

WAR Example 2

Analysis of Impact of Working After Retirement (WAR)

- This hypothetical example illustrates the potential impact of changes in behavior due to the ability to work after retirement without an earnings limitation.
- The example compares the net cost/savings to the system of a member who –
 - Retires at the first point eligible for full retirement and does not return to a KPERs covered position* – OR – *Retires at the first point eligible for full retirement and then works until fully retiring at age 58*
 - OR – *Works until fully retiring at age 58*
- This is a single illustration among many variations.
 - Changes in assumptions can change the net impact on KPERs.
 - For example, Scenario 1 assumed member's full retirement is four years later at age 62.
- The illustration uses employer and employee contribution rates beginning in FY 2014.

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Assumptions About Basic Member Data



Member retires when first eligible for full benefits: **Member retires when first eligible for full benefits:** **Member works until retirement:**

Retirement date	1/1/2014	Initial Retirement Date	1/1/2014	Retirement date	1/1/2017
Age	55	Age	55	Age	58
Service at retirement	30	Service at initial retirement	30	Service at retirement	33

...and does NOT return to work: **...and returns to work:** **...and does NOT return to work:**

Years working after retirement	0	Years working after retirement	3	Years working after retirement	0
Age at full retirement	55	Age at full retirement	58	Age at full retirement	58

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Assumptions About Member's Pay

- The member's pay is assumed to –
 - Be \$46,228 in 2011
 - Increase annually according to the actuarial assumptions regarding School Group salary increases
- Member returning to work is assumed to receive same pay (and pay increases) as if not retired.

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Calculation of Final Average Salary and Annual Benefit

Member retires when first eligible for full benefits:				Member retires when first eligible for full benefits but continues working:				Member works until full retirement:			
Year	Salary History	Pay Used for Final Average Salary	Salary History	Pay Used for Final Average Salary	Salary History	Pay Used for Final Average Salary	Salary History	Pay Used for Final Average Salary	Salary History	Pay Used for Final Average Salary	Salary History
2011	\$46,228	\$46,228	\$46,228	\$46,228	\$46,228	\$46,228	\$46,228	\$46,228	\$46,228	\$46,228	\$46,228
2012	\$48,077	\$48,077	\$48,077	\$48,077	\$48,077	\$48,077	\$48,077	\$48,077	\$48,077	\$48,077	\$48,077
2013	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000
2014	\$0	\$0	\$52,000	\$52,000	\$52,000	\$52,000	\$52,000	\$52,000	\$52,000	\$52,000	\$52,000
2015	\$0	\$0	\$54,080	\$54,080	\$54,080	\$54,080	\$54,080	\$54,080	\$54,080	\$54,080	\$54,080
2016	\$0	\$0	\$56,243	\$56,243	\$56,243	\$56,243	\$56,243	\$56,243	\$56,243	\$56,243	\$56,243
2017	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2018	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2019	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2020	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Final Average Salary				\$48,102	Final Average Salary	\$48,102	Final Average Salary	\$48,102	Final Average Salary	\$54,108	\$54,108
Annual Benefit (1.75% X \$48,102 X 30 Years)				\$25,253	Annual Benefit (1.75% X \$48,102 X 30 Years)	\$25,253	Annual Benefit (1.75% X \$48,102 X 33 Years)	\$25,253	Annual Benefit (1.75% X \$63,298 X 33 Years)	\$31,247	\$31,247

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Post-Retirement Income Impact on Retirement Decision

- Policymakers should expect that members will make decisions based on their own financial interest, if all other factors are equal.
- The following income comparison illustrates clear financial incentives for members to retire and return to work in a covered position.
- A decision to fully retire at age 55 would either require the ability to live on significantly reduced income or other employment not covered by KPERS.
- Members who retire when first eligible and return to work not only receive the additional pension income, but no longer pay employee contributions of 6%.
 - Their take-home pay would be that much greater than the member working until full retirement.

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Income Comparison



Member retires when first eligible for full benefits for full benefits:					Member retires when first eligible for full benefits but continues working:					Member works until full retirement:				
Year	Salary History	KPERS Benefit	Subtotal	Salary History	KPERS Benefit	Total Income	Subtotal	Salary History	KPERS Benefit	Total Income	Subtotal	Salary History	KPERS Benefit	Total Income
2011	\$46,228	\$0		\$46,228	\$0	\$46,228		\$46,228	\$0	\$46,228		\$46,228	\$0	\$46,228
2012	\$48,077	\$0		\$48,077	\$0	\$48,077		\$48,077	\$0	\$48,077		\$48,077	\$0	\$48,077
2013	\$50,000	\$0		\$50,000	\$0	\$50,000		\$50,000	\$0	\$50,000		\$50,000	\$0	\$50,000
2014	\$0	\$25,253		\$52,000	\$25,253	\$77,253		\$52,000	\$0	\$52,000		\$52,000	\$0	\$52,000
2015	\$0	\$25,253		\$54,080	\$25,253	\$79,333		\$54,080	\$0	\$54,080		\$54,080	\$0	\$54,080
2016	\$0	\$25,253	\$75,759	\$56,243	\$25,253	\$81,496	\$238,082	\$56,243	\$0	\$56,243	\$238,082	\$56,243	\$0	\$56,243
2017	\$0	\$25,253		\$0	\$25,253	\$25,253		\$0	\$31,247	\$31,247		\$0	\$31,247	\$31,247
2018	\$0	\$25,253		\$0	\$25,253	\$25,253		\$0	\$31,247	\$31,247		\$0	\$31,247	\$31,247
2019	\$0	\$25,253		\$0	\$25,253	\$25,253		\$0	\$31,247	\$31,247		\$0	\$31,247	\$31,247
2020	\$0	\$25,253		\$0	\$25,253	\$25,253		\$0	\$31,247	\$31,247		\$0	\$31,247	\$31,247
2021	\$0	\$25,253		\$0	\$25,253	\$25,253		\$0	\$31,247	\$31,247		\$0	\$31,247	\$31,247
2022	\$0	\$25,253		\$0	\$25,253	\$25,253		\$0	\$31,247	\$31,247		\$0	\$31,247	\$31,247
2023	\$0	\$25,253		\$0	\$25,253	\$25,253		\$0	\$31,247	\$31,247		\$0	\$31,247	\$31,247
2024	\$0	\$25,253		\$0	\$25,253	\$25,253		\$0	\$31,247	\$31,247		\$0	\$31,247	\$31,247
2025	\$0	\$25,253		\$0	\$25,253	\$25,253		\$0	\$31,247	\$31,247		\$0	\$31,247	\$31,247
2026	\$0	\$25,253	\$252,530	\$0	\$25,253	\$25,253	\$252,530	\$0	\$31,247	\$31,247	\$252,530	\$0	\$31,247	\$31,247
TOTAL	\$0	\$328,289	\$328,289	\$162,323	\$328,289	\$490,612	\$490,612	\$162,323	\$312,470	\$474,793	\$490,612	\$162,323	\$312,470	\$474,793

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Assumptions About Costs and Revenue to Plan

- **Cost to the plan** is the present value* of the future benefits at 1/1/14 if –

Retiring on that date – OR – *Retiring on that date and returning to work until 1/1/2021* – OR – *Retiring on 1/1/2021*

- **Contributions to plan** are the present value* at 1/1/14 of the –
 - Full actuarial contribution rate plus an additional 8%, if retiring and returning to work.
 - Employer funds contributions. All contributions apply to the UAL.
 - Statutory employer contribution rate and employee contributions of 6%, if working until full retirement.
 - Employer and employee contributions fund both the normal cost and the UAL

*Note: Present value determined using 8.0% investment return assumption and RP 2000 Mortality Table blended 50% male/50% female with Mortality Improvements Projected to 2025.



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Calculation of Net Cost/Savings to System

- The present value of a member's retirement generally is highest when first eligible to retire with full benefits.

As of 1/1/2014 –	Member Retires When First Eligible for Full Benefits	Member Retires Three Years After First Eligibility for Full Benefits	Difference
Total Present Value of Expected Retirement Benefits	\$291,613	\$273,858	\$17,755
Present Value of Future Contributions (from 1/1/2014 until full retirement on 1/1/2017)	-\$0	-\$26,717	\$26,717
Net Present Value of Expected Retirement Benefits	\$291,613	\$247,141	\$44,472
Net Cost/(Savings)			\$44,472



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Calculation of Net Cost/Savings to System

- If a member retires when first eligible to retire with full benefits and returns to work, the additional contributions made on the working after retirement payroll may reduce the cost to the system.
 - Size of reduction depends on factors such as retiree's pay and length of working after retirement.

As of 1/1/2014 -	Member Retires When First Eligible for Full Benefits and Returns to Work	Member Retires Three Years After First Eligibility for Full Benefits	Difference
Total Present Value of Expected Retirement Benefits	\$291,613	\$273,858	\$17,755
Present Value of Future Contributions (from 1/1/2014 until full retirement on 1/1/2017)	-\$33,166	-\$26,717	-\$6,449
Net Present Value of Expected Retirement Benefits	\$258,447	\$247,141	\$11,306
Net Cost/(Savings)			\$11,306

