for measured characteristics to a) assess whether substantial selection effects likely remain after controlling for measured characteristics, and, if remaining effects might be substantial, b) attempt methods to adjust for unmeasured characteristics using statistical methods designed for that purpose. Such methods tend to yield estimates that are often very imprecise, however, because they rely on an indirect approach to control for unmeasured factors that are related to selection.

Two reasons to suspect selection effects after controlling for measured characteristics come from the case observations reported in Chapter 2. First, we observed that staff did not attempt to call some customers when their names appeared at the top of the queue because a review of the customer’s record showed that they were ineligible. To the extent feasible, we have eliminated ineligible customers from our non-participant sample, but we do not have as much information as staff. Second, about 25 percent of calls were unsuccessful due to bad numbers. We suspect that bad numbers are often indicative of negative outcomes (e.g., loss of phone service due to failure pay bills, poor housing, poor planning and organization, etc.), although not necessarily so. Many might be due to moves since their job started, which might be accompanied by job loss. It is also possible, however, that increased income, or an interest in being closer to the workplace, are the cause of a move, and those probably indicate positive outcomes. Third, half of all calls were unsuccessful because the customer was not at home or the telephone line was

busy. Some of these customers might have been at work when the call was made, indicative of positive outcomes. Unfortunately, we do not know the reason that staff were unable to contact customers in the analysis sample.

We find very substantial, statistically significant differences between mean outcomes for participants and non-participants, both before any adjustments, and in the expected direction. Even after adjustment for measured characteristics the differences are very substantial – only slightly smaller than unadjusted estimates. We also find, however, convincing evidence that these differences at least partly reflect substantial selection effects. When we attempt to adjust for remaining selection effects, some estimates remain substantial, but few are statistically significant, due to estimator imprecision. In general, we cannot rule out the possibility that almost all differences after adjustment for measured characteristics are due to selection effects, but we also cannot rule out the possibility that a large share of these differences reflect impacts. Unfortunately, available methods to correct for unmeasured factors related to selection are not able to differentiate between these two extremes. The evidence is also suggestive of an increase in impacts when WPLEX started contacting customers sooner after they entered the queue, but again, the evidence is far from definitive.

In the remainder of this chapter, we:

- Describe the basics of the methodology we have applied, and how we have applied it;
- Present and discuss the estimates of employment and earnings impacts, paying substantial attention to variation in findings across methodologies, and their implications;
- Present and more briefly discuss the impact estimates for TANF, food stamps, support services, and community college enrollment; and
- Consider what conclusions can be reasonably drawn from these findings.

Selection effects would not be a serious issue if the only reason that some customers in the queue are not contacted is a capacity constraint – staff are simply not able to keep up with the volume of customers entering the queue. While capacity clearly has been limited at times during the period we are examining, it has not been the only determinant of whether a person is contacted. Most consumers that WPLEX staff tried to contact were never contacted, despite repeated attempts.

Overall, we suspect that selection effects contribute to better mean employment outcomes for participants than non-participants even after adjusting for differences in measured characteristics. As described in the next section, we have been able to apply a methodology that makes further adjustments for differences in unmeasured characteristics, to eliminate the selection effect.

A. Basics of the Methodology

1. Sample

For the impact analysis, we use a sample that includes all customers who entered the queue at some point in the history of WPLEX except those excluded by several criteria. In all, 131,710 customers have entered the queue from when the program WPLEX began to mid August 2002. We excluded 99,290 individuals for a variety of reasons: they entered the queue during the WPLEX start-up quarter (45 percent of the excluded sample); had no wages reported in the UI system, even though they were allegedly working (18 percent); were served by the Spokane Initiative or JSCI (18 percent); or have less than eight quarters of follow-up data because they entered the queue in or after the last quarter of 2000 (17 percent). This is discussed in more detail in *Appendix B*. This leaves a total of 32,320 for the impact analysis.

In order to include more customers who entered the queue after efforts were made to contact new customers quickly, we also estimate a few models that include customers who entered through the fourth quarter of 2001 and who meet other inclusion criteria. This sample is larger (41,645), but outcomes for the most recent entrants in this sample are observed for four post-entry quarters only. We call the larger sample the “4-quarter” sample (also referred to as the report sample in earlier chapters), and the smaller sample the “8-quarter” sample.

2. Outcome Measures

All of the outcome measures are quarterly, and we estimate impacts for each outcome in each of the first eight quarters following the quarter in which the customer entered the queue (“queue-entry quarter”). We chose to use calendar quarters as the unit of time for the analysis because UI wage data are available for calendar quarters only. While data for TANF payments and other outcomes are available monthly, for comparability and simplicity we converted all monthly measures to quarterly measures. We used the Consumer Price Index to adjust all expenditure measures for inflation. Estimates presented are in 2002 dollars.

The outcome variables we analyze are:

- a. Share with (reported UI) quarterly wages. We believe this to be the most reliable measure of the share employed, but lapses in employer reports and transitions to jobs for which wages are not reported mean this share probably understates the share employed, especially in later quarters. Because we excluded beneficiaries without wage reports in the queue-entry quarter, the mean of this variable is 100 percent in the queue-entry quarter for both the participant and comparison group;
- b. Mean (reported UI) quarterly wages. We believe this to be the most reliable measure of mean earnings, but it misses earnings that are not reported for various reasons;
- c. Share receiving a TANF payment in at least one month of the quarter;
- d. Mean quarterly TANF payments;
- e. Mean quarterly expenditures for food stamps;

- f. Mean quarterly expenditures for each of the following categories of state-provided support:
- Child care,
 - Transportation,
 - Exit bonuses,
 - Miscellaneous others.
- g. Share enrolling in a community college.

For each wage and expenditure variable, we consider the change from the queue-entry quarter to the relevant post-entry quarter. In essence, we assume that WPLEX does not affect outcomes in the queue-entry quarter, so any difference between participant and non-participant mean outcomes during that quarter must be due to something else. This seems reasonable because a very large share of initial contacts are made after the queue-entry quarter, and because we suspect that it is relatively rare for the first contact to translate into an immediate change in one of these outcomes.

3. Participants and Non-participant Samples

The number of participants and non-participants varies by quarter after queue-entry; as time passes, some non-participants become participants when they are first successfully contacted by WPLEX, as shown for the 8-quarter sample in *Exhibit 5.1*.

**Exhibit 5.1: Participants and Non-participants
by Number of Quarters after Queue Entry**

Quarters After Queue Entry	Participants		Non-participants		Total
	Number	Percent	Number	Percent	
0 ^a	1,310	4.1%	31,010	95.9%	32,318
1	4,231	13.1%	28,087	86.9%	32,318
2	7,282	22.5%	25,036	77.5%	32,318
3	9,065	28.0%	23,253	72.0%	32,318
4 ^{ab}	10,138	31.4%	22,180	68.6%	32,318

^a Refers to the queue-entry quarter.

^b The few customers who were first contacted after the fourth post-entry quarter were counted as non-participants in all analyses.

Customers who were non-participants in a specific quarter but became participants in the next quarter are included in the comparison group for outcomes in that quarter and any earlier quarters, and are included in the participant group for later outcomes.

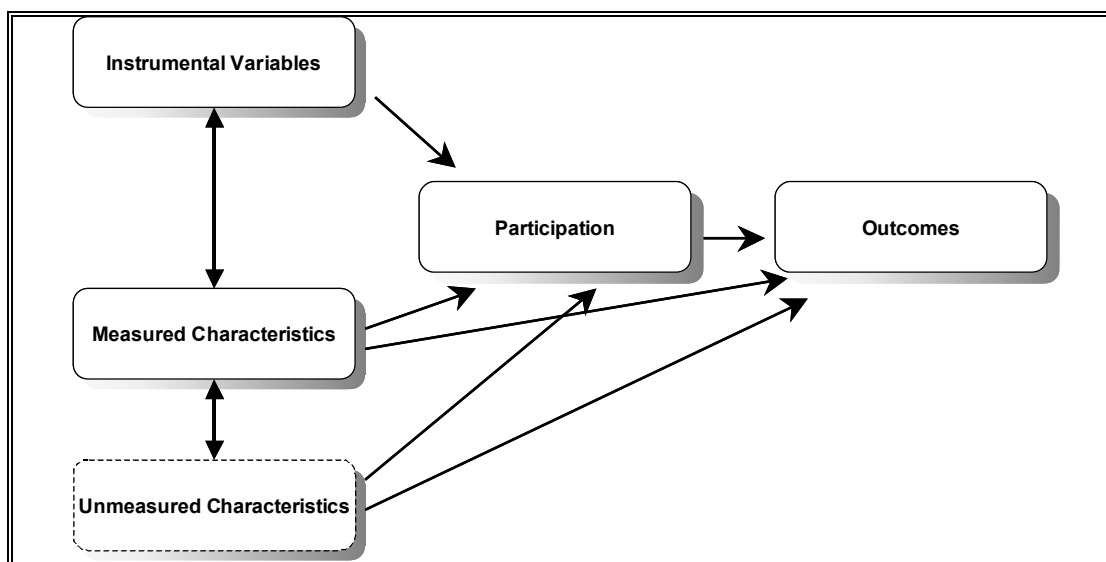
4. Adjustments for Measured and Unmeasured Differences in Characteristics

Our approach to estimation of impacts compares mean outcomes for participants to mean outcomes for non-participants after making adjustments for both measured and unmeasured

differences in the characteristics of these two groups. We use regression analysis to adjust for measured characteristics. Regression analysis uses the observed relationship between outcomes and measured characteristics within the participant and non-participant groups to make the adjustments for differences in observed characteristics.

We use a technique called instrumental variables (IV) to adjust for unmeasured characteristics. This method relies on the existence of a measured variable—the “instrument”—that is believed to affect participation, but that has no effect on outcomes other than through its effect on participation (*Exhibit 5.2*).²¹ It can be related to measured characteristics that affect both participation and outcomes, but, after controlling for measured characteristics, it must not be substantially related to unmeasured characteristics that can affect both participation and outcomes directly. Two of the most important lines in the exhibit are lines that are absent: from the instrumental variable to the outcome, and a line between the instrumental variable and the unmeasured characteristics.

Exhibit 5.2: Direct and Indirect Effects on Outcomes



The evaluator can estimate the relationship between the probability of participation and the instrument, holding the measured characteristics constant, and also estimate the relationship between the instrument and each outcome, holding measured characteristics constant. Under the conditions assumed, any observed effect of the instrument on an outcome must be the product of the effect of the instrument on participation and the effect of participation on the outcome. Essentially, the instrumental variable estimate of the effect of participation on the

²¹ Two conditions must be satisfied for IV to work well. First, the instrument must not have a direct effect on the outcome variable. Second, the instrument must have a substantial effect on the probability of participation. If the latter is not true, it will not be possible to estimate either of the observed relationships described in the previous paragraph very precisely, and the IV estimates will be very imprecise. Because IV estimators rely on estimation of two relationships, they are generally less precise than estimators that rely on a single, directly observed relationship between two variables.

outcome is obtained by dividing the estimated effect of the instrument on the outcome by the estimated effect of the instrument on participation.

While good instruments are usually hard to find, there is one strong candidate available for our analysis. As described previously (see Chapter 2), the likelihood that a customer who enters the queue is contacted depends on which of the sub-queues the customer entered and when the customer entered. That is, the proportion of customers entering a specific sub-queue in a specific quarter eventually contacted (“proportion contacted”) by WPLEX varies considerably, both across sub-queues and across quarters. This is especially true in the first two or three calendar quarters after the customer enters the queue. As seen in Chapter 4, there is a very strong relationship between this proportion and the probability that a customer is contacted, even after controlling for measured characteristics of the customer.

It is possible that some of the variation in the proportion contacted is related to temporal or regional factors that do affect outcomes directly – the nature and state of the economy, the social service environment, population density, the season of the year, WPLEX policy, staff capabilities, etc. Hence, in estimating our impact models we include dummy variables for quarter of entry and sub-queue to capture factors that vary permanently across sub-queues, or that vary over time in a similar fashion for all sub-queues (“fixed sub-queue and time effects”). As a result, the IV estimates rely only on the residual variation in percent attempted, after controlling for these fixed effects. As we show in the appendix, this variation is substantial.

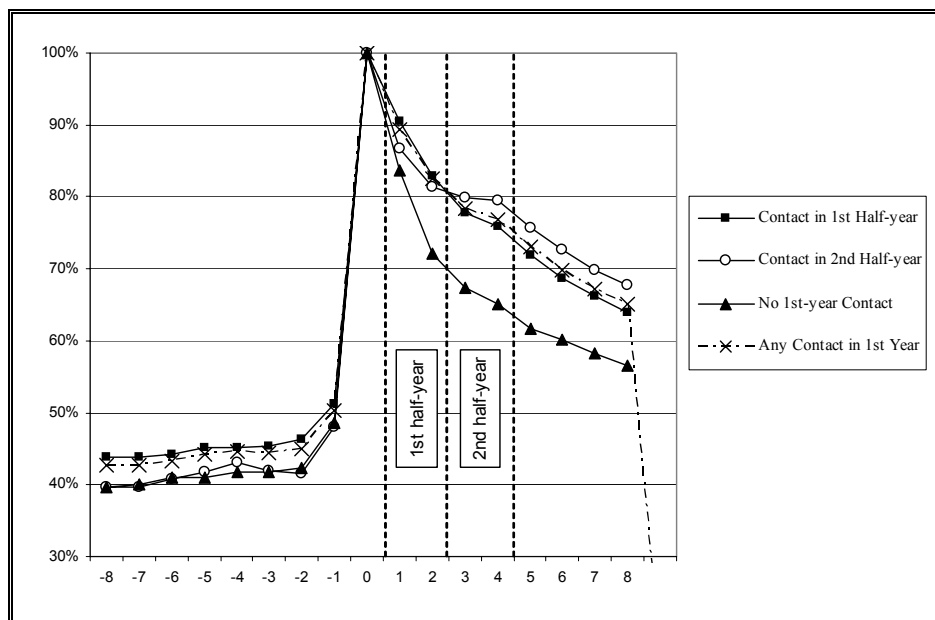
The instrument varies by outcome quarter. For outcomes in each quarter, we use the proportion contacted before the end of the same quarter, except for the fifth through eighth quarters. For those quarters, we use the proportion contacted through the end of the fourth quarter because so few customers were first contacted after the fourth quarter.

B. Employment and Wage Impacts

1. Comparisons of Means (no adjustments)

The criteria used to select the sample require that all sample members have at least some (UI reported) wages during the quarter in which they entered the WPLEX queue (*Exhibit 5.3*). We found that about half also had wages in the previous quarter, and close to 40 percent had some wages eight quarters before queue entry. After queue entry, the share with wages declines steadily, but wages are reported for approximately 65 percent in the eighth quarter after queue entry.

Exhibit 5.3: Share with Reported Wages Eight Quarters Before and After Queue Entry



When we compare those contacted by WPLEX in the first year to those not contacted, we see that a somewhat larger share of the former have wages in each quarter after queue entry. In the eighth quarter after queue entry, the difference is 8.6 percentage points. If there were no selection effects, this figure would be a good estimate of the impact of WPLEX on the share with wages in that quarter. The estimate represents a 15 percent increase relative to the rate for non-participants. There is some indication of selection effects even in this simple comparison, however. Before queue entry there is also a difference between the share with wages for these two groups, albeit a smaller one – on the order of 2.5 percentage points. Factors causing this difference might cause a similar difference in the post-entry period, although not necessarily of the same magnitude.

When we look at the experiences of those contacted before the end of the second calendar quarter after the queue-entry quarter (first half-year) and those first contacted during the third or fourth calendar quarters after queue entry (second half-year) separately, we find additional evidence of selection. We see that those contacted in the second half-year were no more likely than non-participants to have wages in the eight quarters before queue entry. But during the first half-year after queue entry – *before* they were contacted by WPLEX – they were substantially more likely to have wages than those not contacted and almost as likely to have wages as those contacted in the first half-year. We can hardly attribute the relative improvement in their outcome over the first half-year as an impact of WPLEX. That makes us also doubt whether the increase in the share with wages for those contacted in the first half-year relative to the share for those not contacted can be entirely ascribed to WPLEX. At the same time, however, we see that during the second half-year the share with wages for those first contacted in that half year increases relative to the shares for other groups – suggestive of an impact. Thus, it might be that the increase in the share for those contacted relative to those not

contacted in the first year overstates the impact of WPLEX, but nonetheless is partly attributable to WPLEX.

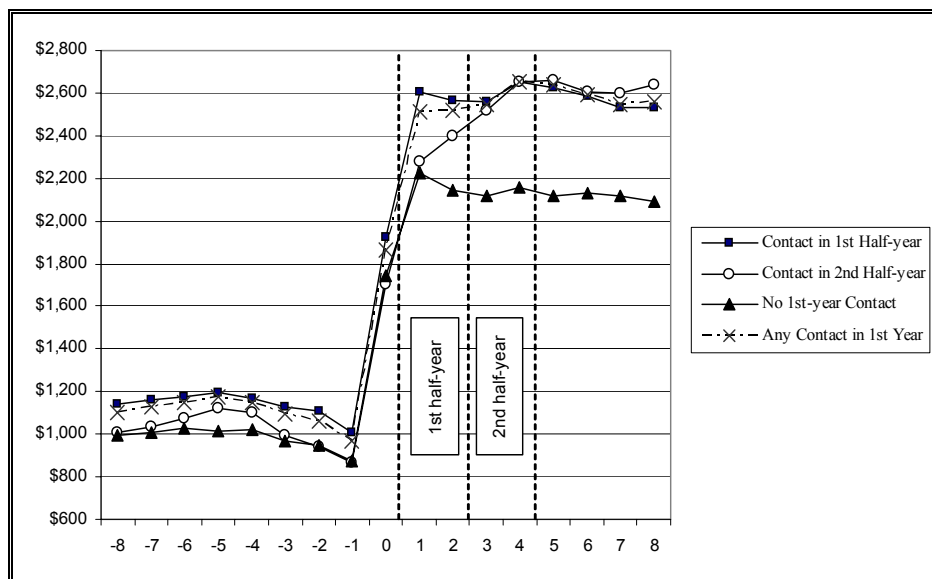
In summary, while unadjusted data for the share with wages appear to be consistent with a positive impact of WPLEX on job retention, it also seems possible that the results are explained by differences in measured and unmeasured characteristics of the groups. We are particularly concerned that some of those not contacted were not contacted for reasons that are associated with job loss. The reason for our concern is that, in the first half-year after the queue-entry quarter, the share of this group with wages falls relative to the share for those contacted in the second half-year – *before* WPLEX had contacted the latter.

Mean wage series for the same groups are also suggestive of impacts, but also leave room for uncertainty about the interpretation (*Exhibit 5.4*). Mean quarterly wages in the queue-entry quarter were between \$1,700 and \$1,950 for all groups. Means for all groups increase in the first post-entry quarter, at least in part because many of these consumers were not employed for the full queue-entry quarter. Note, however, that 10 to 15 percent of those in each group had no wages in this quarter (*Exhibit 5.2*, above). Mean wages for all groups are higher in the eighth quarter after queue entry than in the first, which is remarkable given that the percentage with no wages increases in each group.²²

Comparisons of mean series across groups are similar in most respects to comparisons of percentages with wages. This is in part because those with no wages in a quarter are included in each quarter's sample. In the eight quarters before queue entry, mean wages for those contacted in the first year are slightly higher than for those not contacted (somewhat over \$100 in each quarter), but they are distinctly higher starting in the second quarter after queue entry. The change from the queue-entry quarter to the eighth quarter after queue entry is \$373 – an increase of 18 percent of the mean earnings of the non-participants in that quarter. This is larger than the 15 percent increase in the share with wages obtained from analogous calculations, suggesting that the impact of WPLEX on wages goes beyond the impact on employment.

²² To verify that this growth is not due to a few positive outliers, we also calculated median series, and obtained very similar findings.

Exhibit 5.4: Mean Wages Eight Quarters Before and After Queue Entry^a



^a Wages have been adjusted for inflation, and are expressed in 2002 dollars.

When we look at the experiences of those contacted in the first half-year after queue entry separately from those contacted in the second half-year, however, we again find mixed results. Those contacted in the second half-year had mean wages that before queue entry were only slightly higher than for those not contacted in the first year, but during the first half-year after queue entry – *before* they were contacted by WPLEX – their mean wages increase relative to the mean for those not contacted, especially in the second quarter. Hence, it is difficult to attribute this relative increase to WPLEX. At the same time, however, during the second half-year the mean wages of those contacted in the second half-year rise to the level of those contacted in the first half-year, consistent with a WPLEX impact and reflecting what we found for the share with wages.

In summary, the descriptive statistics for both the share with wages and mean wages are consistent with very substantial, positive impacts of WPLEX, but they also suggest that the increase in each series for those contacted in the first year relative to the corresponding series for those not contacted probably overstates the impact of WPLEX because of selection effects.

2. Comparisons Adjusted for Measured Differences in Characteristics

The descriptive statistics presented in the previous section are not adjusted for measured or unmeasured differences in the characteristics of the various groups. In this section, we compare *changes* in wage statistics (the share with wages and mean wages) from the queue-entry quarter to later quarters, making adjustments via regression analysis for differences in measured characteristics. By focusing on changes, we assume that any differences in the queue-entry quarter are not due to WPLEX. We think this is reasonable, but conservative, because about four percent of customers were contacted in that quarter – 13 percent of all customers contacted by the end of the fourth post-entry quarter. We adjust for the same characteristics that we

included in the probability analysis of attempted and successful contacts (Chapter 4), except that the change in the relevant county's unemployment rate is measured from the queue-entry quarter to the outcome quarter, rather than from the queue-entry quarter to the fourth quarter.²³

We differentiate those contacted by the quarter in which they are first contacted. Each of the quarterly estimates we present is the change in the statistic for the group that has been contacted as of the end of the relevant quarter minus the corresponding change for those not contacted through the relevant quarter, adjusted for measured characteristics. Thus, for instance, the third-quarter estimates compare changes for those contacted by the end of the third quarter to changes for those not contacted by that point. We also produce estimates by quarter of first contact. For each quarter, we compare changes for those first contacted in the specified quarter to changes for those who have not been contacted by the end of the relevant quarter.²⁴ The estimates build in the assumption that WPLEX can have no impact on a customer's wage outcome in the period before the first WPLEX contact. Results appear in the top section of *Exhibit 5.5*.

We find that, after adjustment for measured characteristics, the share with wages for those contacted by the end of a quarter is higher than the share for those not contacted (column six of Exhibit 5.5). The estimates for each quarter are highly significant, statistically. By the eighth quarter after queue entry, the impact estimate is 7.8 percentage points (right-hand column, lower half of the exhibit). This estimate is smaller than the 8.6 percentage point estimate based on unadjusted descriptive statistics.

²³ We estimated other models in which we replaced the change in the unemployment rate with the change in employment in the service and retail sectors, but results were essentially identical, holding the sample and the rest of the specification constant. We use the unemployment rate because employment statistics are not available for the most recent quarters.

²⁴ To help us interpret the findings, we applied the same method to changes in wage statistics from each of the eight quarters before queue entry to the queue entry quarter. Obviously any "impacts" found leading up to queue entry would be spurious, and cause to believe that the estimates for the post-entry period are biased, due to differences in unmeasured characteristics. We did not find any systematic evidence of such spurious impacts.

Exhibit 5.5: Estimates of Impacts on the Share with Wages Adjusted for Measured Characteristics Only

Outcome Quarter	Quarter of 1 st Contact ^a					Any Contact ^a
	0	1	2	3	4	
Contacted by End of Quarter^d						
Q1	-0.051 ***	0.058 ***				0.042 ***
Q2	-0.022 *	0.072 ***	0.105 ***			0.082 ***
Q3	-0.027 *	0.074 ***	0.109 ***	0.122 ***		0.092 ***
Q4	-0.033 **	0.088 ***	0.113 ***	0.136 ***	0.153 ***	0.107 ***
Q5	-0.023	0.081 ***	0.108 ***	0.132 ***	0.150 ***	0.103 ***
Q6	-0.028 *	0.067 ***	0.091 ***	0.117 ***	0.136 ***	0.087 ***
Q7	-0.023	0.059 ***	0.087 ***	0.106 ***	0.116 ***	0.079 ***
Q8	-0.037 **	0.065 ***	0.084 ***	0.097 ***	0.118 ***	0.078 ***
Contacted in Any Quarter^e						
Q1	-0.052 ***	0.068 ***	0.056 ***	0.050 ***	0.015	0.042 ***
Q2	-0.023 *	0.082 ***	0.116 ***	0.102 ***	0.079 ***	0.082 ***
Q3	-0.028 *	0.079 ***	0.115 ***	0.128 ***	0.119 ***	0.092 ***
Q4	-0.033 **	0.088 ***	0.113 ***	0.136 ***	0.153 ***	0.107 ***

* Indicates statistical significance at the 0.10 level, ** at the 0.05 level, and *** at the 0.01 level or lower, based on two-tailed tests.

^a Customer was first contacted by WPLEX in the calendar quarter indicated; 0 = calendar quarter of queue entry, 1 = calendar quarter after queue entry, etc.)

^b The outcome quarter indicated is the number of calendar quarters after the queue-entry quarter.

^c Measured characteristics include all characteristics used in the analysis of participation. Adjustments were made by regression analysis.

^d In the top section of the table, customers first contacted any time before the end of the quarter indicated are compared to all those not contacted by that point.

^e In the bottom section of the table, customers first contacted in any quarter are compared to all customers never contacted. The fourth quarter results are identical to those in the top section of the table, by construction.

When we examine the estimates by quarter of first contact, however, we have to question whether the results described in the previous paragraph represent impacts only. The estimates show substantial, statistically significant impacts in almost all quarters after first contact regardless of when queue entry occurs, except for those contacted in the queue-entry quarter, whose estimates are negative, although not always significant. What is surprising is that the size of the estimated impacts increases substantially with the number of quarters before first contact. Thus, the estimates indicate that in the fourth quarter the impact for those contacted in the fourth quarter is 15.3 percentage points – an impressive impact, if accurate – although the fourth quarter impacts for those first contacted in the first post-entry quarter is only 8.8 percentage points. If we were to accept these estimates as reflecting impacts only, we would have to conclude that delay of first contact for up to a year would be a very attractive policy.

There is, however, another explanation of the findings by quarter of first contact that we find more plausible. It might be that, as time passes after queue entry, those who have not yet been contacted and who no longer have reported wages, are increasingly less likely to be contacted relative to those who have not been contacted but continue to have wages. One possible reason is that staff conclude, based on administrative data or some other information that calling the customer is no longer warranted. Another is that the end of wage reporting is associated with a move, perhaps to the home of a friend or family member, or possibly out of state. This is a selection effect, and is likely to be strongest for those contacted latest.

One way to assess the possible size of selection effects is to examine the share with wages for those contacted in quarters two, three, and four in the quarters before they were contacted. Was it already above the rate for others in the comparison group for those quarters (i.e., those not contacted)? The bottom section of Exhibit 5.5 provides the answer. These estimates were obtained identically to those for the first four quarters in the top section of the table except that in each quarter we compare those contacted in *any* quarter to those never contacted. What we see is that, after adjustment for measured variables only, mean earnings of those contacted in quarters two, three and four were higher than those never contacted even before they themselves were contacted.

For those contacted in quarters two, three, and four it would perhaps be reasonable to use the difference between the share with wages for those contacted and those not contacted in the quarter prior to contact as a measure of the size of the selection effect. Thus, the difference of 5.6 percentage points observed in the first quarter for those contacted in the second quarter is perhaps about equal to the size of the selection effect in the differences for later quarters. If we accept this figure as such, then the impact in quarter eight would be $8.4 - 5.6 = 2.8$ percentage points – much smaller than difference adjusted for measured variables only, but still substantial. Repeating this for those first contacted in quarters three and four yields estimates for the eighth quarter of $9.7 - 10.3 = -0.5$ and $11.8 - 11.9 = -0.1$, respectively. Thus, if we accept the pre-contact differences in means as estimates of the selection effects, there is little evidence of an impact in quarter eight. Differences are somewhat larger in quarters four through seven, so it is possible that there were impacts in those quarters, but that impacts diminish with time. Differences are especially strong for those first contacted in quarter two – initially 6.0 percentage points in quarter two, gradually dropping to 2.7 in quarter eight.

We obtain similar findings for mean wages (*Exhibit 5.6*). After adjustment for measured characteristics, mean wages for those contacted increased relative to the mean for those not contacted (column six, top section).²⁵ The estimates for each quarter are highly significant, statistically. According to the estimates, in the eighth post-entry quarter WPLEX increased the mean wage for all participants by \$337.

Estimates by quarter of first contact are positive and statistically significant in almost all quarters after first contact, regardless of when queue entry occurs, except for the relatively small number of customers who are contacted in the queue-entry quarter. Similar to our surprising findings for the share with wages, the size of the estimated impacts increases substantially with the number of quarters before first contact. In the fourth quarter, the estimate

²⁵ The last column of the exhibit will be discussed in the next subsection.

for those first contacted in the fourth quarter is \$556, compared to -\$138 (not statistically significant) and \$247 for those first contacted in the queue-entry and first post-entry quarters, respectively. It again seems plausible that this pattern is due, at least in part, to selection.

Exhibit 5.6: Estimates of Impacts on Mean Wages Adjusted for Measured Characteristics Only

Outcome Quarter	Quarter of 1st Contact ^a					Any Contact
	0	1	2	3	4	
Contacted by End of Quarter^d						
Q1	-110 *	50				16
Q2	-91	108 ***	337 ***			191 ***
Q3	-186 **	168 ***	357 ***	364 ***		246 ***
Q4	-138 *	247 ***	440 ***	435 ***	556 ***	353 ***
Q5	-84	261 ***	454 ***	512 ***	578 ***	388 ***
Q6	-47	176 ***	434 ***	450 ***	475 ***	329 ***
Q7	-108	180 ***	358 ***	437 ***	482 ***	297 ***
Q8	-135	205 ***	428 ***	485 ***	508 ***	337 ***
Contacted in Any Quarter^e						
Q1	-113 *	96 ***	298 ***	143 ***	34	16
Q2	-92	138 ***	371 ***	296 ***	240 ***	191 ***
Q3	-187 **	188 ***	379 ***	386 ***	450 ***	246 ***
Q4	-138 *	247 ***	440 ***	435 ***	556 ***	353 ***

* Indicates statistical significance at the 0.10 level, ** at the 0.05 level, and *** at the 0.01 level or lower, based on two-tailed tests.

^a Customer was first contacted by WPLEX in the calendar quarter indicated; 0 = calendar quarter of queue entry, 1 = calendar quarter after queue entry, etc.)

^b The outcome quarter indicated is the number of calendar quarters after the queue-entry quarter. If the outcome quarter precedes the first quarter of contact, the estimated impact is assumed to be zero, as indicated by the shaded cells.

^c Measured characteristics include all characteristics used in the analysis of participation. Adjustments were made by regression analysis.

^d In the top section of the table, customers first contacted any time before the end of the quarter indicated are compared to all those not contacted by that point.

^e In the bottom section of the table, customers first contacted in any quarter are compared to all customers never contacted. The fourth quarter results are identical to those in the top section of the table, by construction.

This is confirmed in the second section of Exhibit 5.6, where in each quarter we compare those contacted in any quarter to those not contacted. We see that, controlling for observed characteristics, the mean wages of those first contacted in quarters two, three and four were higher than the mean wages of those not contacted even in the quarters before they were contacted. If we view the mean difference in wages in the quarter before contact for those first contacted in these quarters as an estimate of the size of the selection effect incorporated in the differences reported for later quarters, we can subtract the pre-entry difference from the post-

entry differences to obtain the impact. Estimates obtained this way are much smaller than the originally differences, but still substantial. For instance, in the eighth quarter, the estimates obtained in this fashion are \$130 (= \$428 - \$298) for those first contacted in quarter two, \$189 for those first contacted in quarter three, and \$58 for those first contacted in quarter four.

In summary, differences in wage statistics after adjustments for observed characteristics of those contacted and not contacted are slightly smaller than before adjustment – in quarter eight, 7.8 percentage points for the share with wages, versus 8.6 without adjustment, and \$338 for mean quarterly wages, versus \$373 without adjustment. There is, however, strong evidence that these differences reflect substantial selection effects – substantial differences between those contacted in the second, third and fourth quarter after queue entry and those not contacted emerge even before they are contacted. After a plausible, although crude, correction for those effects, remaining differences are much smaller; by quarter eight, there is evidence of an impact on the share employed after this adjustment only for those contacted in the second post-entry quarter; corrected estimates of wage impacts by the eighth quarter are on the order of \$100.

Because this evidence demonstrates that the differences in means adjusted for measured characteristics likely reflect substantial selection effects, it is important to pursue methods to correct for unmeasured differences in means, as we do in the next section.

3. Comparisons Adjusted for Measured and Unmeasured Characteristics

In this section we present impact estimates for wage statistics that have been adjusted for both measured and unmeasured characteristics, using instrumental variables (IV). We consider estimates for all those contacted as of the end of each post-entry quarter only. We do not consider estimates by first quarter of contact because we found that the four instrumental variables were too similar to each other (i.e., collinear) to produce results with a reasonable level of precision. The estimates appear in *Exhibit 5.7* paired with unadjusted estimates (differences between participants and non-participants) and estimates adjusted for measured characteristics only (from the regression analysis, Exhibits 5.5 and 5.6).

Exhibit 5.7: Estimates of Impacts on Share with Wages and Mean Wages Adjusted for Measured and Unmeasured Characteristics

Outcome Quarter	Share with Wages			Mean Wages		
	Unadjusted	Measured Only	Measured & Unmeasured	Unadjusted	Measured Only	Measured & Unmeasured
Q1	0.058 ***	0.042 ***	-0.016	165 ***	16	-120
Q2	0.103 ***	0.082 ***	-0.045	255 ***	191 ***	-154
Q3	0.111 ***	0.092 ***	0.001	306 ***	246 ***	-141
Q4	0.118 ***	0.107 ***	0.003	372 ***	353 ***	-88
Q5	0.113 ***	0.103 ***	0.008	400 ***	388 ***	11
Q6	0.098 ***	0.087 ***	-0.012	341 ***	329 ***	322
Q7	0.089 ***	0.078 ***	0.052	314 ***	297 ***	371 *
Q8	0.086 ***	0.077 ***	0.088 **	347 ***	337 ***	507 **
	Mean for Period Indicated			Sum for Period Indicated		
First Year	0.098 ***	0.081 ***	-0.015	1,098 ***	806 ***	-501
Year Two	0.097 ***	0.087 ***	0.033	1,401 ***	1,351 ***	1,211
Two Years	0.097 ***	0.084 ***	0.009	2,499 ***	2,157 ***	710

* Indicates statistical significance at the 0.10 level, ** at the 0.05 level, and *** at the 0.01 level or lower, based on two-tailed tests.

After adjusting for unmeasured as well as measured characteristics, we find little definitive evidence of impacts. These estimates show no evidence of impacts in the first year after queue entry, and weak evidence of impacts in the second year, for both employment and wages. They also show a different pattern -- point estimates rising markedly in the last two quarters rather than leveling off, and higher than even the unadjusted estimates in the last two quarters.

In interpreting this additional evidence, however, it is important to keep in mind that the precision of the estimates is low. Put differently, an impact has to be very large if we are to detect it using this approach, given the instruments available. That explains why the \$507 estimate for wages in quarter eight is only significant at the five percent level, despite its substantial magnitude. Thus, although for most quarters we cannot reject the hypothesis that the impact is zero at conventional significance levels, we also cannot reject the hypothesis that it equals the estimate obtained when we only adjust for measured characteristics. This is disappointing, as the instruments we were able to construct have substantial conceptual appeal and substantial variation, even after controlling for quarter of entry and sub-queue. Although they also are substantially predictive of participation by individuals, their predictive power is small relative to other idiosyncratic determinants of participation, leading to the low precision.

We have also tried other variants of the instruments. One variant we tried used the share attempted as the instrument, rather than the share contacted. This might be a better instrument than share contacted from the standpoint of being unrelated to outcomes except via its effect on participation, but it has even less predictive power for participation than share contacted;

consequently the estimates produced were even less precise. We also tried using the share contacted as the instrument, but omitting the dummy variables for entry quarter and sub-queue. The effect of this is to use all of the variation in the instrument, not just the variation remaining after controlling for entry quarter and sub-queue. This achieved the desired result of great precision, as expected, but the estimates were negative and significant more often than they were positive and significant. We think this is because entry quarter and sub-queue are related to other factors that affect outcomes, as discussed earlier; hence, the results obtained are very likely to be biased as estimates of impacts.

4. Estimates Based on the 4-quarter Sample

One way to improve precision and potentially detect impacts using the instrumental variable approach is to expand the sample size. Although the analysis above uses the maximum sample available for analysis of a full eight quarters after queue entry, a substantially larger sample can be used for analysis of the first four quarters only. Expanding this sample by adding more recent entrants also has the advantage of adding many more entrants who were contacted in the first or second quarter after queue entry, due to the changes that occurred in early 2001.²⁶

For the share with wages, we find that the estimates adjusted for measured characteristics only are very close to those obtained for the first four quarters of the smaller 8-quarter sample (see *Exhibit 5.8*). The estimates adjusted for both measured and unmeasured characteristics are larger and more consistent with a positive impact than in the 8-quarter sample, but are not large enough to be significant at even the 0.10 level. Findings for mean wages are similar. The estimates adjusted for measured characteristics only are slightly larger than in the 8-quarter sample. The estimates adjusted for measured and unmeasured characteristics are more consistent with positive impacts. The fourth quarter estimate from the latter set is 69 percent as large as the corresponding estimate adjusted for measured characteristics only, although not significant. Thus, while these estimates are somewhat more suggestive of real impacts in the first four post-entry quarters than the estimates from the smaller 8-quarter sample, they are far from definitive.

²⁶ As discussed in Chapter 2, the state changed the policy dictating the order in which customers would be contacted in January 2001. Prior to 2001, new customers were given the lowest priority; their names were placed at the bottom of the queue, and staff did not attempt to contact them until they had attempted to contact customers already in the queue. After the policy change, new customers entered toward the top of the list, after time sensitive follow-up calls

Exhibit 5.8: Wage Estimates Based on the 4-Quarter Sample

Outcome Quarter	Share with Wages		Mean Wages	
	Measured Only	Measured & Unmeasured	Measured Only	Measured & Unmeasured
Q1	0.050 ***	0.012	130 ***	-57
Q2	0.084 ***	0.011	250 ***	131
Q3	0.091 ***	0.053	287 ***	149
Q4	0.106 ***	0.056	370 ***	257
	Mean for Period Indicated		Sum for Period Indicated	
First Year	0.083 ***	0.033	1,037 ***	487

We also conducted analyses in which we split the 4-quarter sample between those who entered before Q4 of 2000 and those who entered in that quarter and later. The split coincides with the substantial increase in early contacts that we documented earlier, to test whether there was evidence of stronger impacts in the more recent period than in the earlier period, as the above findings and theory suggest. We did find that estimates adjusted for measured characteristics only were substantially larger in the later period. For instance, the estimated effect on wages for the full year after entry increased from \$637 in the first period to \$1,037 in the later period; both are highly significant. The estimates adjusted for measured and unmeasured characteristics also increased, but were small and very imprecisely estimated. For instance, the wage estimate for the full year increased from -\$263 to \$487, but neither estimate is statistically significant. In summary, the evidence is consistent with larger impacts for the later period, when more customers were contacted early, but far from definitive.

C. TANF, Food Stamps, Other State Support, and Community College Enrollment

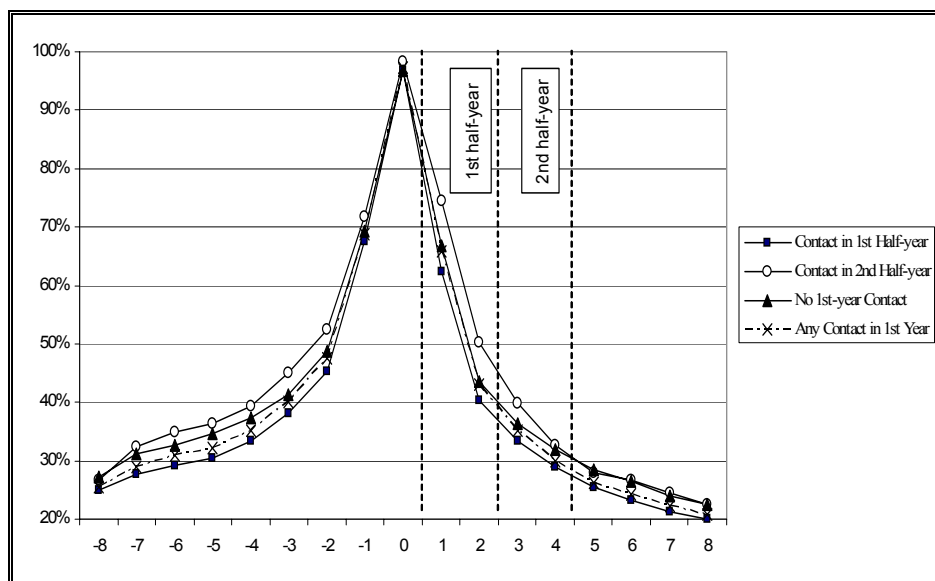
In this section, we briefly summarize impact estimates for TANF payments, food stamp expenditures, expenditure for state services, and community college enrollment. As with the estimates for reported wages, we find considerable differences in means for participants and non-participants when we adjust for measured characteristics only, but suspect these estimates are substantially biased due to selection effects. Estimates adjusted for both measured and unmeasured characteristics often show significant effects in the first four quarters after queue entry, and no significant effects in later quarters.

1. TANF

Approximately 98 percent of all customers in the sample received at least some TANF payment (i.e., “participate in TANF”) in the queue-entry quarter, with no substantial difference for those contacted and those not (*Exhibit 5.9*). In pre-entry quarters, TANF participation rates were considerably lower, but substantial – about 70 percent in the pre-entry quarter, 50 percent two quarters before entry, and less than 30 percent eight quarters before entry. There is little variation across groups in the pre-entry quarters, although those contacted by WPLEX in the second half-year after the queue-entry quarter had somewhat higher TANF participation than other groups, reflecting the relatively low share that had reported wages (*Exhibit 5.1*).

After queue entry, TANF participation drops off quickly and substantially, with very little difference between groups. By the third quarter after queue entry, fewer than 40 percent participate in each customer group, and by the seventh quarter participation rates for all groups are under 25 percent. Variation in participation rates across groups is remarkably small. Those contacted by WPLEX continue to have slightly higher participation rates than others except in the last two quarters.

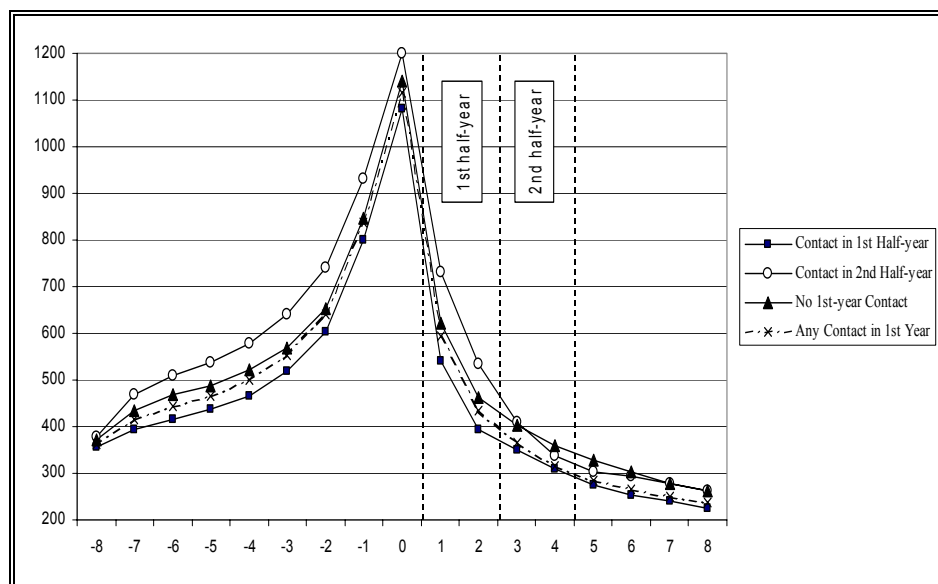
Exhibit 5.9: TANF Participation Rates Eight Quarters Before and After Queue Entry



The continued decline post-entry is interesting in light of the earlier finding that the share with reported wages declines for all groups throughout the eight quarters after queue entry. Re-entry into TANF due to job loss must be more than offset by growth in exits due to earnings. It might also be that many of those with no reported wages in later quarters do not re-enter TANF because of other unreported wages (including wages received in other states) and/or increased support from others.

Mean TANF payments follow a similar pattern (*Exhibit 5.10*). In the queue-entry quarter, the mean for every group is between \$1,082 and \$1,200. Before queue entry, means for those contacted in the second half-year after queue entry are about \$100 higher than for those contacted in the first half, with those not contacted in between. In the two years after queue entry, mean payments show somewhat less dispersion, especially after the third quarter when mean payments to those contacted in the second quarter fall relative to the means for others.

Exhibit 5.10: Mean TANF Payments Eight Quarters Before and After Queue Entry



For the most part, estimates of impacts on mean TANF expenditures (*Exhibit 5.11*) are small and insignificant, but there is some evidence of a positive impact. The estimates adjusted for measured characteristics only are negative in each quarter, and significant, but not large. Over two years, these estimates show a reduction in payments of \$133. When we use instrumental variables to also adjust for unmeasured characteristics, we obtain a qualitatively different result: positive estimates that are statistically significant in three of the eight quarters. These estimates show an *increase* in payments of \$719 over two years, most of it (\$439) in the first year, although the results are only statistically significant in three quarters. This result mirrors the instrumental variable estimates for wages, which are negative in the first year, although not statistically significant. Staff do sometimes provide information and advice about TANF reinstatement to customers who have experienced earnings declines or job loss. Hence, it is at least plausible that WPLEX increases TANF expenditures. The width of the 95 percent confidence intervals around each quarter's estimate is quite large – on the order of \pm \$120. The quarterly point estimates decline toward the end of the two-year period, and the last one is negative. During this same period, the instrumental variable estimates for mean wages increase, and in the last quarter they are statistically significant. Hence, the findings suggest that WPLEX eventually might reduce TANF expenditures because it increases wages, but that is a projection of the trend in the estimates beyond the two-year period.

Exhibit 5.11: Estimates of Impacts on TANF Expenditures

Outcome Quarter ^b	Characteristics Adjusted for:										
	Measured Only ^c					All ^d					
	Quarter of 1st Contact ^a					Any Contact ^e					
	0	1	2	3	4	0	1	2	3	4	Any Contact ^e
Q1	40 *	-4				8					74
Q2	54 **	4	-73 ***			-20 *					132 **
Q3	65 **	6	-50 ***	-52 ***		-16					122 *
Q4	56 **	-3	-46 ***	-61 ***	-56 **	-25 ***					111
Q5	82 ***	-16	-47 ***	-52 ***	-69 ***	-28 ***					146 **
Q6	85 ***	-25 *	-37 **	-44 **	-32	-22 **					72
Q7	85 ***	-13	-39 ***	-48 ***	-3	-16 *					68
Q8	86 ***	-20	-27 *	-51 ***	13	-13					-6
Total for Period Indicated											
Q1 - 4	216 ***	3	-168 ***	-113 ***	-56 **	-54 *					439 *
Q5 - 8	338 ***	-74	-150 ***	-194 ***	-92	-79 *					280
Q1 - 8	554 ***	-71	-319 ***	-307 ***	-147	-133 *					719

* Indicates statistical significance at the 0.10 level, ** at the 0.05 level, and *** at the 0.01 level or lower, based on two-tailed tests.

^a Customer was first contacted by WPLEX in the calendar quarter indicated; 0 = calendar quarter of queue entry, 1 = calendar quarter after queue entry, etc.)

^b The outcome quarter indicated is the number of calendar quarters after the queue-entry quarter.

^c Measured characteristics include all characteristics used in the analysis of participation. Adjustments were made by regression analysis. Estimates for each quarter are means for all customers contacted by the end of that quarter.

^d All characteristics include both measured and unmeasured characteristics. Instrumental variable analysis was used to make the adjustments. Estimates for each quarter are means for all customers contacted by the end of that quarter.

^e Includes all those contacted through the end of the relevant quarter only.

2. Food Stamps

If anything, the evidence indicates that WPLEX has a positive impact on mean food stamp expenditures (*Exhibit 5.12*). The total over eight quarters when we adjust for measured characteristics only is \$113. Estimates that adjust for unmeasured characteristics are substantially larger (by \$358 over two years), although the quarterly estimates are only significant at the 0.05 level in two quarters and the 0.10 level in one. The quarterly pattern of the latter estimates is similar to the pattern for the corresponding TANF estimates, and the estimate in the last quarter is only three dollars.

Exhibit 5.12: Estimates of Impacts on Food Stamp Expenditures

Outcome Quarter ^b	Characteristics Adjusted for:									
	Measured Only ^c								All ^d	
	Quarter of 1st Contact ^a						Any Contact ^e		Any Contact ^e	
	0	1	2	3	4					
Q1	-7	19 ***				17 ***		10		
Q2	-2	28 ***	-9			12 **		54 *		
Q3	0	35 ***	4	14		20 ***		72 **		
Q4	9	23 ***	7	19 *	21	19 ***		52		
Q5	33 **	7	2	19 *	29 **	14 ***		92 **		
Q6	17	8	-3	14	31 **	11 *		55		
Q7	17	11	-5	8	37 ***	11 **		19		
Q8	20	4	2	3	44 ***	10 *		3		
Total for Period Indicated										
Q1 - 4	-1	105	2	34	21	67		189		
Q5 - 8	87	30	-3	44	141	46		169		
Q1 - 8	87	135	-1	78	162	113		358		

* Indicates statistical significance at the 0.10 level, ** at the 0.05 level, and *** at the 0.01 level or lower, based on two-tailed tests.

^a Customer was first contacted by WPLEX in the calendar quarter indicated; 0 = calendar quarter of queue entry, 1 = calendar quarter after queue entry, etc.)

^b The outcome quarter indicated is the number of calendar quarters after the queue-entry quarter.

^c Measured characteristics include all characteristics used in the analysis of participation.

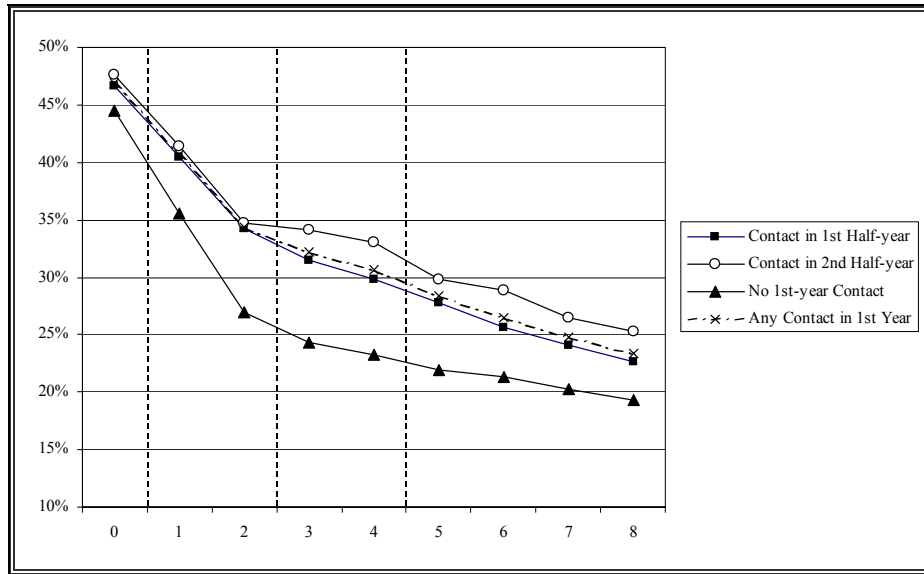
^d All characteristics include both measured and unmeasured characteristics.

^e Includes all those contacted through the end of the relevant quarter only.

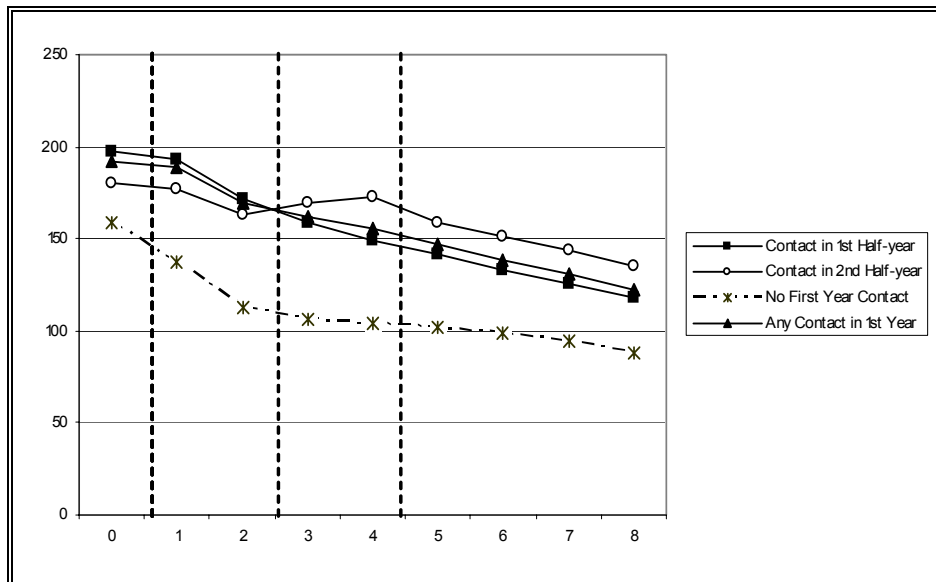
3. State Services

In this section we consider impacts on state expenditures for support other than TANF payments – child care, transportation, exit bonuses, and miscellaneous other services that are available to customers. About 40 percent of all customers in the sample received some such support in the first quarter after queue entry (*Exhibit 5.13*). The share receiving such support declines through the eight quarters after queue entry for all groups, by substantially more for those not contacted. The share receiving services for those first contacted in the second half-year after queue entry appears to increase relative to the shares for other groups during the second half-year, and is higher than for all other groups at the end of the year. Although suggestive of some impact for this group, the share for this group was also relatively high during the first two post-entry quarters. Series for mean state expenditures on other support display a similar pattern (*Exhibit 5.14*). In the last quarter, mean expenditures for those contacted in the first half-year are highest, and are about \$40 higher than for those not contacted.

**Exhibit 5.13: Receipt of State Services
Eight Quarters After Queue Entry**



**Exhibit 5.14: Mean State Expenditures on Other Supports
Eight Quarters After Queue Entry**



The impact estimates for state expenditures on other supports are suggestive of small positive impacts (*Exhibit 5.15*). Estimates adjusted for measured characteristics only show positive, statistically significant increases in five of eight quarters. Estimates that use the instrumental variables method to control for other unmeasured factors indicate larger effects in earlier quarters – as high as \$80 dollars in the third quarter after queue-entry for those contacted by the end of that quarter. By the end of eight quarters, however, these estimates are smaller, and not

significant—\$30 for the eighth quarter. The pattern of impact estimates by quarter is similar to the patterns for TANF and food stamps.

Exhibit 5.15: Estimates of Impacts on Total Expenditures for State Services

Outcome Quarter ^b	Characteristics Adjusted for:										All ^d
	Measured Only ^c										
	Quarter of 1st Contact ^a					Any Contact ^e	Any Contact ^e				
0	1	2	3	4							
Q1	-31 **	10				1					34
Q2	-39 ***	17 **	37 ***			19 ***					41
Q3	-23 *	14	28 ***	28 ***		18 ***					80 **
Q4	-10	7	24 ***	32 ***	59 ***	21 ***					57
Q5	-17	6	15 *	21 *	46 ***	14 **					45
Q6	-17	3	11	14	42 ***	10 *					55
Q7	-13	0	4	10	41 ***	6					61
Q8	-22	9	3	12	27 *	7					30
Total for Period Indicated											
Q1 - 4	-102	48	89	60	59	59					212
Q5 - 8	-69	18	32	57	156	35					191
Q1 - 8	-171	66	121	117	215	94					402

* Indicates statistical significance at the 0.10 level, ** at the 0.05 level, and *** at the 0.01 level or lower, based on two-tailed tests.

^a Customer was first contacted by WPLEX in the calendar quarter indicated; 0 = calendar quarter of queue entry, 1 = calendar quarter after queue entry, etc.)

^b The outcome quarter indicated is the number of calendar quarters after the queue-entry quarter.

^c Measured characteristics include all characteristics used in the analysis of participation.

^d All characteristics include both measured and unmeasured characteristics.

^e Includes all those contacted through the end of the relevant quarter only.

It should be noted that the estimates most likely reflect impacts under an old policy concerning the duration of eligibility for support services after exit from TANF. Prior to September 2001, individuals were limited to two years of support services post-TANF – a limit that would affect use of services for very few customers during the period we observe them in our sample. Starting September 1, 2001, individuals were limited to one year of services post-TANF, which presumably would affect many customers during the last half of their observation period. Any effect of this change would be captured in the entry-quarter dummies that were included in the model. As the base quarter is a quarter before the policy change, the reported estimates presumably reflect impacts before the policy change.

The most substantial evidence for positive impacts on expenditures for specific services is for child care (*Exhibit 5.16*, top panel). Estimates adjusted for measured characteristics only are positive and significant in quarters two through five. Estimates adjusted for all characteristics

are larger in these quarters (as high as \$77), and significant. In later quarters, the estimates adjusted for all characteristics are essentially zero, but those adjusted for all characteristics continue to be high, although less significant. Estimates of impacts for other services are much smaller in magnitude, and often are not statistically significant.

**Exhibit 5.16: Estimates of Impacts on Expenditures for Specific State Services,
Adjusted for Measured and Unmeasured Characteristics**

Outcome Quarter ^a	Child Care		Transportation		Exit Bonus		Other	
	Measured Only ^b	Measured & Unmeasured ^c	Measured Only ^b	Measured & Unmeasured ^c	Measured Only ^b	Measured & Unmeasured ^c	Measured Only ^b	Measured & Unmeasured ^c
Q1	2	29	0	26 ***	2	-15	-3 **	-8
Q2	13 ***	44 *	3 *	6	2	-2	1	-6
Q3	11 **	77 **	3 **	4	3 **	-1	1	5
Q4	13 ***	72 **	3 *	4	2 *	-9	2 ***	-7
Q5	8	41	2	0	1	-3	2 **	10 **
Q6	4	59 *	2	3	2	-8	1	6
Q7	1	75 **	1	-4	1	-8	1 **	3
Q8	1	54	2	-3	2	-14 *	0	-2
Sum for Period Indicated								
First Year	39 **	222 **	9 *	41	8 *	-26	1	-16
Year Two	14	229	6	-4	6	-32	4	16
Two Years	53	451 *	15	36	14	-57	5	1

* Indicates statistical significance at the 0.10 level, ** at the 0.05 level, and *** at the 0.01 level or lower, based on two-tailed tests.

^b The outcome quarter indicated is the number of calendar quarters after the queue-entry quarter.

^c Measured characteristics include all characteristics used in the analysis of participation.

^d All characteristics include both measured and unmeasured characteristics.

^e Includes all those contacted through the end of the relevant quarter only.

Community College Enrollment

The estimates suggest that WPLEX increased the share of participants enrolled in community college, at least in the first year after queue entry (*Exhibit 5.17*). The estimates adjusted for measured characteristics are positive and statistically significant in all quarters after queue entry (column six). Those that adjust for all characteristics are larger and also significant in the first three quarters, but become insignificant and sometimes negative in later quarters. The largest of the latter implies that WPLEX increased the share of participants enrolled in community college by 2.9 percentage points during the second quarter after queue entry. The quarterly pattern seems consistent with the findings for TANF, food stamps and support services. One possible explanation of the estimated increases in TANF and Food Stamp payments in the early quarters is that some customers reduced their earnings when the enrolled in community college.

Exhibit 5.17: Estimates of Impacts on Share Enrolled in Community College

Outcome Quarter ^b	Characteristics Adjusted for:										All ^d
	Measured Only ^c										
	Quarter of 1st Contact ^a					Any Contact ^e					
	0	1	2	3	4						
Q1	0.010	0.010 ***				0.013 ***					0.020 *
Q2	-0.006	0.013 ***	0.002			0.007 ***					0.029 ***
Q3	-0.012 **	0.016 ***	0.011 ***	0.007 *		0.011 ***					0.028 **
Q4	0.003	0.011 ***	0.013 ***	0.013 ***	0.008	0.012 ***					0.014
Q5	-0.004	0.011 ***	0.010 ***	0.001	0.011 **	0.008 ***					0.006
Q6	-0.004	0.008 ***	0.008 ***	0.001	0.010 *	0.006 ***					0.001
Q7	-0.003	0.006 **	0.003	0.002	0.009 *	0.004 ***					-0.009
Q8	0.000	0.004 *	0.007 ***	0.003	0.009 *	0.005 ***					0.005
	Total for Period Indicated										
Q1 - 4	-0.006	0.050 ***	0.026	0.020 **	0.008	0.043 ***					0.091 **
Q5 - 8	-0.011	0.029 **	0.028 **	0.005	0.039 *	0.023 ***					0.003
Q1 - 8	-0.017	0.079	0.054 **	0.025	0.047	0.066 ***					0.094

* Indicates statistical significance at the 0.10 level, ** at the 0.05 level, and *** at the 0.01 level or lower, based on two-tailed tests.

a Customer was first contacted by WPLEX in the calendar quarter indicated; 0 = calendar quarter of queue entry, 1 = calendar quarter after queue entry, etc.)

b The outcome quarter indicated is the number of calendar quarters after the queue-entry quarter.

c Measured characteristics include all characteristics used in the analysis of participation.

d All characteristics include both measured and unmeasured characteristics.

e Includes all those contacted through the end of the relevant quarter only.

D. Conclusion

We find very substantial, statistically significant differences between wage outcomes for participants and non-participants, both before and after adjustments for measured customer characteristics, and in the expected direction. If we accepted these differences as unbiased estimates of impacts, we would have to conclude that WPLEX substantially reduced the number of participants who stopped working, and increased mean wages. There is, however, very convincing evidence that these differences reflect substantial selection effects; that is, they reflect differences in unmeasured characteristics that both affect outcomes and participation. The evidence of selection comes from examining differences in outcomes adjusted for unmeasured characteristics between participants and non-participants before the participants were first contacted, but after they entered the WPLEX queue.

We have applied a statistical methodology that is capable of adjusting for unmeasured effects, instrumental variables. While the instrument available seems strong from a conceptual standpoint, the estimates produced are very imprecise. That is, the estimators are not able to detect impacts at customary confidence levels unless they are very large. As a result, most of the estimates obtained are not significantly different from zero, statistically, but most are also not significantly different from the estimates adjusted for measured characteristics only. Put differently, the instrumental variable estimates fail to discriminate between no effect and very substantial effects.

The evidence of selection effects makes us confident that any real impacts are substantially smaller than those obtained by adjusting for measured characteristics only. Unfortunately, the data do not allow us to say how much smaller, or even rule out the possibility that they are essentially zero.

We also see some evidence that is consistent with an increase in wage impacts when WPLEX made a concerted effort to contact customers earlier after they entered the queue, in 2001. This evidence is intriguing, but not definitive.

What we learned from investigating WPLEX service delivery is relevant to the interpretation of the evidence about impacts. Given what we learned from that investigation, is it plausible that impacts of a size consistent with our estimates are being realized? For instance, our empirical analysis of the share with reported wages is consistent with an impact of five to ten percentage points as late as eight quarters after queue entry and even higher in earlier quarters. Given what we found in our investigation of services, is it plausible that five or even ten percent of participants received enough of an intervention to positively affect their continued employment?

Our impression from the investigation of service delivery is that many, probably a majority of those contacted, did not receive an intensive intervention that would lead to continued employment as a result of a single call, and most customers did not receive many calls. WPLEX contacted successful customers just three times, on average, and about 40 percent received just one call.

However, there are indications that some customers benefited from these contacts, and impacts of the size we are considering could be achieved if contacts only made the difference between

continued employment and no employment for five to ten percent of those contacted. Most customers (69 percent) were receptive to the call, seemed appreciative of assistance (76 percent), and were at least somewhat engaged in the call (80 percent). At least one issue was discussed intensely during 59 percent of the calls and about 17 percent of calls included an intense discussion concerning either job search or job growth. Also, even though 63 percent of the calls ended with unresolved issues, 93 percent of these calls also ended with an action plan, and our monitor sensed that 82 percent of the customers with action plans would follow through. Therefore, these calls had the potential to lead to some change in employment, especially if there were subsequent contacts.

We also observed significant variation in the quality of the intervention delivered by staff, and even when sound assistance was provided there was no guarantee that it would have an impact on the continuation of employment. Perhaps WPLEX had an impact on employment and earnings, but that this impact is driven by services provided by a select group of staff that provided high-quality, and continued assistance to customers in their queues.

In summary, findings from our investigation of service delivery cannot rule out impacts of a size consistent with some of the larger estimates from the impact analysis of wage outcomes. It is at least plausible that effects as large as the estimates obtained when we only control for measured characteristics have been realized, but we are convinced they are not that large because of the empirical evidence of selection effects. At the same time, findings from this investigation do not provide a basis for more precisely estimating impacts, and leave open the possibility that impacts are very small.

It appears that WPLEX has positive impacts on expenditures for TANF, Food Stamps, use of support services (especially child care), and community college enrollment in the first year after queue entry. For those quarters, differences in means after adjustment for both measured and unmeasured characteristics are positive and often significant. The positive effect on TANF and Food Stamps is perhaps surprising, but is consistent with no wage effects and increases in community college enrollment in those quarters. It appears that staff might be successfully helping customers to obtain services for which the customers are eligible.

There are three reasons that the impact estimates are not necessarily applicable to the current program. The first was mentioned above – the change in eligibility for state services. The second was mentioned in Chapter 1 – the program is now mandatory for some, not purely voluntary as it was during the sample period.

The third reason is changes in program operations, especially concerning the management of the queue. The impact estimates for each quarter only apply to those who have entered by the end of that quarter, and represent a blend of impacts for customers who entered in that quarter and all previous quarters. Because WPLEX made a concerted effort to first contact customers sooner after queue entry part way through the sample period, each quarter's blend changes over the sample period. Ideally, impact estimates would be differentiated by quarter of queue entry. We were able to produce such estimates adjusted for measured characteristics only, but the estimates for the early quarters provide strong evidence that they include substantial

selection effects. Unfortunately, the available instrumental variables are not strong enough to support such estimates adjusted for both measured and unmeasured characteristics.²⁷

Thus, the estimates represent impacts of the program as it existed and evolved during the sample period. While the evidence is weak, it seems likely that the change in queue management increased the effectiveness of WPLEX services. The analysis does not provide information on the possible effects of making participation mandatory.

²⁷ We explored this issue using four instruments, the shares contacted by the end of post-entry quarters one through four, but collinearity between these instruments is too high to obtain meaningful estimates by quarter of first contact.

CHAPTER 6

LESSONS FROM WPLEX STUDY

As discussed in Chapter 6, the findings from the impact analysis are inconclusive, but suggest that the program might have had an impact on employment and earnings. When we controlled for measured characteristics, we found that WPLEX had a relatively large and positive impact on these outcomes. However, after we attempted to control for unmeasured characteristics (i.e., selection effects), these impacts, for the most part, disappeared. There are a number of potential explanations for these inconclusive results. Three potential hypotheses were considered:

- WPLEX had an impact on increasing employment and earnings and reducing recidivism, but given the evaluation design and the selection effects, we cannot rule out the hypothesis of no impact.
- WPLEX was not implemented as effectively as it could have been and improvements to the program would have resulted in more conclusive impacts.
- Using a call center approach to providing post-employment services is not an effective model; a more intensive approach is required.

We assess the evaluation design, WPLEX operations, and call center approach in this chapter. We end with a conclusion on the implications of this study's findings for the WPLEX program and further research.

A. Evaluation Design

The evaluation seeks to answer the question: Did WPLEX have a positive impact on employment retention and advancement and welfare recidivism? To answer this question, the researcher must identify what would have happened in the absence of the WPLEX intervention, referred to as the *counterfactual*.

Identifying the counterfactual is especially difficult when everyone who meets particular criteria is eligible for the services. The experiences of individuals not eligible for the program are not good predictors of what would have happened to the customers had they not had access to WPLEX, because, by definition, the two groups have different characteristics that would likely affect their employment and welfare experiences. One approach would be to compare outcomes for all WPLEX customers after queue entry to those for earlier cohorts of welfare recipients once they were employed and met WPLEX eligibility criteria, but implementation of that approach would have been problematic for two reasons. First, it is impossible to exactly determine from historical data which recipients met the eligibility criteria and when. Second, changes in outcomes due to WPLEX would be confounded with changes due to the economy, welfare policy, and possibly other environmental factors. A second approach would be to consider changes in outcomes for those actually contacted by WPLEX ("participants") from before they were contacted by WPLEX until afterward, but we know that some of their outcomes would have changed anyway – as did the outcomes of eligible non-participants. A third potential counterfactual is the eligible non-participants – WPLEX customers who were not successfully contacted, either because they could not be reached, chose not to participate in the program, or became ineligible for the program before WPLEX contacted them.

As discussed in more detail in Chapter 5, we used the latter group – those who were in the WPLEX queue, but who were not successfully contacted – as our counterfactual. We recognized that differences exist between these two groups that might affect the outcomes and attempted to control for both measured and unmeasured characteristics (using instrumental variables). However, the instrumental variable analysis resulted in imprecise estimates. That is, the confidence intervals around the instrumental variables were very wide. As a result, we could not reject the hypothesis that the impacts were zero at the 90 percent level, but we could also not reject the hypothesis that they were quite large.

The evaluation design of choice among most researchers is a random assignment design. In this type of design, eligible customers would be randomly assigned to the WPLEX program and be offered services, or to a control group that is not offered the intervention. While this requires that services be withheld from the control group, it could intensify the services for those in the WPLEX program group because staff would be able to focus their efforts on a smaller group.

The benefit of this type of design is that it eliminates selection bias in the analysis. The researcher merely needs to compare the average outcomes for the program and control groups and any differences can be attributed, with reasonable confidence, to the intervention. Future studies of WPLEX might consider this type of research design to more definitely assess whether WPLEX is helping customers stay employed and be self-sufficient.

B. Program Operations

Overall, we found that most customers were receptive of receiving services from WPLEX and were appreciative of the assistance provided to them. However, based on information learned from site visits, staff surveys, and a review of program data, we identified several obstacles that could be addressed to increase the effectiveness of the WPLEX program. These are discussed below.

1. Lack of standardization reduces consistency.

From interviews with staff, the case notes review, and first-hand observations, we found wide variation in how WPLEX staff provide services to customers in their queues. Some of this variation was discussed in Chapters 2 and 3. For example, we saw variation in terms of how WPLEX staff proceeded through their queues; some staff contacted customers in the order they appeared, while others developed their own methods for selecting which customers to call. We also observed variation in terms of the extent to which staff reviewed each customer's information prior to making a call.

The types of services each staff member provides to customers reflect, in part, his or her individual philosophy. For example, some staff emphasized the importance of obtaining education and training credentials while others focused more on helping customers find employment opportunities that would lead to advancement. Similarly, some staff immediately began focusing on advancement issues, while some focused first on retention issues and then later, after the customer had been employed for some time, turned to advancement issues. Finally, some staff contacted employers to discuss opportunities for advancement, but most did not.

While observing calls, we found that staff differ in the steps that they take once they have determined that a customer is not home. When a customer is not available, staff usually enter a code into the system indicating that the staff member unsuccessfully attempted to contact the customer. The system is designed to automatically reschedule the next call to that customer, but staff have the option to override this function and change the date or time. Many staff always accept the default reschedule date, while others will override the system and enter a date and time when they expect that they will have a better chance of reaching the customer.

While it is beneficial to give staff some flexibility to meet the diverse needs of individuals in their queue caseload, it is also important for the program to provide administrative guidelines on the services to be provided and the manner of delivering the services. We believe that communicating a defined process for service delivery and the types of services offered based on what past research has found to be effective would increase the consistency and quality of services provided to customers.

2. The majority of staff's time is spent reviewing cases and trying to contact customers who are never reached.

As discussed in Chapter 3, staff spend most of their time in a typical day attempting, unsuccessfully, to reach customers. This also includes the time spent reviewing the case prior to the call. This is a problem experienced by other voluntary programs. For example, case managers of the Postemployment Services Demonstration (PESD), which had no impact on job retention or reemployment, spent a significant amount of time trying to contact all participants assigned to them, many of whom wanted no contact from the welfare agency. This used up time that could have been used to work more intensively with families who wanted and needed the services offered.²⁸

While this is a problem that will always exist for voluntary programs, it could be reduced if the staff were to contact customers when they are most likely to be at home. We found that staff were more successful in reaching customers when they called during nonstandard work hours (e.g., mornings, evenings, and weekends). WPLEX has staff working during these nonstandard times, but could increase the staff assigned to the later and weekend shifts. Staff could also save work that does not involve contact with customers (e.g., writing vouchers, and calling ESD or DSHS) for times when they are least likely to successfully contact customers.

In addition, while many staff note in the system when is the best time to reach a particular customer, the computer system is not designed to bring customers into the queue during times when they are available. Instead, it is up to staff to read the notes and call them back at a time that is convenient. We noticed that many staff will mark the contact "time sensitive," which places the customer at the top of the queue to be contacted by staff working a later shift, but this takes valuable time from staff's busy schedules.

Strawn, Julie and Karin Martinson (2000). *Steady Work and Better Jobs*. New York, NY: MDRC.

3. Multiple computer systems take up substantial amount of staff time.

WPLEX staff have access to several different computer systems that they use for particular purposes, to varying degrees. These include a system for monitoring participation of WorkFirst customers who must meet work participation requirements, an automated case management system used to identify and document issues that arise among WorkFirst and WPLEX staff, and a system used by DSHS to determine client eligibility for welfare benefits and track the issuance of benefits.

These computer systems do not interface; when staff update information in one system (such as a new address and telephone number), this does not update information in the other systems. Some staff spend a considerable amount of time and effort accessing all potential systems to find all potential information or update fields after a call. In addition, some staff are unaware of how to use all of the systems and/or the type of information that can be obtained in other systems.

One of the main concerns that staff raised was the need for improved instruction on using the various computer systems. While some staff indicated their computer training has been very beneficial, a number of staff members suggested that increased training in this area would foster consistency in how different staff entered data and utilized the various systems at their disposal. Certainly, improving the systems so that they “talk to each other” would increase efficiency and perhaps increase staff’s contact rate.

4. Staff performance is measured by the volume of calls completed; the quality of services delivered is not regularly assessed.

WPLEX supervisors receive reports that chart call volume by staff. As mentioned in Chapter 2, this allows the call center manager and the supervisors to monitor high- and low-performing staff. Staff who average more than 50 calls per day or fewer than 30 calls per day are highlighted as high- and low-performing staff, respectively.

In interviews with staff, several noted that this preoccupation with call volume results in some staff taking short cuts to increase their volume. For example, they might not spend as much time on a call so that they can get to the next call. From our review of calls, we found that queue penetration was not indicative of high quality services. Perhaps an increase in the monitoring of calls by supervisors and clear guidelines on the level of services to be provided in the calls would reduce the variability in quality.

5. A substantial amount of time lapses before the first contact is made; once contact is made, subsequent contacts are infrequent.

Based on our analysis of the research sample, customers are typically successfully contacted about five months after they began a new job. On average, those contacted experience about three contacts within the first two years; 40 percent of this group only spoke with a WPLEX person once.

Research suggests that most early job loss occurs within the first three months of the job.²⁹ Therefore, to have the largest impact on retention, staff should make contact with customers shortly after they find employment. In addition, WPLEX might generate larger impacts if staff were able to contact customers more frequently than they do.

6. Providing support services is not emphasized.

Research has found that access to child care and other support services is often the critical factor in helping welfare recipients stay employed. For example, the PESD evaluation found that among its research sample, 34 percent reported problems related to child care and 25 percent reported problems related to transportation that made it difficult for the individuals to hold onto their jobs.³⁰

However, as mentioned in Chapter 3, support services are not uniformly emphasized by WPLEX. Staff mentioned the increased burden issuing vouchers creates. In addition, some staff felt that customers needed to learn to pay for these work-related expenses on their own, and not become dependent on the state for assistance. State budget cuts that reduced the amount available for support services highlighted the importance of reducing customers' reliance on this assistance.

Providing support services from a call center makes sense. More states are realizing the efficiency in providing benefits such as unemployment insurance using a call center model, because the paperwork can generally be completed without an in-person visit. To reduce the burden on all staff, WPLEX could create a special unit within the call center to respond to support service requests. Several staff noted that such specialization would not only alleviate the burden for some staff, but also allow staff to focus on their particular strengths. For example, some staff are particularly good at providing individual counseling and support to customers trying to advance in their jobs, while others are more comfortable with completing support service requests.

C. Using a Call Center Approach

There are several benefits to using a call center approach to service delivery. First, centralizing all services at the call center allows the state to reach a large number of clients. As shown in Chapter 3, this allows WPLEX to provide services at a low cost to the state, relative to more intensive programs. A call center also provides convenience to customers, who can receive assistance without leaving their home. In addition, some customers may feel more comfortable discussing their personal problems and the barriers they face, anonymously, over the phone.

The call center model, however, might make it more difficult to provide an intensive level of services to customers. In some situations, customers might only feel comfortable discussing issues with staff with whom they have developed a close relationship, obtained through lengthier face-to-face meetings. Housing staff in one location means staff are not living in the

²⁹ Strawn, Julie and Karin Martinson (2000).

³⁰ Rangarajan, Anu (1998). *Keeping Welfare Recipients Employed*. Princeton, NJ: Mathematica Policy Research.

area where their customers live, resulting in staff being more removed from and less knowledgeable about the customer's job market and cultural environment.

While the call center model has not been rigorously evaluated as a method of providing services to customers, many states are experimenting with this approach. Further research on this type of model is warranted and would greatly inform state policy makers and administrators considering this service delivery approach.

D. Conclusion

WPLEX is an innovative program designed to help welfare recipients not only leave welfare, but also increase their earnings and obtain supports they need to continue to work. It can reach large numbers of eligible workers across the state at a relatively low cost.

Washington State hired The Lewin Group and its subcontractor, Cornell University, to evaluate the WPLEX program, to conduct an in-depth examination of the program's implementation and costs, and assess the effectiveness of WPLEX. We were not able to overcome the limitations of a non-experimental evaluation sufficiently to determine, definitively, whether WPLEX effectively increased customers' employment and earnings and reduced welfare receipt. However, we were able to identify operational changes that would improve the intervention.

We cannot declare WPLEX a success or failure. We also cannot say whether a call-center approach, even if effectively implemented, would improve the outcomes of this population. As discussed in Chapter 1, the state of Washington has pursued several different initiatives to target this population with post-employment services, several that were designed to provide a more intensive level of services. It is important to test these initiatives to learn which policy initiatives are working and which need to be revamped or abandoned.

To test the three hypotheses presented at the beginning of the chapter, the state of Washington could make some improvements to the WPLEX model to more effectively reach customers and provide them with a higher intensity of services, but still in the call-center format. Then this program could be tested more formally using an experimental design. One of the following two designs is recommended.

- Randomly assign new entrants to the WPLEX queue into two groups: a group that is contacted quickly by WPLEX, and a control group that is not called for at least a year. Random assignment ensures that the two groups are similar and the only systematic difference between the two groups is their access to WPLEX. The difference between the mean outcomes of the two groups would capture the true impact of the program for the first year, at least.³¹

³¹ If WPLEX were randomly not offered to about 20 percent of the next 13,000 customers to enter the queue (approximately 2,500 customers), the evaluation would be able to detect an impact on the share with wages as low as five percentage points in the fourth quarter after queue entry using conventional statistical criteria (0.05 significance level and 0.80 probability of detection). The minimum detectable impact for mean wages under the same design would be about \$200. Approximately 10,000 customers enter the queue annually, so the assignment process would continue for five to six quarters, and the experiment would continue for at least four quarters after

- Randomly assign the WPLEX queue into three groups: a group that is contacted by WPLEX, a group that receives post-employment services from a more intensive, in-person program, and a control group that receives no extraordinary post-employment services (but receives services provided at local offices). Comparing the means of all three groups not only assesses the effectiveness of WPLEX relative to a no post-employment service group, but also assesses the effectiveness of a call center approach relative to a more intensive program.

It is possible to implement random assignment in ways that are not costly or overly burdensome on state staff. For instance, implementation of a design like the first one suggested above would not require additional data collection or any intrusion on call center operations. All that is needed is a fool-proof process to randomly remove selected customers from the WPLEX queue when they enter, before a staff member could see their name, and make sure the customer does not enter the queue at a later date, for the duration of the study. Such a process would need to be applied to new entrants for a period of one to two years. Designs that require more intense interventions, such as the second of those described above, would require more resources and be more burdensome. That burden might be justified, however, by the value of the findings to policy officials, who need to know which interventions help welfare recipients become self-sufficient in a cost effective manner.

that. The evaluation could be completed more quickly by not offering WPLEX to a larger share of queue entrants (e.g., 40 percent of the next 8,000 (3,200), or 50 percent of the next 7,400 (3,700)).

References:

Hamilton, Gayle, T. Brock, M. Farrell, D. Friedlander, and K. Harknett (1997). *The National Evaluation of Welfare-to-Work Strategies: Evaluating Two Welfare-to-Work Program Approaches, Two-Year Findings on the Labor Force Attachment and Human Capital Development Programs in Three Sites*. New York, NY: MDRC.

Joint Legislative Audit and Review Committee (2000). *WorkFirst Evaluation Phase III Post-Employment Services*, Report 00-4, June 28, 2000.

Martinson, Karin (2000), *The Experiences of Welfare Recipients Who Find Jobs*, New York, NY: MDRC.

Rangarajan, Anu (1998). *Keeping Welfare Recipients Employed*. Princeton, NJ: Mathematica Policy Research.

Strawn, Julie and Karin Martinson (2000). *Steady Work and Better Jobs*. New York, NY: MDRC.

U.S. Department of Health and Human Services. *Characteristics and Financial Circumstances of TANF Recipients, October 1999 - September 2000*. Washington, DC: DHHS.

Washington State Employment Security Department (2002). *Washington Labor Market, September 2002*; Labor Market and Economic Analysis Branch.

APPENDIX A
Post Employment Support Services

Appendix Exhibit A.1
Post-Employment Support Services Available Through WorkFirst

Support Service	Limit
Special accommodation (specialized work equipment)	\$1000 per request
Car repair	\$500 per program year
Work-related clothing, uniforms	\$200 per program year
Counseling	No limit
Diapers	\$50 per month per child
Educational expenses	\$300 per request
Employer reimbursement	50% of gross wages
Haircut/styling	\$40 per request
License/fees/liability insurance	\$600 per program year
Lunch at job fairs and conferences	State employee rate
Medical exams/services	\$150 per exam
Mileage reimbursement	State employee rate
Personal hygiene	\$50 per program year
Professional, trade, association, union, bonds, certification costs, fees	\$300 for each due or fee
Public Transportation	\$150 per month
Relocation	\$1,000 per program
Short-term lodging and meals (job interviews)	State employee rate
Testing diagnostic	\$200 each request
Tools	\$500 per request

**APPENDIX B
REPORT SAMPLE**

The primary research sample is based on 41,645 individuals who entered the WPLEX queue from October 1998 through December 2001 for analysis of program entry, characteristics of participants, probability analyses, and four-quarter impact estimates.

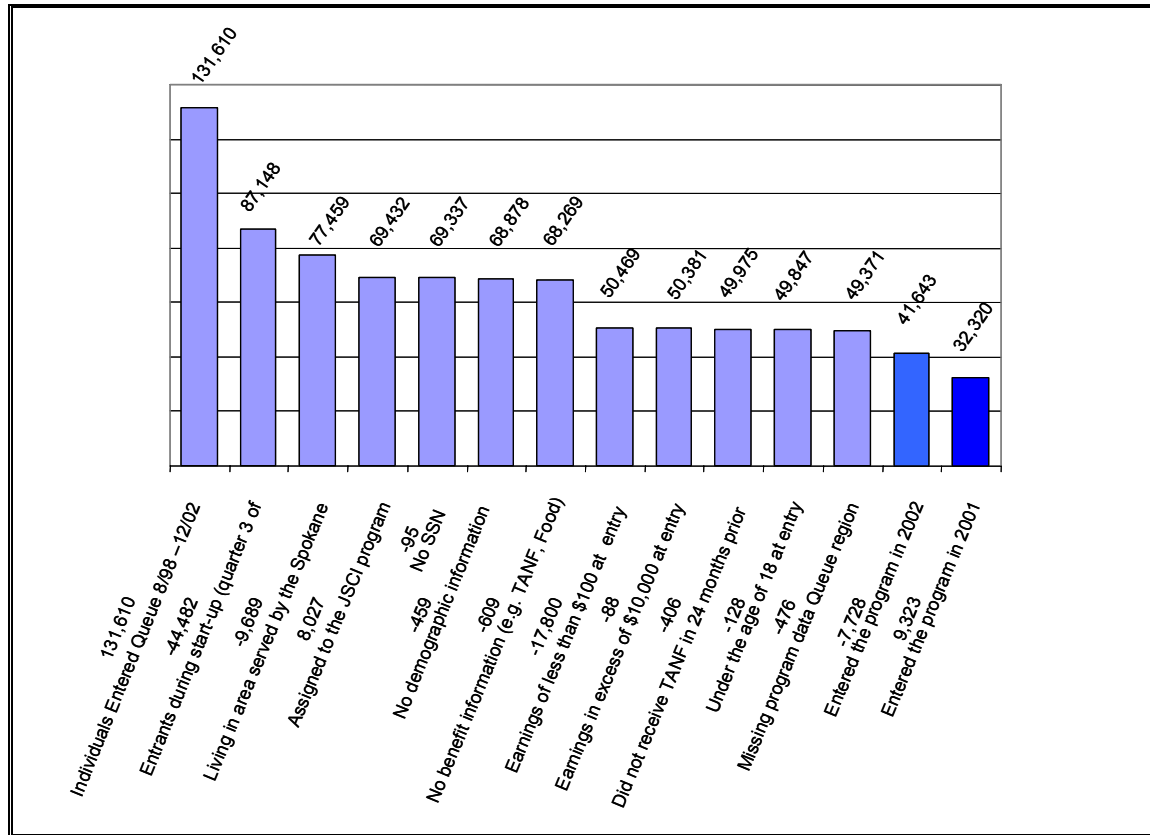
Exhibit B.1 on the following page outlines the individuals who were dropped from the sample for various reasons. The chart illustrates how the sample size (represented by the bars) decreases as groups of individuals are removed (noted on the bottom label). The last two bars represent the samples used for the probability and impact analyses, respectively.

As illustrated in the exhibit, individuals were removed from the report sample for a variety of reasons. First, individuals who entered the queue in the first quarter of the WPLEX program were dropped as this sample does not represent the steady state of the WPLEX program. Many of the individuals placed in the queue at this time had not been employed for many months or years but were placed in the queue because the JAS system did not include an end date for an employment spell that may have begun as early as 1997. Individuals who were identified as having been served by the JSCI program as well as those who were likely to have been served by the Spokane Initiative were eliminated as they received different job retention and advancement services.

Individuals missing the proper identifiers could not be matched to necessary data records (e.g. Unemployment Insurance records) and were therefore dropped. Individuals who were missing information on program prerequisites (i.e., TANF within the past 24 months, and had wages at queue entry) were deleted as they are deemed technically ineligible for the program. We also chose to eliminate individuals with earnings in excess of \$10,000 in the quarter of queue entry, assuming that this is a data reporting error that would result in skewed earnings impacts. We dropped other individuals ineligible for WPLEX based upon available data (i.e., they were under the age of 18) as well as individuals missing data for any of the characteristics used in the probability and impact analyses.

Finally, individuals who entered the queue in 2002 were dropped for purposes of tracking participants through the program, analyzing characteristics, and determining the probability of attempted or successful contact. This cut-off date was chosen to allow adequate time (one year) for an attempted or successful contact to be made. The 8-quarter impact analyses used a smaller sample yet, cutting off queue entry to be before quarter 1 of 2001. This is to allow for two years of follow-up data. (These cut-off dates for these samples were driven primarily by the most recent UI data available – the fourth quarter of 2002.)

Exhibit B.1: Report Sample



APPENDIX C
Characteristics of Program Entrants and
Probability of Attempted and Successful Contact

Exhibits C.1 and *C.2* outline the characteristics of each sample by group (attempt versus no attempt in C.1 and successful versus unsuccessful in C.2). Statistics are presented for a variety of different characteristics. For most, the continuous or categorical variables were divided into dichotomous groups. Age, for example, is divided into five age groups – all become separate variables. In order to avoid perfect collinearity when running the regressions, one group within each category is excluded from the model. This base group is the group to which all other variables within the category are compared. The base variable is generally the largest group within the category.

The percent attempted (or successful) for each group is presented in column 1. Column 2 calculates the difference between the percent attempted or successful minus the base for that category. Columns 3, 4, and 5 of the tables contain coefficients for the three different linear probability regression models described in Chapter 4. The models were run using ordinary least squares (OLS) and significance of the coefficients was determined using robust t-statistics.

Interpretation of the regression coefficients can be outlined by looking specifically at Exhibit C.1. In this table, we can see that being Hispanic, relative to not, results in a decreased probability of contact of 0.015 (or 1.5 percentage points) in the regression that utilizes region and quarter of queue entry. In the regressions using the instrumental variable and the interaction we see a slightly weaker relationship. Hispanics are shown to be less likely to have an attempted contact with a coefficient of -0.012; thus, the probability of attempted contact decreases by 1.2 percentage for Hispanics as compared to non-Hispanics.

Exhibit C.1: Attempted Contact Rates and Linear Probability of Attempted Contact

Characteristic	% Attempted		Regression Coefficient		
	% for Category	% for Category Minus % for Base	Using Quarter of Queue Entry and Region	Using Instrumental Variable	Includes Queue and Entry Quarter and Interactions
Sex: Male	87.9%	0.003	-0.002	-0.003	-0.003
Sex: Female (base)	87.6%	base	base	base	base
Age: Under 20	86.5%	-0.014	-0.006	-0.004	-0.004
Age: 20-24	86.6%	-0.013	-0.005	-0.001	-0.001
Age: 25-34	88.0%	base	0.002	0.005	0.006
Age: 35-44	88.7%	0.008	0.005	0.006	0.006
Age: 45 years or older (base)	88.6%	0.007	base	base	base
Race: White (base)	86.8%	base	base	base	
Race: African American	90.1%	0.033	-0.001	-0.003	-0.003
Race: Asian or Pacific Islander	89.4%	0.026	-0.006	-0.005	-0.005
Race: Native American	85.9%	-0.008	-0.025***	-0.023***	-0.023***
Race: Other	90.3%	0.035	0.003	0.002	0.002
Hispanic	89.8%	0.024	-0.015**	-0.012*	-0.012*
Non-Hispanic (base)	87.4%	base	base	base	
Living on reservation	90.5%	0.029	0.013	0.009	0.009
Not living on reservation (base)	87.6%	base	base	base	
English is not primary language	90.4%	0.030	0.003	0.003	0.003
English is primary language (base)	87.4%	base	base	base	
Education: Less than high school	86.7%	-0.018	-0.017***	-0.018***	-0.019***
Education: GED	85.3%	-0.032	-0.017***	-0.017***	-0.017***
Education: High school (base)	88.5%	base	base	base	
Education: Some college	89.6%	0.011	0.004	0.006	0.006
Number of adults: 0 - 1 (base)	87.8%	base	base	base	
Number of adults: 2	87.7%	-0.001	-0.01**	-0.012***	-0.012***
Number of children: 0	86.6%	-0.005	-0.02**	-0.016*	-0.016*
Number of children: 1	87.1%	base	base	base	base
Number of children: 2	88.0%	0.009	0.013***	0.011***	0.011***
Number of children: 3	88.2%	0.011	0.012***	0.011***	0.011***
Number of children: 4 or more	89.3%	0.022	0.022***	0.020***	0.020***
Age of youngest child: 2 years and under	87.6%	-0.005	0.001	0.001	0.001
Age of youngest child: 3-5 years	87.4%	-0.006	-0.003	-0.003	-0.003
Age of youngest child: over 5 years (base)	88.1%	base	base	base	base
Earnings within 2 years prior to queue entry (coefficient in	n/a	n/a	0	0	0
Earnings at queue entry (coefficient in \$1,000s)	n/a	n/a	0.004***	0.004***	0.004***
Amount of most recent TANF payment (coefficient in	n/a	n/a	-0.013***	-0.014***	-0.014***
Number of months on TANF in 2 years prior to queue entry	n/a	n/a	0	0	0
Working within two years prior to queue entry	n/a	n/a	-0.005	-0.008**	-0.008**
Not working within two years prior to queue entry	n/a	n/a	base	base	
Unemployment Rate One Year after Queue Entry			-0.003	0.001	0.003
Proportion attempted (same sub-queue & entry) quarter)	n/a	n/a	omitted	1.002***	omitted
Queue and Quarter Dummies			Yes	Yes	Yes
Queue and Quarter Interactions			No	No	Yes
Constant	n/a	n/a	0.888***	0.012	0.906***
Observations	41643	41643	41643	41643	41643

* significant at the 0.10 level; ** significant at 0.05 level; *** significant at the 0.01 level

Exhibit C.2: Successful Contact Rates and Linear Probability of Successful Contact

Characteristic	% Successful		Regression Coefficient		
	% for Category	% for Category Minus % for Base	Using Quarter of Queue Entry and Region	Using Instrumental Variable	Includes Queue and Entry Quarter and Interactions
Sex: Male	35.5%	-0.047	-0.063***	-0.063**	-0.064**
Sex: Female (base)	40.3%	base	base	base	base
Age: Under 20	38.2%	-0.004	-0.039***	-0.037*	-0.037*
Age: 20-24	38.1%	-0.005	-0.043***	-0.042**	-0.042**
Age 25-34 (base)	38.6%	base	-0.032***	-0.029**	-0.029**
Age: 35-44	40.8%	0.022	-0.004	-0.002	-0.002
Age: 45 years or older	39.9%	0.012	base	base	base
Race: White (base)	38.7%	base	base	base	base
Race: African American	43.8%	0.051	0.025***	0.024***	0.024***
Race: Asian or Pacific Islander	39.6%	0.009	0.000	0.004	0.002
Race: Native American	31.8%	-0.069	-0.048***	-0.043**	-0.042***
Race: Other	38.2%	-0.005	0.007	0.007	0.007
Hispanic	37.7%	-0.022	-0.001	0.002	0.003
Non-Hispanic (base)	39.9%	base	base	base	base
Living on reservation	33.7%	-0.054	-0.009	-0.013	-0.013
Not living on reservation (base)	39.1%	base	base	base	base
English is not primary language	36.7%	-0.025	-0.023**	-0.024***	-0.024***
English is primary language (base)	39.2%	base	base	base	base
Education: Less than high school	34.9%	-0.061	-0.048**	-0.048**	-0.048**
Education: GED	36.4%	-0.045	-0.028***	-0.027***	-0.027***
Education: High school (base)	41.0%	base	base	base	base
Education: Some college	44.9%	0.040	0.038***	0.039**	0.04***
Number of adults: 0 - 1 (base)	39.5%	base	base	base	base
Number of adults: 2	38.2%	-0.013	0.004	0.005	0.005
Number of children: 0	42.0%	0.036	0.016	0.018	0.018
Number of children: 1	38.4%	base	base	base	base
Number of children: 2	38.8%	0.005	0.012*	0.010**	0.010*
Number of children: 3	39.9%	0.016	0.024**	0.021***	0.021**
Number of children: 4 or more	40.3%	0.019	0.033*	0.029***	0.030**
Age of youngest child: 2 years and under	39.0%	-0.003	0.03***	0.031***	0.031***
Age of youngest child: 3-5 years	38.5%	-0.008	0.011*	0.013*	0.013*
Age of youngest child: over 5 years (base)	39.3%	base	base	base	base
Earnings within 2 years prior to queue entry (coefficient in \$1,000s)	n/a	n/a	0.001***	0.001***	0.001***
Earnings at queue entry (coefficient in \$1,000s)	n/a	n/a	0.006**	0.006***	0.006***
Amount of most recent TANF payment (coefficient in \$1,000s)	n/a	n/a	-0.015	-0.016**	-0.016
Number of months on TANF in 2 years prior to queue entry	n/a	n/a	0	0	0
Working within two years prior to queue entry	n/a	n/a	0	-0.001	-0.001
Not working within two years prior to queue entry	n/a	n/a	base	base	base
Unemployment Rate One Year after Queue Entry			-0.014***	0.004	0.01*
Proportion attempted (same sub-queue & entry)	n/a	n/a	omitted	1.006***	omitted
Queue and Quarter Dummies			Yes	Yes	Yes
Queue and Quarter Interactions			No	No	Yes
Constant	n/a	n/a	0.408***	0.021	0.420*
Observations	41643	41643	41643	41643	41643

* Significant at the 0.10 level; ** Significant at 0.05 level; *** Significant at the 0.01 level