CONTENTS

List of Figures xi

	List Of	1 40163	A
ART ONE			

I AICI ONE				
Pension E	FFECTS	ON	Worker	Behavior

Chapter One

Developments in the Market for Private Pensions 3

- 1.1 The Implicit Pension Contract 4
- 1.2 The Emergence of Defined Contribution Plans 4
- 1.3 Impact of 401k Plans on Demand for Defined Benefit Plans 7
- 1.4 Internal Discount Rates and Pensions 8

Chapter Two

Defined Benefit Plans as Implicit Contracts 10

- 2.1 Pensions and Retirement Behavior 10
- 2.2 Leaving the Firm Too Early 13
- 2.3 A Theory of Pensions and Mobility 14
- 2.4 Evidence Supporting the Implicit Contract Model 16
- 2.5 Concluding Remarks 17

Chapter Three

Impact of Pensions on Quit Rates 18

- 3.1 The Conventional Solution to Reducing Quits: Wage Tilt 18
- 3.2 Pension Capital Losses 21
- 3.3 An Empirical Model of Long Tenure 22
- 3.4 Impact of Pensions and Wage Tilt on Quit Rates 26
- 3.5 Concluding Remarks 27
- Appendix: Estimates of Pension Generosity and Wage Tilt 28

Chapter Four

Quits and Retirements in the Federal Government 30

4.1 Ouit Costs in the Federal Government 30

4.3 Quit Rates as Indexes of Competitive Wages 34	
4.4 Testing Whether Federal Workers Leave "on Time" 36	
4.5 Concluding Remarks 39	
Appendix: Determinants of Turnover Rates 40	
Chapter Five	
Pensions and Retirement Patterns 41	
5.1 The Economics of Early Retirement Benefits 41	
5.2 Actuarial versus Economic Reduction Factors 43	
5.3 Reduction Factors for Medium and Large Firms, 1993 46	
5.4 Other Factors Influencing Early Retirement Incentives 49	
5.5 Retirement Ages and Tenure Profiles for a Sample of Firms 52	
5.6 Concluding Remarks 59	
Chapter Six	
Role of Pensions in Earlier Retirement after 1970 61	
6.1 Changes in the Social Security System 62	
6.2 Changes in the Private Pension System 68	
6.3 Testing the Theory: Retirement of Federal Workers 72	
6.4 Concluding Remarks 73	
Appendix: Retirement Trends for Age 65 Cohorts after 1980 74	
PART TWO	
Sorting Effects of Pensions	
Chapter Seven	
Toward Explaining the Growth of Defined	
Contribution Plans 79	
7.1 Netting out Employment Shifts 80	
7.2 Toward Understanding Changes in Plan Choice 83	
7.3 Concluding Remarks 87	
Appendix: Employment and Preference Effects on Defined	
Benefit Plans 89	
Chapter Eight	
Sorting across Plan Type 94	
8.1 A Model of Indenture Premiums 95	
8.2 Equilibrium in the Market for Long Tenure 97	

4.2 Can Larger Pensions Account for Lower Federal Quit Rates? 31

Chapter Nine

Encouraging High Discounters to Quit 107

9.1 Low Discounters as High-Quality Workers 108

Appendix A: Conditions for an Effective Deferred Wage 102 Appendix B: Further Exploration of the Model 105

- 9.2 Internal Discount Rates and Selection 115
- 9.3 Sorting out High Discounters 117
- 9.4 Some Tests of Quitting and Lump Sums 120
- 9.5 Concluding Remarks 124

8.3 Concluding Remarks 101

Chapter Ten
Aligning Pay and Productivity: 401k Plans 129
10.1 A Sorting Model of 401k Plans 129
10.2 A Test of Monitoring: Large Firms and Matching 131
10.3 Evidence of Quality Differences: Contributors
versus Noncontributors 131
10.4 Matching and 401k Contributions 137
10.5 Concluding Remarks 139
Chapter Eleven
Reliability as a Hidden Worker Attribute 140
11.1 Not Showing up for Work 141
11.2 A First Look at the Data 142
11.3 The Group Reputation Effect 146
11.4 Signaling Reliability 148
11.5 Data from the Current Population Survey 151
11.6 Sorting Issues 154
11.7 Concluding Remarks 155
Appendix: Estimating Equations for Sick Leave and Wages 156
Chapter Twelve
Tax Considerations and Plan Choice 157
12.1 Differences in Administrative Costs 158
12.2 A Dichotomous Pension Tax Policy 159
12.3 Distortion Favoring Defined Contribution Plans 161
12.4 Illustration of Tax Treatment of Two Defined
Benefit Plans 162
12.5 Implications for Plan Formation 164
12.6 Efficacy of Matching to outsity 2 to the state of th
12.7 Concluding Remarks 169
PART THREE
Internal Discount Rates and Public Policy
Chapter Thirteen
A Pension Tax Policy for Low Discounters 173
13.1 How Pension Tax Policy Matters 174
13.2 Some Policy Proposals for Pensions 178
13.3 Concluding Remarks 179
Chapter Fourteen
Incentives High Discounters, and Social Security 181
14.1 Transforming the Social Security Assessment to a Pure Tax 18
14.2 Applying Private Pension Principles to Social Security 185
14.3 Incentive Effects of Supplemental Security Income 190
14.4 Policy Changes to Reduce Old Age Poverty for
High Discounters 191
14.5 Concluding Remarks 192

Appendix A: The Decision to Join a Monitoring Firm 125 Appendix B: Efficacy of Lump Sums versus Deferred Pay 126

Chapter Fifteen

Reforms for the Disability and Medicare Programs 194

15.1 Distortions from the Disability Program 195

15.2 A Proposal for Reform in the Disability Program 197

15.3 Medicare and Medicaid 200

15.4 A Voucher Solution for Medicare and Medicaid 201

15.5 Concluding Remarks 205

Notes 207 Selected References 251 Index 257

FIGURES

1.1 The market for defined benefit pla
--

- 3.1 Wage tilt and the incentive to quit 19
- 3.2 Pension quit costs 22
- 4.1 Pension losses from quitting the federal government 32
- 5.1 Actuarial versus economic early reduction factors 44
- 5.2 Pension losses from early retirement, reduction factor 3 percent 45
- 5.3 Pension losses from early retirement, reduction factor 6 percent 45
- 5.4 Pension incentives to retire: High versus low discounters 50
- 5.5 Normal retirement age and the optimal retirement age 51
- 5.6 Retirement age and tenure: Frequency distributions 54
- 5.7 Retirement age and tenure: Cumulative distributions 55
- 5.8 Tenure across firms at age 55 56
- 5.9 Tenure across firms at retirement 57
- 5.10 Retirement age and tenure, firms A and B 58
- 5.11 Retirement age and tenure, firms C and D 58
- 6.1 Retirement rates, two cohorts of men 64
- 6.2 Retirement ages, 1956-85, federal versus private 72
- 6.3 Participation rates, four male cohorts 74
- 6.4 Male participation rates, 1970-94 75
- 7.1 Defined benefit market share, 1979-96 80
- 7.2 Pension types, 1979, 1991 86
- 7.3 401k as a primary plan, by firm size 88
- 8.1 Market for long tenure 97
- 8.2 Tenure market with upward sloping supply 99
- 8.3 Pension versus efficiency wage 101
- 9.1 Benefits of reducing the share of high discounters 127
- 12.1 Trust balances: Defined benefit plans versus defined contribution plans 160
- 12.2 Impact of new funding rules: Mature, large firm 163

xii FIGURES

- 12.3 Impact of new funding rules: New, growing firm 163
 12.4 Impact of matching on 401k contribution rate 166
 14.1 Pure tax portion of OASI assessment, single male 183
 14.2 OASI transfers across cohorts 184

TABLES

2.4	Y11	ъ .	A :-	C	2.1
3.I	Illustrative	Pension	Quit	Costs	21

- 3.2 Distribution of Wage Tilt and Pension Values 24
- 3.3 Determinants of Tenure at Age 55 25
- 3.4 Determinants of Turnover Rates 27
- 4.1 Impact of Private and Federal Pensions on Separations 33
- 4.2 Leaving Federal Jobs "on Time" 38
- 4.3 Impact of Pensions on Turnover Rates 39
- 5.1 Eligibility for Pension Benefits 47
- 5.2 Reduction Factors for Early Retirement 48
- 5.3 Age Started Last Job: Sample of Retirees 53
- 5.4 Age of Retirement in a Sample of Fifty-seven Firms 54
- 5.5 Characteristics of Youngest Retirees in the Firm 56
- 5.6 Percentage Retired in Sample Firms by Age 59 59
- 6.1 Retirement Statistics, 1955-85 62
- 6.2 Pension Eligibility at Age 55 69
- 6.3 Pension Benefits before Age 65 70
- 6.4 Ages of Eligibility for Pension Benefits 70
- 7.1 Market Share of Defined Benefit Plans, 1979 and 1991 81
- 7.2 Change in Defined Benefit Plan Use 82
- 7.3 Reason for Plan Termination 84
- 7.4 Market Share of 401k Plans 86
- 7.5 Sources of 401k Market Share, 1979-91 87
- 7.6 Plan Choice, 1979 and 1991 90
- 9.1 Wages and Low Discounter Indexes 111
- 9.2 Low Discounter Indexes and Pension Savings 114
- 9.3 Horizon, Education, and Background 116
- 9.4 Lump Sums and Discount Rates 121
- 9.5 Sick Leave Balances, Wages, and Quitting 123
- 10.1 Determinants of Matching 132
- 10.2 401k Contributions and Pay Increases 133

XIV TABLES

- 10.3 401k Contributions and Performance Ratings 135
- 10.4 Implied Discount Rates and Quit Rates 136
- 10.5 Distribution of 401k Contributions 137
- 10.6 Impact of Matching on Contributions to 401k Plans 138
- 11.1 Wages and Worker Characteristics 144
- 11.2 Indexes of Quality and Worker Demographics 145
- 11.3 Measures of Reliability across Worker Groups 147
- 11.4 Reliability and Tenure 149
- 11.5 Signals of Reliability 150
- 11.6 Reliability and Wages 152
- 12.1 Administrative Costs 158
- 12.2 Differential Tax on Defined Benefit Plans 161
- 13.1 Effective Tax Rate on Savings, Income Tax Rules 176
- 14.1 Life Insurance and Pensions versus Social Security 188
- 15.1 Social Security and Other Federal Payments to the Aged and Disabled 195
- 15.2 Social Security Wage Assessments 196