The Impact of a large wage increase on the workforce stability of IHSS Home Care Workers in San Francisco County

Candace Howes
Department of Economics
Connecticut College
chow@conncoll.edu

Working Paper
Revised November 2002

1 I have especially benefited from comments by Laura Reif, Karen Sherr, Carol Zabin, Donna Calame, Rick Zawadski, Janet Canterbury, Sue Eisenberg, Michael Reich, Ajit Singh, Laura Guiliano (who also provided excellent research assistance), Ken Jacobs, Bob Pollin, Marc Brenner, Stephanie Luce, Nancy Folbre Ann Markusen and David Levine as well as from tremendous background discussions with Charles Calavan Howard Greenwich,, Katie Kwan, Henry Lau, Naomi Marcus, Marie Monrad, Karen Orlando, Amy Rassen, Lynn Rivas, Abby Snay, and Gayle Zahler..

This study was done under the auspices of the University of California Institute for Labor and the Economy and the University of California, Berkeley, Center for Labor Education and Research.

2 This revised paper uses 52 months of data, rather than the 41 months used in an earlier version. The results have changed substantially as a consequence.
Abstract

This study is one of the very few large-scale empirical investigations of the effect of wages on labor market outcomes in any direct care industry, and possibly the only such study specifically addressing conditions in the homecare industry. It records the impact of the nearly doubling of wages for IHSS homecare workers in San Francisco County over a 52 month period. The project is based on a unique database, which matches approximately 18,000 San Francisco County homecare workers in 26,115 unique matches to 15,500 service recipients between November 1997 and February 2002.

The principle conclusions of the study are that:

- There was a 54 percent increase in the number of IHSS workers over the four-year period of the study.
- Possibly because the wage increase and/or the addition of health benefits made it easier for consumers to hire an acceptable provider, the number of consumers increased by 47 percent over the same period.
- The number of hours worked per provider increased significantly for non-family providers in some ethnic groups.
- The annual turnover rate of matches between consumer and provider fell by 6 percent; adjusted to eliminate the turnover of matches that may end for natural reasons, the annual “bad” turnover rate of matches fell 20 percent.
- The annual turnover rate of the workforce fell 17 percent, but adjusted to measure only “bad turnover,” the rate fell by 30 percent.
- The proportion of consumers matched to a provider of their own ethnicity—which is a measure of the quality of match—rose 6 percent.
- A rough calculation shows the wage increase could have reduced the number of people living below the poverty line in San Francisco by as much as 15 percent, other things being held constant.
- By 2001, the IHSS program was bringing in $114 million in income every year to San Francisco, compared to $37 million in 1997, at a gross cost to the county of $18 million and possibly a net cost of as low as $8 million. That would mean every dollar spent by the county brought an additional $13 in income from state and federal sources to very poor San Francisco communities.
# Table of Contents

**Introduction** ........................................................................................................................................... 4

1 **Background** ........................................................................................................................................ 8
   What is In-home Supportive Services and what do IHSS workers do? ........................................... 8
   Economic events affecting labor market outcomes – compensation increases and welfare reform .................................................. 9

2 **Profile of Providers in 1997** .................................................................................................................. 12
   Ethnicity ............................................................................................................................................... 12
   Income ................................................................................................................................................. 12
   Clients ................................................................................................................................................... 13
   Hours ..................................................................................................................................................... 13
   Workforce instability – match and workforce turnover .................................................................... 14

3 **Predicted effects of the program** ...................................................................................................... 16
   Labor market outcomes ...................................................................................................................... 17
   Poverty and welfare outcomes .......................................................................................................... 19
   Net cost of the program ..................................................................................................................... 20

4 **Scope and method of study** .............................................................................................................. 21

5 **Outcomes** ........................................................................................................................................... 22
   Labor market outcomes ...................................................................................................................... 23
     Supply and demand growth ............................................................................................................. 23
     Hours per month per worker ........................................................................................................... 29
     Match and Workforce Turnover ...................................................................................................... 30
     Spillover effects ............................................................................................................................... 32
     Quality of match ............................................................................................................................. 32
     Quality of Care ................................................................................................................................ 33
     Poverty Outcomes – Welfare-to-Work and Poverty ...................................................................... 34
     Direct Cost of IHSS Wages and Benefits ......................................................................................... 36

6 **Conclusion** ......................................................................................................................................... 38

**References** ............................................................................................................................................. 40
The Impact of a large wage increase on the workforce stability of IHSS Home Care Workers in San Francisco County

Candace Howes
Connecticut College
November 2002

Introduction

The primary concern of this study is to examine the impact of the nearly doubling of wages over a 52-month period on workforce stability the In-Home Supportive Services (IHSS) workforce in San Francisco County. The San Francisco Board of Supervisors approved a Living Wage Ordinance in August 2000 that was to take effect the following October. Under the Ordinance the city was required to pay at least $9 an hour to any employee who worked on a county service contract or who worked on city property. The stated purpose of the Ordinance was to lift the targeted workers to self-sufficiency and improve the quality of the services provided to the city’s residents.

It is difficult to separate the effects of the Living Wage Ordinance, which was supported by a coalition that included the union, and the effects of union bargaining with the Public Authority. Wages for IHSS workers began to rise significantly above the state minimum wage a full two years before the Living Wage Ordinance was passed. This study, therefore, examines the impact of the wage increase – due to both with bargaining and the Living Wage Ordinance - on the stability of the IHSS workforce and the standard of living of the workers. This study also provides an estimate of the net cost of the wage increase to San Francisco County, to the state of California and to the Federal Government. A forthcoming paper co-authored with Laura Reif

---

3 The IHSS workforce is comprised of both “independent providers” and a much smaller number of employers who work directly for agencies. As the wage increase affected only the independent providers, this analysis focuses on that section of the workforce.
will examine in greater detail the link between workforce enhancements and quality of service provided, though some preliminary results are reported here.

The study examines the impact of a wage increase only on the homecare workforce that provides publicly funded services in California; however, it has broader applicability to the private homecare workforce as well. This paper and further analyses using this database will have very important implications for scholars and practitioners in other direct care industries, including home health care, day health care, residential care facilities and perhaps even hospitals. All of these direct care services employ low-wage, frequently immigrant workers, and all are afflicted in varying degrees by very high rates of turnover, labor shortages and quality problems. This study is one of the very few large-scale empirical investigations of the effect of wages on labor market outcomes in any direct care industry, and possibly the only such study specifically addressing conditions in the homecare industry. The project is based on a unique database, which matches approximately 18,000 San Francisco County homecare workers in 26,115 unique matches to 15,500 service recipients between November 1997 and February 2002. In any given month the number of matches averaged about 8,600.

This paper is intended for a broad audience rather than for specialists in labor economics or in gerontology and health economics. As such, it will provide a broad brush discussion of the

---

4 While the intention of the study, and the objective in using this database, was to study the effect of the wage increase on workforce stability, there are clearly many other important issues that can be addressed using this data and even some of the results from this study.

For example, labor economists will be concerned with the economic welfare implications of the wage increase, including whether or not it is a market-clearing wage. There are implications for the efficiency wage literature, such as whether performance improves as the wage rises. It is an ideal dataset from which to address some of the issues of concern in the study of immigration, such as whether immigration has a benign effect, or not, on native-born workers, and what are the best policies for reducing poverty and welfare dependency among immigrant communities.
institutional context in which the wage increase occurred and a set of stylized facts that roughly report the consequences of the wage increase for poverty and labor market stability. Because the workforce is largely poor and a significant proportion is foreign-born, the institutional context and specifically the effect of immigration law and welfare policies must be factored into any analysis of outcomes. Thus part of the paper will be concerned with how these policies shape labor market responses in this industry.

The paper also eschews the use of econometrics, both in the interests of reaching a broad audience initially, and secondly because much of the institutional detail would be obscured by econometric analysis. A later paper, however, will employ econometric techniques in order to better measure the relative importance of the independent variables affecting the labor market outcomes.

The principle conclusions of the study are:

- There was a 54 percent increase in the number of IHSS workers over the four-year period of the study.

- Possibly because the wage increase and/or the addition of health benefits made it easier for consumers to hire an acceptable provider, the number of consumers increased by 47 percent over the same period.

- The number of hours worked per provider increased significantly for non-family providers in some ethnic groups.

- The annual turnover rate of matches between consumer and provider fell by 6 percent; adjusted to eliminate the turnover of matches that may end for natural reasons, the annual “bad” turnover rate of matches fell 20 percent.
• The annual turnover rate of the workforce fell 17 percent, but adjusted to measure only “bad turnover,” the rate fell by 30 percent.

• The proportion of consumers matched to a provider of their own ethnicity—which is a measure of the quality of match - rose 6 percent.

• A rough calculation shows the wage increase could have reduced the number of people living below the poverty line in San Francisco by as much as 15 percent, other things being held constant.

• By 2001, the IHSS program was bringing in $114 million in income every year to San Francisco, compared to $37 million in 1997, at a gross cost to the county of $18 million and possibly a net cost of as low as $8 million. That would mean every dollar spent by the county brought an additional $13 in income from state and federal sources to very poor San Francisco communities.

The paper will first provide some background on IHSS and the economic events that would affect labor market outcomes during the period under study. Section 2 provides a brief overview of the labor force at the beginning of the period of study. Section 3 discusses the predicted effects of a substantial wage increase. In section 4, I discuss the scope and methods of the study. In Section 5, I discuss the labor market and quality of service outcomes, the impact on poverty and an analysis of the net cost of the wage increase. Section 6 concludes the paper.
1 Background

What is In-home Supportive Services and what do IHSS workers do?

California IHSS homecare workers provide publicly funded services to low-income, disabled and elderly people to enable them to live independently in their homes.\(^5\) To be eligible a recipient’s monthly individual income in 2002 could not exceed the maximum individual SSI payment of $966, nor could their financial assets, excluding a home and a car, exceed $2000. The eligible recipient must, but for IHSS services, be unable to remain safely at home due to a functional impairment that is expected to last at least 12 consecutive months or that is expected to result in death within 12 months.

In contrast to the more usual practice of providing publicly funded homecare services through agencies that contract directly with the state, 85 percent of California IHSS services are provided through the independent provider mode. Under the independent provider mode, the consumer has the option to directly hire, train and supervise the caregiver. More recently, as part of a statewide effort to improve services, many counties have created IHSS Public Authorities, which may provide payroll management and training for independent providers as well as referral services for recipients.

The homecare worker assists his clients in the activities of daily living, some of which involve a high degree of intimacy, including bathing, dressing, cleaning, cooking, and shopping. For many elderly recipients, the homecare worker may be the only person they see regularly. The client is most likely to feel safe and comfortable with a provider who is known to them or with

---

\(^5\) Homecare workers are commonly confused with home health care workers. Many of the tasks they perform are similar though home health care workers are also qualified to perform a limited number of medically oriented tasks such as administering medication, puncturing the skin and changing dressings. The principal difference is that home health care workers are authorized under a medical model by doctors for short term care and paid for principally by Medicare, while homecare workers are authorized through county Departments of Social Services for long term care, which is largely financed by Medicaid. In San Francisco the Department of Social Services is known as the Department of Human Services.
whom they have built trust over time. Since the client’s safety and quality of live may depend crucially on the reliability and skill of the homecare worker, the quality of the service depends on a stable and committed workforce of both family and non-family providers.

The conditions of IHSS employment are often difficult and hazardous. While many homecare workers have consciously chosen home care over nursing home work because they prefer the flexibility and opportunity to work in the client’s own home, it does mean that the job may require weekly or even daily travel to multiple sites, and that the worker has limited control over the conditions of their worksite. Homecare workers at times face real physical hazards. The job can involve frequent heavy lifting, contact with bio-medical hazardous materials, travel in unsafe neighborhoods and even physical abuse from clients or their family members.

Economic events affecting labor market outcomes – compensation increases and welfare reform

Like similar jobs in many parts of the country, IHSS workers have traditionally earned close to the minimum wage with no additional benefits. However, over the last 15 years, beginning with an Service Employees International Union (SEIU) organizing drive in Los Angeles, there have been concerted efforts made by labor, client and community groups to improve the wages and working conditions and quality of service in IHSS. In the early 1990s, following the successful efforts of a consumer-labor coalition, the state legislature passed three bills (SB 485, SB 35 and SB 1078) that allowed county supervisors to establish public authorities. Public Authorities were to serve as a vehicle for bringing together and giving voice to both consumers and workers in an effort to improve the services.

Further efforts by a consumer-labor coalition in San Francisco led to the establishment of the IHSS Public Authority of San Francisco in 1995. (Table 1 summarizes the history of actions related to the San Francisco IHSS Public Authority, unionization and the living wage ordinance). As part of their mandate to improve services, Public Authorities were expected to create and operate a central registry of screened workers, provide training and support services, and to serve as the employer of record for independent providers. Just before the San Francisco Public Authority was established, independent providers were being paid the state minimum wage of $4.25 an hour.
Once the San Francisco Public Authority was recognized as the employer of record, independent providers were for the first time legally entitled to join a union. In 1996, SEIU Local 250 won an agreement with the San Francisco Public Authority to accept the union as the bargaining agent for the San Francisco IHSS independent providers. Simultaneously, beginning in 1997, the union was involved in a coalition to pass a Living Wage Ordinance in San Francisco. The first labor agreement was ratified in July 1997.

In the three years after the establishment of the Public Authority workers received small increases, but wages remained at only $0.30 to $0.60 above the minimum wage. There was little economic incentive for workers to change their behavior until in July of 1998, a full two years before the Living Wage Ordinance was passed, the union working in coalition with the Public Authority and community groups bargained a significant wage increase to $7 an hour. With that increase, the margin between the IHSS wage and the state minimum wage widened to $1.25.

The first significant wage increase coincided roughly with the inception of CalWorks 1998, the California plan to implement the requirements of the 1996 federal welfare reform legislation. Under CalWorks, approximately 5,000 adults from the 8,400 families receiving TANF benefits were required to enroll in a welfare-to-work plan by January 1999. A separate program had similar requirements for eligible adults on General Assistance. Thus beginning in the summer of 1998, some people may have begun entering IHSS jobs in order to meet the requirements of their work plan.

The California program allowed people to undertake training or subsidized employment for up to 24 months after entering the program, and some undoubtedly took that option. By July 1999, program participants were expected to be in training or employment for 32 hours per

---

6 Delp & Quan (2001) tell the story of the campaign to organize IHSS workers in California, beginning in 1987 in Los Angeles and culminating in the successful union election in Los Angeles in 1999 which brought the number of unionized IHSS workers to 100,000, including the San Francisco and Alameda County workers.
week. Within 18 to 24 months of enrollment, most of the participants were expected to have unsubsidized employment. That process would have brought an additional 7,000 people into the low wage end of the workforce in San Francisco between the summer of 1998 when enrollment began and January 2001 when the last enrollees would have hit their 24-month limit. IHSS jobs should have been an attractive employment option, especially for women seeking part-time employment.\footnote{Although Cathy Ciabattoni of the Department of Human Services, who provided some of the details on the San Francisco implementation of CalWorks, reported that case-workers were actively discouraging clients from going into IHSS jobs because they were perceived as dead-end jobs.}

In March 1999, an innovative low cost health plan –HEALTHYWORKERS – was offered to any caregiver who worked a minimum of 25 hours a month and who had been in the workforce for two months or more. The Public Authority devised a plan to fund the health plan out of savings from the City’s Indigent Care program.

In the year preceding the anticipated passage of the Living Wage Ordinance in October 2000, the Board of Supervisors agreed to increase the wage to $9 an hour, dental benefits were added in January 2000, and wages were again increased to $9.70 in July 2000. So by the time the Living Wage ordinance passed, wages had actually risen above the mandated minimum. The wage was increased to $10 an hour in July 2001 and $10.10 in August 2002, where it currently stands.

In sum, in the four-year period after July 1997 when the first union contract was negotiated, wages for IHSS home care workers have nearly doubled. Since October 1999, IHSS workers have been paid an hourly wage that is about 50 percent more than the minimum wage and unlike most minimum wage jobs, they have also had individual health, dental and vision care insurance. As will be outlined in Section 3, the wage and benefit increases, combined with the
effects of welfare reform, would be expected to have an important and measurable impact on the supply and demand for labor and the stability of the workforce.

2 Profile of Providers in 1997

Ethnicity

Like their clients, IHSS workers are predominantly recent immigrants and very-low-income, native-born women of color. In November of 1997, when the data used in this study begins, nearly half of the 5,700 providers in San Francisco were Russian or Chinese immigrants (Table 2). Ten percent of providers were Latinos, most of whom were probably immigrants from Central America. Thirty percent were African-American or English-speaking whites, most of whom were probably native-born. The remaining 13 percent were immigrants from other South and Southeast Asian countries.

Income

The data used in this study does not provide any direct measure of the income or economic status of providers. However, a 1999 survey of San Francisco IHSS providers, taken when the wage had already reached $7 an hour, found that the annual income of 46 percent of providers was less than $10,000 and 64 percent earned less than $20,000 a year. Sixty-nine percent of the Chinese providers, 46 percent of Spanish-speaking and 42 percent of English-speaking whites, most of whom were probably native-born. The remaining 13 percent were immigrants from other South and Southeast Asian countries.

---

8 The descriptive statistics that follow are calculated using November 1997 data from the San Francisco Case Management, Information and Payroll System (CMIPS) database which is provided to the county by the state. This is the first month when this data is available. Because the wage rate did not begin to rise significantly above the state minimum wage until July 1998, the workforce in 1997 represents the workforce before the impact of significant improvements in compensation.

9 The ethnic mix of IHSS providers in California varies substantially from county to county. For example, in Alameda county which is just across the San Francisco Bay, 43 percent of providers are African-American, 24 percent are white, 13 percent are Chinese and 7 percent are Latino. The remaining 14 percent are mainly immigrants from Southeast Asian countries other than China. (Howes & Greenwich 2002)
speaking providers earned less than $10,000 a year at any job (San Francisco Health Plan 1999). In a more recent survey of Alameda County IHSS workers, we found that the mean individual income for providers was $13,361 and the mean family income was $22,512 (Howes & Greenwich 2002). Thirty-five percent of Alameda County IHSS workers had family incomes that put them below the poverty line at a time when the wage rate was already $8.50. It is quite possible that most IHSS workers in 1997 earning $5.69 an hour lived below the poverty line. Since a consumer’s income cannot exceed more than about $966 a month to qualify for the service, most consumers must have individual incomes in the range of $10,000 to $12,000 a year, suggesting consumers and providers share similar economic status.

Clients

Fifty percent of homecare workers worked exclusively for family members in 1997. Another 6 percent worked for both a family member and a non-family recipient so that in total 56 percent of the workforce was involved in family care. There was some variability among ethnic groups; aside from Filipinos and “other Asians,” Latinos and Blacks were most likely to be working for family members (Table 2).

The labor force was so segmented by ethnicity that 86 percent of the 7,000 matches in November 1997 were between providers and recipients of the same ethnic group (Table 3). Only white providers, who were likely to also be caring for Latino, Russian or Black recipients, had breached the ethnic boundaries in any significant numbers. Only 56 percent of white, English-speaking providers cared for white, English-speaking recipients in 1997, and only 76 percent of white English-speaking recipients were matched to white, English-speaking providers. As the subsequent analysis suggests, when given the choice, consumers increasingly chose providers from their own ethnic group.

Hours

Most of the providers worked part time at IHSS work (Table 4). For example, while on average the workforce worked 89 hours per month, or just over 20 hours per week, the median was 75 hours. Only 25 percent of the workforce worked more than 110 hours per month. There is
some variation among ethnic groups however. Overall, Latinos who worked many more hours than other groups, averaged 103 hours, with 25 percent working more than 142 hours, or nearly full time. Of the 6 percent of providers who worked simultaneously for family and non-family recipients, over half worked more than 30 hours a week.  

_Workforce instability – match and workforce turnover_

The IHSS workforce was relatively unstable, particularly given the intimate nature of the job. Instability is generally measured by the annual turnover rate of the workforce. However, given that this job usually involves a one-to-one match between a provider and consumer, the length of time that an individual match lasts on average is a second and more direct measure of the impact of instability on the consumer. As Table 5 shows, 33 percent of all matches that existed in the four-month period between November 1997 and February 1998 ended within a year.

Matches end for many reasons, including that the consumer may no longer need the service, that the provider may no longer wish to work at the job, or that the match between the two does not work out. As Table 6 illustrates, there are four possible outcomes for the provider and the consumer when a match ends. The consumer may no longer need the service, and both the consumer and provider leave. Thirty-two percent of matches that ended between November 1997 and February 1998 ended with both the provider and consumer leaving. One possible explanation for both leaving could be that the provider was working as a personal favor to a friend or family member, but was not otherwise willing to do the job. In another 8 percent of cases the consumer left and the provider continued with another consumer. Thus 40 percent of all matches ended because the consumer left the service. Certainly, if there is unmet overall demand for experienced providers, it is a matter of concern that providers leave once their current match

---

10 Although most IHSS workers work part-time at their IHSS work, many of them probably have other jobs. In a recent survey of IHSS providers in Alameda county (Howes & Greenwich 2002), we found that 40 percent of providers had more than one job, and 45 percent of the workforce worked more than full time at all jobs.
ends, but it cannot be argued that the individual consumers experience any direct hardship. Therefore, the 40 percent of matches that ended because the consumer left could be considered benign match turnover.

On the other hand, in 47 percent of cases where matches ended, the consumer stayed in the service and the provider left, while in 12 percent, both the consumer and the provider stayed. Statistics of course do not tell the story behind why the matches ended. However, suppose we assume the worst case scenario that the 60 percent of matches that ended with the consumer remaining in the service, were cases in which the consumer experienced some direct hardship associated with the instability of match. Match turnover in which the consumer remains and experiences hardship could be considered “bad match turnover.” The match turnover rate for this period then, adjusted to measure only the maximum percent of matches that could conceivably be considered bad turnover, would be 20 percent (0.60 *0.33).

The annual turnover rate for the workforce was 29 percent for the period between November 1997 and February 1998 (Table 5). However, as suggested in the previous analysis of match turnover, some provider turnover can be benign, as would be the case when the provider and consumer leave simultaneously. During the first four months of the period of this study, in 80 percent of the cases, matches ended with the provider leaving the service, but only 47 percent ended with the provider leaving and the consumer staying. That is, at most only about 60 percent of turnover (0.47/0.80) could have a direct negative impact on an individual consumer.

If we measure “bad turnover” as the turnover in which a consumer is left behind, the adjusted turnover rate for that period would be 17.4 percent (0.60*0.29). In other words, 17 percent of consumers had to replace their provider within a year because the provider left. As Figure 1 illustrates, non-family providers were more likely to leave their consumer and leave the workforce (70%) than were family providers (50%). Also apparent from Figure 1 is that non-family providers were much more likely to remain in the workforce when their consumer left (31 percent) than were family providers (10 percent). The adjusted turnover rate was lowest for Chinese and English speaking white providers.
When the turnover rate of homecare workers is contrasted to the annual turnover rates of nurses aides (100%), and home health care givers (50%), it seems quite low (Dawson 2000; Massachusetts Health Policy Forum 1999; North Carolina Division of Facility Services 1999, 2000). However, if one considers that the homecare giver, unlike a nurse’s aid or home health care worker, is often the only person the client can depend on, 29 percent, or even 17 percent seems like an intolerably large number of new providers that must be found every year just to serve the existing client base.

In sum, the homecare workforce is a largely immigrant, very segmented, very poor, female, part-time and quite unstable workforce. Despite the low pay, however, IHSS jobs were already probably very important in the poor communities of San Francisco. For the very poor family providers of the Chinese, Latino and Black communities, the IHSS wages, when combined with the SSI payments to the recipient, may have constituted the entire household income. For others, like the Russian immigrants, IHSS jobs may have been the only job they could do while learning English and retraining for a new career in the United States. For many older Russian and Chinese immigrants, who would never learn English, it was one of the few, and one of the best jobs they would ever have in the U.S.

3 Predicted effects of the program

The analysis is conducted over a 52-month period beginning in November 1997, which is punctuated by a number of events that may have impacted a provider’s decision to enter or exit the workforce. During the first 8 months, there was little economic incentive for providers to change their behavior. The first substantial wage increase above the minimum wage occurred in June 1998.\footnote{11} During this control period, it is unlikely that IHSS jobs would have been particularly attractive economically relative to other minimum wage jobs, although other factors such as family commitment or the part-time nature of the job would have influenced providers’

\footnote{11} Since the data begins only in November 1997, I have data covering only 8 months of what should be considered the control period.
choices. In July 1998 the wage rose for the first time to a level more than $1 above the minimum wage. This wage increase coincides with the beginning of the CalWorks program. In March 1999, the HEALTHYWORKERS plan providing health insurance to eligible workers was introduced. The plan was available to any IHSS employee who had worked a minimum of two months and who worked at least 25 hours in one of those months. In September 1999, the county raised the wage to $9 per hour, $3.25 above the state minimum wage. When combined with the health insurance benefit, this was now one of the very best jobs available to low skill workers, especially those who did not have English-language skills. The wage rose to $9.70 in July 2000 and again to $10.00 in January 2001.

**Labor market outcomes**

Standard economic theory suggests that the supply of labor to a particular occupation will rise as its wage rises relative to wages of other jobs requiring a similar level of skill and that demand will fall. Since by 1999, IHSS was probably the best part-time job available to low skilled women in San Francisco, we would expect to see workers moving out of jobs that paid lower wages for similar skill levels, including many minimum wage jobs, into IHSS jobs. In addition to increased entry into the occupation, we would expect to see some of those already in the job working more hours as the opportunity cost of not working rose.\(^\text{12}\)

Certain institutional characteristics of this labor market confound normal market signals however. Since many IHSS consumers hire family members, market signals will be muted by commitment and obligation. For example, a provider who is working for a family member, not because it is the best job, but because they are the best person to do the job, may be less likely to increase hours of work as the wage rate increases.

\(^{12}\) Economic theory also tells us that some workers who have already achieved their target income level would work fewer hours. Overall however, I would predict that the supply of labor would increase since it is unlikely that most IHSS providers had reached their target income levels.
Institutional characteristics also mute market signals on the demand side. IHSS consumers can hire their own providers, but they do not pay any part of the wages. The cost of the service is born by third parties – the federal government, the state and the county. The willingness or ability of the state to pay for increased services is ultimately constrained by tax revenues but the state can only change demand by altering the means and needs qualifications. In the short run, the state must authorize services for any consumer that meets the qualifications. Consumers may not apply for the service, even if they qualify, if they do not think they will find a provider they know or trust, but the probability of finding such a provider rises with the rate of compensation. Thus, given the particular institutional characteristics of this service, both supply and demand may be expected to rise with the wage rate.

There will be some problem distinguishing the effects of the wage increase on the supply of labor from the effects of the welfare reform program. The CalWorks program, which San Francisco began to implement in April 1998, should have drawn roughly 7000 people into low-skill, low-wage jobs between the summer of 1998 and January 2001, when all participants were expected to hold unsubsidized jobs.

In addition to the impact on the supply of and demand for labor, we would expect a significant improvement in the compensation for homecare workers to increase the retention rate – or lower the turnover rate – of workers in the labor market. As noted earlier, 29 percent of providers leave the job annually, and 33 percent of matches last no more than one year. To the extent that matches end because providers exit the homecare labor market, improved retention should extend the match length between consumers and providers.

One final direct impact of rising wages might be to increase the proportion of same ethnicity matches between provider and consumer as it becomes easier to find a provider that

---

13 The exception is a small number of consumers who pay some “share of cost” because their incomes exceed the maximum level for full public support.
suits the consumer’s preference. At the beginning of the period of study, 86 percent of matches were same ethnicity, no doubt reflecting consumer preference.

There may also be spillover effects in other jobs or occupations. While the wage increase only affected homecare workers who were paid through IHSS, some IHSS providers work through agencies that also employ non-IHSS workers. In the contract mode agencies that provide services to the county and to private parties, there would likely be a direct and immediate wage push for non-IHSS workers who are working side-by-side with IHSS workers. Further, as low skill workers move into IHSS jobs, there could be a decline in the supply of low-wage workers in alternative occupations where market forces would have a greater impact on wage determination. In that case we would expect to see wages increasing in garment factory jobs, hotel housekeeping, waitress jobs and retail jobs where employees are drawn from the same demographic groups as IHSS workers.

**Poverty and welfare outcomes**

Any time the wage rate increases by 55 percent in real terms, it is likely to have a significant impact on the income of the workers. But for this particular group of workers, there is also the high probability that this wage increase would raise a noteworthy number above the poverty line. Many are recent immigrants with limited English language skills. Those from Mexico and Central America and China are also likely to have low levels of education (Borjas 1999). Thus there are a relatively small number of occupations available to them, all of which pay less than the IHSS wage and most of which do not provide health benefits, especially for part-time work. Immigrants with low levels of education from Latin America and Asia find work mainly in garment factories, restaurants, hotels, janitorial services and personal services such as house cleaning, gardening, childcare and homecare. Thus, in addition to the direct labor market outcomes, it is possible that the IHSS wage increases reduced the poverty rate in San Francisco.

Homecare work was also one of the few good jobs that was available to people transitioning from welfare after the California welfare reform measures were put into effect. Thus we would expect some number of people who entered the IHSS workforce to have transitioned directly from welfare. According to the California Budget Project (2001), the
average employed welfare leaver in San Mateo, Napa, Santa Cruz and Santa Clara counties was paid $9 an hour. (There is no information on San Francisco County). Accordingly, an IHSS job, paying $10.00 an hour plus benefits, was an above average job for a welfare leaver.

Net cost of the program

The direct cost of the IHSS program includes the cost of the wages and benefits paid to the providers, as well as the employer taxes.\textsuperscript{14} Wages and benefits paid to IHSS workers are funded from three sources: Federal Medicaid funds, State funds set aside for social services, and County General Funds. Federal funds pay for slightly over 50 percent of the cost of all IHSS services provided through the Personal Care Services Program (PCSP), which is an optional program under Title XIX of the Social Security Act. Since it was begun in California in 1993, most of the recipients of IHSS services have been moved into the PCSP program. However, State and county funds still pay entirely for some proportion of IHSS hours not covered by the PCSP program. In 1997, 78 percent of all San Francisco IHSS service hours were provided under the PCSP program.

The remaining 50 percent of the costs of the PCSP hours, and the full cost of the non-PCSP hours (known as the Residual hours) are shared between the state and the county. The state pays the full remaining cost of PCSP hours and the entire cost for the Residual hours up to a maximum rate, or cap, set by the state (Zawadski 2001). In 1997, the cap was the State minimum wage of $5 an hour. Above that cap, the county is responsible for the entire state and county share of additional wage and benefit costs, after the Federal government pays its share.

\textsuperscript{14} There are additional Administrative costs that are based on caseload, subject to a cap, and funded from other funding bases (Zawadski 2001). This paper offers no analysis of the impact of the wage increase on administrative costs, in part because I assume that wage increases should not increase administrative costs to the county, except to the extent that the caseload increases. Like the direct costs, the administrative costs are shared by the state.
Thus, the county, which retains the decision-making power to increase IHSS wages, pays only a share of the marginal cost of a wage increase. In March 1997, when the wage rate was $5.29 an hour, San Francisco County paid only 3 percent of the total direct cost of the IHSS services. Additional costs to the county will be a function of 1) how big the wage/benefit increase is above the cap set by the state, 2) how much service hours demanded by qualified recipients increase, and 3) the proportion of total hours provided through the PCSP program.

In 1997 when wages started to rise, it appeared as though the marginal cost to the county of a $4 wage increase to $9 an hour would be approximately $0.80 per hour or $5.3 million a year (Reich & Hall 2001). That conclusion was based on the restrictive assumptions that the state cap would not rise, that the number of hours of service would not increase, and that the proportion of hours provided through the PCSP service would not change. Based on the above analysis, I would predict that the number of hours demanded would increase, so unless the state cap and/or the share of hours covered by the PCSP program increased sufficiently, the additional cost to the county is likely to be higher than $5.3 million.

However, there could be some offsetting costs as turnover falls and the quality of care provided increases. If better paid providers provide higher quality care, or if a wage increase makes it easier to find replacement workers when a consumer’s regular provider cannot work, the consumer will be less likely to call 911 in emergencies or to require otherwise avoidable admissions to hospitals or nursing homes. Additional offsetting costs would include savings in welfare costs, Indigent Care and Medicaid payments as workers transition from welfare into IHSS jobs, and as uninsured workers begin to get employer-based medical insurance.

4 Scope and method of study

The study examined the effect on labor market outcomes of economic events over a 52-month period from November 1997 to February 2002. Data availability set the constraint on the period of analysis. However, given that wages did not significantly exceed the state-mandated minimum wage until July 1998, the time frame is long enough to assess the effects of real wage increases.
Much of the analysis was done using the Case Management, Information and Payroll Services (CMIPS) database for San Francisco County. Each county in California submits information to the state about the demographics and authorized hours for every recipient and every provider of IHSS services. The state compiles the data, uses it for pay-roll purposes and returns the data to the counties for their own use. While the data is confidential, San Francisco County IHSS has made the SF data available to RTZ Associates for the purposes of program evaluation and other types of analysis. The SF Public Authority has authorized the use of this data for the purpose of this analysis, subject to the constraints imposed by confidentiality.

The data allows one to analyze trends in the demographic composition of both the workforce and the consumer population, including race, ethnicity, age and gender. I was able to calculate hours worked per month by each provider, entry and exit and the length of time the provider is in the workforce, and the length of the match between the provider and the consumer.

I supplemented the CMIPS data through interviews with a number of people who worked for agencies that provided services for providers and consumers to the specific ethnic communities represented by the workforce. In addition, many of the analyses and interpretations are supplemented by insights gained from a separate survey done of IHSS workers in Alameda County (Howes & Greenwich 2002).

5 Outcomes

I predicted that both the demand for and supply of labor – including the number of workers and hours worked - would rise, that match and workforce turnover would fall, and that the proportion of consumers being cared for by providers of the same ethnicity would increase.

---

15 All interviews were done with Sue Eisenberg of RTZ Associates.
Labor market outcomes

Supply and demand growth

Overall, the number of providers grew by 54 percent between November 1997 and February 2002 while the number of recipients (demand) grew 47 percent (Table 7). More than half the growth occurred in the 27 months after the wage rose to $9 an hour in October 1999. The number of Chinese providers increased by 136 percent, more than twice the overall average. The number of Russian providers grew by 57 percent. Among the principle ethnic groups, only the number of White providers declined. In every ethnic group, except Chinese, the percentage growth of non-family providers was greater than that of family providers. In every ethnic group (except other Asians) the growth of providers exceeded slightly the growth of consumers.

On the surface, since the ethnic composition of both demand and supply growth is so similar, it appears that as the wages increased recipients of each ethnic community hired people from within their community. One possible explanation is that as the supply of people of their own ethnicity rose, many recipients who would previously have qualified for services but were unwilling to bring unknown providers into their home, now applied for the services because they were able to hire a trusted family member or a neighbor.

Growth rates vary considerably over the period of analysis and to get an initial sense of the effect of the wage increases on growth, I have divided the 52 months into three periods, the first encompassing the 8 months prior to any significant wage increase, the second covering the period when the wage increased to $7 an hour and health benefits were introduced (and when welfare reform was beginning to take effect), and the third covering the period after the wage

16 It is important to recognize that all aggregate trends are distorted by the rise in the share of Chinese providers over the four-year period from 21 to 32 percent of the total. This is particularly important because in important ways, Chinese providers respond to economic signals in ways that distinguish them from other groups. For example, while non-family providers grew far more rapidly than family providers in most other ethnic groups, Chinese family providers grew twice as fast as non-family providers.
rose to $9 an hour. Figure 2 shows the growth rates, broken down by ethnicity, for each period. Aggregate growth rates obscure very diverse behavior across ethnic groups. During the second period when growth increases for Chinese, Russian and White providers it is actually declining for Latinos and Blacks and in the third period Latino and Black providers are growing rapidly when white providers are declining.

In order to more precisely assess the effect of various economic stimuli, I have broken labor force growth down into trends in entry and exit over time for each ethnic group, further divided by family and non-family providers. The data presented in Figures 3a – 3n are five month moving averages of numbers of providers entering and exiting the workforce. Despite averaging, there are spikes in the data, which are probably related more to the patterns of recording data, rather than to actual entry and exit. Thus the data should be seen as broadly reflective of trends, without reading too much into isolated positive or negative spikes.

Figure 3a suggests, first of all, that every month between 5 and 6 percent of the workforce enters and leaves, and that the total number of entries has shown an upward trend since early 1999, mirrored roughly by an upward trend in exits. More significantly, the figure

---

17 For example, there is a pronounced spike in the data around July 1999 for entries, and June 1999 for exits. Although there is significant variation in trends across ethnic groups, the one thing all have in common is this spike in entry and exit, suggesting that the spike is an artifact of the data. Perhaps someone recorded a backlog of exits in one month and entries the next.

18 The reader will note that the exit rate appears to be falling steadily from November 1997 when the data begins to October 1998. Because of the lumpy and truncated nature of the data it is difficult to know whether the decline is from a spike or whether it is truly a downward trend. Between July 1997, when the first labor agreement was signed, and March 1998, the wage did rise from $0.21 above the minimum wage to $0.65 above the minimum wage, which might have been sufficient to slow exit and increase entry into the labor force. However, because the exit rate appears to be falling for all ethnic groups and for family and non-family providers alike, and because it is rare to see that kind of consistent response to other economic incentives, I am more inclined to suspect that the decline in exit rates is an artifact of the data.
shows that after about November 1999, the gap between entries and exits has widened, resulting in a net increase in the rate of growth of the labor force. So at an aggregate level, the wage increase to $9 an hour in October 1999 appears to have stimulated an increase in the rate of growth of providers.

The subsequent figures suggest, however, that the determinants of the growth of the supply of labor are more complex. Figures 3b and 3c show, for example that in aggregate, family and non-family providers tend to respond differently to economic incentives. Family providers appear to have entered the workforce more rapidly than non-family providers in response to the addition of health insurance, while non-family providers seem somewhat more responsive to the wage increase.

Turning to Latino providers, the distinction between family and non-family providers becomes more acute. There appears to be no overall trend increase in the rate of Latino family provider entries or exits. However, there is one period, which immediately follows the introduction of the HEALTHYWORKERS program, in which there was a spike in the monthly rate of entry. Following that, the exit rate declines for some time immediately after the increase in the wage to $9. For Latino non-family providers, there is a clear upward trend in entries and a slower upward trend in exits. Entries begin to rise with introduction of health insurance and to get a further boost when the wage rises to $9 an hour. Once the wage reaches $9 an hour, the gap between entries and exits becomes substantial and sustained. Thus Latino entry appears to have been influenced by both the health insurance and the wage increase, but the wage increase seems to have been more of an incentive for non-family providers.

Chinese family providers began to enter the workforce at a much higher rate immediately after health insurance was added and have sustained that high rate of growth ever since.

It is natural for the rate of exit to grow as the rate of entry grows, inasmuch as about 33 percent of all matches end each year because the recipient expires or leaves and in 80 percent of the cases the provider leaves the workforce.
Furthermore, the Chinese family providers have maintained a much higher and steadier rate of gross and net entry than the non-family providers. Non-family provider growth seems more related to wage increases.

Two institutional factors may explain why large numbers of Chinese family providers entered in response to the wage and benefit increase. After March 1999, when health insurance was introduced, the Chinese providers had the fastest growth rate of all groups. There is anecdotal evidence that Chinese providers were significantly more interested in health insurance than other ethnicities. Second, Chinese consumers are said to have an especially strong cultural preference for family caregivers. According to one person I interviewed, several cultural barriers to hiring adult children began to break down when the wage rose above $7. First, the children of Chinese recipients began to view the IHSS jobs as good enough jobs once the wage was high enough and there were health benefits. Second, the elderly Chinese recipients were able to overcome their aversion to “welfare” and apply for the services, in part because their children now pressed them to do so. The data supports this story. After March 1999, but especially after health insurance was introduced, the rate of growth of family providers outpaced that of non-family providers. Whereas the number of exclusively family providers constituted 43 percent of the workforce in November 1997, by February 2002, they were 54 percent of the workforce. The growth of Chinese providers seems to have been significantly impacted both by the introduction of health insurance and the wage increases. Moreover, since the trend growth in family provider

---

19 Donna Calame, Director of the San Francisco Public Authority, said that she heard a lot of talk about Chinese providers being extremely interested in health insurance when it was first introduced. Apparently, hundreds of Chinese providers attended meetings in San Francisco, which were organized to explain the benefit to them.

20 The following interpretation of the trends in the supply of Chinese workers is based on an interview with Henry Lau of Self-Help for the Elderly conducted by Candace Howes and Sue Eisenberg in March, 2001, San Francisco. Self-Help for the Elderly is a non-profit organization that provides numerous social services to the Chinese community in San Francisco. For some time, they made many of the matches between IHSS providers and consumers and assisted providers with time sheets.
entry has been sustained for the entire period of analysis and exceeded the trend growth in exits, I expect that the growth of Chinese providers to continue.

There is no real upward trend in Russian family provider entry, whereas there is a slight upward trend in exits. However, there is a sustained spike in entries around the period when the wage goes to $9 and again at $10, though curiously not when the wage goes from $9 to $9.70. For non-family providers there is a clear upward trend in both entry and exit since several months before health insurance is introduced until just before the wage goes to $9.70, at which point entry levels off, but does not decline, as it does with the family providers.

Interview evidence suggests that Russian providers were largely motivated by health insurance, although the data suggests that the higher wage was also significant for both family and non-family providers. According to one person I interviewed at Jewish Vocational Services, since Russian providers had refugee status, they were entitled to welfare benefits, including TANF, General Assistance and medical insurance through Medi-Cal. If they worked too many hours they would lose benefits and apparently they were particularly concerned about losing Medi-Cal insurance. Once IHSS added health insurance however, Russian workers could work more hours – not necessarily at IHSS – and still have medical benefits. That would explain the increase in provider entry around the period when the health insurance was introduced.

There is absolutely no trend in Black family providers, though there is a significant spike in exits around July 1999, but that may be an artifact of the data. However, for non-family providers there is a very pronounced increase in the rate of entry after July 1999 through March 2000 and thereafter the entry rate remains high. At the same time the exit rate falls and beginning in September 1999, the net supply of black non-family providers begins to grow as the entry rate rises permanently above the exit rate. The wage increase to $9 an hour appears to be the principle explanation for the growth of supply of Black non-family providers after September 1999, however, there may be some link to welfare reform through its effect on white providers as is shown below.
There is no trend for white family providers, either in entry or exit, which track one another so closely that the number of white family providers did not grow. However, the picture for non-family providers is very different and seemingly unrelated to the wage and benefit incentives we are examining here. White entry exceeds white exit starting in April 1998, just when welfare reform is being implemented in California, and there is sustained growth in the white non-family workforce, fueled by a very big spike in the entry rate beginning in January 1999. Since the number of white recipients did not increase at all, the growth of providers could not have been driven by demand within their ethnic community. In fact, all of the net new entry was among providers caring for recipients who belonged to other ethnic groups, principally African-Americans and Russians.

White non-family provider behavior appears to be linked to welfare reform. Beginning in April 1998, non-exempt welfare recipients were required to enroll in a welfare-to-work plan. All recipients had be to enrolled by January 1999. Under a qualifying plan, a CalWorks participant would have had to undertake either training, subsidized employment, or non-subsidized employment. By July 1999, each program participant was required to put in 32 hours a week at some combination of training and/or employment. Within 18 to 24 months of enrollment they were expected to transition to non-subsidized employment. Between January when all non-exempt welfare recipients were required to be enrolled in a plan and mid-summer the entry rate rises steeply. But then suddenly entry drops off and exits surge so that by August 1999 the supply of white non-family providers is actually falling. By November, when the wage rises to $9 an hour, the entry rate has fallen to a new low and the exit rate is peaking, the opposite of what one would expect.

The rapid fall in the number of white providers beginning in July 1999 could be a reaction to the 32-hour per week work requirement. It is extremely difficult to get 32 hours of IHSS work in a week, given the low number of hours that recipients are authorized and the difficulty of working for more than one or two clients. At the same time, there seems to be a link between the behavior of black and white non-family providers. The rapid increase in black entry almost precisely tracks white exit and is the mirror image of white entry (Figure 2n). Furthermore, many white providers who left had been working for black clients and were
replaced by black providers. Whether whites were leaving the workforce voluntarily or because they were being displaced by black providers cannot be determined using this data. But it is notable that the proportion of black recipients being cared for by white providers fell from an average of 13.5 percent in the months before July 1999 to 6.8 percent after.

In sum, it seems that the introduction of health insurance and then the substantial rise in wages above the state minimum wage has lead to a long-term growth in the number of providers in the workforce. The trend rate of growth in family providers is explained primarily by the high and sustained growth in entry of Chinese family providers. For all other ethnic groups, there is no upward trend in family provider entry over the period of analysis, but there are spikes in entry, for Latino and Russian family providers approximately when health insurance is added and when the wage rises to $9. Among non-family providers, there is also an upward trend in entry that exceeds the trend in exits. This generalization is true for all ethnic groups except Whites. The upward trend in gross and net entries is linked to both health insurance and wage increases for Latino, Chinese and Russian non-family providers. The upward trend for Blacks appears to be linked primarily to the wage increase to $9. Over the period of analysis, there is no net growth in the number of white providers, neither is there an upward trend either in entries or exits. Rather there is a brief period when the entry rate of providers shoots up, followed by a period of very high exit. This behavior, seems to be explained only by the impact welfare reform had on the relative appeal of IHSS jobs to white providers, and possibly in part by the loss of jobs to black providers after the $9 wage made IHSS work relatively more attractive for black non-family providers.

Hours per month per worker

There is virtually no trend in aggregate hours per worker. However, again, when we disaggregate by ethnic group and family provider, we see significant variability in trend. Table 8 compares average hours worked disaggregated by family and non-family providers at the beginning and the end of the period under investigation. For most of the ethnic groups, there is
little change in the number of hours worked by family members.\textsuperscript{21} This would be expected, inasmuch the number of hours worked by family providers for pay is more likely to reflect the needs of the consumer than the preferences of the provider.

We do see the expected response to wage and benefit increases among African-American and white non-family providers, whose average hours rose 20 and 13 percent.\textsuperscript{22} Black non-family providers began to increase their average hours in the early summer of 1998 when the wage rose to $7, but also when welfare reform started, and continued to do so until Jan 2000, shortly after the wage reached $9, at which point their average hours leveled off at about 95 per month (Figure X). The rise in African-American hours seems consistent with the proposition that African-Americans were more responsive to wage increases than to the addition of health insurance. White providers show a more modest gain beginning in February 1999, which is just at the point when CalWorks enrollment was completed. In contrast, hours worked by Chinese and Russian non-family providers fell. Russian non-family providers may have wanted to hold on to their IHSS jobs for the health insurance, but at the same time wanted to increase hours in other jobs at the expense of IHSS hours.

Match and Workforce Turnover

To gauge the trend in match turnover, I measured the probability of any match in a given month having lasted a year or less.\textsuperscript{23} To determine whether there was any change in the trend, I

\textsuperscript{21} In aggregate the average hours worked by family members goes down, but this is because the share of Chinese providers, who on average work fewer hours than family providers in other ethnic groups, rose from 21 percent in 1997 to 32 percent in 2002.

\textsuperscript{22} Since workers qualified for health benefits as long as they had worked two months for a very low minimum of 25 hours a month, it is unlikely that the introduction of health benefits would have had much affect on the number of hours worked.

\textsuperscript{23} Ideally, I wanted to measure the trend in the average match length over time in order to test the hypothesis that the match length was increasing. Because the data is truncated at the beginning and end of the period of analysis, there
contrasted the percent of total matches that had lasted less than a year for the four-month period between November 1998 and February 1999 to the four-month period between November 2001 and February 2002 (Table 9). In aggregate, the proportion of matches that lasted less than a year fell by 6 percent from 33 to 31 percent. Turnover fell for all ethnic groups except Blacks.\textsuperscript{24}

In the four-month period at the end of 1997 and beginning of 1998, 20 percent of matches ended every year for “bad reasons,” that is because the provider left or the provider and consumer both found other matches. By 2002, that number had fallen to 16 percent. Excepting Russians, “bad” match turnover fell for every ethnic group, including Blacks, for whom unadjusted match turnover had not fallen. In other words, although annual match turnover still exceeded 33 percent for most ethnic groups, the amount of turnover that would conceivably harm consumers had fallen tremendously.

Just as match turnover fell, so too did workforce turnover, as measured by the proportion of the workforce that has been in the job for less than a year on average. As Table 10 shows, the proportion of the workforce that had been in the job for less than one year fell by 17 percent, from 29 to 24 percent. The adjusted turnover rate, measuring only “bad turnover” fell from 17

are many matches that either span the entire period, or began before, or ended after the period of analysis, making it impossible to calculate their true length. If I had dropped all the matches of indeterminate length I would have lost too many observations. In the end, I measured the probability of any match – both new and existing matches - in a given month having lasted a year or more. I could also have measured the probability of the match lasting longer periods of time, but the longer the period, the less likely I would be able to capture the impact of wage increases after the living wage ordinance went into effect in October 2000. In the end, I felt that the one-year match length balanced the need for a measure of reasonable stability and a long enough time frame to capture the effects of the wage increases.

\textsuperscript{24} The increasing weight of Chinese providers, who have one of the highest match turnover rates, keeps aggregate turnover high. If the weights of each ethnic group had remained constant between 1997 and 2002, the average unadjusted match turnover would have fallen to 29.6 instead of 31.
percent to 12 percent, a 30 percent decline in bad turnover. For Latinos and Chinese the amount of bad turnover fell by 42 and 32 percent.

Spillover effects

There were unquestionably spillover effects at least at the two agencies in San Francisco that had contracts from IHSS to provide services, primarily to recipients who were not capable of hiring and supervising independent providers themselves. While some of the employees in the agencies would have been covered by the Living Wage ordinance because they were providing services to the county under contract to IHSS, other employees in the same agency were not providing services to the county. Nonetheless, since non-IHSS workers were working side by side with IHSS workers, the agencies had to raise the non-IHSS employees wages as well.25

Quality of match

The trend to greater segmentation in the workforce may be an indirect measure of the improvement in the quality of the match. Table 11 indicates that between 1997 and 2002, the percentage of recipients who were cared for by someone of their own ethnicity rose from 86 percent to 91 percent. Furthermore, the trend toward a higher percentage of ethnic matches started only in October 1999, precisely when the wage rose to $9 an hour. Prior to that the share of same ethnicity matches had been falling for Latinos, Blacks and Whites and rising only for Chinese recipients.

A disaggregated analysis by ethnicity shows the following pattern. The proportion of Latino recipients matched to same ethnicity providers fell between November 1997 and October 1999 because Latino recipients were employing White providers in greater proportion than Latino providers. The proportion of same ethnicity matches among Black recipients also fell during this period, again because Blacks were hiring White providers while the absolute number of Black-Black matches was falling. At the same time, white consumers were not hiring whites.

25 Interview with Margy Baron, Director of the IHSS Consortium, March 2001.
The overall number of white recipients was falling, but the number of white-white matches was falling even faster and Latino, Russian and Black providers were filling the gap.

After November 1999, in every ethnic group, other than whites, the number of same ethnicity matches increased while the number of matches specifically to white providers declined. For whites, the growth in the white-white matches just kept pace with the growth in white recipient matches to other ethnicity providers. Blacks and Latinos especially were increasingly working for white recipients.

Thus, the growth of wages and benefits seems to have led not only to significant increases in the size of the workforce but also to a larger proportion of same ethnicity matches. However, the impact of welfare reform on white provider participation in the labor force seems to have had precisely the opposite effect for white recipients who were increasingly unlikely to be matched to a White provider.

Quality of Care

No direct measure of quality of care, such as the incidence of emergency room usage, or of avoidable admissions to hospitals or nursing homes, can be drawn from the CMIPS database. However, since 1998, Laura Reif has conducted a series of four consumer surveys’ under contract to the San Francisco IHSS Public Authority in order to formally evaluate quality of care (RTZ Associates 2001b). Reif asked consumers a series of questions about provider performance, problems arranging for a provider and poor outcomes, such as an avoidable stay in an institution. Reif found that there were significantly more complaints about poor provider performance when the provider was from a different ethnic group than the consumer (Reif 2002). For example, 16 percent of consumers matched to a provider of a different ethnicity reported fear of being injured, compared to 1 percent of consumers in a same-ethnicity match. Twenty-six percent of consumers in a different-ethnicity match reported receiving poor care, compared to 4 percent in a same ethnicity match. Consumers matched to other-ethnicity providers were three and a half times more likely to go without help at times when they needed it, and more than twice as likely to have to call on assistance from unpaid relatives and friends. Reif found that there was a high correlation between those who reported going into institutions and those who
reported going without help or feeling in danger when left alone. The consumer was more likely
to go without help or feel in danger if their provider was from a different ethnic group.\textsuperscript{26}

These results indicate, more than anything, that as consumers find it easier to hire people
in their same ethnic group, people from their family or their neighborhood, they are far less
likely to suffer from the weaknesses in an imperfect system of in-home care for the elderly and
disabled.\textsuperscript{27}

\textit{Poverty Outcomes – Welfare-to-Work and Poverty}

Though this cannot be proved with CMIPS data, there is circumstantial evidence that
homecare work was the first job that many people took as they transitioned from welfare under
the CalWorks program. A recent survey of IHSS workers in San Francisco (RTZ 2001) revealed
that before taking an IHSS job, over 10 percent of the workers had been on welfare and not
working; and even larger number were probably on welfare and also working.\textsuperscript{28} Further analysis
of the survey data may indicate that those workers had transitioned into homecare work in the
last two years when the welfare-to-work program was being implemented.

As the wages rose, homecare became the best job available to many poor immigrant
women and ultimately to many poor native-born women of color as well. These IHSS jobs may
have represented as many as 8 percent of all low wage jobs, 16 percent of low wage jobs

\textsuperscript{26} Reif also found that many of the problems consumers reported were due to inadequate service that had nothing to
do with the provider, for example, as when the consumer was not authorized enough hours of care.

\textsuperscript{27} Reif and I are currently undertaking a project to jointly analyze the quality data and workforce performance results
to determine the extent of the correlation between quality and same ethnicity match and hence indirectly the
relationship between quality and workforce enhancements.

\textsuperscript{28} Twelve percent of the Alameda County sampled reported having transitioned to IHSS directly from welfare
(Howes & Greenwich 2002).
available to women, and perhaps as high as 20 to 25 percent of the low wage jobs available to immigrant women without English-language proficiency in San Francisco (Howes 2001). The immigrant and native-born women who were working in IHSS jobs along with their families would have represented a substantial share of the 95,000 San Franciscans living below the poverty line. Suppose we assume that all 5,700 IHSS workers were living below the poverty line when the wage was $5.69 and that as the wage rose it not only pulled those already in the workforce out of poverty, but also pulled many others into the workforce and out of poverty. If we assume that at a wage of $10 an hour about 30 percent would still be in poverty,\(^{29}\) that would mean that about 6,100 of the IHSS workers who might otherwise be in poverty would have been pulled above the poverty line as a consequence of the wage increases. If each IHSS worker has two additional family members living in their home, it means that a total of 18,000 people were relieved from poverty. If those 18,000 were added to the 95,000 currently living in poverty, it would raise the number of San Franciscans living in poverty by almost 20 percent to 113,000. In other words, the IHSS wage increase may have had the effect of reducing the poverty rate in San Francisco by as much as 16 percent, holding other things constant.

Consider a household, for example, in which there is a disabled or infirm elderly person receiving Supplementary Security Income from the federal government – approximately $712 a month in 1998 – who is also eligible for IHSS homecare services. Also living in the house is a close relative of the elderly person and her two young children. Suppose the family member who is authorized to work 80 hours a month is caring for the IHSS consumer. In early 1998, when the IHSS hourly wage was $6.40, these two sources of income would have generated about $14,700 a year, which is below the poverty line for a family of four. After the wage rose to $9.70, the total household income would have been closer to $19,000 which would have raised that family’s income above the poverty line.

\(^{29}\) The poverty rate for IHSS workers in Alameda county was 35 percent at $8.50 an hour and we estimated that the poverty rate would fall to 28 percent at a wage rate of $10.50 (Howes & Greenwich 2002).
Direct Cost of IHSS Wages and Benefits

In 2001, the annual direct cost of the IHSS program in San Francisco County was approximately $114 million, up from $39 million in 1997. The gross cost to the county was about $18.4 million, an increase of $17.1 million over its $1.3 million share in 1997. Every dollar spent by the county on IHSS wages and benefits in 2001 was matched by an additional $5.20 from federal and state sources. About half the increase in costs (and income) was due to the increase in the hourly compensation and about half to an increase in the total number of hours worked in the program.

Table 12 shows the portion costs that were paid from the federal government, the state general fund, the state realignment funds and the county general funds in March 1997, March 1999 and March 2001.

In March 1999 when the HEALTHYWORKERS benefit was added to compensation, many providers who had previously been without insurance and relying on the county Indigent Care program signed up for the employer-based health insurance. Savings to the county in Indigent Care dollars offset the direct costs of the program. Zawadski estimates that in its first 9 months, the HEALTHYWORKERS program saved the county approximately $3.5 million in Indigent Health Care dollars, which it put back into the IHSS program to cover the entire cost of insurance for 1999. In 2000, the cost of the HEALTHYWORKERS program rose from about $0.60 an hour to about $1.05 an hour as more workers signed up for the program and Dental

Reich, Hall and Hsu (1999) predicted in an earlier study that the gross direct cost of the wage increase for homecare workers to the County would be $16.7 million annually. Their analysis was based on several assumptions that no longer hold, including that the living wage would be set at $11 an hour.

In a separate paper I fully explain the funding formulas and the calculations behind the estimates presented in this paper.

coverage and vision care were added. But beginning in 2000, the state and federal government picked up a share of the insurance costs and the hourly direct cost to the county fell. However, even though the state and federal government were paying much of the costs for the health insurance, the county continued to realize direct savings in Indigent Care expenditures.

The total health insurance cost of the program was close to $10 million in 2001. Based on the funding formulas, the federal government would have paid about $4.8 million, the state about $3 million, and the county the remaining $2.2 million. Suppose that every dollar that is spent on the HEALTHYWORKERS program saves a dollar in the Indigent Care budget, as seemed to be the case in the first year of operation. If we assume that the $10 million savings in Indigent Care costs were used to offset the $18 million that the county paid in direct costs for the IHSS program in 2001, then the true net cost to the county would have been approximately $8 million. So in exchange for an annual net cost to the county of $8 million in 2001, $114 million in wages and benefits were paid to IHSS workers in San Francisco.

One additional offsetting cost may be the savings in welfare or welfare-to-work funds. If approximately 10 percent of IHSS workers were on welfare before taking an IHSS job, those 870 IHSS providers were receiving roughly $700 per month in direct cash aid at a cost to the state and county of approximately $7 million annually. If they worked an average of 80 hours per month after they become an IHSS homecare provider, earning $10.75 in total compensation, the total direct cost of their wages would be $9 million. Most of that cost is born by the federal government and the state. Depending on the source of funding for the cash aid programs, the direct cost of the IHSS program to the city may be significantly offset by savings in the cash aid programs such as CALWORKS, PAES, CAAP, CAPI, Refugee Assistance and General Assistance.

To sum up, a back of the envelop calculation suggests that the net costs to the county of a $114 million program in 2001 which put money directly in the pockets of IHSS workers and into the very poor communities of San Francisco was between $8 and $18 million, not including any additional savings that may have resulted from getting people out of the cash aid programs. In
other words every dollar the county spent on IHSS wages and benefits put an additional $5 to $13 in homecare workers pockets.

6 Conclusion

This paper has reported the results of a study of the impact of a significant wage increase on an ethnically diverse, low wage, largely female and immigrant workforce in San Francisco. There were three main factors, at a minimum that affected the decision of providers and potential providers to exit and enter the workforce and to vary the number of hours they worked in response to economic incentives. These factors included, first, a straight economic cost-benefit analysis of the trade-off between whether to work or not, or between whether to work more hours or not, as the wage and benefit package improved. Overlaying and related to that cost-benefit analysis was the effect that welfare reform had on the relative options of providers. Third, while supply decisions are generally considered to be independent of demand decisions, the idiosyncrasies of this labor market, including the fact that many providers work for family members and that the consumers do not pay for the service themselves has meant that frequently supply and demand decisions were connected. The extent to which cultural factors affected the supply decisions varied across ethnic groups.

The principle conclusion of the study was that a very large wage increase led to a substantial increase in the number of providers in the labor market. The revealed increase in supply of labor was possible only because there was a significant increase in demand. However, interviews with practitioners in the field and providers and consumers has suggested that as the wage rate rose and the job became a decent job for people who would otherwise be working in factories and restaurants and hotels, it became much easier for consumers to find acceptable providers. Therefore, the increase in the number of “good” providers, namely providers who were ethnically matched to consumers, had the effect of increasing the demand for the service or more precisely making the service practically accessible to people who had previously been underserved.
Over the four-year period that the wages and benefits increased, the turnover rate for providers fell by 17 percent. Adjusted to correct for turnover that is the natural consequence of consumers leaving the service, the turnover rate actually fell by 30 percent. The turnover rate of matches, which may be of more consequence for consumers, showed similar improvement. “Bad” match turnover fell by 20 percent.

The proportion of consumers who were matched to a same-ethnicity provider increased especially after the wage rose to $9 an hour, and as work by Reif (2002) suggests, that should have the effect of reducing consumer insecurity and the negative outcomes associated with it.

Finally, the wage and benefit increase may have improved the overall quality of the match between providers and consumers while at the same time helping some providers to transition off welfare or out of poverty or both. What seems incontrovertible, however, is that the wage increase provided a significant boost in income to the low wage communities of San Francisco at little cost to the county.
References


California Industrial Welfare Code


Prepared by RTZ for the San Francisco IHSS Public Authority and the San Francisco IHSS Department of Human Services. (Results of May 2000 Survey)


U.S. 42CFR 440.000 Services


Table of Tables

Table 1 History of Actions Related to Establishment of PA, Unionization and Wage Increases  42
Table 2 Number of Providers by Ethnicity and Family Relationship to Recipient, Nov 1997  43
Table 3 Provider and Recipient Ethnicity by Match, Nov 97  44
Table 4 Ave Hours Worked per Month in Nov 97  45
Table 5 Worker and Match Turnover  46
Table 6 Percent of total matches that end with…in Nov 97-Feb 98  47
Table 7 Consumers and providers in 2002 and percent increase between Nov 1997 & Feb 2002  48
Table 8 Average Hours Worked Per Month by Non-Family Providers  49
Table 9 Match Turnover  50
Table 10 Workforce Turnover:  51
Table 11 Ethnic match:  53
Table 12 Total Annualized Direct Cost of Program  54
The control period

<table>
<thead>
<tr>
<th>Date</th>
<th>Action</th>
<th>State Minimum Wage</th>
<th>IHSS Wage/Benefit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jul 1995</td>
<td>Public Authority Established</td>
<td>$4.25</td>
<td>$4.25</td>
</tr>
<tr>
<td>Jan 1996</td>
<td>First wage increase pass-through</td>
<td></td>
<td>$4.83</td>
</tr>
<tr>
<td>May 1996</td>
<td>IP workers vote for union representation by SEIU Local 250</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oct 1996</td>
<td>Min wage inc</td>
<td>$4.75</td>
<td>$5.11</td>
</tr>
<tr>
<td>Mar 1997</td>
<td>Min wage inc</td>
<td>$5.00</td>
<td>$5.29</td>
</tr>
<tr>
<td>Jul 1997</td>
<td>First labor agreement ratified</td>
<td>$5.15</td>
<td>$5.36</td>
</tr>
<tr>
<td>Oct 1997</td>
<td>Wage inc</td>
<td>$5.69</td>
<td></td>
</tr>
<tr>
<td>Mar? 1998</td>
<td>Min wage inc</td>
<td>$5.75</td>
<td>$6.40</td>
</tr>
</tbody>
</table>

Wage rises to $1 or more above State Minimum Wage

<table>
<thead>
<tr>
<th>Date</th>
<th>Action</th>
<th>State Minimum Wage</th>
<th>IHSS Wage/Benefit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jul 1998</td>
<td>Wage increase to MW + $1.25; CalWorks program begins</td>
<td></td>
<td>$7.00</td>
</tr>
<tr>
<td>Jan 1999</td>
<td>CalWorks enrollment complete</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mar 1999</td>
<td>Healthy Workers added</td>
<td></td>
<td>$7.00 + HW</td>
</tr>
<tr>
<td>Jul 1999</td>
<td>CalWorks req. 32 hrs work/wk</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Wage rises to $3 or more above State Minimum Wage

<table>
<thead>
<tr>
<th>Date</th>
<th>Action</th>
<th>State Minimum Wage</th>
<th>IHSS Wage/Benefit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oct 1999</td>
<td>Wage inc to MW + $3.25</td>
<td></td>
<td>$9.00 + HW</td>
</tr>
<tr>
<td>Jan 2000</td>
<td>Dental added</td>
<td></td>
<td>$9.00 + HW + Dental</td>
</tr>
<tr>
<td>Apr 2000</td>
<td>CalWorks recipients begin to reach 24 mo. limit</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jul 2000</td>
<td>Wage inc to MW + $3.95</td>
<td></td>
<td>$9.70 + HW + Dental</td>
</tr>
<tr>
<td>Aug 2000</td>
<td>Living Wage Ordinance passed</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jan 2001</td>
<td>Min Wage increase</td>
<td></td>
<td>$6.25</td>
</tr>
<tr>
<td>July 2001</td>
<td>Wage inc to MW + $3.75</td>
<td></td>
<td>$10.00 + HW + Dental</td>
</tr>
<tr>
<td>Jan 2002</td>
<td>Min wage increase</td>
<td></td>
<td>$6.75</td>
</tr>
</tbody>
</table>

Source: compiled by author
Table 2 Number of Providers by Ethnicity and Family Relationship to Recipient, Nov 1997

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>Total</th>
<th>percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Latino</td>
<td>588</td>
<td>10%</td>
</tr>
<tr>
<td>Chinese</td>
<td>1,198</td>
<td>21%</td>
</tr>
<tr>
<td>Russian</td>
<td>1,434</td>
<td>25%</td>
</tr>
<tr>
<td>Black</td>
<td>820</td>
<td>14%</td>
</tr>
<tr>
<td>White</td>
<td>925</td>
<td>16%</td>
</tr>
<tr>
<td>Filipino</td>
<td>269</td>
<td>5%</td>
</tr>
<tr>
<td>OtherAsian</td>
<td>280</td>
<td>5%</td>
</tr>
<tr>
<td>Other</td>
<td>175</td>
<td>3%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>5,689</td>
<td>100%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>Family</th>
<th>Non-family</th>
<th>Both</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Latino</td>
<td>60%</td>
<td>33%</td>
<td>7%</td>
<td>100%</td>
</tr>
<tr>
<td>Chinese</td>
<td>43%</td>
<td>47%</td>
<td>10%</td>
<td>100%</td>
</tr>
<tr>
<td>Russian</td>
<td>39%</td>
<td>52%</td>
<td>9%</td>
<td>100%</td>
</tr>
<tr>
<td>Black</td>
<td>63%</td>
<td>32%</td>
<td>5%</td>
<td>100%</td>
</tr>
<tr>
<td>White</td>
<td>41%</td>
<td>58%</td>
<td>2%</td>
<td>100%</td>
</tr>
<tr>
<td>Filipino</td>
<td>76%</td>
<td>22%</td>
<td>2%</td>
<td>100%</td>
</tr>
<tr>
<td>OtherAsian</td>
<td>73%</td>
<td>25%</td>
<td>2%</td>
<td>100%</td>
</tr>
<tr>
<td>Other</td>
<td>53%</td>
<td>44%</td>
<td>3%</td>
<td>100%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>50%</td>
<td>44%</td>
<td>6%</td>
<td>100%</td>
</tr>
</tbody>
</table>

Source: compiled by author from SF CMIPS data
### Table 3 Provider and Recipient Ethnicity by Match, Nov 97

<table>
<thead>
<tr>
<th>...of Provider</th>
<th>Latino</th>
<th>Chinese</th>
<th>Russian</th>
<th>Black</th>
<th>White</th>
<th>Filipino</th>
<th>Oth Asian</th>
<th>Other</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Latino</td>
<td>649</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>724</td>
</tr>
<tr>
<td>Chinese</td>
<td></td>
<td>1,525</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1,574</td>
</tr>
<tr>
<td>Russian</td>
<td>2</td>
<td></td>
<td>1,959</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2,010</td>
</tr>
<tr>
<td>Black</td>
<td>5</td>
<td>1</td>
<td></td>
<td>852</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>911</td>
</tr>
<tr>
<td>White</td>
<td>40</td>
<td>17</td>
<td>196</td>
<td>141</td>
<td></td>
<td>573</td>
<td></td>
<td>19</td>
<td>1,029</td>
</tr>
<tr>
<td>Filipino</td>
<td>1</td>
<td></td>
<td>4</td>
<td>11</td>
<td>278</td>
<td></td>
<td></td>
<td>6</td>
<td>302</td>
</tr>
<tr>
<td>Other Asian</td>
<td>73</td>
<td>4</td>
<td>4</td>
<td>6</td>
<td></td>
<td></td>
<td>218</td>
<td>2</td>
<td>307</td>
</tr>
<tr>
<td>Other</td>
<td>3</td>
<td>2</td>
<td>55</td>
<td>50</td>
<td>39</td>
<td>7</td>
<td></td>
<td>6</td>
<td>199</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>699</td>
<td>1,627</td>
<td>2,223</td>
<td>1,069</td>
<td>751</td>
<td>315</td>
<td>305</td>
<td>67</td>
<td>7,056</td>
</tr>
</tbody>
</table>

Source: calculated by author from SF CMIPS data
### Table 4 Ave Hours Worked per Month in Nov 97

(Mean, 25\textsuperscript{th}, 50\textsuperscript{th}, and 75\textsuperscript{th} Percentiles)

<table>
<thead>
<tr>
<th>Provider Ethnicity</th>
<th>Total</th>
<th></th>
<th></th>
<th></th>
<th>Family</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>mean</td>
<td>25th</td>
<td>50\textsuperscript{th}</td>
<td>75th</td>
<td>mean</td>
<td>25th</td>
<td>50th</td>
<td>75th</td>
<td></td>
</tr>
<tr>
<td>Latino</td>
<td>103.6</td>
<td>58.2</td>
<td>84.8</td>
<td>141.7</td>
<td>95.5</td>
<td>52.7</td>
<td>73.1</td>
<td>126.5</td>
<td></td>
</tr>
<tr>
<td>Chinese</td>
<td>85.9</td>
<td>50.7</td>
<td>73.6</td>
<td>106.6</td>
<td>65.9</td>
<td>38.1</td>
<td>57.3</td>
<td>82.8</td>
<td></td>
</tr>
<tr>
<td>Russian</td>
<td>83.7</td>
<td>50.6</td>
<td>75.0</td>
<td>104.9</td>
<td>72.7</td>
<td>42.8</td>
<td>65.5</td>
<td>92.6</td>
<td></td>
</tr>
<tr>
<td>Black</td>
<td>87.4</td>
<td>48.4</td>
<td>72.3</td>
<td>108.9</td>
<td>86.7</td>
<td>46.1</td>
<td>68.8</td>
<td>106.9</td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>88.4</td>
<td>51.5</td>
<td>74.2</td>
<td>105.6</td>
<td>90.3</td>
<td>47.8</td>
<td>68.9</td>
<td>111.5</td>
<td></td>
</tr>
<tr>
<td>Filipino</td>
<td>86.3</td>
<td>49.2</td>
<td>71.3</td>
<td>102.1</td>
<td>83.2</td>
<td>47.8</td>
<td>67.0</td>
<td>99.6</td>
<td></td>
</tr>
<tr>
<td>Other Asian</td>
<td>80.3</td>
<td>44.4</td>
<td>71.5</td>
<td>101.0</td>
<td>80.1</td>
<td>40.0</td>
<td>65.3</td>
<td>101.9</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>118.8</td>
<td>71.0</td>
<td>91.5</td>
<td>154.6</td>
<td>127.4</td>
<td>66.8</td>
<td>105.5</td>
<td>170.2</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>88.6</td>
<td>51.5</td>
<td>75.3</td>
<td>110.1</td>
<td>82.2</td>
<td>45.6</td>
<td>66.6</td>
<td>100.9</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Provider Ethnicity</th>
<th>Non-Family</th>
<th></th>
<th></th>
<th></th>
<th>Both Family &amp; Non-Family</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>mean</td>
<td>25th</td>
<td>50th</td>
<td>75th</td>
<td>mean</td>
<td>25th</td>
<td>50th</td>
<td>75th</td>
</tr>
<tr>
<td>Latino</td>
<td>107.1</td>
<td>64</td>
<td>93.3</td>
<td>146.6</td>
<td>155.5</td>
<td>123</td>
<td>152.3</td>
<td>191</td>
</tr>
<tr>
<td>Chinese</td>
<td>92.0</td>
<td>62.3</td>
<td>81.3</td>
<td>110.0</td>
<td>143.7</td>
<td>99.2</td>
<td>133.5</td>
<td>186.7</td>
</tr>
<tr>
<td>Russian</td>
<td>87.6</td>
<td>53.9</td>
<td>77.4</td>
<td>107.8</td>
<td>110.3</td>
<td>77.5</td>
<td>102.3</td>
<td>135.9</td>
</tr>
<tr>
<td>Black</td>
<td>81.3</td>
<td>49.5</td>
<td>71.9</td>
<td>96.9</td>
<td>136.8</td>
<td>89.4</td>
<td>128.3</td>
<td>163.5</td>
</tr>
<tr>
<td>White</td>
<td>86.0</td>
<td>53.8</td>
<td>75.6</td>
<td>102.8</td>
<td>122.6</td>
<td>66.3</td>
<td>86.1</td>
<td>134.2</td>
</tr>
<tr>
<td>Filipino</td>
<td>91.0</td>
<td>57.8</td>
<td>78.2</td>
<td>103.3</td>
<td>157.5</td>
<td>148.9</td>
<td>163.2</td>
<td>170.1</td>
</tr>
<tr>
<td>Other Asian</td>
<td>80.9</td>
<td>58.0</td>
<td>75.8</td>
<td>98.3</td>
<td>81.8</td>
<td>78.7</td>
<td>81.8</td>
<td>97.5</td>
</tr>
<tr>
<td>Other</td>
<td>106.2</td>
<td>73.1</td>
<td>86.1</td>
<td>139.1</td>
<td>148.3</td>
<td>104.9</td>
<td>135.7</td>
<td>174.8</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>89.5</td>
<td>57.0</td>
<td>77.7</td>
<td>108.9</td>
<td>131.0</td>
<td>86.1</td>
<td>120.7</td>
<td>167.4</td>
</tr>
</tbody>
</table>

Source: compiled by author from SF CMIPS data
Table 5 Worker and Match Turnover
(Nov 97-Feb 98)

<table>
<thead>
<tr>
<th></th>
<th>Latino</th>
<th>Chinese</th>
<th>Russian</th>
<th>Black</th>
<th>White</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Match Turnover</td>
<td>0.39</td>
<td>0.41</td>
<td>0.29</td>
<td>0.37</td>
<td>0.28</td>
<td>0.33</td>
</tr>
<tr>
<td>Adj Match Turnover</td>
<td>0.25</td>
<td>0.26</td>
<td>0.21</td>
<td>0.22</td>
<td>0.14</td>
<td>0.22</td>
</tr>
<tr>
<td>Workforce Turnover</td>
<td>0.30</td>
<td>0.34</td>
<td>0.26</td>
<td>0.33</td>
<td>0.26</td>
<td>0.29</td>
</tr>
<tr>
<td>Adj Workforce Turnover</td>
<td>0.19</td>
<td>0.22</td>
<td>0.19</td>
<td>0.19</td>
<td>0.14</td>
<td>0.17</td>
</tr>
</tbody>
</table>

NB: Ave Share of workforce that remained one year or less; ave share of matches that lasted one year of less.

Source: calculated by author from SF CMIPS data
Table 6 Percent of total matches that end with...in Nov 97-Feb 98

<table>
<thead>
<tr>
<th></th>
<th>Stay</th>
<th>Leave</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Consumers</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Providers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stay</td>
<td>17%</td>
<td>10%</td>
</tr>
<tr>
<td>Leave</td>
<td>51%</td>
<td>22%</td>
</tr>
<tr>
<td><strong>Percent of Non Family Matches that end with...</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Consumers</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Providers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stay</td>
<td>12%</td>
<td>8%</td>
</tr>
<tr>
<td>Leave</td>
<td>47%</td>
<td>32%</td>
</tr>
<tr>
<td><strong>Percent of Family Matches that end with..</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Consumers</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Providers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stay</td>
<td>7%</td>
<td>5%</td>
</tr>
<tr>
<td>Leave</td>
<td>43%</td>
<td>43%</td>
</tr>
</tbody>
</table>
### Table 7 Consumers and providers in 2002 and percent increase between Nov 1997 & Feb 2002

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Total</td>
</tr>
<tr>
<td>Latino</td>
<td>886</td>
<td>9%</td>
<td>30%</td>
</tr>
<tr>
<td>Chinese</td>
<td>3,363</td>
<td>33%</td>
<td>109%</td>
</tr>
<tr>
<td>Russian</td>
<td>3,000</td>
<td>29%</td>
<td>38%</td>
</tr>
<tr>
<td>Black</td>
<td>1,274</td>
<td>13%</td>
<td>22%</td>
</tr>
<tr>
<td>White, English-speaking Filipino</td>
<td>767</td>
<td>8%</td>
<td>5%</td>
</tr>
<tr>
<td>Other Asian</td>
<td>406</td>
<td>4%</td>
<td>38%</td>
</tr>
<tr>
<td>Other</td>
<td>94</td>
<td>1%</td>
<td>47%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>10,181</td>
<td>100%</td>
<td>47%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Total</td>
</tr>
<tr>
<td>Latino</td>
<td>826</td>
<td>9%</td>
<td>40%</td>
</tr>
<tr>
<td>Chinese</td>
<td>2,828</td>
<td>32%</td>
<td>136%</td>
</tr>
<tr>
<td>Russian</td>
<td>2,250</td>
<td>26%</td>
<td>57%</td>
</tr>
<tr>
<td>Black</td>
<td>1,111</td>
<td>13%</td>
<td>35%</td>
</tr>
<tr>
<td>White, English-speaking Filipino</td>
<td>900</td>
<td>10%</td>
<td>-3%</td>
</tr>
<tr>
<td>Other Asian</td>
<td>324</td>
<td>4%</td>
<td>16%</td>
</tr>
<tr>
<td>Other</td>
<td>156</td>
<td>2%</td>
<td>-4%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>8,748</td>
<td>100%</td>
<td>54%</td>
</tr>
</tbody>
</table>

Source: compiled by author from SF CMIPS
### Table 8 Average Hours Worked Per Month by Non-Family Providers

<table>
<thead>
<tr>
<th></th>
<th>Total</th>
<th>Family providers</th>
<th>Non-family providers</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Nov97 – Apr98</td>
<td>Oct01–Feb02</td>
<td>Nov97 – Apr98</td>
</tr>
<tr>
<td>Latino</td>
<td>101.4</td>
<td>102.3</td>
<td>95.0</td>
</tr>
<tr>
<td>Chinese</td>
<td>86.0</td>
<td>80.0</td>
<td>66.2</td>
</tr>
<tr>
<td>Russian</td>
<td>83.9</td>
<td>86.6</td>
<td>73.1</td>
</tr>
<tr>
<td>Black</td>
<td>87.0</td>
<td>94.7</td>
<td>86.4</td>
</tr>
<tr>
<td>White</td>
<td>88.3</td>
<td>95.4</td>
<td>90.6</td>
</tr>
<tr>
<td>Filipino</td>
<td>86.1</td>
<td>89.2</td>
<td>82.7</td>
</tr>
<tr>
<td>OtherAsian</td>
<td>80.8</td>
<td>83.3</td>
<td>79.6</td>
</tr>
<tr>
<td>Other</td>
<td>117.9</td>
<td>121.2</td>
<td>125.8</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>88.3</strong></td>
<td><strong>88.5</strong></td>
<td><strong>82.2</strong></td>
</tr>
</tbody>
</table>

*Source: Compiled by author from SF CMIPS Data*
Table 9 Match Turnover

Percent of matches that have lasted less than a year…

(four month average)

<table>
<thead>
<tr>
<th></th>
<th>Latino</th>
<th>Chinese</th>
<th>Russian</th>
<th>Black</th>
<th>White</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Match turnover</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nov 97-Feb 98</td>
<td>0.39</td>
<td>0.41</td>
<td>0.29</td>
<td>0.37</td>
<td>0.28</td>
<td>0.33</td>
</tr>
<tr>
<td>Nov 01-Feb 02</td>
<td>0.33</td>
<td>0.36</td>
<td>0.25</td>
<td>0.37</td>
<td>0.24</td>
<td>0.31</td>
</tr>
<tr>
<td>Adjusted Match Turnover</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nov 97-Feb 98</td>
<td>0.25</td>
<td>0.26</td>
<td>0.21</td>
<td>0.22</td>
<td>0.14</td>
<td>0.20</td>
</tr>
<tr>
<td>Nov 01-Feb 02</td>
<td>0.16</td>
<td>0.19</td>
<td>0.20</td>
<td>0.16</td>
<td>0.11</td>
<td>0.16</td>
</tr>
</tbody>
</table>

NB: Match turnover is the percent of matches that end each year, either because the consumer leaves, the provider leaves or they both find other matches. Adjusted match turnover is the percentage of matches that end each year for “bad” reasons because either the provider leaves or both provider and consumer find another match.

Source: calculated by author from SF CMIPS data
Table 10 Workforce Turnover:  
*percent of providers who have been in workforce one year or less*  
*(four month average)*

<table>
<thead>
<tr>
<th></th>
<th>Latino</th>
<th>Chinese</th>
<th>Russian</th>
<th>Black</th>
<th>White</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Workforce turnover</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nov 97-Feb 98</td>
<td>0.30</td>
<td>0.34</td>
<td>0.26</td>
<td>0.33</td>
<td>0.26</td>
<td>0.29</td>
</tr>
<tr>
<td>Oct 01-Jan 02</td>
<td>0.24</td>
<td>0.30</td>
<td>0.17</td>
<td>0.30</td>
<td>0.20</td>
<td>0.24</td>
</tr>
<tr>
<td>Adj Workforce Turnover</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nov 97-Feb 98</td>
<td>0.19</td>
<td>0.22</td>
<td>0.19</td>
<td>0.19</td>
<td>0.14</td>
<td>0.17</td>
</tr>
<tr>
<td>Oct 01-Jan 02</td>
<td>0.11</td>
<td>0.15</td>
<td>0.14</td>
<td>0.13</td>
<td>0.09</td>
<td>0.12</td>
</tr>
</tbody>
</table>

NB: Workforce turnover measures the percent of the workforce that leaves within a year, either because they find another job, leaving their recipient behind, or because both recipient and provider leave simultaneously. Adjusted workforce turnover measures the percent of providers that leave the workforce, leaving the recipient behind.

Source: calculated by author from SF CMIPS data
Table 11 Ethnic match:
Percent recipients matched to provider of same ethnicity

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>Nov-97</th>
<th>Oct-99</th>
<th>Feb-02</th>
</tr>
</thead>
<tbody>
<tr>
<td>Latino</td>
<td>92.8%</td>
<td>91.2%</td>
<td>95.2%</td>
</tr>
<tr>
<td>Chinese</td>
<td>93.7%</td>
<td>95.8%</td>
<td>97.9%</td>
</tr>
<tr>
<td>Russian</td>
<td>88.1%</td>
<td>88.9%</td>
<td>93.6%</td>
</tr>
<tr>
<td>Black</td>
<td>79.7%</td>
<td>72.3%</td>
<td>84.8%</td>
</tr>
<tr>
<td>White</td>
<td>76.3%</td>
<td>70.3%</td>
<td>69.1%</td>
</tr>
<tr>
<td>Filipino</td>
<td>88.3%</td>
<td>80.4%</td>
<td>89.9%</td>
</tr>
<tr>
<td>OtherAsian</td>
<td>71.5%</td>
<td>64.6%</td>
<td>70.9%</td>
</tr>
<tr>
<td>Other</td>
<td>55.2%</td>
<td>41.7%</td>
<td>50.0%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>86.3%</strong></td>
<td><strong>85.4%</strong></td>
<td><strong>90.7%</strong></td>
</tr>
</tbody>
</table>

Source: calculated by author from SF CMIPS Data
### Table 12 Total Annualized Direct Cost of Program

(millions)

<table>
<thead>
<tr>
<th></th>
<th>March 1997</th>
<th>March 1999</th>
<th>March 2001</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fed Cost</td>
<td>$15.5</td>
<td>$27.0</td>
<td>$54.3</td>
</tr>
<tr>
<td>State GF Cost</td>
<td>$14.6</td>
<td>$18.1</td>
<td>$26.95</td>
</tr>
<tr>
<td>State Realign Cost</td>
<td>$7.9</td>
<td>$9.75</td>
<td>$14.5</td>
</tr>
<tr>
<td>County Cost</td>
<td>$1.3</td>
<td>$8.7</td>
<td>$18.4</td>
</tr>
<tr>
<td><strong>Total Direct</strong></td>
<td><strong>$39.3</strong></td>
<td><strong>$63.5</strong></td>
<td><strong>$114.2</strong></td>
</tr>
</tbody>
</table>

Note: Direct costs include the hourly wage, hourly cost of benefits and employment taxes.

Source: calculated by author based on data from CMIPS Management Report
Fig. 1 Average annual growth rate of providers

![Graph showing average annual growth rate of providers for different groups and time periods.]
Fig 2a Total Entry & Exit

$7/hr
HW
$9/hr

Entry
Exit

Entry
Exit

Nov-97
Jan-98
Mar-98
Jul-98
Sep-98
Nov-98
Jan-99
Mar-99
May-99
Jul-99
Sep-99
Nov-99
Jan-00
Mar-00
May-00
Jul-00
Sep-00
Nov-00
Jan-01
Mar-01
May-01
Jul-01
Sep-01
Nov-01
Jan-02
Fig 2b Total Family entry & Exit

- Entry
- Exit

$7/hr

$9/hr

$7/hr

HW

$9/hr
Fig 2c Total Non-family entry & Exit

Entry
Exit

$7/hr
HW
$9/hr

$7/hr
HW
$9/hr
Fig 2e Latino Non-family entry & Exit

$7/hr
HW
$9/hr

Entry
Exit

Nov-97, Jan-98, Mar-98, May-98, Jul-98, Sep-98, Nov-98, Jan-99, Mar-99, May-99, Jul-99, Sep-99, Nov-99, Jan-00, Mar-00, May-00, Jul-00, Sep-00, Nov-00, Jan-01, Mar-01, May-01, Jul-01, Sep-01, Nov-01, Jan-02
Fig 2f Chinese Family Entry & Exit

$7/hr
HW
$9/hr

Entry
Exit
Fig 2h Russian Family Entry & Exit

Entry
Exit

$7/hr
$9/hr
HW

Nov-97 Jan-98 Mar-98 May-98 Jul-98 Sep-98 Nov-98 Jan-99 Mar-99 May-99 Jul-99 Sep-99 Nov-99 Jan-00 Mar-00 May-00 Jul-00 Sep-00 Nov-00 Jan-01 Mar-01 May-01 Jul-01 Sep-01 Nov-01 Jan-02
Fig 2k Black Non-Family Entry & Exit

- Entry
- Exit

- $7/hr
- $9/hr

- Nov-97 to Jan-02
Figure 3. Hours Worked per month by Black and White Non-Family Providers