Child Support Enforcement: Net Impacts on Work and Welfare Outcomes & the Utility of Cross-Program Information

Introduction

Washington State's Division of Child Support (DCS) has been examining the impacts of regular child support payments on the subsequent welfare use and employment of custodial parents. There is also an ongoing body of research work in this area from other states and national and academic sources. There have been two prior DCS reports on this project (Formoso, 1999 & 2000). Our previous work has established an association between regular payments of child support and a reduced probability of custodial parent welfare use, and an increased probability of custodial parent employment, in studies covering late 1993 to early 1999. These effects appear to arise through a reduced recidivism rate and an increased tendency for employment once the custodial parent has exited welfare. This finding is quite important because while a custodial parent is on welfare all, or most, child support dollars are retained by the state. After welfare exit regular child support payments can become a regular income stream for the custodial family and it is reasonable to expect that this income can help custodial parents stay off welfare and find and maintain employment. The finding also serves as a strong internal control in our studies. While on welfare the custodial parents classified with regular child support payments are exactly like the custodial parents classified with irregular child support payments in terms of rates of exiting welfare from either an employed or an unemployed status, and in terms of rates of finding or losing employment while on welfare.

In determining the impact of child support it is important to consider and to control for other factors which may affect the outcomes of interest. The previous studies did this with a range of factors (the usual factors, listed at the end of the *Study Outline & Methods* section), but with only very limited cross-program information. We now incorporate and control for additional client information, specifically the use of other programs and services within Washington State's Department of Social and Health Services (DSHS). While there have been many changes in DSHS programs and services between the time frame of this study and the present, we still can answer some useful questions and hopefully obtain clues that can help us in future investigations. First, is it necessary, or under what conditions might it be important, to consider cross-program use in determining the net impacts of regular child support payments. Secondly, can we identify characteristics of services that can be excluded from consideration so that the task can be simplified. Thirdly, can we identify types of programs which show interactive effects with regular child support payments, such that the net impact of regular payments are substantially different for clients who did use the cross program.

We find several programs or groups of programs which do appear to have large effects correlated to work and welfare outcomes, but, taken over the entire group of clients in this study, the effects tend to cancel out. This is also true for the usual factors used in our past work. The net impacts of regular child support payments are about the same with or without

control for any factors. In all analyses regular child support payments are associated with a reduced probability of custodial parent welfare use and an increased probability of custodial parent employment. Using no control factors at all the cumulative average welfare cost savings impact during the 13 quarter follow-up period is about \$900 per client and the cumulative 13 quarter average increased earnings impact is about \$1,800 per client. Using controls for the usual factors the cumulative average welfare cost savings impact during the 13 quarter follow-up period is about \$800 per client and is the same with or without cross-program control. Using controls for the usual factors the cumulative 13 quarter average increased earnings impact is about \$1,300 per client when the cross-program data are included, but appears to be slightly higher without control for cross-program use.

This does not mean that controlling for the usual factors and cross-program use is not important, because what we observe is a balance of counter-acting effects. Some individual programs, or some of the usual factors, are associated with very large impacts. It can not be assumed that this balance of opposing effects will occur in other time periods, or for other groups of clients. When there are large opposing effects, small shifts can be amplified into large changes. Thus to accurately determine cost avoidance impacts of child support it is important to be able to verify if controls are needed. When considering individuals or small groups of clients it could be critical to include controls since some of the impacts can be much larger than child support impacts. If it is important to consider controls for any factors it is important to consider cross-program effects because the largest program effects are larger than most effects of the usual factors.

We find that control for cross-program effects may be considerably simplified because many of the programs and services in our data show no significant or reliable effects on work and welfare outcomes. From 159 separate program listings in the cross-program data only 64 show above a minimal level of significant effects. By further requiring that a minimal number of clients are required for consideration, only 26 separate programs show important effects.

We also attempted simplification by grouping programs by two different approaches. In the first approach we grouped programs within DSHS Divisions according to function as determined by discussions with Division staff. However, while the perceived function within a group may have been similar, often the effects on outcomes of the programs within a group were not the same – leading to a diminution of individual program effects. In the second approach we grouped programs across Divisions according to the effects on outcomes seen in the full analysis. This grouping did show stronger effects, but there is little advantage here since the full analysis would always have to be done to verify the groupings. We conclude that the best approach to simplification is to do the full analysis and eliminate programs which do not meet criteria of significance, magnitude of effect, and number of clients. Because of this, and to keep this report to a reasonable length, we do not include detailed results with program groupings.

We have reported interactive effects in past work and in the present study we find that several cross-programs accessed by custodial parents do appear to interact with regular child support payments. One way that interactive effects could arise is through a service which affects welfare exit rates, since the effects of regular child support payments appear to come

into play only after welfare exit (*Formoso*, 1999 & 2000). However, our present data are inadequate to allow a conclusion in regard to a possible mechanism of program interaction.

Study Outline & Methods

The general study outline is shown in Figure 1. We use the calendar year 1993, 4th quarter (93Q4) welfare cohort from previous work because this most closely matches the State Fiscal Year 1994 (SFY94) cross-program use data which was the most recent available at the time we began this study. We restrict the 116,377 clients from the 93Q4 cohort to only the 69,933 who were in DCS records as custodial parents for 93Q4. The new information which we use in the present study is from the SFY94 Needs Assessment Database (NADB) and consists of the total number of DSHS programs/services used by each client and the detailed use of 159 specified programs/services. The NADB includes 296 separate program listings, almost all the programs/services within DSHS, but we were able to access detailed information for only five DSHS Divisions. An additional short-coming is that the NADB data does not reveal when the service was used in SFY 1994, only whether or not the service was used. Therefore the timing of the data is somewhat unfortunate since the cross-program input data may overlap the first two quarters of the outcome period, and may bias the logistic model for the first two quarters.

Custodial parents are classified with regular child support payments (CR) when the monthly order amount (MOA) in 93Q4 was greater than \$0 and the total arrearage debt in 93Q4 was less than twice the MOA. This estimate of payment regularity was devised because payment records for this time period were not available as a data file. Subsequent work has shown that this definition of CR is strongly correlated to actual regularity of payment in time periods where the payment records are accessible.

As in past work we use a simple four-state model for welfare and work status, shown in Figure 2 with average quarterly client welfare costs and average quarterly client earnings for each state. Welfare costs are calculated using an average \$1500 per quarter expense for a client not working, and an average \$750 per quarter for a working client. Quarterly costs are calculated by using the controlled probabilities (see Figure 1 caption). To calculate earnings we used average quarterly earnings per client during the 13 quarter follow up period. This was \$3,090 for clients off welfare and working and \$1,410 for clients on welfare and working. Then quarterly earnings are calculated using controlled probabilities (see Figure 1 caption). Total costs and earnings for the 13 quarter follow-up period are determined by summing the quarterly costs and earnings. Net impacts are determined by taking the difference between costs or earnings calculated with and without the factor of interest, with control for all other factors. Dollar values are not inflation adjusted since the adjustment would be within the limitations of the analyses.

Unless otherwise indicated all results are for the 69,933 custodial parents from the 93Q4 cohort, and are controlled for the usual factors – welfare history, work history, gender, race, primary language, disability indicator, work status in 93Q4, age, location, family size, and pattern of welfare use in 93Q4.

Figure 1: Study Data and Longitudinal Outline

Probabilities calculated as logistic functions of input data on the left are fit to the outcomes on the right. From the resultant model controlled quarterly welfare costs per client are estimated as (P3+0.5*P2)*1500, and controlled quarterly earnings per client are estimated as 3090*P1+1410*P2. See text and Figure 2 for additional details.

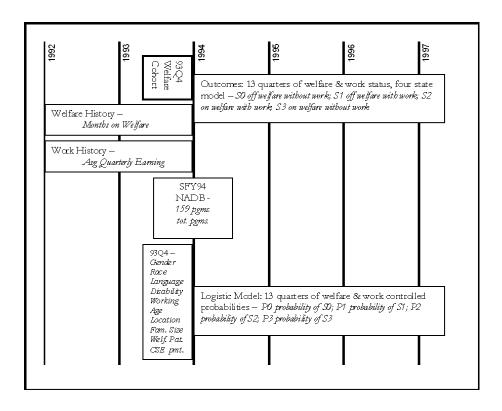


Figure 2: Four-State Model with Average Client Quarterly Welfare Costs and Earnings

- S0 State 0, off welfare without work; S1 State 1, off welfare with work;
- S2 State 2, on welfare with work; S3 State 3, on welfare without work. See text and Figure 1 for additional details.

cost: \$750	cost: \$0
earn: \$1410	earn: \$3090
<i>52</i>	
<i>53</i>	<i>50</i>
cost: \$1500	cost: \$0
earn: \$0	earn: \$0

Net Impacts of Regular Child Support Payments

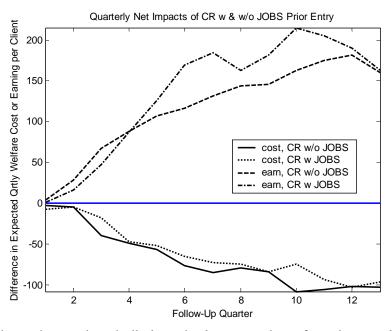
Previous Work -

Figure 3 is a revised presentation of previous analyses with the 93Q4 cohort, and an extension of those studies by showing work impact as increased earnings per client.

In our previous studies we only used cross-program information from the JOBS program, specifically if the earliest date of entry to any JOBS program component was prior to 93Q4 the individual was classified as having JOBS Prior Entry (JPE). Figure 3 shows the controlled impact of CR as the difference between those with regular payments and those without regular payments, for clients with JPE and clients without JPE. Taking account of the number of clients in each category and summing over the 13 quarters shows an expected average cumulative welfare cost avoidance of \$5.5 million, or about \$800/client, and an expected average cumulative earnings increase of \$10.0 million, or about \$1,500/client, associated with regular child support payments.

Figure 3: Net Impact of Regular Child Support Payments (CR) with and without JOBS Prior Entry (JPE) for 93Q4 Cohort

Average welfare cost or earning difference between custodial parents with regular payments and those without regular payments, with and without JPE. This Figure is derived from previous work (*Formoso, 1999 & 2000*) and is based on analyses for the entire cohort of 116,377 clients.



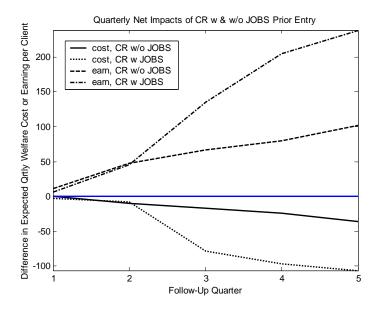
For comparison Figure 4 is a similarly revised presentation of previous analyses with the 95Q4 cohort. The 5 quarter expected average cumulative welfare cost avoidance was \$1.0

million, or about \$200/client, and the expected average cumulative earnings increase was \$2.7 million, or about \$400/client, associated with regular child support payments.

It can also be seen in comparing Figure 4 with Figure 3 that in the 95Q4 study the impacts of CR for both work and welfare are more dependent on JOBS Prior Entry. This indicates a possible interaction between CR and JOBS. Such interactions, with JOBS and other services, will be discussed in a subsequent section of this report.

Figure 4: Net Impact of Regular Child Support Payments (CR) with and without JOBS Prior Entry (JPE) for 95Q4 Cohort

Average welfare cost or earning difference between custodial parents with regular payments and those without regular payments, with and without JPE. This Figure is derived from previous work (*Formoso, 1999 & 2000*) and is based on analyses for the entire cohort of 111,007 clients.



New Results -

In our present work with the 93Q4 cohort the analyses include only the 69,933 clients who are also custodial parents in DCS 93Q4 records, and we drop the variables representing JPE because the SFY94 NADB data contains detail of 22 specific JOBS services accessed by clients.

With no control factors, estimating probabilities simply as average outcomes with and without regular child support payments, the cumulative average welfare cost savings impact during the 13 quarter follow-up period is about \$900 per client and the cumulative 13 quarter average increased earnings impact is about \$1,800 per client.

When no cross-program information is included in the analysis, the welfare cost and earning impacts are shown in Figure 5. This result is controlled for welfare and work history and the usual client factors listed at the end of the *Study Outline & Methods* section. All subsequent results presented include control for these factors. The 13 quarter impacts associated with regular child support payments are a cumulative welfare cost avoidance of about \$800/client, and a cumulative earnings increase of about \$1,500/client.

Figure 6 shows results when data for all 159 specific services/programs and total number of programs are included as explanatory factors. The data for the 159 specific services are represented as dichotomous variables indicating use of the service or no use of the service in SFY94. Total program use data is the total number of programs used, out of the 296 specific services listed in the SFY94 NADB. With the additional controlling factors the 13 quarter impacts associated with regular child support payments are about the same; a cumulative welfare cost avoidance of about \$800/client, and a cumulative earnings increase of about \$1,300/client.

Including all the NADB factors as well as the usual factors creates 208 explanatory factors for this model, but only 97 of the factors have an acceptable level of significance. An analysis using only these 97 factors gave identical results to the 208 factor analysis.

For investigations of different levels and methods of aggregation of the cross-program factors, we grouped programs within Division by program function as determined by discussion with Division staff, or by patterns of the outcome effects seen in the analysis using all 208 explanatory factors, or simply by Division. For analyses at all these levels of aggregation the 13 quarter cumulative impacts associated with regular child support payments were the same; a welfare cost avoidance of about \$800/client, and an earnings increase of about \$1,300/client. There were small differences in the quarter to quarter impacts.

Figure 5: Net Impact of Regular Child Support Payments (CR) with Control for Usual Factors but Not Controlled for Cross-Program Use

Average welfare cost or earning difference between custodial parents with regular payments and those without regular payments. Note that the solid line indicates welfare costs and references the left vertical axis and the dashed line indicates earnings and references the right vertical axis.

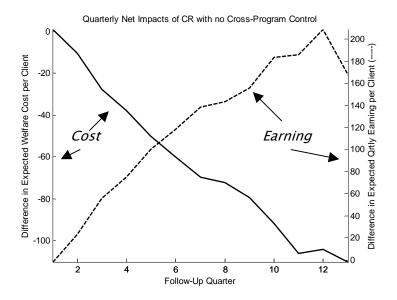
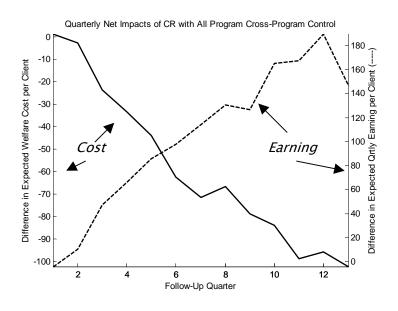


Figure 6: Net Impact of Regular Child Support Payments (CR) with Control for Usual Factors and for Cross-Program Use

Average welfare cost or earning difference between custodial parents with regular payments and those without regular payments, controlled for client use of 159 specific programs/services. Note that the solid line indicates welfare costs and references the left vertical axis and the dashed line indicates earnings and references the right vertical axis.



Controlled Effects of Other Program Use

New Results -

Through the logistic model we are able to estimate the net effects on work and welfare outcomes associated with other programs/services accessed by custodial parents. Basically this compares those who used the particular program with those who did not, with all other factors being equal. While the NADB data has information on 159 specific programs/services, many of these show very low usage by custodial parents and/or a low level of significance in the logistic model. To both limit the number of programs considered and to assure a reasonable likelihood that the effects are real, we selected programs based on the following criteria:

There must be significant logistic coefficients ($p \le 0.05$) for the program for at least five quarters, representing outcomes in at least two states in each quarter, and ...

There must be at least 500 clients who used the program and at least 500 clients who did not use the program, and ...

the cumulative 13 quarter cost effect (increase or decrease) associated with the program must be \$500/client or larger, or the cumulative 13 quarter earning effect (increase or decrease) associated with the program must be \$500/client or larger.

From the analysis which led to Figure 6 we have logistic coefficients which relate use of 159 programs to work and welfare outcomes. This is not a cause-and-effect relationship, but this kind of information could be useful in staff work with custodial parents to identify clients with barriers or clients more likely to succeed. From the 159 programs, the 26 programs shown in Table 1 meet the criteria stated above. While it is not our intent to discuss these effects in detail, we do wish to point out the large magnitude of some of these effects, that counteracting effects of different programs are seen, and that the directions of the effects mostly do fit with intuition. For reference the largest effects seen in Table 1 are of greater magnitude than 18 of the 33 significant usual factors of welfare history, work history, gender, race, primary language, disability, work status, age, location, family size, and welfare use pattern. If it is desirable to control for the usual factors, it appears to be equally important to control for cross-program use.

Table 1: Controlled Effects Associated with Selected Programs

Comparison is between clients who did use program and clients who did not use program – cost is the expected average 13 quarter cumulative difference in welfare costs and earning is the expected average 13 quarter cumulative difference in earnings.

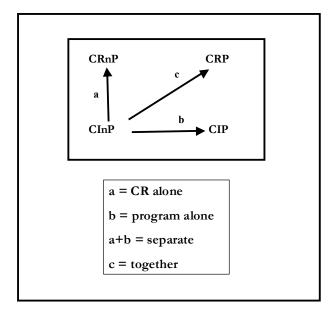
v.		Pgm effec	t, \$/client	# clients		
Div	Pgm Name	cost	earning	in PGM	not in PGM	
DASA	ADATSA Assessments	-1,300	+400	518	69,415	
DASA	Outpatient Assessment-Reg T19	+200	-700	1,453	68,480	
DASA	Outpatient Individ/Group Therapy-RegT19	0	-600	2,099	67,834	
ESA	AFDC Regular	+1,200	-300	65,513	4,420	
ESA	Food Stamp Benefits	+1,300	-1,700	67,873	2,060	
ESA	AFDC/GAU Eligibility Determination	-2,700	-100	586	69,347	
ESA	JOBS Assessment-ES	+200	-1,200	2,524	67,409	
ESA	JOBS Job Skills Training-ES	-1,800	+3,900	2,227	67,706	
ESA	JOBS One Time Work Expense-ES	-2,900	+4,600	1,336	68,597	
ESA	JOBS Job Search-ES	-1,600	+2,700	2,540	67,393	
ESA	JOBS Staff Direct Service-ES	-400	+1,800	19,553	50,380	
ESA	JOBS Assessment-DSHS	+400	-500	1,339	68,594	
ESA	JOBS Education-DSHS	+1,200	-700	1,421	68,512	
ESA	JOBS Job Search-DSHS	+1,200	-700	1,065	68,868	
ESA	JOBS Staff Direct Service-DSHS	-500	+400	6,419	63,514	
MAA	ER-Other Hospital Inpatient	-500	-800	1,242	68,691	
MAA	Psychiatry-Physician	-300	-700	1,064	68,869	
MAA	Indian Health Care Center	0	+1,700	1,168	68,765	
MAA	Rural Health Care Center	-300	-600	877	69,056	
MAA	Managed Care Payments	+1,200	-400	41,809	28,124	
MAA	Maternity Case Management	+700	-1,200	3,591	66,342	
MAA	Medical Eligible With Medical Service	-2,400	+2,500	67,531	2,402	
MAA	Medical Eligible No Medical Service	-3,200	+2,400	2,018	67,915	
ESA	Refugee CSO Case Management	+2,400	-2,500	1,179	68,754	
DVR	Regular Case Management	-800	+300	1,228	68,705	
MHD	MHD Outpatient Treatment Group	-500	+500	501	69,432	

Interactive Effects

We address interactive effects by creating four classification categories: CInP – irregular child support and did not use program, CRnP – regular child support and did not use program, CIP – irregular child support and did use program, and CRP – regular child support and did use program. Then a logistic analysis allows us to determine expected average welfare costs and expected average earnings for each of the four categories. The difference between costs or earnings of CRnP and CInP allows us to estimate the effect of regular child support payments without the program. The difference between costs or earnings of CIP and CInP allows us to estimate the effect of the program without regular child support payments. We sum these two values to obtain a "separate" cost or earning difference – that is the cost or earning effect of regular support payments and the program applied separately. The difference between costs or earnings of CRP and CInP allows us to estimate the joint effect of regular child support payments and the program. This is the cost or earning effect of regular support payments and the program. This is the cost or earning effect of regular support payments and the program applied "together." We use this approach because when there are interactive effects between programs it is not valid to assign the gain (or loss) to one program. Figure 7 shows a schematic of the method.

Figure 7: Method of Examining Interactive Effects

The effect of CR alone is \mathbf{a} : the Cost or Earning difference between CRnP and CInP (CRnP – CInP). The effect of the particular program alone is \mathbf{b} : CIP – CInP. The effect of CR and the particular program together is \mathbf{c} : CRP – CInP. The effect of CR and the particular program applied separately is $\mathbf{a} + \mathbf{b}$ and the effect of CR and the particular program applied together is \mathbf{c} . See text for additional details.



Previous Work-

We have previously examined the interactive effects of regular child support payments and JOBS Prior Entry in relation to welfare costs. We present these results in Figures 8 and 9 in a somewhat different format, and also include interactive effects in relation to client earnings.

Figure 8: Interaction of Regular Child Support Payments (CR) and JOBS Prior Entry (JPE) for 93Q4 Cohort

Cost or Earning Difference of CR and JPE applied separately or together. Expected 13 quarter cumulative cost difference (together – separate) is + \$100, and expected 13 quarter cumulative earning difference (together – separate) is + \$200. Results are for entire cohort of 116,377 clients.

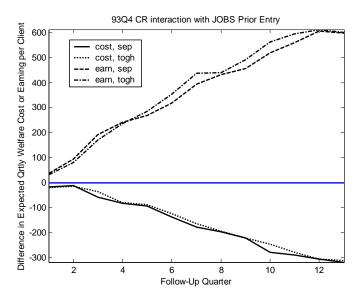
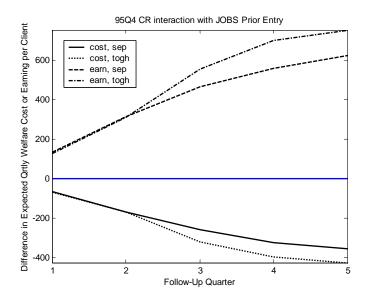


Figure 9: Interaction of Regular Child Support Payments (CR) and JOBS Prior Entry (JPE) for 95Q4 Cohort

Cost or Earning Difference of CR and JPE applied separately or together. Expected 5 quarter cumulative cost difference (together – separate) is - \$200, and expected 5 quarter cumulative earning difference (together – separate) is + \$400. Results are for entire cohort of 111,007 clients.



New Results -

Because programs may have dramatically changed since the time frame of this study our main objectives are to show that interactive effects do occur, to assess the magnitude of these effects, and to attempt to understand how these effects occur.

For reliability of analyses there must be a sufficient number of clients in each of the four categories represented in Figure 7. If we set the minimum number at 500 clients only 11 programs qualify. However, because very strong effects appear with some programs with a lower minimum number, we consider 22 programs which have 200 or more clients in the least populated category.

In attempting to understand how interactive effects might occur, we use the techniques of survival analysis to determine the program net impact on client flow between work and welfare states. While there may be a tendency for programs which affect welfare exit rates to interact with regular child support payments, our data cannot support a conclusion in this regard. For those programs where the client numbers are sufficient for good analysis the effects are weak and may be within the limits of the analysis, while for those programs which show strong effects the client numbers are too low for reliability.

Table 2 shows the interaction results as 13 Quarter cumulative cost and earning differences, along with the client counts in each category and the controlled net impacts of the program alone. The welfare cost interaction ranges from -\$700 to \$600 per client, while the earnings interaction ranges from -\$1,800 to \$2,600. The program "Medical Eligible No Medical Service" has both the most positive cost interaction and the most positive earnings interaction, but unfortunately there are only 210 clients in the CRP category, making this an unreliable result. The program "JOBS Job Search-ES" has the most negative cost interaction but there are only 276 clients in the CRP category. The program "Other Inpatient Hospital" has the most negative earnings interaction, and with 410 clients in the CRP category this is marginally reliable. The programs with the best client counts for analysis — "Other Medical," "Managed Care Payments," "Dental Services," "Other Physician Services," and "JOBS Staff Direct Service-ES" - all show small, if any, cost interactions and somewhat larger earnings interactions.

Table 2: Interaction of Regular Child Support Payments (CR) and Selected Programs (PGM) for 93Q4 Cohort

Cost or Earning Difference of CR and PGM applied separately or together. Inx Cost is expected 13 quarter cumulative cost difference (together – separate) , and Inx Earn is expected 13 quarter cumulative earning difference. All Dollar values are per client. See Figure 7 for additional detail.

		outcome impacts		# clients				Inx with CR	
Div	PgmName	cost	earn	CInP	CIP	CRnP	CRP	cost	earn
ESA	AFDC Regular	\$1,200	-\$300	4,144	59,502	276	6,011	-\$400	\$900
ESA	AFDC Employable	-\$500	\$100	55,798	7,8 4 8	5,818	469	\$500	-\$1,300
ESA	Food Stamp Benefits	\$1,300	-\$1,700	1,852	61,794	208	6,079	\$500	\$1,500
ESA	JOBS Assessment-ES	\$200	-\$1,200	61,338	2,308	6,071	216	-\$100	-\$700
ESA	JOBS Education-ES	\$500	-\$400	58,968	4,678	5,762	525	\$0	-\$200
ESA	JOBS Job Skills Training-ES	-\$1,800	\$3,900	61,647	1,999	6,059	228	-\$300	-\$1,200
ESA	JOBS Job Search-ES	-\$1,600	\$2,700	61,382	2,264	6,011	276	-\$700	\$1,000
ESA	JOBS Staff Direct Service-ES	-\$400	\$1,800	46,112	17,534	4,268	2,019	\$400	-\$600
ESA	JOBS Staff Direct Service-DSHS	-\$500	\$400	57,729	5,917	5,785	502	-\$100	\$200
MAA	Other Inpatient Hospital	-\$300	-\$100	57,223	6,423	5,877	410	\$300	-\$1,800
MAA	ER-Hospital Outpatient Other	-\$100	-\$500	42,352	21,294	4,439	1,848	\$0	\$200
MAA	Other Outpatient Hospital	-\$200	-\$300	47,058	16,588	4,822	1,465	\$400	-\$700
MAA	ER-Physician	\$100	-\$300	43,384	20,262	4,524	1,763	\$0	\$200
MAA	ER-Other Physician Services	-\$200	-\$500	59,149	4,497	5,894	393	\$300	-\$500
MAA	Other Physician Services	\$100	\$300	19,374	44,272	2,061	4,226	\$100	-\$700
MAA	Prescription Drugs	\$500	-\$300	12,222	51,424	1,182	5,105	-\$200	-\$400
MAA	Dental Services	\$100	\$400	40,581	23,065	3,865	2,422	-\$100	-\$600
MAA	Other Medical	\$300	\$200	26,546	37,100	2,701	3,586	\$100	-\$900
MAA	Managed Care Payments	\$1,200	-\$400	25,480	38,166	2,644	3,643	-\$300	-\$100
MAA	Medical Eligible With Medical Service	-\$2,400	\$2,500	2,165	61,481	237	6,050	-\$600	-\$700
	Medical Eligible No Medical Service	-\$3,200	\$2,400	61,838	1,808	6,077	210	\$600	\$2,600
MHD	MH Individual Tx Services-in Facility	-\$100	-\$200	61,507	2,139	5,983	304	\$500	-\$800

The controlled client flow impacts of these 22 programs are given in Table 3 in the form of percent change in residence time for crossing a particular work/welfare boundary. Figure 10 shows overall average residence times for crossing the boundaries. Diagonal crossings (between State 0 and State 2, and between State 1 and State 3) are not considered here because they are very much slower, and effects for these crossings cannot be reliably determined.

Table 3: Client Flow Impacts of Selected Programs (PGM) for 93Q4 Cohort

Controlled effect on residence time for crossing a particular boundary in the Welfare - Work Four State Model. For example, the program " $Medical\ Eligible\ No\ Medical\ Service,"$ second from the bottom, is associated with a 61% increase in residence time in State 0 for crossing into State 3, and a 32% decrease in residence time in State 3 for crossing into State 0. See text & Figures 10-11 for more detail.

Div	PgmName	r0_1	r0_3	r1_0	r1_2	r2_1	r2_3	r3_0	r3_2
ESA	AFDC Regular	0%	-17%	0%	-18%	0%	-16%	21%	-8%
ESA	AFDC Employable	0%	-28%	0%	-18%	0%	0%	-27%	-6%
ESA	Food Stamp Benefits	13%	-27%	0%	-35%	19%	-23%	0%	0%
ESA	JOBS Assessment-ES	0%	0%	-15%	0%	7%	-8%	0%	0%
ESA	JOBS Education-ES	-8%	0%	0%	0%	7%	0%	18%	0%
ESA	JOBS Job Skills Training-ES	-15%	0%	17%	16%	-17%	21%	0%	-24%
ESA	JOBS Job Search-ES	0%	0%	0%	0%	-9%	0%	-10%	-19%
ESA	JOBS Staff Direct Service-ES	-10%	7%	19%	0%	-5%	10%	22%	-21%
ESA	JOBS Staff Direct Service-DSHS	0%	0%	0%	0%	0%	0%	0%	-7%
MAA	Other Inpatient Hospital	0%	-7%	0%	0%	0%	0%	-6%	0%
MAA	ER-Hospital Outpatient Other	0%	0%	-11%	0%	0%	0%	-8%	0%
MAA	Other Outpatient Hospital	8%	-4%	0%	-4%	0%	0%	-3%	0%
MAA	ER-Physician	10%	0%	0%	0%	9%	-7%	0%	0%
MAA		0%	-8%	-13%	-9%	0%	0%	-10%	6%
MAA	Other Physician Services	0%	-5%	0%	-5%	0%	0%	6%	-5%
MAA	Prescription Drugs	0%	0%	0%	0%	0%	-4%	11%	0%
MAA	Dental Services	-4%	0%	7%	0%	0%	4%	7%	-3%
MAA	Other Medical	0%	0%	4%	0%	0%	0%	9%	0%
MAA	Managed Care Payments	0%	-11%	6%	-9%	5%	0%	22%	3%
MAA	Medical Eligible With Medical Service	0%	52%	0%	46%	-45%	50%	-26%	0%
MAA	Medical Eligible No Medical Service	0%	61%	0%	64%	-44%	31%	-32%	0%
MHD	MH Individual Tx Services-in Facility	0%	0%	0%	0%	0%	0%	13%	0%

Figure 10: Overall Average Residence Times for 93Q4 Cohort in Months

Residence times for entire cohort of 116,377 clients determined in previous work (*Formoso, 2000*). For example, clients in State 2, Welfare & Work, would on average stay 7 months before exiting to State 1, Work without Welfare, and on average stay 16 months before exiting to State 3, Welfare without Work.

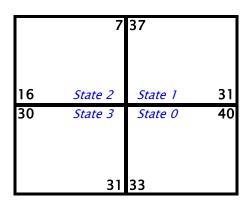
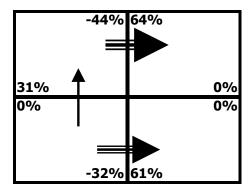
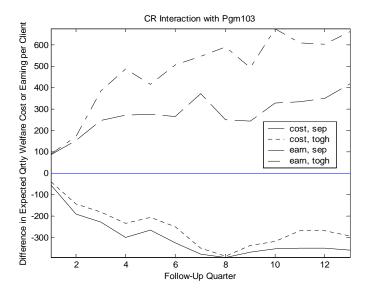


Figure 11 takes the Table 3 residence time impacts for the program "Medical Eligible No Medical Service" and puts them into the four-state format of Figure 10. The flow results are reliable because 2,018 clients used the program. The arrows indicate the resultant net flow of clients. For example, since clients who used the program exit from State 3 to State 0 at a faster rate (they spend 32% less time in State 3), and exit from State 0 to State 3 at a slower rate (they spend 61% more time in State 0) there will be a strong resultant net flow of clients from State 3 to State 0. Since there is also a strong net resultant flow from State 2 to State 1, this program should be associated with a large decrease in welfare costs; Table 2 shows a

Figure 11: "Medical Eligible No Medical Service" Impact on Average Residence Times, and Quarterly Interaction with CR, for 93Q4 Cohort

Values taken from Table 3. Arrows indicate strength and direction of resultant net flow. See text & Figure 10 for further details.

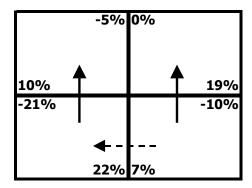




decrease of \$3,200 per client. The lower panel of Figure 11 shows the quarterly interaction between CR and "*Medical Eligible No Medical Service*," where the larger earning of the "together" category can be clearly seen.

Figure 12: "JOBS Staff Direct Service-ES" Impact on Average Residence Times, and Quarterly Interaction with CR, for 93Q4 Cohort

Values taken from Table 3. Arrows indicate strength and direction of resultant net flow. Dashed arrow indicates unreliable flow. See text & Figure 10 for further details.



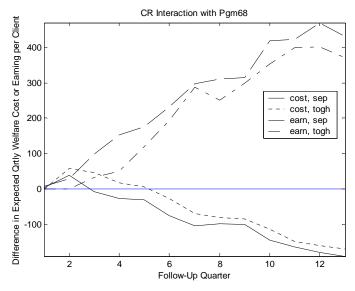


Figure 12 provides a similar display for the program "JOBS Staff Direct Service-ES." While the net resultant flows do not show a direct association with increased welfare exit rates, because clients who use this service have a net resultant flow from State 3 to State 2 they will exit welfare at a faster rate - the average residence for welfare exit from State 2 is 7 months compared to 31 months for welfare exit from State 3. Table 2 shows a welfare cost saving of

\$400 per client for this program. The lower panel of Figure 12 shows the quarterly interaction between CR and "JOBS Staff Direct Service-ES," but here the "together" category has a smaller earning.

While both these program examples show effects on welfare exit rates and interactions between the program and CR, the interactions are in different directions for earning. In addition, there are enough counter examples in the set of 22 programs which we investigated that no clear picture emerges relating client flow effects with interactions between CR and cross-program use.

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Child Support Enforcement: Net Impacts on Work and Welfare Outcomes & the Utility of Cross-Program Information

Brief

A recently completed study by Washington State Division of Child Support (DCS) extends previous work which has established an association between child support payments and favorable work and welfare outcomes. In summary the new study:

- Develops a method to estimate the dollar value of the work impact of regular child support payments,
- Examines cross-program information as potential control factors and examines cross-program impacts,
- Develops a method to simplify cross-program information, and
- Establishes the possibility of interactive effects between regular child support payments and a broad range of cross-programs.

Past DCS reports have shown:

- A \$5.5 million 13 quarter cumulative welfare cost saving associated with custodial parents classified with regular child support payments in 4th quarter of calendar year 1993 (93Q4),
- A \$1.0 million 5 quarter cumulative welfare cost saving associated with custodial parents classified with regular child support payments in 4th quarter of calendar year 1995 (95Q4), and
- A \$1.3 million 5 quarter cumulative welfare cost saving associated with custodial parents classified with regular child support payments in 4th quarter of calendar year 1997 (97Q4).

Increased custodial parent employment was also associated with regular child support payments in all three groups, with employment more likely for custodial parents off welfare. The new study develops a method to quantitate this impact on employment:

- About \$10.0 million 13 quarter cumulative earnings increase for the 93Q4 group, and
- About \$2.7 million 5 quarter cumulative earnings increase for the 95Q4 group.

These effects appear to arise through a reduced recidivism rate and an increased tendency for employment once the custodial parent has exited welfare. This finding is quite important because while a custodial parent is on welfare all, or most, child support dollars are retained by the state. After welfare exit regular child support payments can become a regular income stream for the custodial family. It is reasonable to expect that this income can help custodial parents stay off welfare and find and maintain employment. The finding also serves as a strong internal control in our studies. While on welfare the custodial parents classified with regular child support payments appear to be exactly like the custodial parents classified with irregular child support payments.

The main thrust of the new study brings in additional custodial parent information, specifically use of other public services and programs – called cross-program use. In determining the impact of child support it is important to consider and to control for other factors which may affect the outcomes of interest. The previous studies did this with a range of factors, but with only very limited cross-program information. The new study includes 159 separate program listings in the Department of Social and Health Services (DSHS). Because of the timing of the cross-program data available the study used the 93Q4 group mentioned above. While some programs have very large work and welfare impacts, opposing effects appear to cancel out and the work and welfare net impacts of regular child support payments are about the same with or without cross-program control. But there is no assurance that this cancellation will occur with other client groups or in other time periods. And with small client groups, or individuals, it may be critical to include control for cross-program use.

The study also develops a methodology to simplify the inclusion of cross-program information. The initial 159 programs listed are reduced to a list of 26 separate programs with large and reliable impacts.

Previous work has uncovered the possibility of interactive effects between regular child support payments and other public programs, such that the impact of child support is very different for those who did use the program. In examining a broader range of cross-program use the present study further documents the existence of interactive effects, but data limitations do not presently allow an understanding of how this occurs.