

2020 FCA International Leadership Council

Actuarial Report on IUPAT Pension Plan

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The McKeogh Company*



Agenda

- Plan Financials & Investment Returns
- Funding Improvement Plan 2017
- Change to Plan of Benefits
- Projections

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Income Statement (millions)

	2018 (Audited)	2017 (Audited)
Assets (MV) at beg. of year	\$3,378	\$3,063
Contributions	\$333	\$307
Investment Income	<u>\$(118)</u>	<u>\$405</u>
Total Income	\$215	\$712
Benefits	\$(396)	\$(385)
Expenses	<u>\$(12)</u>	<u>\$(12)</u>
Total Disbursements	\$(408)	\$(397)
Assets (MV) at end of year	\$3,185	\$3,378
Investment Return	-3.5%	13.4%

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Investment Returns

Plan Yr Ending Dec. 31	Market Value Return		Plan Yr Ending Dec. 31	Market Value Return		Plan Yr Ending Dec. 31	Market Value Return
2019	14.0%	(est)	2014	5.8%		2009	8.5%
2018	-3.5%		2013	13.6%		2008	-23.2%
2017	13.4%		2012	11.3%		2007	6.8%
2016	7.3%		2011	0.2%		2006	12.9%
2015	1.1%		2010	10.4%		2005	8.1%

- * Assumed rate of return is 7.5%.
- * Return **less than** assumed in **7 years** and **greater than** assumed in **8 years**.
- * Annualized return 10 years ending 12/31/2019 = 7.2%.
- * 2019 return is estimated based on unaudited financial statements.

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Key Valuation Results (\$ millions)

Comparison of Key Valuation Results With Those of Prior Valuations

	Plan Year Beginning January 1,				
	2019	2018	2017	2016	2015
Assets (\$M)					
Market Value of Assets ("MVA")	\$ 3,185	\$ 3,378	\$ 3,063	\$ 2,965	\$ 3,061
Actuarial Value of Assets ("AVA")	3,415	3,326	3,270	3,261	3,298
MVA as percentage of AVA	93.3%	101.6%	93.7%	90.9%	92.8%
Actual Employer Contributions	347 (est)	333	307	274	250
Liabilities and Normal Cost (\$M)					
Discount Rate	7.50%	7.50%	7.50%	7.50%	7.50%
Actuarial Accrued Liability	\$ 5,497	\$ 5,378	\$ 5,255	\$ 5,120	\$ 5,027
Normal Cost	108	91	70	67	58
Normal Cost as % of contributions	31.1%	27.3%	22.8%	24.5%	23.2%
Funded Percentage					
Market Value	57.9%	62.8%	58.3%	57.9%	60.9%
Actuarial Value	62.1%	61.9%	62.2%	63.7%	65.6%

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IUPAT Industry Pension Plan

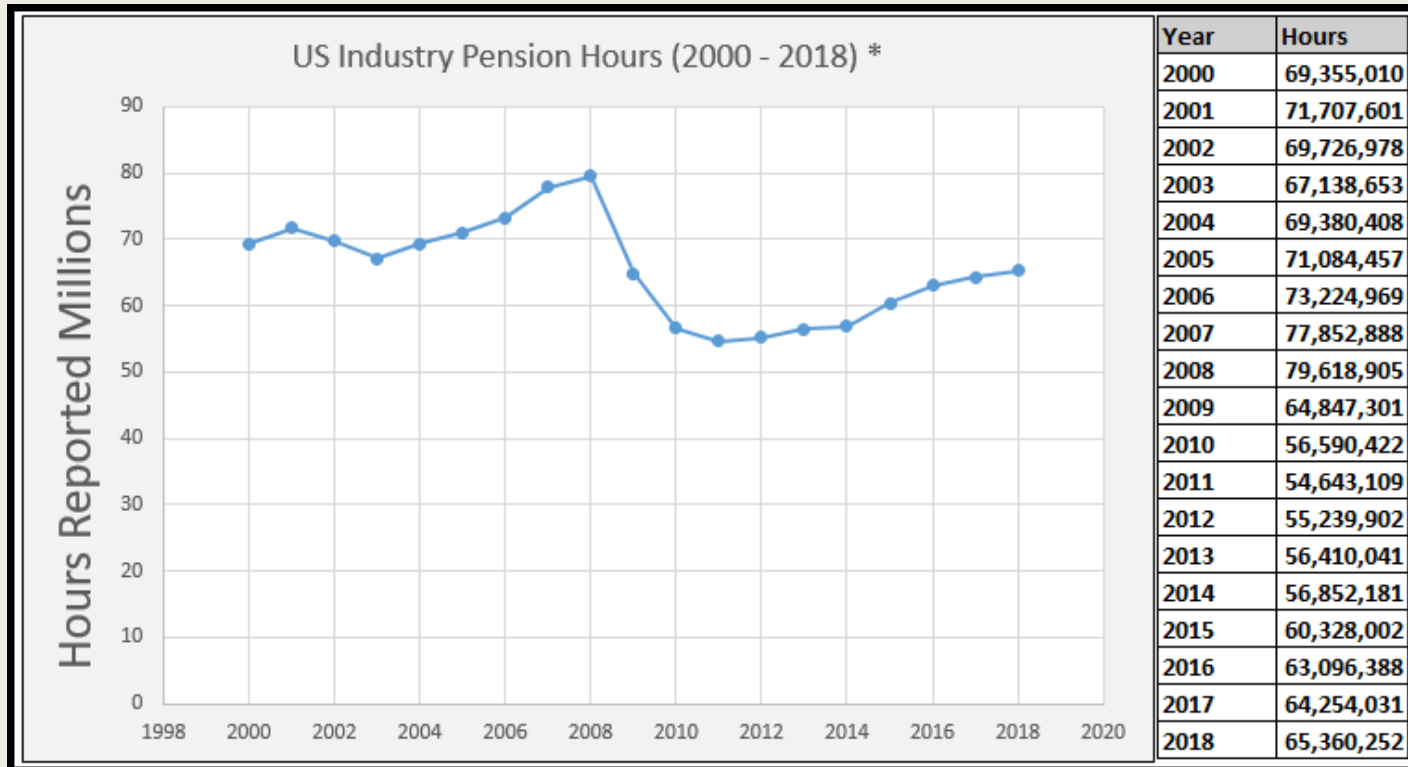


Participant Counts

<u>January 1</u>	<u>Actives</u>	<u>Terminated with Deferred Benefits</u>	<u>Retirees & Beneficiaries</u>	<u>Total</u>
2019	38,000	19,000	30,000	87,000
2016	34,000	17,000	29,000	80,000
2012	32,000	18,000	28,000	78,000
2008	39,000	14,000	25,000	78,000



Historical Pension Hours



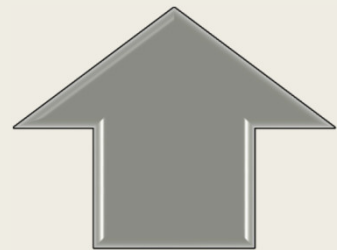
Note: 2018 estimate based on 2018 reported to date (4/2019)

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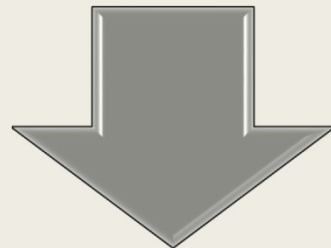


Modified Funding Improvement Plan (“FIP2”)

Tools to change the Plan’s funding position:



Contributions and/or
Investment Income



Benefits and/or
Expenses

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Modified Funding Improvement Plan (“FIP2”)

- Effective January 1, 2018
- Contribution Increase
- One Year Contingent Accrual Freeze

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Modified Funding Improvement Plan (“FIP2”)

Historical Contribution Increases

- Between 2012 and 2016, the average contribution rate increased from \$3.99 to \$4.20.
- Voluntary increases resulted in an additional \$0.21 per hour over 4 years.
 - Total increase = 5.3% over 4 years
 - Average increase = 1.3% per year
- Voluntary increases after 1/1/2012 were credited toward FIP2.

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FIP2 – Contribution Increase

Mandated Future Contribution Increases

- Increase 1/1/2012 Contribution Rate (including original 35%) by 50% by December 31, 2021. Increase capped at \$4.00 per hour.
- Credit any Voluntary Contribution Rate Increases (above the 1/1/2012 rate) against the 50% increase requirement
- Continue to provide 2% accrual formula on increased contributions

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FIP2 - Contribution Increase - ER

ABC Painting was fully compliant with the Preferred Schedule of the 2009 FIP.
1/1/2012 Rate = \$4.00.

Voluntary Increase in 2016 of \$0.50 per hour.

FIP2 requires 50% contribution increase over 1/1/2012 rate.

	Contribution Rate	Change in Contribution Rate from Prior Date	Note
1/1/2012	\$4.00		
1/1/2017	\$4.50	\$0.50	Voluntary increase
1/1/2018	\$6.00	\$1.50	Final increase to comply with 2017 FIP

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FIP2 - Contribution Increase - PTP

John Q. Painter works 1,500 hours per year for ABC Painting. His monthly pension as of 12/31/17 = \$1,000. See below for his anticipated accruals in 2018 with and without the \$1.50 contribution increase in 2017, which will bring Employer A into compliance with the 2017 FIP.

	Without 2017 FIP Increase		With 2017 FIP Increase		Benefit Change
	<u>Rate</u> (a)	<u>Accrual</u> (b)	<u>Rate</u> (c)	<u>Accrual</u> (d)	
Accrual level					
Level 1	\$4.00	\$22.22	\$4.00	\$22.22	\$0
Level 2	\$0.50	\$15.00	\$0.50	\$15.00	\$0
Level 3 (FIP2)	<u>\$0.00</u>	<u>\$ 0.00</u>	<u>\$1.50</u>	<u>\$45.00</u>	<u>\$45.00</u>
Combined	\$4.50	\$37.22	\$6.00	\$82.22	\$45.00
Total Mth. Pension 12/31/18		\$1,037.22		\$1,082.22	\$45.00



FIP2 – Contribution Increase - Compliance

- There has been a concentrated effort to encourage bargaining parties to adopt FIP2 required contribution increases into the current collective bargaining agreements and add language that future collective bargaining agreements will reflect the remaining increases, if any, required to be FIP2 compliant.

- Early adoption of FIP2 contribution increases has two benefits to the Pension Plan:
 - *It generates higher income in the early years of the Funding Improvement Plan, and*
 - *It allows future contribution increases to be reflected in the annual actuarial certification, which may help the Pension Plan avoid the Red Zone altogether (as opposed to entering and then emerging from Red Zone status).*

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FIP2 – Contribution Increase - Compliance

Based on rolling 3 month reports of each bargaining group, we have monitored FIP2 compliance as weighted by the number of hours reported.

FIP2 Compliance Group	Hours Weighted Percentage		
	June 2018	April 2019	Dec. 2019
Non-Compliant	16%	12%	7%
Partially Compliant	45%	36%	33%
Fully Compliant	39%	52%	60%
Total	100%	100%	100%

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FIP2 - Freeze

2020 Accrual Freeze

- The Plan was amended in 2017 to eliminate all pension accruals in the 2nd year following a calendar year with negative investment returns (on audit basis).
- Provides an immediate and impactful response to volatility in the stock market.
- The 2018 audit indicates an investment return of negative 3.5%. Accordingly no pension benefit accruals in 2020.
- Participants will still be credited the hours for service and vesting in 2020.

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FIP2 – Freeze (cont'd)

2020 Accrual Freeze – Financial Impact to the Plan

- 2018 return = negative 3.5%, resulting in a market value of assets at 1/1/2019 of \$3.185 billion.
- If the Plan had earned its assumed return of 7.5%, then the 1/1/2019 assets would have been \$3.553 billion. The resulting **shortfall** is approximately **\$368 million**.
- The value of 2020 accruals is projected to be approximately \$85 - \$90 million (assuming continuing FIP2 compliance). This savings will be directly applied to reducing the Plan's unfunded liability.
- The accrual freeze replaces ~24% of the shortfall in one year and immediately impacts the credit balance (causing a spike in 2021).

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FIP2 – Freeze (cont'd)

2020 Accrual Freeze – Financial Impact to the Participants

- Benefits are defined as percentage of contributions. The formula is tiered. The applicable percentages for the rate up to 1/1/2012 level are ½%, 1% and 0%. The applicable percentage for contribution increases above the 1/1/2012 rate is 2%. **Most participants have doubled if not tripled their yearly benefit accrual due to the FIP II.**
- Participant's new accrual more than offsets a year of zero accrual.

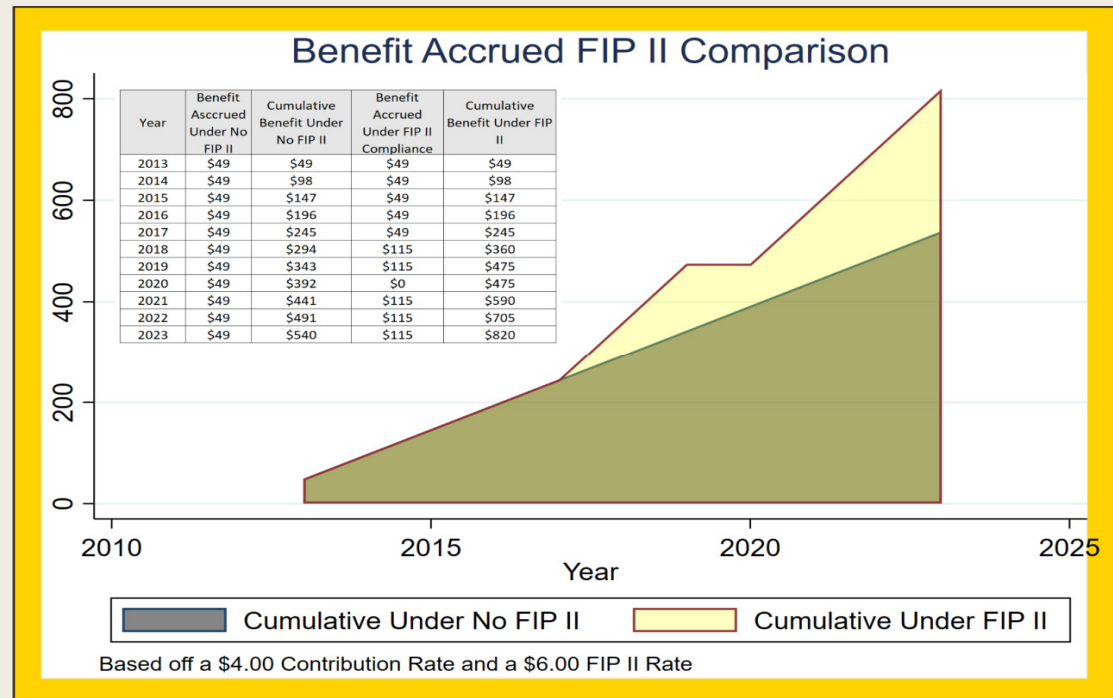
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FIP2 – Freeze (cont'd)

- Safeguards to protect against any future years of negative investment returns take the form of a zero accrual year two years following a negative investment return.
- While getting no return for one year will alarm some members, the addition of 2% accrual on new money will more than offset the zero accrual year.



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FIP2 Summary

- Actions taken in this plan are strategic, proactive, and intentional.
- These measures protect the future retirement of all participants.
- Forward movement- the FIP II is bettering the fund overall, growing its stability and prosperity.

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Plan Change - Early Retirement

- The rules for early retirement reductions changed effective 1/1/2018 for participants who retire directly from active service.
- Change occurred **outside of FIP2**.
- Old rules apply to all benefits accrued through 12/31/2017.
- New rules apply to benefits accrued on and after 1/1/2018.
- No changes to the eligibility rules for retiring – only the reductions for retirements prior to Normal Retirement Age for certain combinations of age and accumulated hours and only for new accruals after 2017.

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Plan Change – Early Ret. Pre-55

- Participants with 60,000 hours are eligible to retire prior to age 55.
 - Accruals \leq 12/31/2017 are payable UNREDUCED.
 - Accruals \geq 1/1/2018 are reduced 3% per year prior to age 65.

<u>Accruals Before 12/31/17</u>			<u>Accruals On & After 1/1/2018</u>		
<u>Age / Hrs @</u>			<u>Age / Hrs @</u>		
<u>Early Ret.</u>	<u>< 60k</u>	<u>60k</u>	<u>Early Ret.</u>	<u>< 60k</u>	<u>60k</u>
< 55	N/A	0%	55	N/A	3% Per Year Prior to 65

* Changes in reductions are highlighted.

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Plan Change – Early Ret. Pre-55 (cont'd)

- Assume **\$1,000** accrual prior to 12/31/2017 and **\$300** after 1/1/2018.
 - Accruals prior to 12/31/2017 are unreduced – resulting in \$1,000 payment.
 - Accruals on or after 1/1/2018 subject to reduction for retirements prior to 55.

Retirmt. Age	Post 2017 Early Ret. Reduction	Early Ret. Formula = \$1,000 + ...	Early Ret. Benefit	Reduction % of Total Bft
48	51%	... \$300 x (100% - 51%)	\$1,147	11.8%
50	45%	... \$300 x (100% - 45%)	\$1,165	10.4%
52	39%	... \$300 x (100% - 39%)	\$1,183	9.0%

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Plan Change – Early Ret. 55-59

<u>Accruals Before 12/31/17</u>					<u>Accruals On & After 1/1/2018</u>				
<u>Age / Hrs @</u>					<u>Age / Hrs @</u>				
<u>Early Ret.</u>	<u>18k</u>	<u>45k</u>	<u>54k</u>	<u>60k</u>	<u>Early Ret.</u>	<u>18k</u>	<u>45k</u>	<u>54k</u>	<u>60k</u>
55	30%	30%	0%	0%	55	60%	30%	30%	0%
56	27%	27%	0%	0%	56	54%	27%	27%	0%
57	24%	24%	0%	0%	57	48%	24%	24%	0%
58	21%	21%	0%	0%	58	42%	21%	21%	0%
59	18%	18%	0%	0%	59	36%	18%	18%	0%

* Changes in reductions are highlighted.

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Plan Change – Early Ret. 60-64

<u>Accruals Before 12/31/17</u>					<u>Accruals On and After 1/1/18</u>				
<u>Age / Hrs @</u>					<u>Age / Hrs @</u>				
<u>Early Ret.</u>	<u>18k</u>	<u>45k</u>	<u>54k</u>	<u>60k</u>	<u>Early Ret.</u>	<u>18k</u>	<u>45k</u>	<u>54k</u>	<u>60k</u>
60	15%	15%	0%	0%	60	30%	15%	0%	0%
61	12%	12%	0%	0%	61	24%	12%	0%	0%
62	9%	0%	0%	0%	62	18%	0%	0%	0%
63	6%	0%	0%	0%	63	12%	0%	0%	0%
64	3%	0%	0%	0%	64	6%	0%	0%	0%
65	0%	0%	0%	0%	65	0%	0%	0%	0%

* Changes in reductions are highlighted.

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*Funding Improvement
Plan Review*



Funding Improvement Plan

- Per Internal Revenue Code Section 432(c)(6)

“(A) Funding improvement plan. The plan sponsor shall annually update the funding improvement plan and shall file the update with the plan’s annual report under section 104 of the Employee Retirement Income Security Act of 1974.”

- Status 2019 = Seriously Endangered

- Current Funding Improvement Period (“FI Period”)

- 1/1/2012 – 12/31/2026 (15 years)

- Future Contribution Increases

- Note that future contribution increases anticipated in accordance with FIP2 that have not been bargained can be reflected in projections for FIP review

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FIP Projection - Assumptions

Investments

- Return on assets for PYE 12/31/2019 (est) = 14% (net of fees).
- Return on (market value) of assets = 7.5% per year (net of fees) beginning 1/1/2020.

Accruals

- No accruals in 2020 due to negative investment return in 2018

Hours

- 64 million work hours per year in 2020 and each subsequent year

CBA Rates

- Contribution rates will increase to \$5.80 after taking into account all future increases anticipated by FIP2 compliance and \$0.05 per year starting in 2023.

Other

- Active population will have similar demographic characteristics from year-to-year

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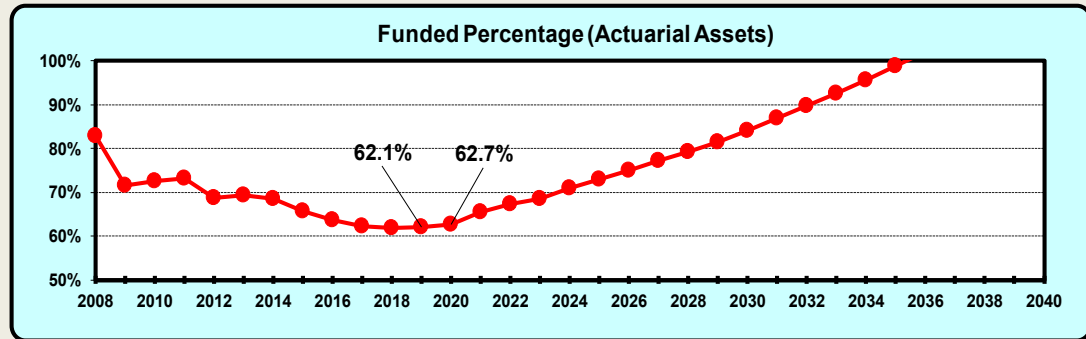
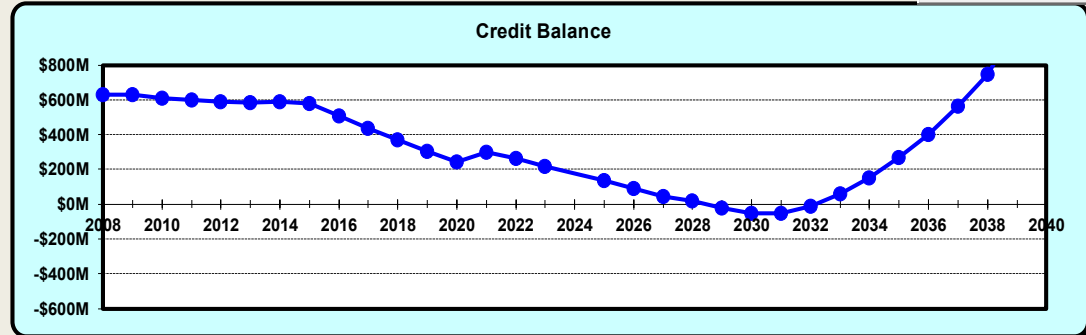


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FIP

International Painters & Allied Trades Industry Pension Projection Parameters

Plan Year Beginning January 1,	Return on Assets During Plan Yr	Pension Contrib (Effect Jan1)		
		Contrib. Hours (000s)	Contrib Incr %	Avg Hourly Contribution During Rate
2012	11.32%	54,700		3.99
2013	13.58%	55,665		4.14
2014	5.83%	55,600		4.19
2015	1.08%	59,400		4.19
2016	7.29%	63,100		4.20
2017	13.41%	64,200		4.77
2018	-3.54%	64,300		5.20
2019	14.00%	64,700	2.90%	5.35
2020	7.50%	64,000	2.90%	5.50
2021	7.50%	64,000	2.65%	5.65
2022	7.50%	64,000	2.65%	5.80
2023	7.50%	64,000	0.86%	5.85
2024	7.50%	64,000	0.86%	5.90
2025	7.50%	64,000	0.85%	5.95
2026	7.50%	64,000	0.84%	6.00
2027	7.50%	64,000	0.83%	6.05
2028	7.50%	64,000	0.83%	6.10
2029	7.50%	64,000	0.82%	6.15
2030+	7.50%	64,000	0.81%	6.20



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Funding Improvement Plan (cont'd)

- Benchmarks for an Orange Zone Funding Improvement Plan
 - *Avoidance of accumulated funding deficiency for the last Plan Year of the FI Period*
 - Requirement = Positive Credit Balance as of 1/1/2027
 - Projections = Positive 2027 *
 - Projected to meet benchmark *
 - *1/5th improvement in the funded percentage by the end of the FI Period.*
 - Requirement = 74.97% or better as of 1/1/2027
 - Projections = 77% at 1/1/2027 *
 - Projected to meet benchmark *

* Based on assumptions from 1/1/2019 valuation. May change for 2020 certification.

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Projections

In the Projection Scenario Outlined for Funding Improvement Plan Review:

- Anticipated **Red Zone** in 2025 and **Green Zone** in 2032 and 100% funded by December 31, 2035.
- No anticipated 4971(g)(3) excise taxes for **Orange Zone** since status is expected to change prior to 2027 (end of FIP)
- Red Zone in 2025 would require IUPAT to develop a Rehabilitation Plan.
 - *The Rehabilitation Plan would require emergence from Red around 2037 (2 year adoption period + 10 year Rehabilitation Period).*
 - *Since currently projected to enter Green in 2032, the Rehabilitation Plan would already be in place without any further modifications to benefits or contributions.*

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Projections

- The projections shown in this report are based on the valuation results from 1/1/2019 and unaudited asset information as of 12/31/2019.
- The projections shown in this report each represent a single set of assumptions.
- The projections are constantly updated to reflect assumption changes, plan changes, demographic changes (new hires, terminations, retirements, deaths etc.), investment returns, hours, contributions, benefit payments etc.
- Actual future credit balance values and funded percentage **will differ** from the projections shown to the extent that future experience deviates from the projection assumptions.

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Thank You

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