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# Personal Reemployment Accounts: Simulations for Planning Implementation

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## Personal Reemployment Accounts: Simulations for Planning Implementation

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**Personal Reemployment Accounts:  
Simulations for Planning Implementation**

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## **Personal Reemployment Accounts: Simulations for Planning Implementation**

### **Abstract**

The proposed Back to Work Incentive Act of 2003 recommended personal reemployment accounts (PRA) that would provide each eligible UI (unemployment insurance) claimant with a special account of up to \$3,000 to finance reemployment activities. Account funds could be used to purchase intensive, supportive, and job training services. Any funds remaining in the PRA could be paid as a cash bonus for reemployment within 13 weeks, or drawn as extended income maintenance for exhaustees of regular UI benefits. Personal reemployment account offers would be targeted to UI beneficiaries most likely to exhaust their UI entitlements using state Worker Profiling and Reemployment Services (WPRS) models. The draft legislation called for a budget of \$3.6 billion for PRAs, with the money to be committed over a two-year period. This report provides a simulation analysis of questions relevant to implementation of PRAs by states. The analysis is done using data for the state of Georgia. Simulations rely on recent patterns of intensive, supportive and training services use. Simulations for alternative rules setting the PRA amount and varying behavioral responses are examined. Like the legislative proposal, simulated PRA offers are targeted using Worker Profiling and Reemployment Services (WPRS) models. The key question examined is, how many PRA offers can a state make given a fixed budget? Proposed and alternative rules for sub-state budget allocation are also examined. The framework presented in this paper allows the exploration of several behavioral responses to incentives created by the PRA.

## **Personal Reemployment Accounts: Simulations for Planning Implementation**

### **Executive Summary**

Proposed legislation called the Back to Work Incentive Act of 2003 introduced a new model for customer choice among publicly funded reemployment services. The Bush administration recommended a two-year federal budget of \$3.6 billion to provide each eligible unemployment insurance (UI) claimant a personal reemployment account (PRA) of up to \$3,000. Personal reemployment account funds could be used for three things: 1) to purchase reemployment services, 2) as a reemployment bonus, and 3) as extended income maintenance for exhaustees of regular UI benefits. Personal reemployment account offers would be targeted to UI beneficiaries most likely to exhaust their UI entitlements using state Worker Profiling and Reemployment Services (WPRS) models.

If PRAs are enacted, core services at one-stop career centers would remain free to all customers, but PRA recipients wishing to use intensive, supportive, and job training services would be required to use account funds to purchase them from a qualified public or private vendor. Additionally, PRA recipients who return to work within 13 weeks of their UI claim date may receive the unused balance in the PRA as a cash reemployment bonus. Sixty percent of the balance would be paid upon reemployment with the remainder payable after six months steady employment. Those failing to gain reemployment and exhausting regular UI entitlement could draw support payments from their PRAs at the rate of their weekly benefit amounts (WBAs).

The PRA proposal combines several employment initiatives in an innovative way, but legislation authorizing PRAs has not yet been enacted. However, the proposal remains active and has the president's continued support. The W.E. Upjohn Institute has investigated aspects of

how the proposed PRAs would work under a grant from the U.S. Department of Labor. The Institute conducted PRA simulation analyses using a unique data set for the state of Georgia linking UI claims and employment services records. To be forward looking, our simulations used the new WPRS model now being implemented in Georgia.

### **PRA Budgets and Service Prices**

The proposed \$3.6 billion for PRA enrollments over two years requires funds be distributed to states in proportion to their share of national unemployment. Based on 2002 unemployment figures Georgia's share would be 2.37 percent or \$85.32 million. The proposal also requires that PRA funds be allocated within states in proportion to regional shares of state unemployment. Given that offers are to be targeted using WPRS scores to those most likely to exhaust their benefit entitlement, nearly all offers would be made to UI claimants in the top 30 percent of the state WPRS distribution of claimant scores. Consequently, we focus our simulations on that group of claimants.

Since the simulation analysis required monetary values for services, hypothetical prices were set based on statewide service expenditures, service usage rates, and relative valuations for services. Based on our sample for analysis, Table E.1 summarizes imputed prices for services as well as usage rates during the two PRA relevant time periods: the first 13 weeks and the remaining 39 weeks in the UI benefit year. In addition to supportive and training services, Georgia one-stop centers offer five types of intensive services. The most popular intensive services among those potentially eligible for a PRA are customer service plan and counseling. The table shows that among those profiled, 18.9 and 20.3 percent of claimants used these services during the first 13 weeks. The table further shows that the bulk of service use occurs in

that earlier time frame. Relatively small proportions of UI claimants use either supportive or training services, which are imputed to be most costly.

### **PRA Simulations**

Our simulations focus on estimating the average expected cost per \$3,000 PRA offer, and the number of offers possible over two years given the budget. Estimates of these magnitudes are critical for states planning for PRA enrollment over a two-year cycle. The simulations also provide evidence on the pattern of service use, bonus receipt, and income maintenance payments likely to result under PRAs.

To span the range of possible responses to PRA offers, our simulations include a baseline of no change in behavior regarding service use and UI benefit receipt, as well as impacts shortening UI duration by 1 and 2 weeks. These alternatives encompass the range of responses observed in the UI reemployment bonus experiments (Robins and Spiegelman 2001). The simulation grants a first bonus payment for UI duration of less than 13 weeks, and a second bonus payment when there are also positive earnings in the first and third quarters following the claim and at least \$2,000 in earnings the second quarter. Under the proposal, a second bonus is not paid if reemployment services are purchased after a first bonus payment. Table E.2 shows that for the baseline simulation, 26.7 percent of the sample could be paid both bonuses—provided funds remained in the PRA after purchase of services—while a total of 40.2 percent of those potentially offered a bonus appear to qualify for a first bonus payment. Since they did not gain employment during the first 13 weeks, 58.8 percent of the sample would not qualify for either bonus but could use PRA funds for services or income support payments after benefit exhaustion.



If every UI claimant offered a PRA accepted, and every recipient spent the entire \$3,000 grant, then 28,440 offers could be made over two years with the Georgia budget of \$85.32 million. However, it is unlikely that all account recipients will spend their entire grant. Table E.3 summarizes the average cost per offer given the prices and usage pattern for services observed in Georgia. Since there is uncertainty about what elements of PRAs may emerge from current deliberations or future proposals, the table presents results for three combinations: 1) bonus, purchase of services, and exhaustee payments, 2) bonus and purchase of services, and 3) bonus only with free services.

### **The Average Cost of PRA Offers**

The top row of Table E.3 reports that offers with all three elements would cost an average of \$2,475 in the absence of any behavioral response. If durations for those offered PRAs are 1 week shorter, the average cost per offer rises by \$40, if the response is 2 weeks the cost rises by \$76 per offer from the baseline. The increased cost results from more beneficiaries becoming employed soon enough to qualify for bonus payments. The average cost increases resulting from responses to the PRA offer are modest.

If the extended jobless benefits feature of PRAs is eliminated, the average baseline cost of a \$3,000 account drops more than \$1,000 to \$1,452. Accounting for 1- and 2-week behavioral responses increases the average cost by \$39 and \$76, respectively.

The bottom row of Table E.3 shows costs associated with simplified PRAs involving only a targeted reemployment bonus. Simulations for Georgia indicate the baseline \$3,000 bonus offer would cost \$1,040 in payments, and if insured durations declined by 1 or 2 weeks the costs would rise by \$46 and \$91, respectively. Previous analysis of targeted reemployment

bonuses suggested that cash offers as large as \$3,000 would not be cost effective, but smaller offers could be cost effective while still encouraging quicker return to work (O’Leary, Decker and Wandner forthcoming).

### **The Number of PRA Offers Possible**

Table E.4 translates the PRA average cost figures into estimates of the number of offers that could be made assuming 100 percent acceptance of PRA offers. An 80 percent acceptance rate was observed in the Illinois bonus experiment, which required a formal acceptance of the offer (Woodbury and Spiegelman 1987). Assuming that acceptance is not correlated with factors systematically influencing the rate of spending from PRAs, enrollment estimates could be adjusted by a factor equal to the reciprocal of the take-up rate. Our simulations indicate that the baseline PRA with all three elements could be offered to 34,473 Georgia UI claimants over two years. That is about 17, 000 per year, or about 6.3 percent of Georgia UI claimants based on 2001 data. The PRA proposal targets WPRS profiled claimants most likely to exhaust benefits who are initially eligible for at least 20 weeks of benefits, and 17,000 offers constitute about 13 percent of this target group in Georgia. Even with a 1- or 2-week behavioral response, the Georgia budget would permit nearly 17,000 offers per year.

If the PRA included only the bonus and purchase of services, not the extended benefits feature, more than 31,000 offers per year could be made with the Georgia budget regardless of the behavioral response. For offers that were simply \$3,000 targeted bonuses, more than 43,000 offers per year could be made with the PRA grant to Georgia.

## **Additional Program Design Considerations**

Our simulation results are very robust relative to the assumed service prices. Cutting service prices in half would increase the number of offers possible by only about 20 percent. However, there is uncertainty about how charging for services would affect the pattern of services chosen.

Under what conditions would a PRA recipient either purchase services or take their chances and pursue bonus payments? To investigate this question, we identified the reemployment outcomes that would make a participant financially indifferent toward the following two extremes: 1) purchasing no services with the hope of receiving the full PRA amount in bonus payments, or 2) spending the entire PRA amount to purchase services with the hope of speeding up reemployment or receiving a higher reemployment wage. To spend the entire budget on services, the UI beneficiary must expect either earnings to be nearly 14 percent higher or that employment will occur at least 6 weeks sooner. Research on employment and earnings effects of employment services and job training suggest effects are more modest (Leigh 1995). PRA recipients might therefore reduce use of services in hopes of receiving larger reemployment bonuses.

We also checked to see if \$3,000 would be sufficient to purchase the bundles of services chosen given the assumed prices. If no PRA money was spent on bonuses and all on services, about one-half of 1 percent of the UI claimants in our Georgia sample would have a budget shortfall. Among these claimants the mean budget shortfall was \$551 in the first 13 weeks and \$637 during the remainder of the UI benefit year.

The PRA proposal requires that the amount of the PRA be uniform throughout the state and not exceed \$3,000. Since the UI reemployment experiments set bonus offers as multiples of the WBA we simulated setting PRAs as 10 times the WBA, with a minimum of \$1,500. The maximum WBA in Georgia is \$300. This design would permit about 15 percent more bonus offers, and it also may moderate the incentive for some claimants to accept low-paying jobs simply to qualify for the first bonus paid upon reemployment.

The UI reemployment experiments paid bonuses only after at least 16 weeks of continuous reemployment. In these experiments, the reemployment earnings of those offered bonuses were at least as high as the control groups. The timing of bonus payments under the proposed PRAs might yield a different impact on wages.

The proposed formula for PRA budget allocations to states and local service delivery regions within states is determined by the estimated share of unemployment. This formula will yield a disproportionate share of PRA dollars to qualified UI claimants in states with relatively exclusionary UI eligibility conditions. The total unemployment rate exceeds the insured unemployment rate by a greater margin in such areas. Since PRAs are only offered to UI claimants, the allocation could more equitably be based on the state and local share of insured unemployment. Changing the allocation rule to be based on insured unemployment would not penalize states that have higher rates.

## **Summary**

Economists have long touted the merits of incentives, pricing, and targeting in social programs, particularly reemployment programs. These features have been tried in demonstration programs and some are now used in Individual Training Accounts and the WPRS system.

However, all three features previously have not been combined in the same program.

Simulations suggest that successful implementation of such a program requires an understanding of the possible responses by participants. Simulations also point to the range of behavioral responses necessary for PRAs to function well. While findings from past studies indicate that measured responses to reemployment bonuses and expected wage gains from services fall short of what is necessary for participants to choose services over the bonus, final assessment of PRAs awaits implementation or demonstration of the program.

Table E.1 Estimated Services Usage Rates and Prices for Intensive, Supportive and Training Services among WPRS Profiled UI Claimants in Georgia, Program Year 2001

Services	Up to 13 weeks (%)	After 13 weeks (%)	Hypothetical prices (\$)
Intensive services			
Service coordination	0.5	0.2	356
Customer service plan	18.9	4.6	356
In -Depth Assessment	0.1	0.0	712
Counseling	20.3	5.1	712
Expanded workshop	0.4	0.3	712
Supportive services	1.7	0.6	1,068
Training services	2.7	1.8	1,424

Table E.2 Sample Percentages by Employment Status in PRA Time Periods among Recipients Profiled to be Most Likely to Exhaust UI Benefits

Employed in first 13 weeks	Employed after 13 weeks	
	Yes	No
Yes	26.7	13.5
No	9.9	49.9

Table E.3 Average Cost per PRA Offer for Alternative Combinations of Features (\$)

PRA scenario	Baseline	1-week impact	2-week impact
Bonus, purchase services, and UI exhaustee payments	2,475	2,515	2,551
Bonus and purchase services	1,452	1,491	1,528
Bonus only with free services	1,040	1,086	1,131

Table E.4 Number of PRA Offers Possible in Georgia over Two Years for Alternative Combinations of Features Assuming All Offers Are Accepted

PRA scenario	Baseline	1-week impact	2-week impact
Bonus, purchase services, and UI exhaustee payments	34,473	33,924	33,446
Bonus and purchase services	65,149	63,538	62,111
Bonus only with free services	93,403	89,473	85,929

## **Personal Reemployment Accounts: Simulations for Planning Implementation**

### **1. Introduction**

In January 2003, Congress introduced draft legislation for the Back to Work Incentive Act of 2003 that proposed a new way to help dislocated workers become reemployed.<sup>1</sup> Under this approach, each eligible unemployment insurance (UI) claimant would be offered a personal reemployment account (PRA) of up to \$3,000. Funds in the PRA could be used to for three things: 1) to purchase reemployment services, 2) as a reemployment bonus, and 3) as continued income support after exhaustion of the regular UI entitlement. PRA offers were to be targeted to claimants most likely to exhaust UI by state Worker Profiling and Reemployment Services (WPRS) models.

The draft legislation proposed a budget of \$3.6 billion, with the money to be committed over a two-year period and all disbursements from PRAs completed within three years from the start date. Funds were to be allocated among states according to each state's share of national unemployment. By this rule the Georgia budget allocation would be \$85.3 million. The proposal also requires within state allocations to be based on the same criterion. Since PRA offers must be targeted using WPRS profiling scores, this raises particular challenges for states planning for implementation.

The Back to Work Incentive Act did not become law, but the provisions for PRAs were added to the proposal for reauthorization of the Workforce Investment Act (WIA). "Due to uncertainty relating to the outcome of House-Senate negotiations on the FY 2004 Budget

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<sup>1</sup><http://thomas.loc.gov/cgi-bin/query/z?c108:h.r.444:>

Resolution,” in March 2003 PRAs were removed from WIA reauthorization legislation known as the Workforce Reinvestment and Adult Education Act of 2003.<sup>2</sup> Nonetheless, the administration continues to advocate the creation of PRAs.<sup>3</sup> So states must be prepared to act quickly.

Effective implementation of PRAs requires advance planning, monitoring of the use of funds by early PRA enrollees, and adjustment of state PRA plans during the course of enrollment. Critical participant response parameters include rates of PRA offer acceptance, intensive and training service use rates, the rate of qualification for first bonus payments, and the rate of qualification for second bonus payment. Cost data for intensive and training services are also required for planning and implementation of PRAs.

This paper examines issues relating to PRA implementation based on simulations performed using administrative data provided by the state of Georgia. The W.E. Upjohn Institute for Employment Research investigated these questions under a grant from the U.S. Department of Labor. The data from Georgia constitute a rare sample linking UI claims and employment services records. To be forward looking, our simulations used the new WPRS model now being implemented in Georgia.

The next section provides an overview of how PRAs would work as proposed by HR 444 in January, 2003. Section 3 lays the foundation for simulation analysis of PRAs by examining the pattern of service use in our sample for analysis. Section 4 estimates prices for intensive, supportive, and training services as a basis for simulation. Section 5 gives a conceptual framework for PRA simulations by providing a theoretical model of choice under PRAs.

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<sup>2</sup><<http://edworkforce.house.gov/press/press108/03mar/wiipc032703.htm>> Accessed October 12, 2003.

<sup>3</sup><<http://www.whitehouse.gov/news/releases/2003/06/20030617-3.html>> Accessed October 12, 2003.



Section 6 partitions the PRA eligible UI claimants into groups based on their pattern of UI benefit receipt and service usage. Section 7 presents state-wide PRA simulation results. Section 8 presents a stark example of the choice between buying services and receiving bonus payments under the PRA. Section 9 examines sub-state budget allocation alternatives. The final section presents a summary and suggests some extensions for the simulation analysis.

## **2. PRAs under HR 444**

The proposed PRA combines several innovative features. Each has been tried separately before, but no previous program or demonstration project has brought them all together in quite the same way. The first novel component of the PRA is the requirement that participants directly pay for intensive and training services. Employment services provided by one-stop career centers under the Workforce Investment Act (WIA) are divided into three levels: core, intensive, and training. Services within each level are characterized by the amount of staff involvement and the extent to which customers can access the service independently. Core services typically have the broadest access and the least staff involvement of the three categories. Many core services are accessible on a self-serve basis.

Intensive services require a greater level of staff involvement and, consequently, access is more limited than for core services. Services within the intensive category include individual and group counseling, case management, aptitude and skill proficiency testing, job finding clubs, creation of a job search plan, and career planning. Training services, the third and highest level of service intensity, are usually available to customers only through referrals.

Core services are free for everyone, intensive and training services are free to the general public, but PRA recipients would be required to pay for such services. Service providers would

determine the fees to charge. PRA recipients would choose whether or not to purchase such services and whether to purchase the services from public or private providers. Therefore, service providers are faced with determining prices and with understanding how those prices may affect the demand for their services. Some evidence about customer behavior in such an environment is being provided by the individual training account evaluation (Decker and Perez-Johnson forthcoming).

The second component is the bonus payment. Under the PRA, UI claimants would be given lump sum payments from their accounts if they return to work within a specified time period. The purpose of the bonus is to provide an incentive for dislocated workers to return to work as quickly as possible. A bonus incentive system has been incorporated in several demonstration projects sponsored by the U.S. Department of Labor, but it has never been put in practice on a state-wide or program-wide basis. Based upon evaluations of these demonstration projects, we expect that a bonus, if of sufficient size relative to a claimant's weekly benefit amount, will shorten the average duration of UI compensated unemployment by as much as a week (Robins and Spiegelman 2002).

PRA account recipients who become reemployed within 13 weeks of their UI claim date would be paid 60 percent of their PRA account balance upon reemployment. The remaining 40 percent would be paid six months later if employment is maintained and no additional services are purchased.

The third possible use of PRA funds permits UI benefit year recipients who exhaust their regular benefit entitlement to draw funds from their PRA at the rate of their weekly benefit amount (WBA). This PRA feature would act like an extended UI benefits program, and like the

availability of those programs does it introduces the risk of prolonging unemployment durations (Woodbury and Rubin 1997).

The PRA proposal requires that offers be targeted to UI claimants who are most likely to exhaust their regular UI benefits, and that WPRS models be used to target offers (O’Leary, Decker and Wandner forthcoming). The WPRS system evaluates the exhaustion likelihood of UI claimants who are neither union hiring hall members, nor on employer standby awaiting recall to their previous job on a definite date. Such claimants are not expected to conduct an independent job search while receiving benefits. PRAs would be offered to claimants with a high profiling score, and who are eligible for at least 20 weeks of UI benefits. Given that offers are to be targeted using WPRS scores to those most likely to exhaust their benefit entitlement, nearly all offers would be made to UI claimants in the top 30 percent of the state WPRS distribution of claimant scores. Consequently, we focus our simulation analysis on that group of claimants.

### **3. The Sample and Services Chosen**

The data used to simulate implementation of PRAs in Georgia were originally provided for work on the Frontline Decision Support System (FDSS) (Eberts and O’Leary 2002). The data record participation in intensive, supportive and training services provided by Georgia Career Centers. Claimant information includes UI benefit entitlement, weekly benefit amount (WBA), total benefit payments, limited demographic information, and quarterly UI wage records. The wage record data provides a way to examine the employment history of each UI beneficiary.

Complete benefit year data were drawn on all observations entering the system for UI claims during the period January 1, 1996 through September 30, 2001. As summarized in Table 1, these data included 851,054 observations. To focus on UI claims activity and service use since the start of WIA implementation and one-stop career center operations, we restricted our UI claim inflow period to the five quarters available after July 1, 2000. This yielded a sample size of 318,837.

Since PRA offers are to be made to claimants near the top end of the distribution of WPRS profiling scores, we restricted our analysis to the 232,617 claimants assigned a profiling score in Georgia during our inflow period. This implicitly excludes those with a definite recall date and members of union hiring halls; members of these groups are not expected to conduct an independent job search to maintain UI benefit eligibility. An additional PRA eligibility condition is that claimants must be initially eligible for at least 20 weeks of benefits. Imposing this condition reduces the sample size to 156,220. A handful of other observations were excluded to assure complete data on all variables needed for analysis. A sample of 156,181 observations was used in this analysis.

For our analysis sample of 156,181 the pattern of service use is summarized in Table 2 which shows the use of intensive, supportive and training services which would be paid for out of the PRA.<sup>4</sup> The number of participants and the participation rate are split into two time periods: the first 13 weeks of claims, and the weeks in the benefit year remaining after 13 weeks.

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<sup>4</sup>Our count of training service participants is the sum of referrals to training and formal WIA training registrations, correcting for any double counting. The widespread use of Hope grants and scholarships in Georgia funded by the state lottery probably results in lower observed training participation rates for Georgia than is typical in other states. However, Georgia has significant levels of training and the Hope money permits WIA funds to be used more aggressively for supportive and intensive services.

The most popular services in both periods are Customer Service Plan and Counseling, with 18.86 percent and 20.31 percent of profiled claimants using these services in the first period and 4.6 and 5.1 percent, respectively in the second period.

Table 3 expands on Table 2 by adding additional rows at the bottom showing the use of core services which are free to all customers regardless of whether or not they are granted a PRA. Among the core services, in the first 13 weeks Specific Labor Market Information (LMI) is the most popular with 72.54 percent using this service. Other popular core services for this group are Job Order Search (54.18%) and Service Needs Evaluation (41.61%). Near the bottom of Table 3, the service with variable name C20 described as REU/Profiled had 30.21 percent of profiled claimants participating in the first 13 weeks. This is the WPRS referral indicator showing a claimant was sent to the re-employment unit (REU) for profiling reemployment services. Of those referred to WPRS, about 25 percent were excused after reporting.<sup>5</sup> Georgia has a state-based program similar to WPRS, called the Claimant Assistance Program (CAP). CAP is the Georgia UI eligibility review program (ERP) which requires periodic visits to a Georgia Career Center for services by those who continuously remain on a UI benefit claim. More than 37 percent of claimants in our analysis sample were referred to the REU because of selection through either WPRS, CAP or both programs.

Table 4 presents service use data in the first 13 weeks and remainder of the benefit year for the top 30 percent of the WPRS distribution. This is the strata of claimants most likely to be offered a PRA. Use of the intensive services Customer Service Plan and Counseling are higher

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<sup>5</sup>Claimants referred to WPRS reemployment services can be excused if they have a definite date to report to work. They may also be excused because of illness, injury, or to care for dependent children, however in these cases UI benefit entitlement is suspended because of failure to satisfy the “able and available” continuing UI eligibility requirements.

for this targeted group, with 31.7 and 33.3 percent of profiled claimants using these services in the first period and 7.8 and 8.4 percent, respectively in the second period. The core services information shows that 69.84 percent of these claimants near the top of the predicted exhaustion distribution were sent to the REU. Referral to services by the WPRS mechanism probably explains the higher use rate of intensive services. It is this targeted sample on which we conducted simulation analysis of PRAs.

#### **4. Prices for Services**

Under the proposed PRA legislation, states must charge those UI beneficiaries who accept a PRA offer for receiving intensive, supportive, and training services. States must also deduct the cost of services used from the individual's PRA balance before any cash bonus is determined. Therefore states must set prices for services. Information on service costs, which could be used as a basis for service prices, is not readily available. The only commonly published WIA service cost data are total expenditures by state. These state reports are part of the WIA performance measurement system, and they include data on the number of WIA participants in the program year. Average costs per participant can therefore be computed for services overall. However, the average cost of the separate categories of intensive, supportive, and training services is not available.

The simulations presented in this report are based on Georgia UI claimants entering the system between July 1, 2000 and September 30, 2001. This is the first five quarters of WIA program operation. We therefore use WIA cost data for the 2001 program year (PY) as the basic data for service cost prices. In that year, WIA program expenditures in Georgia were \$56.4

million, and average per participant costs were \$3,140.<sup>6</sup> These participants included adults, youth, and dislocated workers enrolled in WIA programs delivering training, intensive and core services.

To perform PRA simulations we need estimates of average costs for separate intensive, supportive, and training services. We therefore decompose the WIA grant by the proportions of customers using each type of service state wide in our sample of UI claimants.<sup>7</sup> Our computations are based only on claimants who would be eligible for a PRA under the rules of the original HR 444 proposal. That is, those with a profiling score (meaning they were neither union hiring hall members, nor waiting employer recall), and having 20 or more weeks of UI entitlement. Additionally we required that complete UI wage records be available.

The computations leading to our service prices are summarized in Table 5, which also reports the use of intensive, supportive, and training services by the 156,181 UI claimants in the sample. Georgia provides five types of intensive services: service coordination, customer service plan, in-depth assessment, counseling, and expanded workshop; plus supportive services. A total of 89,257 services were recorded for the claimants examined.<sup>8</sup> The most popular intensive services are customer service plan and counseling with observed participation rates during the first 13 weeks of claim being of 18.9 and 20.3 percent respectively. A total of 7,024

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<sup>6</sup><[http://www.doleta.gov/usworkforce/performance/State\\_1-Page\\_AR\\_Summaries/georgia.xls](http://www.doleta.gov/usworkforce/performance/State_1-Page_AR_Summaries/georgia.xls)> <Accessed September 25, 2003.>

<sup>7</sup>Many of the core and intensive services provided to UI claimants are financed by Wagner-Peyser grants to the state Employment Service. Our approach is simply to use the shares of participants in intensive, supportive and training services to decompose the WIA grant.

<sup>8</sup>Based on advice from Georgia Department of Labor field Career Center staff, we count participation in a service only once during the first 13 weeks of a claim even if the data indicate multiple occurrences of the same code in the time period. The same rule is applied for counting service participation after the first 13 weeks.

training services were received in the UI benefit year by claimants in our sample. For both intensive and training services, the bulk of service inflows takes place during the first 13 weeks of the UI claim, while for supportive services the majority is provided after 13 weeks into the claim.

In the absence of hard data on service costs, based on informal discussions with one-stop center staff in Georgia, we impose relative prices on the intensive and supportive services. Two intensive services—service coordination and customer service plan—are assumed to have the lowest cost, and they are assigned a single unit value, a type of numéraire for employment services. Twice the unit value is assigned to the other three intensive services: in-depth assessment, counseling, and expanded workshop. Supportive services per recipient are assumed to cost three times the unit value. Finally training services are priced at four times the unit value.

To arrive at our cost estimates, we split the total WIA budget among services based on the number of participants and the relative value in comparison to the numéraire. There were 37,648 services with a unit value, 40,962 with twice the unit value, 3,623 with three times the unit value, and 7,024 with four times the unit value. The resulting unit price for lower cost intensive services is therefore \$356 per participant, the higher cost intensive services average twice that or \$712 per participant. By this approach supportive services are estimated to cost \$1,068 on average per participant. The remaining budget is evenly divided among the 7,024 training participants to arrive at an average cost of \$1,424 per participant. These average service cost prices are consistent with the average service cost per participant of \$3,140, since many service participants use more than one service.



## 5. A Choice Model for PRA Simulations

To design PRA simulations that are relevant for state administrators, it is useful to frame the context of claimant choice by a decision model incorporating the variables governing choices resulting in withdrawals from PRAs—employment and services use. We consider a simple two-period model. The first period includes the first 13 weeks of a claimant’s benefit year. We proxy this by the first 13 UI payments to a PRA participant. This period is the time frame within which a PRA participant must find a job to qualify for a reemployment bonus payment. During this period, the participant can engage in one or more of several activities. He or she can look for a job, find a job (and thus be eligible for the bonus), receive core services, and purchase intensive, supportive, and training services. The second period is the time span a person must remain employed (given that they found a job in the first period) in order to collect the second part of the reemployment bonus. During this period, a PRA participant can receive core services, purchase intensive, supportive, and training services, continue with employment, find new or alternate employment and exhaust benefits.

The choice to purchase services or engage in the other activities depends upon the expected returns from those decisions. Therefore, we need to delineate the costs and benefits of each decision. Costs include the out-of-pocket costs of purchasing intensive or supportive services ( $c_s$ ) and training services ( $c_T$ ) as well as the opportunity cost of spending time receiving services and engaging in search efforts ( $c_z$ ). Benefits include the earnings received from working ( $w$ ), the bonus payments ( $b$ ), and the UI benefits received ( $x$ ). The future expected net benefits depend upon the choice of services and the probability of finding employment.

Therefore, a person in period one who accepts a PRA offer faces several combinations of costs and benefits. For simplicity, we assume that the benefits from actions in a period accrue in the same period. For example, if a person is employed in the first period the wages and the bonus are received during that period. Similarly, the costs accrue in the period in which the actions take place. Note that the wage may differ depending upon whether or not a person receives training. In addition to increasing the likelihood of receiving a job offer, training may increase the reemployment wage and increase the retention rate.

From Figure 1, it is clear that a person's decision to purchase services is complex and is based on their own choices and the ability to find a job, which depends in part on the local economic conditions. For example, the benefits accrued in the first period for those employed and choose to purchase services depend upon several decisions. Since the bonus depends upon the amount of the account left over after purchasing services ( $b_1 - cs - cT$ ), the first decision is how much of their PRA account will they use to purchase intensive and training services? This decision, in turn, depends upon the participant's perception of how much these services will increase his or her probability of finding and retaining a job. The probability of finding a job and the time it takes to become reemployed and start to receive earnings will determine the amount of benefits (wages, bonus, and UI benefits) the participants will receive that first period. Changing the cost of services and the perception of the effectiveness of services may change the choices that PRA participants make.

## **6. PRA Participant Groups**

UI claimants who accept a PRA will be faced with decisions to purchase services based on the prices set and their employment prospects. Since we are not able to simulate what

services would be bought if customers were charged for them, we examine the pattern of service use observed under the current WIA program, and assume as a first approximation that it would not change. In addition, we delineate the service usage by different employment outcomes. This pattern mimics, to the extent possible, the choices of services that UI claimants might make under different employment situations. In reality, the patterns observed in the data are the result of both choices by UI claimants and the referrals to services by program staff.

Two time periods are relevant for decisions about spending on services from a PRA. The first time period is based on the length of time within which an eligible UI claimant must find employment in order to qualify for the first part of the cash bonus. Consequently, period one is the first 13 weeks after a claim. The second period is based on the length of time the UI claimant must maintain a job in order to qualify for the second bonus payment—26 weeks. In each of these two periods a claimant may either be employed or not, and may either use services or not. Figure 2 summarizes the four alternative possible employment states, and Figure 3 shows the 16 possible employment and service use states in the two time periods.

The rows Figure 2 represent the employment status in period one and the columns show the status in period two. We denote employment status (E) by a 1 for employment and 0 for non-employment. Accounting for employment status in the two periods, we use the first numeral to indicate employment status in period one and the second numeral to indicate employment status in period two. For example, E10 represents the group of UI claimants employed in the first 13 weeks, but not employed after 13 weeks. The numbers in parentheses are the proportion of sample in each employment group. The first number is the share in the full sample, and the second number is the share in the top 30 percent of the WPRS distribution. Introducing a PRA

would be most likely to move UI claimants from either E10 or E01 to E11. There could also be movement from the largest cell, E00 to either E10 or perhaps E11. Our simulations inducing quicker return to work investigate the cost impacts of such movements.

To create the employed and not-employed groups in the two periods, we set clear definitions for these concepts based on available administrative data. Our definitions are set to approximate qualification for the first and second bonus payments from a PRA. A claimant is classified as employed in the first period if full-time equivalent weeks of UI benefits drawn is less than or equal to 13.<sup>9</sup> That is if total UI compensation paid in the benefit year divided by the weekly benefit amount (WBA) is less than or equal to 13. We adopted this definition since week-by-week UI compensation data were not available to us.

The definition of employment in the second period is based on quarterly wage records. For the second bonus to be paid, a claimant must remain employed at least six months. We examine the three quarters of wage records following the quarter in which the benefit year begin (BYB) date occurred. A client is considered employed in the second period if any wages are present in the first and third quarters following the quarter in which the BYB occurs and if wages total \$2,000 or more in the second quarter following the BYB. Since a quarter is 13 weeks long, there must be some employment in the first full quarter after the quarter of filing for UI benefits if there is reemployment within 13 weeks and it is maintained for six months. However, it is not necessary to require employment for that full quarter, so we require only \$1 in earnings to appear in the wage record for that quarter. We require at least \$2,000 in earnings during the second quarter since this approximates the minimum wage for 13 weeks at 30 hours per week. Finally,

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<sup>9</sup>Only a small fraction of UI claimants actually have more than one spell of joblessness in a benefit year.

six months continuous employment may be achieved without being employed throughout the third quarter after claiming benefits, so we require only \$1 in earnings during that quarter.

In our simulations, the first bonus will be paid if there is employment in period one by the above definition, provided a PRA has not been exhausted by spending on employment services. However, a second bonus will be paid only if there is employment in both periods. That is, provided money remains in the PRA, a second bonus payment results for those in group E11, but not for those in group E01.

Figure 3 provides a representation of the possibilities for service use in the two time periods of the benefit year. Using notation like that for employment, S11 denotes the group purchasing services in both time periods. S10 represents the group of claimants who purchase services in the first period, but not in the second period. When simulating expenditures from PRAs, it is important to note that receipt of services in the second period disqualifies a claimant from being paid a second bonus.

For each of the four employment groups, E11, E10, E01, and E00, there are four possible service purchases groups. Figure 3 adds the service purchase groups to the employment outcome groups to yield the 16 employment and service groups that are the basis of our simulations. Table 6 presents information about the relative size of each of these 16 groups of profiled UI claimants. The table also provides mean values for each group on important UI program and demographic characteristics. Among the employment groups, about one third are employed in both periods by our definitions, another third are not employed in either period, and the remaining third are employed in one but not both time periods.

For each of the four major employment groups, Table 6 orders the service receipt groups by the likelihood of bonus payment. That is, bonuses would more likely be paid to those in groups S00 and S10, while those in groups S01 and S11 could be paid a first bonus but not a second bonus. Within each of the four major employment groups, the largest service group is S00—no services used in either period.

In terms of average full time equivalent (FTE) weeks of UI benefits paid in the benefit year, the shortest mean durations are for the employment groups with employment in the first period. Groups E11 and E10 have mean durations of 3.8 and 2.5 weeks respectively. The mean durations of UI receipt for E01 and E00 are 19.3 and 22.9 weeks respectively.

The entitled duration of UI benefits and the mean weekly benefit amount (WBA) are similar across the employment groups. This is true both for the actual WBA data and assuming the new 2003 maximum WBA in Georgia of \$300 per week.

Workers under age 25 constitute 8.8 percent of our analysis sample. The most common reemployment pattern for these younger workers was to gain reemployment in period one, but not to hold it in period two. For those in the 25 to 45 age group, the most common pattern was employment in both periods. Among workers over age 45, the most common pattern was to be out of work in both periods. The greatest latitude for reemployment response to PRAs may be among younger and older workers.

To group claimants by income, we examined quarterly earnings reported in wage records during the first four of the five quarters preceding the benefit claim, which is known as the “base period” for UI. From these quarterly wages we selected the highest value as a proxy for earnings in a quarter of full working hours. We then ranked these and identified claimants in the bottom

quarter of the distribution as the low income group. The largest share of low income claimants were those who found employment in the first period but not in the second. This may have resulted partly from our definition of second period employment that requires at least \$2,000 earnings in the second quarter after claim. However, those not employed in either period had a dramatically lower share in the low income group.

Table 7 presents a summary of characteristics for the 16 employment and service groups in the top 30 percent of the WPRS distribution. As expected for this targeted group, in the absence of a behavioral response, smaller proportions of the sample would qualify for either a first or second bonus. The average duration of entitled weeks of UI is distributed like the whole sample, but the average number of UI weeks of compensation is uniformly higher. Mean weekly benefit amounts are somewhat higher and the sample includes a significantly higher proportion of older workers. The age and earnings results are consistent with the aims of WPRS targeting which aims to serve dislocated workers.

## **7. State-Wide Simulation Results**

The simulations involve applying the prices for services to the patterns of service use by individuals in the 16 employment/service groups defined in the Georgia sample. Since the simulations are based on individual claimant observations, we simply apply the proposed PRA rules to each observation in the data. This approach is preferred to one relying on subgroup averages that could generate misleading results because of imposing PRA rules at an aggregate rather than individual level. For example, the mean services expenditure for a particular employment/services group could indicate that mean PRA budgets are exhausted before either the second bonus payments can be made or services are purchased in period two. However, for

some individuals who used fewer services than average for the group in period one, there may be sufficient funds for services or a bonus in period two.

Even with our rich Georgia data set, we cannot observe the likely response to several features of the proposed PRAs. For example, 1) the proportion of claimants who will accept a PRA offer, 2) the effect of charging for services on choices about participating in services, and 3) the effect of PRA offers on the duration of benefit receipt? We choose simple answers to each of these questions. If a state were actually to implement PRAs, these parameters would be monitored and the simulations updated for purposes of managing enrollment rates. Our approach is to compute baseline PRA enrollment estimates assuming no behavioral response to any of the incentives introduced by PRAs. We then examine the effect of relaxing these assumptions

Regarding the acceptance rate of PRA offers, only the Illinois reemployment bonus experiment had a similar requirement. In that instance, 80 percent of those offered the chance of qualifying for a bonus payment agreed to participate in the demonstration (Woodbury and Spiegelman 1986). There were no particular claimant characteristics correlated with the decision to participate. Our assumption for the simulations is that everyone offered a PRA accepts. This assumption could be easily adjusted by re-scaling our simulated enrollment rates by the reciprocal of the observed participation acceptance rate.

If the imposition of prices reduces the use of services, then our simulation will overestimate service use and perhaps underestimate the bonuses paid. Our simulations assume that the services chosen in the absence of directly charging for them are the same services that would be chosen if UI claimants were required to pay out of PRAs for intensive, supportive and



training services. Without observing choice in an environment where services must be paid for by participants, it is impossible to make a reasonable alternative assumption. At the extreme, it is possible that given the choice between a PRA and free services, claimants would accept a PRA and the chance of a cash bonus only if they had no intention of using the PRA to buy services. To include this possibility we include simulations where there is no payment for services.

The simulation methodology is summarized in Table 8 for a PRA involving all three components: 1) a reemployment bonus, 2) purchase of services, and 3) extended income maintenance payments. Given the 16 employment/services categories defined for the two PRA decision periods in the benefit year, we set baseline simulations for targeted PRAs by calculating the mean cost of services used and bonuses paid for claimants in each group. These computations assume that PRAs were provided to the top 30 percent of the WPRS profiling distribution of Georgia UI claimants assigned a profiling score and initially eligible for at least 20 weeks of UI benefits. This simulation also assumes that every PRA offered is \$3,000. The mean spending for each of the 16 employment/service groups is the simple row sum of the bonus, costs, spending for services, and extended compensation for the two periods listed in Table 8. The simulations amount to multiplying the mean group spending by the group proportion in the full sample to yield the expected budget impact listed in the far right column of the table for each group listed by row. The mean cost per offer is the sum of these expected budget impacts for the 16 groups or \$2,475. This result suggests that the actual budgetary cost of making a \$3,000 PRA offer more than \$500 less than that amount.

The proposed legislation would provide \$3.6 billion to fund PRA offers in states for two years. The budget is to be allocated among the states in proportion to their share of the nation's measured unemployment. Based on calendar year 2002 figures, 2.37 percent of the nation's unemployed were in Georgia, meaning the state's share of the PRA budget would be \$85.32 million (Lawrence 2003). If every claimant who was offered a \$3,000 PRA spent their full grant then 28,440 offers could be made. However, under the assumptions of the simulation presented in Table 8, offers could be made to 34,473 claimants. Changing the simulation assumptions will change this result.

Table 9 summarizes a simulation wherein PRAs include bonus offers and spending on services, but there is no provision for extended UI benefits. The expected cost per \$3,000 PRA offer targeted to the top 30 percent most likely to exhaust their UI entitlement is \$1,452. This expected cost figure suggests that 58,760 offers could be made with the planned budget grant to Georgia. That would be more than 29,000 offers in each of two years, or 70 percent more offers than the number possible when the extended compensation feature is part of PRAs.

The simulation summarized in Table 10 presumes the only feature of the PRA is a targeted reemployment bonus (O'Leary, Decker and Wandner Forthcoming). Effectively, this simulation assumes that the prices for services are all zero and there is no extended compensation. The expected cost per \$3,000 targeted bonus offer is simulated as being \$1,040, so that 82,038 such offers could be made given the assumed budget for Georgia.

A complete array of simulation results is presented in Table 11. Simulations were computed on the targeted sample of the top 30 percent most likely to exhaust UI as identified by the new Georgia WPRS profiling model, assuming the PRA offers were a uniform \$3,000. For

the three PRA definitions examined in Tables 8, 9, and 10, simulation results are presented for the baseline case of no behavioral response, and assuming that the PRA offer shortens insured durations by one and two weeks. A one week response is at the very top end of all reemployment bonus offer impacts estimated (Robins and Spiegelman 2002). We consider the two week response to ensure that we span the entire range of possible responses to PRA offers. The 1- and 2-week behavioral responses are simulated by simply expanding the period one reemployment definition from 13 weeks to 14 and 15 weeks respectively. For these simulations, counts of services purchased are also adjusted to the alternate time frames.

For the full feature PRA with all three elements, a one week impact raises the average cost by \$40 per offer and a two week impact raises the average cost by \$76. These changes translate into relatively modest reductions in the number of offers possible. This result obtains because the bonus payment costs are only a fraction of PRA spending which also includes buying services and drawing extended compensation. The one and two week response has the same affect on costs and enrollment for the two feature PRA with a bonus and purchase of services. For the bonus only offer, the one week impact raises the average cost by \$46 and the two week impact by \$91. Since these bonus only changes are relative to a smaller average cost per offer than the two or three feature PRA, the proportionate reduction in offers possible is greater. Nonetheless, even allowing for a sizable behavioral response, the bonus only offer could be made to a significantly larger group given the available budget.

## **8. Choosing the Bonus or Services**

Imputing effects of positive prices on the bundles of services chosen is a difficult task. However, we offer an example that clearly exposes the alternatives available. Our example

answers the simple question: what reemployment outcomes would make a participant indifferent between either of the two extremes: 1) purchasing no services with the hope of receiving the full PRA amount in bonus payments, or 2) spending the entire PRA amount to purchase services with the hope of speeding up reemployment or receiving a higher reemployment wage. The elements of this decision are summarized in Table 12 by weekly incomes under alternative choices. The example assumes the PRA value is \$3,000, the WBA is \$300, and weekly reemployment earnings are earnings \$800. The bottom row of Table 12 presents net present values of the bonus only and services only alternatives assuming an annual discount rate of 3 percent.

Choice between the alternative strategies is made at the time of the PRA offer. The bonus only column in Table 12 assumes WBA receipt for 12 weeks, with a bonus of \$1,800 paid in week 13 together with \$800 in earnings. Steady employment is then maintained for 6 months and a \$1,200 bonus and \$800 in earnings accrues in week 39 yielding a net present value of \$27,825.

A PRA recipient could rationally choose to spend the entire budget on services if either earnings were expected to increase or reemployment were expected to occur sooner. Compared to the no services strategy, the third column of Table 12 shows that weekly wages would have to exceed \$911 or nearly 14 percent higher than the assumed \$800 reemployment wage, if the PRA was spent on services and reemployment occurred in the 13<sup>th</sup> week. Such a large gain in earnings is unlikely to result from reemployment services or short term job training (Leigh 1995, pp. 88–91).

If reemployment services resulted in no wage gain but did yield quicker reemployment, the fourth column of Table 12 shows that the new job must begin by the seventh week after the PRA is offered—or six weeks sooner—to make the PRA recipient as well off as if no services were purchased and steady employment started in the 13<sup>th</sup> week and lasted six months. Evidence on the effectiveness of employment services and job training suggests that both improve the chances of reemployment, but neither speeds return to work by as much as six weeks. Job training may actually prolong somewhat the time until return to work, while reemployment services shorten unemployment durations of UI recipients by at most two weeks (O’Leary forthcoming).

Reemployment services are cost effective because they are inexpensive to deliver, not because they have large impacts. The structure of the proposed PRA, and the expected impacts of services and training on earnings and reemployment suggest that claimants will tend to conserve PRA funds in favor of reemployment bonus payments rather than spending on services early in their UI benefit year.

## **9. Sub-State Budget Allocation Alternatives**

The proposed Back to Work Incentive Act of 2003 allocated \$3.6 billion for PRA enrollments over two years with funds distributed to states in proportion to their share of national unemployment. Based on 2002 unemployment figures the Georgia share is 2.37 percent or \$85.32 million. The proposal also required allocation of PRA money within states by the same rule. Table 13 summarizes how money would be distributed to WIA service delivery regions (SDR) within Georgia based on this rule and an alternate rule with shares depending on counts of UI claims. The latter rule would allocate PRA funding based on the extent to which unemployed

workers qualify for UI. Such a rule would be most appropriate for the national allocation to states, since it would provide larger shares to states having UI eligibility rules accommodating the regional unemployment situation. The current formula allocates PRA money to states based on the level of unemployment regardless of whether state UI law adequately provides for the jobless.

Based on the allocation rule in proposed legislation, Georgia SDR 3 which includes Atlanta would receive 37.9 percent of the state PRA budget while SDR 1 in Northern Georgia would get 8.4 percent. Under the alternate rule where the allocation depends on the share of valid initial UI claims, the SDR 3 share would fall to 34.4 percent while the SDR 1 share would rise to 11.1 percent. As the far right column in Table 13 shows, changing the budget allocation rule would decrease the dollar funding in SDR 3 by 9.2 percent, raise the dollar funding in SDR 1 by 30.8 percent. The change in funding formula would benefit Northern Georgia, leave Coastal Georgia unchanged, and hurt Atlanta and the balance of the state.

Since PRA offers are to be made based on WPRS model predicted probability of UI benefit exhaustion, for any given budget allocation to an SDR the number of offers that can be made depend on the employment probabilities in the two periods and the pattern of service use. Service use patterns vary across regions within the state both because of custom and because the services best suited to local labor market conditions differ. To exhaust the SDR budget allocation for PRAs, the SDRs will enroll differing proportions of the top of the WPRS profiling score distribution.

Based on the new Georgia WPRS model, Table 14 shows the average actual cost of making a \$3,000 PRA offer in each of the 12 Georgia SDRs for the full sample and for offers to

top groups in the WPRS score distribution. The PRA simulated includes a bonus and purchase of services, but not extended compensation. Starting with the top 15 percent, costs for five additional groups are examined by lowering the threshold to include 5 percentage points more of the distribution in each group.<sup>10</sup>

The distribution of SDR scores around the state of Georgia is not uniform. High unemployment areas, such as central city Atlanta, tend to have more UI claimants at the top of the state distribution of WPRS scores than low unemployment areas. Consequently, a high unemployment area would most likely exhaust a PRA budget at a higher threshold of the state WPRS distribution than an area with lower unemployment that would need to go deeper in the distribution. The figures in Table 14 show the numbers of UI claimants in top groups of the state WPRS distribution who could be offered a PRA in each SDR in a given year. Table 14 also shows how far into the state wide profiling distribution each SDR has to go to exhaust their PRA budget under the proposed and alternative budget allocation rules. Results are given for the within state budget allocations based both on the distribution of unemployment and the distribution of valid initial UI claims. We see that in the Atlanta area SDR 3 enrollment could be made to claimants in the top 19 percent of the state-wide profiling distribution under the proposed budget allocation and claimants in the top 17 percent under the alternative allocation. The similar target groups in SDR 1 are the top 31 and 41 percent respectively. This table makes it clear that under the proposed funding mechanism, it is impossible to set a single threshold score to be applied statewide in all SDRs.

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<sup>10</sup>In these simulations, totaling the spending figures across SDRs does not yield exactly \$42.66 million, or half of the expected Georgia grant of \$85.32 million, because computations in each SDR are based on costs for targeted groups set by rounding to whole percentile point groups of the profiling distribution.

Table 15 repeats the exercise of Table 14, except that the percentages listed are not the local SDR thresholds based on the state-wide distribution of WPRS scores, instead they are the percentages of the top of the local distribution of WPRS scores. That is, instead of showing the point in the state-wide distribution where local enrollment would stop, the numbers in Table 15 indicate the share of all profiled claimants in an SDR that could be offered a PRA. The table indicates that, if all those offered a PRA accept, then between 20 and 30 percent of the top of the profiling distribution in each SDR could be offered a PRA.

In Table 15 the enrollment numbers by the unemployment method suggest that SDR 1 should enroll 2,504 per year into PRAs, or about 200 per month. If the PRA acceptance rate is lower, the figures should be rescaled by the reciprocal of the acceptance rate. For example if 80 percent of offers are accepted, then PRAs should be offered to 125 percent of the target number. For SDR 1, instead of offering 2,500 PRAs, 3,000 offers would be made.

## **10. Summary and Extensions**

Congress proposed personal reemployment accounts in the Back to Work Incentive Act of 2003. The legislation did not succeed, but features of the PRA may resurface in future proposals. The recommended PRA would provide each eligible UI claimant with a special account of up to \$3,000 that can be used to purchase job training and intensive reemployment and supportive services. Any funds remaining in the PRA could be paid as a cash bonus for reemployment within 13 weeks. Claimants exhausting their regular UI entitlement could draw extended compensation from remaining PRA funds at the rate of their WBA. The Back to Work bill called for a budget of \$3.6 billion for PRAs, with the money to be committed over a two year



period. The budget for PRAs was to be divided according to the state shares of total unemployment.

This paper provides a simulation analysis of questions relevant to implementation of PRAs by states. The analysis is done using data for the state of Georgia. The simulations rely on recent patterns of intensive, supportive and training services use. Simulations for alternative rules setting the PRA amount and varying behavioral responses are examined. Like the legislative proposal, simulated PRA offers are targeted using Worker Profiling and Reemployment Services (WPRS) models.

Our baseline simulations presume that the pattern of using reemployment services observed in one-stop centers under WIA would continue if PRAs were introduced. These simulations start by asking the question, what would the average PRA offer of \$3,000 actually cost the system under the current pattern of service use and UI benefit receipt observed? The key question examined is how many PRA offers could be made with a fixed budget? Under the proposed legislation, the PRA grant to Georgia would be \$85.32 million. If every PRA recipient spent the entire \$3,000 grant, then 28,440 offers could be made over two years, or 14,220 offers per year. However, our simulations suggest that many more PRAs could be offered in Georgia given this budget.

If there is no behavioral response to the \$3,000 PRA offered to the top 30 percent of those most likely to exhaust UI, our simulation suggests that offers could be made to 34,473 claimants over two years, or 17,236 per year. This number is 20 percent more than the number offered assuming all PRA recipients exhaust their budget. Even assuming that PRA offers induced UI spells that were one or two weeks shorter than usual, the targeted simulations suggest

that at least 33,446 PRAs of \$3,000 each could be made over two years in Georgia given the projected budget. A prudent approach to PRA enrollment would be to enroll about 16,000 the first year and monitor the rate of using the PRA budget and then to adjust enrollment in the second year.

Since PRAs involve paying for intensive, supportive and training services our simulations made assumptions about the prices for these services. We set prices based on total WIA expenditures in 2001 and observed service participation rates. There is uncertainty about what the actual prices would be for services if PRAs were implemented, so we conducted price sensitivity analysis of our simulation results. We found that doubling the price of services reduced the number of offers possible by about 20 percent. Similarly, halving service prices increased the number of offers possible by about 20 percent. That is, the cost of PRA offers is relatively insensitive to changes in the price of services. Appendix A to this report presents results from a spreadsheet that contains an aggregate version of a simulation cutting services prices in half. State policy makers could use the Microsoft Excel version of the spreadsheet to examine the effect of changing key parameters, such as the price of services, to observe how the change would affect the various outcomes of the simulation.<sup>11</sup> The simulations presented in Appendix A assume the PRA provides for services purchases and bonus payments, but not extended income maintenance payments.

Since the extended benefits feature is the most expensive part of PRA offers, we conducted several simulations of PRAs involving only a reemployment bonus and purchase of

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<sup>11</sup>The simulation reported in this document is based on information from the records of individuals 46,855 targeted individuals. Because of space constraints and confidentiality concerns, the spreadsheet is based on data aggregated by subgroups. The results are qualitatively similar but not identical to the micro data based simulations.

services. Assuming no behavioral response, the average cost per offer dropped to \$1,452 and the number of offers possible rose to 58,760. Even assuming a two week response to the offer, nearly 28,000 offers per year are possible with this simplified PRA.

We further simplified the PRA offer and performed simulations under the extreme assumption that service prices are zero. That is, “free services” simulations. This assumes essentially that the PRA is a reemployment bonus offer, and that UI claimants may use intensive, supportive, or training services as they choose. The PRA costs declined and possible enrollments for Georgia increased to about 39,000 per year under our simulations.

An important question in implementing PRAs, in which customers must pay for services from their account that were previously provided at no charge, is whether or not the customers could still get the same set of services they chose before? We found that under a PRA with only a bonus and purchase of services, only about 1.0 percent of beneficiaries would have a shortfall in purchasing their desired bundle of services. If there were no bonus payments, then only 0.5 percent of claimants could not afford their desired services. Taken together these results suggest that \$3,000 PRAs granted to the top 30 percent of the profiling distribution would be sufficient to buy the preferred set of reemployment services for all but less than one percent of claimants.

While we did not simulate how charging for services may change the choice of services used, we did consider a simple example to reveal the choices involved. Given estimates of the likely effect of reemployment services on the speed of reemployment and earnings for reemployment, and the time horizon involved in PRA decisions, most PRA recipients will probably conserve PRA funds by using fewer intensive, supportive and training services than if

they were free. Account recipients will instead seek speedy employment with the aim of cashing out their PRA as a reemployment bonus.

We also did simulations of an alternative definition of the PRA amount from a fixed cash amount to a multiple of the WBA with a minimum set at \$1,500. Such a rule is similar to the design of reemployment bonus offers in the Pennsylvania and Washington field experiments. Under this design the average cost per PRA offer declined and the number of offers possible increased.

It is important to consider alternatives to the fixed \$3,000 value of the PRA given other design parameters. In particular the rule specifying that 60 percent of the remaining PRA balance would be paid immediately if reemployment is achieved within the first 13 weeks of claim raises concerns about the PRA effect on reemployment wage rates. All of the offers tested in the four reemployment bonus experiments required at least 16 weeks of continuous reemployment before a bonus was paid. In none of the experiments did bonus offers induce claimants to accept lower paying jobs (Decker, O'Leary and Woodbury 2002, p. 164). However, that might not be the case under the proposed PRA design with 60 percent of the balance paid upon reemployment and a fixed \$3,000 grant regardless of prior earnings history. In particular, low wage workers may be induced to accept any paying job to qualify for a quick \$1,800 payment. A PRA design with the grant set at a multiple of the WBA above a minimum value should be considered.

We also examined the proposed and alternative rules for allocation to service delivery regions (SDR) within the state. Under the proposed rule which allocates money based on the SDR share of state unemployment, it will be impossible to set a single threshold for PRA

enrollment based on the statewide distribution of WPRS profiling scores. Exhausting SDR budget allocations would require PRA offers to profiled claimants anywhere between the top 20 percent and the top 40 percent of the state-wide distribution of WPRS scores. On average about the 27 percent of the WPRS ranking in any SDR would be given an offer with a range from 20 to 36 percent at the top of the distribution. We also report simulation results for SDR allocations based on shares of valid new UI claims.

Finally, it should be reiterated that the simulation results discussed in this report presume that all PRA offers made to targeted UI claimants are accepted, but that might not be the case. If only a fraction of offers are accepted, then the number of offers made can be scaled up accordingly. For example if an 80 percent acceptance rate occurs, like in the Illinois reemployment bonus experiment, then 25 percent more offers could be made. The PRA acceptance rate is one of the parameters that should be monitored by states during PRA implementation, and first year enrollment.

The introduction of PRA offers into the UI system may have effects beyond changes in the mean duration of benefit receipt. Two particular cautions have been raised regarding reemployment bonus offers. These are known as entry and displacement effects (Meyer 1995). Under usual conditions in the United States, only about two-thirds of those eligible for UI benefits actually claim and collect them during a spell of joblessness (Blank and Card 1991). The availability of a cash bonus could induce some job-separated people to enter the UI system and claim benefits while in the absence of a possible bonus offer they otherwise would have quickly accepted a new job. Displacement would occur if a cash bonus offer increases reemployment of those offered the bonus at the expense of some of those not offered the bonus.

However, UI entry effects from the bonus are much less likely if bonus offers are “targeted to those workers whose characteristics are highly correlated with long-term unemployment” (Executive Office of the President, Council of Economic Advisers 2003, p. 125). Targeting PRA offers would also mollify any displacement effects since only a fraction of UI claimants would be given offers.

Table 1  
Summary of Sample Size for PRA Analysis

Selection Criteria	Resulting Sample Size
Georgia UI Data Currently Available (*1)	851,054
Start of WIA to Present (7/1/00 - 9/30/01)	318,837
Clients Have a Profiling Score	232,617
Clients Have 20 or More Weeks of Entitlement	156,220
Final Sample Size (*2)	156,181
Employed 1 <sup>st</sup> Period (E <sub>1</sub> , *3)	90,299
Employed 2 <sup>nd</sup> Period (E <sub>2</sub> , *4)	66,175
Training/Intensive Services in 1 <sup>st</sup> Period (S <sub>1</sub> )	36,483
Training/Intensive Services in 2 <sup>nd</sup> Period (S <sub>2</sub> )	11,411

(\*1) Based on clients' most recent UI claim covering Benefit Year Begin dates (BYB) January 1, 1996 through September 30, 2001. Since the analysis requires complete benefit year information, September 30, 2001 marks the latest inflow date for which all UI compensation and services information is known, given the data currently available to the Upjohn Institute.

(\*2) Although only monetarily valid claims are included in the sample, 30 observations were excluded because no wage data were found in the five quarters preceding the benefit year begin date. Another 9 observations were excluded due to missing data needed to solve the new Georgia profiling model for the simulations.

(\*3) This is the number of persons whose full-time equivalent weeks of unemployment is 13 weeks or less. Full-time equivalent weeks is defined as total UI compensation received in the benefit year divided by the weekly benefit amount. Since week-by-week UI compensation data are not available, this is meant to proxy the first spell of unemployment.

(\*4) Based on the three quarters of wage data following the quarter in which the benefit year begin date occurred. A client is considered employed in the second period if some wages are present in the first and third quarters following the quarter in which the BYB occurs and wages total \$2000 or more in the second quarter following the BYB.

Table 2  
 Intensive, Supportive, and Training Service Usage  
 During the First 13 weeks and the Remainder of the UI Benefit Year  
 Georgia UI Claimants July 1, 2000 to September 30, 2001

Service Type	Service Description	First 13 Weeks		After 13 Weeks	
		Participants	Rate	Participants	Rate
Intensive	Service Coordination	773	0.0049	278	0.0018
Intensive	Customer Service Plan	29,456	0.1886	7,141	0.0457
Intensive	In-Depth Assessment	159	0.0015	68	0.0006
Intensive	Counseling	31,722	0.2031	7,939	0.0508
Intensive	Expanded Workshop	588	0.0038	486	0.0031
Supportive	Supportive Services	2,617	0.0168	1,006	0.0064
Training	Job Skill Training	4,229	0.0207	2,795	0.0179



Table 3  
State-wide Service Participation Rate Summary

Variable	Service Description	Sample Size	First 13 Weeks		After 13 Weeks	
			Participants	Rate	Participants	Rate
i1	Service Coordination	156,181	773	0.0049	278	0.0018
i2	Customer Service Plan	156,181	29,456	0.1886	7,141	0.0457
i3	In-Depth Assessment	107,126	159	0.0015	68	0.0006
i4	Counseling	156,181	31,722	0.2031	7,939	0.0508
i5	Expanded Workshop	156,181	588	0.0038	486	0.0031
c18	Supportive Services	156,181	2,617	0.0168	1,006	0.0064
t	Training	156,181	4,229	0.0207	2,795	0.0179
Total Intensive/Supportive/Training		156,181	36,483	0.2336	11,411	0.0731
c00	Job Referral	156,181	34,308	0.2197	26,305	0.1684
c01	Order Search	156,181	84,616	0.5418	31,987	0.2048
c02	Job Search Planning	156,181	40,549	0.2596	18,752	0.1201
c03	Service Needs Eval	156,181	64,987	0.4161	8,627	0.0552
c04	Orientation	156,181	56,767	0.3635	4,114	0.0263
c04W	Orientation w/ Workshop	107,126	23,104	0.2157	1,982	0.0185
c05	ERP	156,181	57,609	0.3689	27,730	0.1776
c07	Specific LMI	156,181	113,288	0.7254	38,118	0.2441
c08	Resume Preparation	156,181	11,193	0.0717	4,334	0.0277
c10	Workshops <sup>a</sup>	156,181	38,425	0.2460	10,992	0.0704
c101	RePlace Yourself	107,126	7,354	0.0686	582	0.0054
c102	Financial/Stress	107,126	2,240	0.0209	874	0.0082
c103	Resume	107,126	3,032	0.0283	1,284	0.0120
c104	Internet	107,126	1,838	0.0172	1,109	0.0104
c105	Interviewing	107,126	3,683	0.0344	1,831	0.0171
c106	Retention	107,126	134	0.0013	99	0.0009
c107	Applications	107,126	1,159	0.0108	564	0.0053
c108	Networking	107,126	2,625	0.0245	1,342	0.0125
c10A	Other Workshop	107,126	4,969	0.0464	3,660	0.0342
c11	Job Search Assistance	156,181	37,211	0.2383	19,714	0.1262
c12	Call-In	156,181	6,561	0.0420	4,561	0.0292
c13	Job Development	156,181	6,976	0.0447	3,809	0.0244
c14	Job Finding Club	156,181	86	0.0006	54	0.0003
c15	Test	156,181	858	0.0055	626	0.0040
c16	Bonding Assistance	156,181	150	0.0010	70	0.0004
c20	REU/Profiled	156,181	47,177	0.3021	65	0.0004
pro	Profiling/CAP	156,181	57,837	0.3703	11,571	0.0741

<sup>a</sup> For participation after January 1, 2001 data on the specific type of workshop is also available.

Table 4  
State-wide Service Participation Rate Summary for Top 30 Percent of Profiling Scores

Variable	Description	Sample size	First 13 weeks		After 13 weeks	
			Participants	Rate	Participants	Rate
i1	Service Coordination	46855	283	0.0060	83	0.0018
i2	Customer Service Plan	46855	14,836	0.3166	3,674	0.0784
i3	In-Depth Assessment	34431	63	0.0018	24	0.0007
i4	Counseling	46855	15,610	0.3332	3,920	0.0837
i5	Expanded Workshop	46855	94	0.0020	96	0.0020
c18	Ref to Support Services	46855	983	0.0210	311	0.0066
t	Training	46855	2,289	0.0489	1,122	0.0239
Total	Total Intensive/Training	46855	17,777	0.3794	5,221	0.1114
c00	Job Referral	46855	9,642	0.2058	7,395	0.1578
c01	Order Search	46855	27,301	0.5827	11,152	0.2380
c02	Job Search Planning	46855	15,024	0.3206	6,668	0.1423
c03	Service Needs Eval	46855	33,617	0.7175	2,851	0.0608
c04	Orientation	46855	30,939	0.6603	1,350	0.0288
c04W	Orientation w/ Workshop	34431	13,449	0.3906	736	0.0214
c05	ERP	46855	32,126	0.6856	15,124	0.3228
c07	Specific LMI	46855	35,317	0.7538	13,025	0.2780
c08	Resume Preparation	46855	4,858	0.1037	1,601	0.0342
c10	Workshops	46855	20,852	0.4450	5,633	0.1202
c101	RePlace Yourself	34431	3,717	0.1080	247	0.0072
c102	Financial/Stress	34431	1,280	0.0372	486	0.0141
c103	Resume	34431	1,915	0.0556	704	0.0204
c104	Internet	34431	1,026	0.0298	583	0.0169
c105	Interviewing	34431	2,272	0.0660	922	0.0268
c106	Retention	34431	58	0.0017	34	0.0010
c107	Applications	34431	770	0.0224	312	0.0091
c108	Networking	34431	1,492	0.0433	701	0.0204
c10A	Other Workshop	34431	2,944	0.0855	1,948	0.0566
c11	Job Search Assistance	46855	16,241	0.3466	8,582	0.1832
c12	Call-In	46855	2,124	0.0453	1,374	0.0293
c13	Job Development	46855	2,614	0.0558	1,363	0.0291
c14	Job Finding Club	46855	26	0.0006	17	0.0004
c15	Test	46855	485	0.0104	334	0.0071
c16	Bonding Assistance	46855	39	0.0008	17	0.0004
c20	REU/Profiled	46855	30,620	0.6535	24	0.0005
pro	Profiling/CAP	46855	32,725	0.6984	5,812	0.1240

Table 5  
Prices for Intensive, Supportive, and Training Services

Georgia UI Claims 7/1/2000 to 9/30/2001	Total Services	Cost Factor	Service Price
<b>Intensive Services</b>			
Service coordination	1,051	1.0	\$356
Customer service plan	36,597	1.0	\$356
In -Depth Assessment	227	2.0	\$712
Counseling	39,661	2.0	\$712
Expanded workshop	1,074	2.0	\$712
 Supportive Services	 3,623	 3.0	 \$1,068
 Training Services	 7,024	 4.0	 \$1,424

Table 6  
UI and Demographic Summary by Bonus Qualification / Service Receipt Group

Group	Size	Proportion of total sample	Entitled weeks	FTE Weeks	Mean WBA (New Max)	Age < 25	Age > 45	Income, bottom 25%
E11S00	42,517	0.272	23.8	3.3	252	0.102	0.226	0.235
E11S10	10,329	0.066	24.1	5.7	258	0.070	0.263	0.203
E11S01	436	0.003	23.4	4.3	243	0.062	0.230	0.298
E11S11	325	0.002	23.9	6.4	256	0.052	0.269	0.206
Group E11 Total	53,607	0.343	23.8	3.8	253	0.095	0.234	0.230
E10S00	30,179	0.193	23.3	2.1	231	0.135	0.244	0.368
E10S10	5,474	0.035	23.6	5.0	234	0.100	0.296	0.344
E10S01	683	0.004	22.7	1.9	200	0.204	0.201	0.564
E10S11	356	0.002	23.0	3.6	213	0.141	0.220	0.461
Group E10 Total	36,692	0.235	23.3	2.5	231	0.131	0.251	0.369
E01S00	8,624	0.055	23.9	19.4	263	0.057	0.281	0.163
E01S10	2,656	0.017	24.0	18.8	261	0.057	0.283	0.179
E01S01	263	0.002	23.9	19.8	259	0.057	0.313	0.205
E01S11	1,025	0.007	23.9	19.9	258	0.049	0.326	0.185
Group E01 Total	12,568	0.080	23.9	19.3	262	0.056	0.286	0.169
E00S00	34,976	0.224	24.0	22.9	258	0.061	0.347	0.202
E00S10	10,015	0.064	24.0	22.7	257	0.056	0.375	0.207
E00S01	2,020	0.013	23.7	23.1	252	0.059	0.326	0.238
E00S11	6,303	0.040	23.9	23.2	253	0.047	0.414	0.232
Group E00 Total	53,314	0.341	24.0	22.9	257	0.058	0.360	0.208
Total	156,181	1.000	23.8	11.3	250	0.088	0.285	0.250

Table 7  
 UI and Demographic Summary by Bonus Qualification / Service Receipt Group  
 for the Top 30 Percent of the Profiling Distribution

Group	Size	Proportion of total sample	Entitled weeks	FTE weeks	Mean WBA (original)	Mean WBA (new max)	Age < 25	Age > 45	Income, bottom 25%
E11S00	7,501	0.160	24.2	5.3	256	270	0.047	0.338	0.143
E11S10	4,830	0.103	24.1	6.2	245	261	0.060	0.305	0.209
E11S01	53	0.001	23.7	5.2	248	263	0.000	0.245	0.245
E11S11	110	0.002	24.1	7.7	250	266	0.055	0.282	0.136
E11	12,494	0.267	24.2	5.7	252	266	0.052	0.324	0.169
E10S00	3,983	0.085	24.2	4.7	250	264	0.052	0.417	0.184
E10S10	2,195	0.047	23.8	6.2	232	246	0.082	0.384	0.293
E10S01	81	0.002	24.2	3.3	244	261	0.086	0.321	0.235
E10S11	88	0.002	23.5	6.8	228	240	0.103	0.333	0.341
E10	6,347	0.135	24.1	5.2	243	257	0.064	0.403	0.225
E01S00	2,730	0.058	23.8	19.3	255	268	0.037	0.327	0.142
E01S10	1,288	0.027	23.8	18.6	247	261	0.058	0.323	0.190
E01S01	72	0.002	23.8	20.4	247	261	0.056	0.394	0.194
E01S11	533	0.011	23.8	19.9	248	263	0.047	0.323	0.167
E01	4,623	0.099	23.8	19.2	252	265	0.044	0.326	0.159
E00S00	13,856	0.296	24.1	23.2	253	266	0.037	0.427	0.168
E00S10	5,249	0.112	24.0	22.8	245	260	0.047	0.431	0.206
E00S01	802	0.017	23.9	23.5	250	263	0.024	0.406	0.176
E00S11	3,484	0.074	23.9	23.1	241	255	0.042	0.475	0.233
E00	23,391	0.499	24.0	23.1	249	263	0.040	0.434	0.186
Total	46,855	1.000	24.1	15.6	249	263	0.046	0.390	0.184

Table 8  
Breakdown of PRA Costs per Offer, Top 30 Percent, Baseline Scenario, All Features

Group	Proportion of sample	Bonus Costs		Spending for Services		Extended Compensation	Spending for group	Expected budget impact
		1 <sup>st</sup> period	2 <sup>nd</sup> period	1 <sup>st</sup> period	2 <sup>nd</sup> period			
E11S00	0.160	\$1,800	\$1,200	\$0	\$0	\$0	\$3,000	\$480
E11S10	0.103	1,118	745	1,137	0	0	3,000	309
E11S01	0.001	1,800	0	0	1,113	0	2,913	3
E11S11	0.002	970	0	1,383	629	0	2,982	7
E10S00	0.085	1,800	0	0	0	0	1,800	153
E10S10	0.047	1,109	0	1,151	0	0	2,261	106
E10S01	0.002	1,800	0	0	1,036	0	2,836	5
E10S11	0.002	1,017	0	1,305	668	0	2,990	6
E01S00	0.058	0	0	0	0	998	998	58
E01S10	0.027	0	0	1,181	0	472	1,652	45
E01S01	0.002	0	0	0	1,324	643	1,968	3
E01S11	0.011	0	0	1,168	1,060	249	2,476	28
E00S00	0.296	0	0	0	0	2,438	2,438	721
E00S10	0.112	0	0	1,180	0	1,396	2,576	289
E00S01	0.017	0	0	0	1,323	1,515	2,838	49
E00S11	0.074	0	0	1,195	1,062	606	2,862	213
Total	1.000	\$618	\$269	\$444	\$121	\$1,023	\$2,475	\$2,475

Table 9  
Breakdown of PRA Costs per Offer, Top 30 Percent, Baseline Scenario  
Bonus and Purchase Services

Group	Proportion of total sample	Bonus Costs		Spending for Services		Spending for group	Expected budget impact
		1 <sup>st</sup> period	2 <sup>nd</sup> period	1 <sup>st</sup> period	2 <sup>nd</sup> period		
E11S00	0.160	\$1,800	\$1,200	\$0	\$0	\$3,000	\$480
E11S10	0.103	1,118	745	1,137	0	3,000	309
E11S01	0.001	1,800	0	0	1,113	2,913	3
E11S11	0.002	970	0	1,383	629	2,982	7
E10S00	0.085	1,800	0	0	0	1,800	153
E10S10	0.047	1,109	0	1,151	0	2,261	106
E10S01	0.002	1,800	0	0	1,036	2,836	5
E10S11	0.002	1,017	0	1,305	668	2,990	6
E01S00	0.058	0	0	0	0	0	0
E01S10	0.027	0	0	1,181	0	1,181	32
E01S01	0.002	0	0	0	1,324	1,324	2
E01S11	0.011	0	0	1,168	1,060	2,228	25
E00S00	0.296	0	0	0	0	0	0
E00S10	0.112	0	0	1,180	0	1,180	132
E00S01	0.017	0	0	0	1,323	1,323	23
E00S11	0.074	0	0	1,195	1,062	2,256	168
Total	1.000	\$618	\$269	\$444	\$121	\$1,452	\$1,452

Table 10  
Breakdown of PRA Costs per Offer, Top 30 Percent, Baseline Scenario, Bonus Only

Group	Proportion of total sample	Bonus Costs		Services Spending		Spending for group	Expected budget impact
		1 <sup>st</sup> period	2 <sup>nd</sup> period	1 <sup>st</sup> period	2 <sup>nd</sup> period		
E11S00	0.160	\$1,800	\$1,200	\$0	\$0	\$3,000	\$480
E11S10	0.103	1,800	1,200	0	0	3,000	309
E11S01	0.001	1,800	0	0	0	1,800	2
E11S11	0.002	1,800	0	0	0	1,800	4
E10S00	0.085	1,800	0	0	0	1,800	153
E10S10	0.047	1,800	0	0	0	1,800	84
E10S01	0.002	1,800	0	0	0	1,800	3
E10S11	0.002	1,800	0	0	0	1,800	3
E01S00	0.058	0	0	0	0	0	0
E01S10	0.027	0	0	0	0	0	0
E01S01	0.002	0	0	0	0	0	0
E01S11	0.011	0	0	0	0	0	0
E00S00	0.296	0	0	0	0	0	0
E00S10	0.112	0	0	0	0	0	0
E00S01	0.017	0	0	0	0	0	0
E00S11	0.074	0	0	0	0	0	0
Total	1.000	\$724	\$316	\$0	\$0	\$0	\$1,040



Table 11  
Average cost per PRA offer and total number of potential PRA offers  
over two years given the Georgia PRA budget

PRA Scenario	Average Cost	Number of Offers
Bonus, services, exhaustee payments	\$2,475	34,473
1-Week Impact	2,515	33,924
2-Week Impact	2,551	33,446
Bonus and purchase services	1,452	58,760
1-Week Impact	1,491	57,223
2-Week Impact	1,528	55,838
Bonus only with free services	1,040	82,038
1-Week Impact	1,086	78,564
2-Week Impact	\$1,131	75,438

Table 12  
 Net Present Value (NPV) of Alternative PRA Use Choices

Week	Bonus Only	Services Only	
		Earnings Gain	Quicker Job
1	\$300	\$300	\$300
2	300	300	300
3	300	300	300
4	300	300	300
5	300	300	300
6	300	300	300
7	300	300	800
8	300	300	800
9	300	300	800
10	300	300	800
11	300	300	800
12	300	300	800
13	2,600	911	800
14	800	911	800
15	800	911	800
16	800	911	800
17	800	911	800
18	800	911	800
19	800	911	800
20	800	911	800
21	800	911	800
22	800	911	800
23	800	911	800
24	800	911	800
25	800	911	800
26	800	911	800
27	800	911	800
28	800	911	800
29	800	911	800
30	800	911	800
31	800	911	800
32	800	911	800
33	800	911	800
34	800	911	800
35	800	911	800
36	800	911	800
37	800	911	800
38	800	911	800
39	2,000	911	800
NPV	\$27,825	\$27,818	\$27,849

Table 13  
Distribution of State PRA Budget Allocation to Service Delivery Regions (SDR)

SDR	Region	Proportion of Georgia		Budget Based on		Percent difference in budgets
		Unemployed	UI claimants	Unemployed	UI claimants	
1	Northern Georgia	0.084	0.111	\$7,207,242	\$9,427,818	30.8
2	Northern Georgia	0.042	0.051	3,621,775	4,330,839	19.6
3	Atlanta	0.379	0.344	32,349,487	29,369,643	-9.2
4	Northern Georgia	0.060	0.066	5,099,734	5,665,896	11.1
5	Northern Georgia	0.047	0.050	4,005,444	4,287,221	7.0
6	Balance of Georgia	0.050	0.050	4,279,412	4,273,305	-0.1
7	Balance of Georgia	0.065	0.063	5,555,561	5,395,353	-2.9
8	Balance of Georgia	0.051	0.054	4,314,201	4,599,510	6.6
9	Balance of Georgia	0.049	0.045	4,218,304	3,850,765	-8.7
10	Balance of Georgia	0.059	0.053	5,055,091	4,552,948	-9.9
11	Coastal Georgia	0.059	0.061	4,991,047	5,215,258	4.5
12	Coastal Georgia	0.054	0.051	4,622,701	4,351,445	-5.9
	State total	1.000	1.000	\$85,320,000	\$85,320,000	

Table 14  
 Service Delivery Region Top Percentages of Profiling  
 Distribution to Receive PRA Offers to Exhaust Budgets  
 Based on the State-wide Profiling Distribution

SDR	Top Percentage to Enroll		Total Enrolled	
	Total unemployed	UI clients	Total unemployed	UI clients
1	31	41	2,494	3,199
2	32	36	1,294	1,501
3	19	17	11,577	10,332
4	30	33	1,958	2,126
5	30	32	1,404	1,506
6	30	30	1,480	1,480
7	30	29	1,945	1,883
8	29	31	1,625	1,714
9	41	37	1,360	1,229
10	29	24	1,585	1,396
11	36	38	1,570	1,636
12	27	25	1,523	1,426
Total			29,813	29,429

Table 15  
 Service Delivery Region Top Percentages of Profiling  
 Distribution to Receive PRA Offer to Exhaust Budgets  
 Based on the within-SDR Profiling Distribution

SDR	Top Percentage to Enroll		Total Enrolled	
	Total unemployed	UI clients	Total unemployed	UI clients
1	26	34	2,504	3,274
2	24	28	1,276	1,489
3	20	18	11,305	10,174
4	28	31	1,930	2,138
5	24	25	1,450	1,510
6	25	25	1,488	1,488
7	29	28	1,933	1,866
8	28	30	1,610	1,726
9	36	33	1,349	1,236
10	29	26	1,584	1,420
11	27	28	1,563	1,622
12	21	20	1,510	1,438
			29,502	29,380

Figure 1  
Matrix of Costs and Benefits for PRA Participants

Employment	Services	Period 1		Period 2	
		Benefits	Costs	Benefits	Costs
Employed (=1)	Yes (=1)	x $w_1$ $(b_1 - cs - cT)$	cZ cs cT	$w_2$ $b_2$	cZ cs cT
	No (=0)	x $w_1$ $b_1$	cZ	$w_2$ $b_2$	cZ
Unemployed (=0)	Yes (=1)	x	cZ cs cT	x $w_2$	cZ cs cT
	No (=0)	x	cZ	x $w_2$	cZ

Figure 2  
Employment Status in PRA Time Periods  
(Sample share/Targeted sample share)

Employed Period 1-- First 13 Weeks	Employed Period 2--After 13 Weeks	
	Yes = 1	No = 0
Yes = 1	E11 (.343/.267)	E10 (.235/.135)
No = 0	E01 (.080/.099)	E00 (.341/.499)

Figure 3  
Employment and Services Use Status in PRA Time Periods

Employed Period 1-- First 13 Weeks	Employed Period 2--After 13 Weeks			
	Yes = 1		No = 0	
Yes = 1	Services use if E11		Services use if E10	
	E11S11	E11S10	E10S11	E10S10
	E11S01	E11S00	E10S01	E10S00
No = 0	Services use if E01		Services use if E00	
	E01S11	E01S10	E00S11	E00S10
	E01S01	E01S00	E00S01	E00S00

## Appendix A

### A Spreadsheet for Simulations of Alternative Personal Reemployment Account Designs at the Sample Means



Table B.1 PRA Simulation Based on Top 30 Percent According to New Profiling Model  
**(Items in Bold May be Changed to Compute Alternate Simulations )**

Service Variable	Description	Baseline Prices	Enter Alternative	Change
i1	Service Coordination	\$356	<b>\$356</b>	\$0
i2	Customer Service Plan	\$356	<b>\$356</b>	\$0
i3	In-Depth Assessment	\$712	<b>\$712</b>	\$0
i4	Counseling	\$712	<b>\$712</b>	\$0
i5	Expanded Workshop	\$712	<b>\$712</b>	\$0
c18	Referred to Supportive Services	\$1,068	<b>\$1,068</b>	\$0
Training	Training	\$1,424	<b>\$1,424</b>	\$0
	PRA offer amount or WBA Multiple (*1)	\$3,000	<b>3,000</b>	\$0
	Georgia PRA budget allocation amount	\$85,320,000	<b>\$85,320,000</b>	\$0
	Simulation results:	Baseline	Alternative	Change
	Total cost per offer (no impact)	\$1,463	\$1,463	\$0
	Total cost per offer (1-week impact)	\$1,502	\$1,502	\$0
	Total cost per offer (2-week impact)	\$1,538	\$1,538	\$0
	Maximum offers (no impact)	58,317	58,317	0
	Maximum offers (1-week impact)	56,801	56,801	0
	Maximum offers (2-week impact)	55,467	55,467	0

(\*1) When entering a dollar amount, minimum offer is \$1500 and maximum is \$3000. If amount entered does not fall within that range, no simulation will be performed. If entering WBA multiple and resulting PRA offer does not fall within that range, no simulation will be performed.

Table B.2 Services Participation Rates and Other Data Needed for Simulations

Service Categories and Cost Items	E11	E11	E11	E11	E10	E10	E10	E10	E01	E01	E01	E01	E00	E00	E00	E00
	S00	S10	S01	S11	S00	S10	S01	S11	S00	S10	S01	S11	S00	S10	S01	S11
i1	0.000	0.014	0.000	0.045	0.000	0.017	0.000	0.057	0.000	0.013	0.000	0.011	0.000	0.014	0.000	0.020
i2	0.000	0.888	0.000	0.727	0.000	0.870	0.000	0.716	0.000	0.790	0.000	0.908	0.000	0.736	0.000	0.898
i3	0.000	0.007	0.000	0.000	0.000	0.012	0.000	0.000	0.000	0.004	0.000	0.029	0.000	0.008	0.000	0.019
i4	0.000	0.925	0.000	0.818	0.000	0.919	0.000	0.818	0.000	0.839	0.000	0.934	0.000	0.799	0.000	0.916
i5	0.000	0.003	0.000	0.000	0.000	0.007	0.000	0.023	0.000	0.008	0.000	0.008	0.000	0.006	0.000	0.004
c18	0.000	0.042	0.000	0.036	0.000	0.055	0.000	0.170	0.000	0.061	0.000	0.043	0.000	0.072	0.000	0.046
training	0.000	0.080	0.000	0.355	0.000	0.087	0.000	0.205	0.000	0.163	0.000	0.092	0.000	0.186	0.000	0.121
Group proportion (no impact)	0.160	0.103	0.001	0.002	0.085	0.047	0.002	0.002	0.058	0.027	0.002	0.011	0.296	0.112	0.017	0.074
Group proportion (1-week impact)	0.167	0.107	0.001	0.003	0.089	0.050	0.002	0.002	0.051	0.024	0.001	0.011	0.291	0.109	0.017	0.074
Group proportion (2-week impact)	0.173	0.111	0.001	0.004	0.093	0.052	0.002	0.003	0.046	0.020	0.001	0.010	0.287	0.106	0.017	0.073
Group WBA (no impact)	269	259	259	264	265	248	256	241	267	259	260	261	266	259	263	255
Group WBA (1-week impact)	269	259	259	263	265	248	255	244	268	259	260	261	266	259	263	255
Group WBA (2-week impact)	269	259	255	266	265	248	254	245	268	259	264	260	266	260	263	255
Alternative group PRA offer amounts:																
No impact	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000
1-week impact	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000
2-week impact	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000
Baseline costs for group, 1st period																
Service costs, no impact	0	1145	0	1401	0	1165	0	1347	0	1189	0	1196	0	1188	0	1218
Service costs, 1-week impact	0	1145	0	1401	0	1165	0	1347	0	1189	0	1196	0	1188	0	1218
Service costs, 2-week impact	0	1145	0	1401	0	1165	0	1347	0	1189	0	1196	0	1188	0	1218
1st bonus, no impact	1800	1113	1800	959	1800	1101	1800	992	0	0	0	0	0	0	0	0
1st bonus, 1-week impact	1800	1113	1800	959	1800	1101	1800	992	0	0	0	0	0	0	0	0
1st bonus, 2-week impact	1800	1113	1800	959	1800	1101	1800	992	0	0	0	0	0	0	0	0
Alternative costs 1st period																
Service costs, no impact	0	1145	0	1401	0	1165	0	1347	0	1189	0	1196	0	1188	0	1218
Service costs, 1-week impact	0	1145	0	1401	0	1165	0	1347	0	1189	0	1196	0	1188	0	1218
Service costs, 2-week impact	0	1145	0	1401	0	1165	0	1347	0	1189	0	1196	0	1188	0	1218
1st bonus, no impact	1800	1113	1800	959	1800	1101	1800	992	0	0	0	0	0	0	0	0
1st bonus, 1-week impact	1800	1113	1800	959	1800	1101	1800	992	0	0	0	0	0	0	0	0
1st bonus, 2-week impact	1800	1113	1800	959	1800	1101	1800	992	0	0	0	0	0	0	0	0

Table B.3 Services Participation Rates AFTER First 13 Weeks by Group

	E11 S00	E11 S10	D11 S01	E11 S11	E10 S00	E10 S10	E10 S01	E10 S11	E01 S00	E01 S10	E01 S01	E01 S11	E00 S00	E00 S10	E00 S01	E00 S11
i1	0.000	0.000	0.019	0.045	0.000	0.000	0.049	0.023	0.000	0.000	0.028	0.006	0.000	0.000	0.029	0.012
i2	0.000	0.000	0.358	0.491	0.000	0.000	0.309	0.477	0.000	0.000	0.111	0.833	0.000	0.000	0.278	0.821
i3	0.000	0.000	0.000	0.000	0.000	0.000	0.029	0.000	0.000	0.000	0.032	0.000	0.000	0.000	0.016	0.017
i4	0.000	0.000	0.358	0.609	0.000	0.000	0.395	0.636	0.000	0.000	0.292	0.886	0.000	0.000	0.334	0.857
i5	0.000	0.000	0.019	0.000	0.000	0.000	0.086	0.068	0.000	0.000	0.056	0.002	0.000	0.000	0.064	0.007
c18	0.000	0.000	0.132	0.064	0.000	0.000	0.123	0.182	0.000	0.000	0.236	0.030	0.000	0.000	0.141	0.036
training	0.000	0.000	0.528	0.400	0.000	0.000	0.444	0.227	0.000	0.000	0.542	0.105	0.000	0.000	0.545	0.133
Baseline costs for group, 2nd period																
Service costs, no impact	0	0	1200	639	0	0	1200	661	0	0	1343	1112	0	0	1330	1153
Service costs, 1-week impact	0	0	1200	639	0	0	1200	661	0	0	1343	1112	0	0	1330	1153
Service costs, 2-week impact	0	0	1200	639	0	0	1200	661	0	0	1343	1112	0	0	1330	1153
2nd bonus, no impact	1200	742	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2nd bonus, 1-week impact	1200	742	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2nd bonus, 2-week impact	1200	742	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Alternative costs for group, 2nd period																
Service costs, no impact	0	0	1200	639	0	0	1200	661	0	0	1343	1112	0	0	1330	1153
Service costs, 1-week impact	0	0	1200	639	0	0	1200	661	0	0	1343	1112	0	0	1330	1153
Service costs, 2-week impact	0	0	1200	639	0	0	1200	661	0	0	1343	1112	0	0	1330	1153
2nd bonus, no impact	1200	742	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2nd bonus, 1-week impact	1200	742	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2nd bonus, 2-week impact	1200	742	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total group PRA spending																
Baseline (no impact)	3000	3000	3000	3000	1800	2266	3000	3000	0	1189	1343	2308	0	1188	1330	2371
Baseline (1-week impact)	3000	3000	3000	3000	1800	2266	3000	3000	0	1189	1343	2308	0	1188	1330	2371
Baseline (2-week impact)	3000	3000	3000	3000	1800	2266	3000	3000	0	1189	1343	2308	0	1188	1330	2371
Alternative (no impact)	3000	3000	3000	3000	1800	2266	3000	3000	0	1189	1343	2308	0	1188	1330	2371
Alternative (1-week impact)	3000	3000	3000	3000	1800	2266	3000	3000	0	1189	1343	2308	0	1188	1330	2371
Alternative (2-week impact)	3000	3000	3000	3000	1800	2266	3000	3000	0	1189	1343	2308	0	1188	1330	2371
Baseline cost (no impact)	480	309	3	7	153	106	5	6	0	33	2	26	0	133	23	176
Baseline cost (1-week impact)	501	321	4	9	161	112	5	7	0	28	2	25	0	130	23	175
Baseline cost (2-week impact)	518	332	4	11	168	119	6	9	0	24	2	23	0	126	23	173
Alternative cost (no impact)	480	309	3	7	153	106	5	6	0	33	2	26	0	133	23	176
Alternative cost (1-week impact)	501	321	4	9	161	112	5	7	0	28	2	25	0	130	23	175
Alternative cost (2-week impact)	518	332	4	11	168	119	6	9	0	24	2	23	0	126	23	173

Table B.4 PRA Simulation Based on Top 30 Percent According to New Profiling Model  
Alternative with Prices set at Half  
**(Items in Bold May be Changed to Compute Alternate Simulations )**

Service Variable	Description	Baseline Prices	Enter Alternative	Change
i1	Service Coordination	\$356	<b>\$178</b>	-\$178
i2	Customer Service Plan	\$356	<b>\$178</b>	-\$178
i3	In-Depth Assessment	\$712	<b>\$356</b>	-\$356
i4	Counseling	\$712	<b>\$356</b>	-\$356
i5	Expanded Workshop	\$712	<b>\$356</b>	-\$356
c18	Referred to Supportive Services	\$1,068	<b>\$534</b>	-\$534
Training	Training	\$1,424	<b>\$712</b>	-\$712
	PRA offer amount or WBA Multiple (*1)	\$3,000	<b>3,000</b>	\$0
	Georgia PRA budget allocation amount	\$85,320,000	<b>\$85,320,000</b>	\$0
	Simulation results:	Baseline	Alternative	Change
	Total cost per offer (no impact)	\$1,463	\$1,253	-\$210
	Total cost per offer (1-week impact)	\$1,502	\$1,296	-\$206
	Total cost per offer (2-week impact)	\$1,538	\$1,337	-\$202
	Maximum offers (no impact)	58,317	68,111	9,794
	Maximum offers (1-week impact)	56,801	65,841	9,039
	Maximum offers (2-week impact)	55,467	63,833	8,366

(\*1) When entering a dollar amount, minimum offer is \$1500 and maximum is \$3000. If amount entered does not fall within that range, no simulation will be performed. If entering WBA multiple and resulting PRA offer does not fall within that range, no simulation will be performed.

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