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Aging and the Labor Market: Dissertation Summary

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This dissertation is a collection of essays analyzing the interplay between aging and the labor market. The first chapter demonstrates that differential treatment by age exists in labor markets and explores different possible explanations. As the baby boom cohort reaches retirement age, demographic pressures on public programs such as Social Security may cause policymakers to cut benefits and encourage work at later ages. This chapter reports on a labor market experiment to determine the hiring conditions for older women in entry-level jobs in Boston, Massachusetts, and St. Petersburg, Florida. I find differential interviewing by age for these jobs. A younger worker is more than 40 percent more likely to be offered an interview than an older worker. I find no evidence to support taste-based discrimination as a reason for this differential and some evidence to support statistical discrimination.

The second chapter examines more closely one of the possible reasons for this differential treatment. Older workers may cost employers more in terms of potential age discrimination lawsuits. I study the effects of state and federal age discrimination laws between 1968 and 1991. Prior to the enforcement of the federal law, state laws had little effect on older workers, suggesting that firms either knew little about these laws or did not see them as a threat. After the enforcement of the federal Age Discrimination in Employment Act (ADEA) in 1979, white male workers over the age of 50 in states with age discrimination laws work fewer weeks per year and are less likely to be hired or separated from their jobs, but are more likely to be retired (perhaps involuntarily). These findings suggest a story in which firms do not wish to hire older workers, are afraid to fire older workers, and remove older workers through strong incentives to retire in states where lawsuits are less of a hurdle for the worker.

The third chapter, coauthored with Melissa Boyle, explores the relationship between health insurance coverage and labor market efficiencies termed "job-lock." We exploit an insurance option that is both exogenous to work decisions and of lasting duration. A major expansion in both the services provided and the population covered by the Department of Veterans Affairs (VA) health care system allows us to both cleanly estimate the extent of job-lock, and also to study the impact of publicly provided health care on labor supply. Using data from the Current Population Survey, we examine the impact of health care coverage on labor force participation and retirement by comparing veterans and nonveterans before and after the VA expansion. Results indicate that workers are significantly more likely to cease working as a result of becoming eligible for public insurance, and are also more likely to move to part-time work.

1. Introduction

In its current state, the Social Security trust fund will reach zero in 2041. One commonly suggested solution to the Social Security problem is to encourage older workers to continue working past retirement (Diamond and Orszag 2002). Not only would these workers still be paying Social Security taxes, but the normal retirement age could then be raised (thus cutting benefits) without compromising the living standards of these older workers. Will Americans be able to find work at older ages? This dissertation explores the determinants of work at older ages, including age discrimination and health insurance.

Many older Americans need to work. Bernheim (1997) suggests that baby boomers on average are only saving a third of what would be needed to maintain a pre-retirement standard of living after retirement. This lack of adequate retirement savings is especially acute for older women who have been unexpectedly separated from their spouses. On average, widows suffer a 30 percent drop in living standards upon the death of a husband (Holden and Zick 1998) and the poverty rate for older widows is 15 percent (Favreault and Sammartino 2002).

Older Americans are now capable of working at later ages than in years past. Studies suggest that today's 70-year-olds are comparable in health and mental function to 65-year-olds from 30 years ago (Schaie 1996). In addition to the monetary benefits to working, there are also health and psychological benefits to work. Working in later ages may contribute to an older person's mental acuity and provide a sense of usefulness. Indeed, when surveyed, many people say they wish to continue working at least part time into later ages as a bridge to retirement (Abraham and Houseman 2004).

Americans will need to work longer, they are capable of working longer, and many say they wish to work longer. Will they be able to find work at later ages? If employers are not willing to hire older workers, then cutting Social Security or Medicare benefits may impose a greater burden on older Americans than planned.

1.2 Age Discrimination in the Labor Market

If an employer makes a decision to hire a younger worker over an older worker based on age, that employer is practicing age discrimination. Using the most basic definition, discrimination is defined as treating people in one group differently than people in another group, based solely on group characteristics rather than individual differences. Thus, preferring workers with college degrees
is a form of discrimination against high school workers. Generally people do not worry when college graduates are hired over high school graduates; college-educated workers may be higher quality, and, given effort and ability, a high school graduate could change his or her status. The type of discrimination economists tend to worry about most is the kind one thinks of when one ordinarily uses the term discrimination—what economists term animus or “taste-based” discrimination. Taste-based discrimination occurs when one group dislikes another group for no sufficient reason. This type of discrimination does not benefit anyone economically. However, another type of discrimination is almost as troubling: “statistical” discrimination. When it is costly for an employer to determine specific characteristics of an individual applicant or worker, sometimes the employer will make assumptions about the applicant based on group characteristics. Thus, as in the earlier example, a college graduate may be assumed to be a more highly skilled worker than a high school graduate, regardless of actual skill. When statistical discrimination is based on a group-status that a high-ability worker can change, such as education level, economists generally do not worry about it. However, when the group in question is based on race, gender, or age, then many high-ability workers may be unjustly discriminated against because it is costly for employers to test true ability.

2.1 Existence of Age Discrimination

There has been very little evidence to show whether age discrimination exists in hiring. Abraham and Houseman (2004) find that although most older workers plan to continue working at least part time instead of fully retiring, those who would have to change jobs in order to reduce hours are likely to stop working entirely. This finding suggests that either workers who would have to switch jobs to cut hours are more likely to change their minds about working part time or there is something preventing them from finding a new job. However, what is preventing them may or may not be discrimination.

Researchers using the Displaced Workers Survey from the Current Population Survey find that older workers who have lost their jobs because of layoffs or plant closings take longer to find a new job than younger workers who have similarly lost their jobs (Diamond and Hausman 1984). These findings could be evidence of discrimination against older job seekers. However, even though older workers have more trouble finding jobs than younger workers, that does not mean that firms are systematically choosing not to hire an older worker over a younger worker. Older workers may be used to getting higher wages based on their expertise in a former firm; because they know the ins and outs of that specific firm, they are more productive there than they would be in a new firm. Economists term this concept “firm-specific human capital.” Workers with longer job tenure have more firm-specific human capital, and thus higher wages in the old job. New firms cannot use this firm-specific human capital; thus, workers may be less valuable to the new firm than to the old firm, and an older worker expecting to be paid the same wage will be unable to find work at that price. Older workers may also be clustered in industries and occupations where demand for workers is lower, or have less education on average than younger workers. Either of these situations would lead to older workers having more difficulty finding jobs than younger, even in the absence of discrimination.

Psychologists have tested for age discrimination more directly. In studies where undergraduates or human resource managers are given resumes that are identical except for age and asked to hypothetically choose between them, they will usually choose the younger of the two candidates (Nelson 2002). While these studies are highly suggestive that age discrimination does exist in labor markets, they are not conclusive because they do not measure what is actually going on in the hiring process. For example, because it is illegal to discriminate based on age, even if hiring managers hypothetically prefer younger workers, they may hire the older worker at least some of the time in practice because they fear potential lawsuits.

In Chapter 1 of the dissertation, I test age discrimination by presenting interview choices to actual employers in the labor market and measuring their genuine responses. I sent out resumes for job applicants with different ages and measured the response rate of employers asking for interviews. This type of study is called an “audit study” and has been useful in the past for determining race and gender discrimination in labor and housing markets. In these studies, researchers sent out two trained “auditors,” matched in all respects except the variable of interest, usually race, to rent an apartment, buy a house or interview for a job (e.g., Fix and Struyk 1992; Neumark, Bank, and VanNort 1996; Yinger 1998).

There are some limits to the audit technology. Because it is difficult to find an older person who is identical to a younger person except for age, I could not actually send people to interview for jobs. Thus I only have information about the first part of the hiring screening process—from resume to interview. However, studies on gender and race find additional discrimination once the candidates have reached the interview stage, so it is likely that older applicants being interviewed will not be preferred over younger applicants.

I sent 3,996 resumes to firms in the Boston, Massachusetts, and St. Petersburg, Florida, metropolitan areas. These resumes were for job applicants between the
ages of 35 and 62. Because most people do not actually put their ages on resumes but do put the date of their education degrees, I indicate age by date of high school graduation. Job listings were found via the local Sunday want-ads and through cold-calling firms listed in local phone books.

Because I was worried that employers might infer things I could not measure about the resumes differently for older workers than for younger workers, I had to limit the types of resumes I looked at. It is difficult to know what employers value in a work history for different jobs; therefore I only applied to entry-level jobs, or jobs that required up to a year of education and experience combined. These included positions such as clerical work, licensed practical nurse, air conditioner repair person, or nail technician, among others. Applicants also have short work histories in very entry-level fields such as data entry or fast food.

I also limit my sample to female job applicants. When an adult man applies for an entry-level job, especially with only a short work history, the employer is likely to think that there is something wrong with that man. In the worst case scenario, the employer might think the man had been incarcerated, and the older man incarcerated for longer than the younger with the same resume. However, employers generally assume that a female applicant has been at home taking care of her family, regardless of age. Since the majority of the jobs applied for in this study are in female-dominated industries, my experiment gives a very accurate picture of the job opportunities for one of the most at-risk populations of older workers—recent widows and divorcees needing to find work. This population is highly likely to be affected by policy changes.

Figure 1 shows the downward trend of the probability of being called in for an interview by age in the two cities. I find that a younger worker is more than 40 percent more likely to be called back for an interview than an older worker, where older is defined as age 50 or older. In Massachusetts, this trend translates into a younger seeker having to send in 19 resumes for one interview request and an older seeker having to send in 27. Similarly, in Florida these numbers are 16.4 and 23, respectively.

Of course, these numbers are only averages and include people applying for different types of jobs, as well as resumes that have different educational requirements, such as nursing certificates for those applying for Licensed Practical Nurse (LPN) positions or a cosmetology license for hair stylist applicants. Thus, different parts of the population may end up having to send a different number of applications before finding employment. For example, a younger worker qualified as a licensed practical nurse (LPN) in Florida would have to respond to 5.5 ads before receiving an interview offer, whereas an older worker would have to respond to 10.

Why can't an older worker send in more resumes than a younger to get the same number of interview requests? In order for an older worker to be able to do that, there would have to be an infinite (or at least very large) number of job openings available each week. However, for most fields, there are not. Although a paper for a metropolitan area such as St. Petersburg-Tampa Bay may have two or three dozen ads looking for LPNs or dental assistants, there are many fewer jobs advertised for other positions. There are generally fewer than 10 ads each week for preschool teacher or hair dresser. Some positions are rarely advertised at all, such as gem appraiser (an occupation that requires 6 months to a year of training). Additionally, many of the ads run for more than one week at a time, thus making many ads in a week repeats from the previous week.

Using a back of the envelope calculation, I estimate how long it takes an older worker to find a job compared to a younger worker, assuming she applies to all applicable ads in the paper every week. If we assume that it takes 7–10 interviews to obtain a position (which may be optimistic, since that is the estimate for college graduates), then a younger LPN will receive a job offer in a week, and an older LPN will have to wait 3 weeks for a job offer. At the other extreme, a younger worker will take 6–10 weeks to receive a clerical job offer (assuming that half of the ads each week are repeats each week), and an older worker will not receive a job offer for 14–20 weeks. This figure could be even larger, since within a five-month period there are even more repeat ads; places that advertised and rejected the older worker in month one will advertise again in month five.

Figure 1 Probability of an Interview by Age

![Figure 1: Probability of an Interview by Age](image-url)
Thus there are real welfare effects of this age discrimination for older workers, especially for those who most need work: those with low savings. Cutting federal benefits could have real effects for these workers because they may have more trouble finding work than younger workers. It is important to know why younger workers are preferred to older in order to make appropriate policy recommendations concerning the needs and desires of older job seekers. For example, if the problem is an irrational dislike of older people (taste-based discrimination), educating employers or more strictly enforcing discrimination laws in hiring may be appropriate. However, if older workers in general lack a certain skills set, then additional training programs for these workers targeted at those skills may be of help. If older workers are more costly because they cost more for the company in terms of health insurance, then the government may want to subsidize these costs or encourage methods of health insurance that shift cost from the firm to the worker, such as private health accounts.

2.2 Reasons for Age Discrimination

I am also able to test some of these possible reasons in Chapter 1. Table 1 shows a list of top 10 reasons from a survey of employers that asked employers why other employers might be reluctant to hire older workers. Some of these reasons do not apply to the entry-level set-up for which I found discrimination. For example, since these are entry-level jobs, the length of the career path is short, thus career potential (the most listed reason) shouldn’t matter. Salary expectations (reason 5) may also be less of an issue, since these jobs often have set salary schedules. Additionally, the resumes list current work experience, so there should not be worries about the reason why the applicant left the previous job (reason 9) as the applicant is currently employed. Because there is discrimination even in the absence of these possible reasons, there must be other explanations for the differential treatment.

Some of the reasons listed could be explored using the experimental framework described above. For example, if employers think that older workers are more likely to lack computer skills than are younger workers (a version of reason 7, knowledge and skills obsolescence), then if an older worker can indicate that she has these skills employers will be less likely to discriminate against her. Thus, information about computer skills should help the older seeker more than the younger if it is indicated for both, because the employer already assumed that the younger seeker had these skills. Similarly, an attendance award on a previous job should alleviate worries that an older worker will have more absences than a similarly qualified younger worker (reason 6). Using this technique, I find that employers may fear a lack of computer skills, but only in the Massachusetts sample. I find no evidence that employers are worried about absences.

I tried to test for a few of the other reasons on the list as well, with less success. To see if reason 2, lack of energy, is a reason employers prefer not to hire older workers, I put on some resumes that the applicant plays a sport. I find that this item harms both older and younger workers, so it is probably not signaling energy, but rather the likelihood of getting an injury while playing sports over the weekend. Similarly, putting down "I am flexible" or "I am willing to embrace change," as the AARP suggests to signal flexibility and adaptability (reason 4), actually hurts older workers. Instead of showing flexibility and adaptability, such statements may just be showing that the applicant is a member of the AARP. The remaining reasons for differential treatment could not be tested under this scenario.

A possible reason for differential treatment of older workers, one not mentioned in the Rhine survey, is taste-based discrimination, an irrational dislike of older people in the workplace. Employers may dislike older workers ("employer taste-based discrimination"), employees may not like working with older workers ("employee taste-based discrimination"), or people could dislike buying products that older workers are selling ("consumer taste-based discrimination"). I test these possibilities in my experimental framework by making an assumption that younger people dislike being around older people more than older people do. Using this assumption, I can match the age distribution of an area with the interview rates in my sample by zip code. I find that neither the age distribution of employees nor of customers in a zip code has any effect on the interview rates in an area. Thus I find no evidence for this kind of irrational discrimination. However, there are two problems with this method. First, I only have age distribution information by zip code rather than by firm; thus I cannot exactly match up the age composition of the firms doing the hiring, so my results are biased toward finding no result, because I might not

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<tr>
<th>Table 1 Reasons for Differential Hiring</th>
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<tr>
<td>1. Short career potential (specific HC investment)</td>
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<td>2. Lack energy</td>
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<td>3. Costs of health and life insurance and pensions</td>
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<td>4. Less flexible/adaptable</td>
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<td>5. Higher salary expectations</td>
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<td>6. Health risks =&gt; absences</td>
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<td>7. Knowledge and skills obsolescence</td>
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<td>8. Block career paths of younger workers</td>
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<td>9. Suspicion about competence (why leave job?)</td>
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<td>10. Fear of discrimination suit</td>
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be measuring what I am hoping to measure. Secondly, the assumption about age preferences may not be true: older and younger people may have no difference in preferences for whom they associate with, or older people may prefer being with younger people to a much greater extent than younger people do.

To test employer taste-based discrimination, I compare firms with human resources departments to those without human resources departments. Human resource professionals may have less taste-based discrimination because of training and knowledge of discrimination laws. If firms with human resources departments are more likely to interview older workers than firms without human resources departments, that would support taste-based discrimination, since places with HR departments know it is illegal to discriminate and that discrimination has consequences. However, firms with HR departments may be more likely to practice statistical discrimination because they have more knowledge of the productivity and costs of older workers and applicants compared to younger. I find that firms with human resources departments may be more likely to interview younger workers, which would support the case of statistical rather than taste-based discrimination, but this finding is not significant. Thus, now that age discrimination in hiring has been shown to exist, there is still room for research as to the determinants of age discrimination.

3. The Effects of Age Discrimination Laws

Age discrimination laws are another reason that older workers may be more costly to employ than younger. Chapter 2 of the dissertation explores the effect of age discrimination laws on labor market outcomes for older workers. Employers may be afraid to hire older workers because older workers can sue them under the age discrimination act if they are later fired or fail to be promoted. It is much easier for an employer to avoid these kinds of lawsuits by simply failing to hire an older worker, since the older worker generally cannot prove that he or she has been discriminated against during the hiring stage, but the worker has more evidence about why he or she was fired or not promoted (Gustman and Steinmeier 1994). I compare labor market outcomes of older people in states where it is easier to sue under age discrimination laws to older people in states where it is not as easy to sue.

Age discrimination laws prohibit differential treatment in the labor market based on age. The first state age discrimination law was instituted in 1903 in Colorado, and by 1960, eight states had age discrimination laws. Federal legislation protecting older workers overall did not appear until 1967, with the introduction of the Age Discrimination in Employment Act, (ADEA). The 1967 ADEA prohibited age based discrimination for those aged 40–65 in firms with 20 or more workers. Under this act, employers were barred from using age in hiring, laying off, firing, compensation, or other conditions of employment. It also prohibited employers from using age-specific language in advertising. In 1978, congress extended the protected age group to 40–70 and eliminated mandatory retirement for most federal employees. A second major change, in terms of enforcement, came in 1979 when the Department of Labor (and, for federal employment, the U.S. Civil Service Commission) gave administrative responsibility to the U.S. Equal Employment Opportunity Commission (EEOC). Most researchers agree that this change strengthened the power of the ADEA since the change came with an increase in resources and an increase in "pattern and practice" lawsuits (Neumark 2001).

State age discrimination laws are important because with a large backlog of cases, the EEOC rarely prosecutes claims itself. If a state has statutes, the claimant must file with the state Fair Employment Practices (FEP) office within 300 days, otherwise the claimant must first file with the EEOC within 180 days. After the enforcement of the ADEA, white older men in states where it is easier to sue are less likely to be hired than such men in states where it is more difficult. They are also less likely to be fired and more likely to say they are retired. Overall, older white men work fewer weeks per year in states where it is easier to sue than in states where it is not as easy to sue. These findings suggest that firms do not wish to hire older men, are afraid to fire older men, and remove older men through strong incentives to retire in states where lawsuits are less of a hurdle for the men.

However, fear of lawsuits under age discrimination laws cannot tell the entire story. There is no effect of ease of lawsuit on the hiring possibilities for women. This fact could be because older women are the least litigious group in the United States—in general, older women just do not sue. Thus employers do not see potential lawsuits as a possible cost to hiring an older woman, just to hiring an older man. Future research needs to be done to explore other possible reasons for age discrimination, such as health care costs.

4. Health Insurance, Job-Lock, and Veterans Affairs

Chapter 3 of the dissertation explores one possible link between health insurance and employment of older workers, but not in the context of age discrimination. This chapter, coauthored with Melissa Boyle, explores the relationship between health insurance coverage and labor market efficiencies termed "job-lock." Job-lock occurs when health insurance provision is tied to labor market status. If workers alter their labor supply and retirement
decisions because of fears over losing health insurance coverage, this mobility impediment is termed "job-lock."

The current literature on job-lock has established a link between health insurance and labor market decisions. However, this literature has not fully considered whether the introduction of government-sponsored health care, such as Medicare or Medicaid, may alleviate job-lock. If workers have an alternative source of health care rather than depending solely on employer-provided insurance, their job mobility may increase. This study can measure possible labor market effects of expanding these programs.

We exploit an insurance option that is exogenous to work decisions, and of lasting duration—the expansion of the Veterans Affairs health care system. The Department of Veterans Affairs (VA) health care system is a network of hospitals, established over 70 years ago for the purpose of providing specialty care to low-income veterans and veterans with conditions resulting from their military service. In the mid 1990s, the VA expanded in two different ways. First, VA health care began a shift from an emphasis on hospital-based specialty services to a focus on primary care and preventive medicine, dramatically increasing the number of outpatient visits. Second, the VA expanded the population they administered to from low-income and disabled veterans to allow all veterans to become eligible for care.

This expansion in both the services provided and the population covered by the Department of Veterans Affairs health care system allows us to both cleanly estimate the extent of job-lock, and also to study the impact of publicly provided health care on labor supply. We use data from the Current Population Survey to examine the impact of health care coverage on labor force participation and retirement using a differences-in-differences estimator by comparing veterans and nonveterans before and after the VA expansion.

We find that workers are significantly likely to cease working as a result of becoming eligible for public insurance. As a result of gaining VA coverage, the probability of working drops by 0.34 percentage points for a prime-aged worker with average characteristics and by 2.43 percentage points for the average older worker. The introduction of the VA health care benefit increases the probability of entering retirement for older workers by 0.38 percentage points. For prime-aged workers, the probability that the average veteran is self-employed increases by 0.14 percentage points, but the average veteran between the ages of 55 and 64 is less likely to become self-employed.

In addition to studying the impact of public insurance availability on the probability of self-employment, we also examine the effects of insurance on part-time work. Because most part-time jobs do not provide workers with benefits such as health insurance, workers who place a high value on these benefits may avoid moving into part-time work in order to maintain their health insurance coverage. In surveys, older workers often state that they would prefer to transition into retirement by moving first to part-time employment (Abraham and Houseman 2004). If moving to part-time work means losing health insurance, however, older workers may be reluctant to do so. We find that the average veteran is more likely to work part time than remain full time as a result of gaining outside health insurance coverage. For older workers, we estimate a 1.2 percentage point increase in the probability of working part-time. Prime-aged workers have a 0.4 percentage point increase in the probability of working part time.

Our results demonstrate a significant effect of public health insurance on work decisions. We find particularly strong results for those workers in the 55–64-year-old age group, who are approaching the normal retirement age. For this age group, our results suggest a positive and significant increase in early retirement with the availability of outside health care coverage. Overall, our study confirms the job-lock effects of tying health insurance to employment, and suggests that public health insurance expansions have the potential to alleviate some of the reductions in job mobility caused by this type of health insurance regime.

5. Concluding Comments

This dissertation explores important employment issues facing older job applicants. First, it clearly demonstrates the existence of age discrimination and explores some of the possible reasons for this differential treatment. Second, it finds that age discrimination laws hurt the labor market opportunities for white older men. Finally, it shows that expanding public health care programs for older workers would increase retirement and part-time work for older workers, and would increase job mobility and self-employment for prime-aged workers as well.

References


