A SURVEY OF ELECTRICAL WORKER RETIREMENT PLANS

- 2022 EDITION -

A summary and analysis of key trends in plan demographics, cash flows, investments, funding, costs, and expenses from 2006-2020 for multiemployer retirement plans in the construction industry covering Electrical Workers



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Table of Contents

Introduction and Overview	1	Section A.VI: Plan Costs	22
Purpose	1	Annual Plan Costs	22
Summary	1	Cost of Benefit Accruals	23
, Highlights	2	Cost of Operating the Plan	24
		Cost of Unfunded Liabilities	25
Methodology	4	Adjustable Benefits	26
Wethodology	-	Employer Contributions	26
Form 5500 Data	4	Contributions vs. Costs	27
Data Quality	4		
Identifying Electrical Worker Plans	4	Section A.VII: Plan Expenses	28
Number of Plans in the Survey	4	Section A.vii. Flan Expenses	20
Comparisons with Prior Editions	4	Investment Fees	28
Snapshot Distribution Graphs	5	Per-Participant Operating Expenses	29
Quartile Bar Graphs	6	Total Operating Expenses	30
•		Administrative and Other Expenses	30
DADT A. DEFINIED DENIERIT DI AN	10	Professionals Fees	30
PART A: DEFINED BENEFIT PLAN	NS		
Section A.I: Plans in the Survey	7		
Distribution of Plan Years	7		
Plans by Asset Value	7		
Plans by Number of Participants	8		
Plans by Number of Employers	9		
Plans by Geographic Region	10		
Flans by Geographic Region	10		
Section A.II: Plan Demographics	11		
Types of Participants	11		
Number of Participants	11		
Participant Ratios	12		
Turticipant Natios	12		
Section A.III: Plan Cash Flows	13		
Types of Cash Flows	13		
Aggregate Cash Flows	13		
Cash Flows as a Percentage of Assets	14		
cash flows as a fercentage of hisself			
Section A.IV: Plan Investments	15		
Year-by-Year Returns	15		
Annualized Returns	16		
Assumed Returns	17		
Section A.V: Plan Funding	18		
_			
Funded Percentages	18		
PPA Certification Status	20		
Correcting Funding Shortfalls under PPA	21		



Table of Contents

PART B: DEFINED CONTRIBUTION PLANS	
Section B.I: Plans in the Survey	31
Plans by Asset Value Plans by Number of Participants Plans by Number of Employers Plans by Geographic Region	31 31 32 32
Section B.II: Plan Demographics	33
Types of Participants Number of Participants	33 33
Section B.III: Plan Cash Flows	34
Types of Cash Flows Aggregate Cash Flows Contributions per Active Participant	34 34 35
Section B.IV: Plan Investments	36
Year-by-Year Returns Annualized Returns	37 37
Section B.V: Account Balances	38
Account Balance per Participant	38
Appendices: Plan Listings	
Defined Benefit Electrical Worker Plans by State	39
Defined Contribution Electrical Worker Plans by State	40



Introduction and Overview

The National Electrical Contractors Association (NECA) and Horizon Actuarial Services, LLC (Horizon Actuarial) have partnered to build this survey of historical data for multiemployer retirement plans covering Electrical Workers in the construction industry.

The data in this seventh edition of the survey was compiled during 2022. The data in the survey is based on publicly available information from Form 5500 filings, which was available for plan years ending on or about December 31, 2020.

Purpose

The purpose of this report is to summarize and analyze key trends in demographics, cash flows, investments, funding, and costs for multiemployer retirement plans covering Electrical Workers (members of the International Brotherhood of Electrical Workers, or "IBEW") in the construction industry over the 15-year period from 2006 through 2020. By analyzing these trends, users of this report can better understand how these plans have evolved over the past fifteen years and where they may be headed in the future.

This report also examines investment fees and operating expenses. If you are a trustee of an Electrical Worker plan, you may find this section of the report useful as a comparison tool.

Attached as appendices to this report are listings of the plans included in the survey, one for defined benefit plans and the other for defined contribution plans. If you are an employer participating in one or more of these plans, the information in this listing may help you comply with the disclosure requirements for multiemployer plans required by the Financial Accounting Standards Board (FASB).

Note that this survey does not include plans covering Electrical Workers that are outside of the construction industry (for example, in the manufacturing or entertainment industries).

Summary

The period from 2006 through 2020 was turbulent for pension plans in general. Financial markets have been volatile, and 2008 saw the biggest market collapse since the Great Depression.

However, since 2008, conditions have generally improved, as indicated by increasing funded percentages and higher active to inactive ratios. In recent years, the number of active participants has increased significantly, indicating higher work levels.

As this year's survey period includes 2020, it is the first survey to include the Covid-19 pandemic, the impact of which is unclear. While investment returns were generally positive in 2020 (and 2021), the number of active participants declined slightly, likely indicating a decrease in hours from 2019. It is also possible that the impacts of the pandemic on plans' mortality experience will impact survey results in future years. We will continue to monitor results in future years' surveys to get an idea of whether this becomes a trend.

Inclusion of Defined Contribution Plans

The first five editions of this report, produced from 2013-2020, focused exclusively on defined benefit pension plans. In 2021, the sixth edition was expanded to include analysis of defined contribution retirement plans for electrical workers in the construction industry. Section A of the report deals with defined benefit plans and largely mirrors the prior reports. Section B deals with defined contribution plans.

This edition of the report shows some encouraging signs:

- About 79% of all Electrical Worker plans were certified in the green zone for 2020, a significant improvement since 2009 when only 43% of plans were in the green zone.
- More than 75% of all defined benefit Electrical Worker plans were projected to become 100% funded within 15 years.
- The funded percentage for the median defined benefit plan increased from 88% in 2019 to 98% in 2020.

Despite the difficulties of the past 15 years, Electrical Worker plans have shown great resilience – in many cases, more so than for multiemployer plans in general, or for plans covering other trades in the construction industry.



Introduction and Overview

Highlights

The following are highlights from this edition of the Electrical Worker plan survey, with regard to the defined benefit plans section:

- Total number of plans: Based on the latest available Form 5500 data (in most cases, this is for plan years ending on or about December 31, 2020), there were 120 multiemployer defined benefit pension plans in the construction industry covering Electrical Workers. Only plans with asset values greater than zero were included in the survey. There were also 194 multiemployer defined contribution plans.
- Total assets and covered participants: These 120 defined benefit plans had total assets of roughly \$36 billion, and they cover about 357,000 participants and beneficiaries (not including the NEBF).
- National Electrical Benefit Fund (NEBF): The NEBF provides supplemental retirement benefits to Electrical Workers, many of whom have accrued benefits under other plans. As of December 31, 2020, the NEBF had roughly \$16.8 billion in assets and covered over 630,000 participants and beneficiaries. Most of the participants and beneficiaries covered under the NEBF are also covered under other Electrical Worker defined benefit plans, defined contribution plans, or both.
- Number of contributing employers: The median Electrical Worker plan had 62 contributing employers, the same number as in the previous survey. The NEBF had 8,843 contributing employers in 2020, compared to 9,059 in 2016.
- Maturing plan demographics: Over the past 15
 years (2006 through 2020), Electrical Worker plans
 have seen their active participant counts drop and
 subsequently rebound, so that the number of active
 participants in 2020 is greater than the number
 before 2008. At the same time, most plans saw
 increases in the number of participants who are not
 actively working, including those who have retired
 and who are receiving benefits.
- Negative cash flows: While most plans over the past 15 years have paid more in benefits and operating expenses than they have received in contribution income, there has been improvement in the median net cash flow since 2009. Increases in contribution rates as well as increases in asset values due to investment gains in recent years have helped to offset increases in benefit payments due to

- shifting demographics, with more participants retiring and receiving benefits.
- Volatility with plan investments: Investment returns over the past 15 years were quite volatile and included the biggest collapse in the financial markets since the Great Depression. The median investment return for Electrical Worker plans for calendar year 2008 was -23.2%. In contrast, the median annualized return over the 10-year period from January 1, 2011 through December 31, 2020 was about 7.82%. The median 15-year annualized return from January 1, 2006 through December 31, 2020 was about 6.38%, indicating that including both 2008 and the subsequent rebound, the annualized investment return has generally still been slightly more than 0.5% lower than most plans' expectations.
- Comparison against other construction industry
 plans: As shown throughout the report, Electrical
 Worker plans tend to have more favorable trends
 with respect to demographics and cash flows, when
 compared to plans covering other trades in the
 construction industry. Differences are less significant
 when comparing investment returns.
- Improving plan funding: Plan trustees have taken significant action to improve their plans' funding levels in the wake of the 2008 market collapse. At the end of 2020, the median funded percentage was 98%. For comparison, the median funded percentage at the end of 2016 was 84%. The four-year increase to the funded percentage was mostly due to higher than assumed returns during 2017-2020, and to contributions being above plan costs. This 98% funded percentage is greater than the median funded percentage before 2008.
- Improving "Zone" status: Similarly, in 2009 (immediately following the 2008 market collapse), 44% of plans were in the "green zone" under the Pension Protection Act of 2006 (PPA); the remaining 56% of plans were in endangered status ("yellow zone"), or critical status ("red zone"), or critical and declining status. For 2020, the percentage of plans in the green zone was 79%, leaving 21% of plans in endangered status or critical status. While investment gains after 2008 were a major factor in this shift, actions by plan trustees to improve their plans' funding levels were also significant. In 2020, there were only two electrical workers' plans in Critical and Declining status, indicating that the plans were projected to become insolvent within 20 years.



Introduction and Overview

American Rescue Plan Act of 2021 (ARPA): In March of 2021, President Biden signed ARPA into law. One of the provisions of ARPA is to provide Special Financial Assistance (SFA) to deeply troubled multiemployer pension plans, based on certain criteria. The SFA is paid by the US Treasury through the PBGC in a single lump sum.

To be eligible to receive SFA, a Plan must satisfy one of four criteria. Based on the current survey and on other publicly available information, there appear to be seven IBEW-NECA plans eligible to receive SFA. It is possible that more plans may become eligible, depending upon their funding and demographics in 2021 and 2022.

- Criterion 1 The plan is in critical and declining status in any plan year beginning in 2020 through 2022. There is one eligible IBEW-NECA plan based on this criterion.
- Criterion 2 The plan has been approved for a suspension of benefits under MPRA. There is one eligible IBEW-NECA plan based on this criterion.
- Criterion 3 In any year beginning in 2020 through 2022, the plan:
 - Is in Critical Status;
 - Has a current liability funded percentage below 40%;
 - Has a ratio of active to inactive participants below 2 to 3.

Note that under subsequently published PBGC regulations, these tests do not all need to be satisfied in the same year. There are five eligible IBEW-NECA plans based on this criterion.

 Criterion 4 – The plan became insolvent after December 16, 2014. There do not appear to be any eligible IBEW-NECA plans based on this criterion.

At the time of this report was published, there had been no applications for SFA filed by IBEW-NECA plans. Based on the priority categories established by the Pension Benefit Guaranty Corporation, plans will become eligible to apply no later than March 11, 2023.



Methodology

This section of the report provides an overview of the methodology used in compiling the survey and performing the analysis. It also describes how to read the graphs used throughout the report.

Form 5500 Data

Seven months after the close of its plan year (nine and a half months, with extension), every qualified pension plan must file a Form 5500 with the Internal Revenue Service (IRS) and the Department of Labor (DOL). The purpose of the form is to demonstrate that the plan has met the applicable requirements under the Internal Revenue Code and the Employee Retirement Income Security Act of 1974 (ERISA).

The inventory of electrical industry retirement plans is based on data from Forms 5500, which are available to the public.

Data Quality

The survey is only as good as the Form 5500 data. If a plan sponsor filled out a portion of the Form 5500 incorrectly, the errors will likely carry through to the survey, and perhaps to the analysis.

However, since this report investigates general trends and averages, the effects of such errors should be minimal. Also, in certain cases, adjustments were made to correct for missing or questionable data. In other cases, plans with missing or questionable data were simply excluded from the analysis for that plan year.

Please keep these considerations in mind when reviewing the results in this report.

Identifying Electrical Worker Plans

The first step in constructing the survey was to identify the multiemployer plans in the construction industry, and which of those plans cover Electrical Workers.

Using Form 5500 data, it is relatively easy to identify which plans are defined benefit pension plans, which are defined contribution plans, and which are multiemployer plans. However, it is not as simple to identify which plans are in the construction industry or cover Electrical Workers.

For defined benefit plans, the list of Electrical Worker plans developed based on Form 5500 data was reconciled against the list of known construction industry plans covering Electrical Workers held by NECA. For defined contribution plans, electrical industry plans were identified from Horizon's list of all multiemployer defined contribution plans based on the name of the plan sponsor.

Number of Plans in the Survey

The 2022 edition of the survey includes 120 defined benefit plans covering Electrical Workers that have a recent Form 5500 filing (for the 2019 or 2020 plan years) and an asset value greater than zero, the same number as in the prior edition. This edition also includes 195 defined contribution plans.

Comparisons with Prior Editions

This is the seventh edition of the survey report, and it is intended to be a stand-alone document. If the reader wishes to compare results in this edition of the report to those in prior editions, the following points should be considered:

- Defined Contribution Plan Analysis This is the second edition of the report that includes a section on Defined Contribution (DC) plans. Previous editions included only Defined Benefit (DB) plans. In contrast to DB (or "traditional" pension plans), which provide guaranteed monthly income to retirees for life and therefore have substantial long-term obligations, DC plans (such as individual annuity plans, money purchase plans, etc.) give each retiree an individual account, from which the participant makes withdrawals at their discretion during retirement. Section A of the report contains information on DB plans, and Section B on DC plans.
- As part of each annual update to the survey, the underlying historical data in the survey is refreshed. Therefore, there are small differences in the historical results shown in this edition of the report versus prior editions.



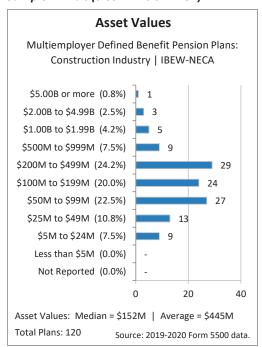
Methodology

Snapshot Distribution Graphs

This report analyzes both historical trends for Electrical Worker plans, as well as distributions at a specific point in time. "Snapshot distribution" graphs are used to review the distribution of results at a specific point in time. See the sample exhibit below, which shows the distribution of Electrical Worker plans by asset value.

Note that beside each category, the graph lists the percentage of plans in the population that fall into that category. For example, in the sample graph at right, there are 9 plans that fall into the category of "\$500M to \$999M," which represents 7.6% of the plans in the survey. The percentages may not perfectly add to 100.0% due to rounding.

Sample Exhibit (also Exhibit A.1.02)



When reviewing the snapshot distribution graphs, note that the scale often widens as the plans get larger. This makes the exhibit easier to read, and keeps very large plans from skewing the scale.

In general, snapshot distribution graphs for defined benefit plans will include all 120 Electrical Worker plans in the survey that filed a Form 5500 in either of the last two plan years ending on or about December 31, 2020 (in other words, based on "2019-2020" Form 5500 data). Plans with missing data are excluded.



Methodology

Quartile Bar Graphs

To analyze historical trends, this report will often use "quartile bar" graphs. This will allow us to examine the range of results over the last 15 years for the plans in the survey.

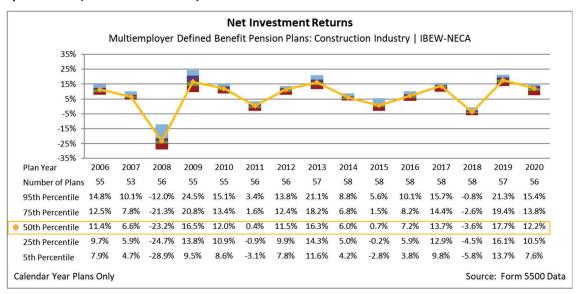
See the sample quartile bar graph below, which shows net investment returns over the last 15 years. Note the following:

- The bars on the graph are divided into four sections. These represent the top (blue), second (purple), third (green), and bottom (red) quartile results.
- The gold line (—) running between the second and third quartiles represents the median or 50th percentile results. Note that these results are also boxed in the table of numbers below the quartile bars.
- To exclude outliers, results beyond the 95th and 5th percentiles are not shown. Therefore, the top quartile actually shows results from the 75th percentile to the 95th percentile, and the bottom quartile actually shows results from the 25th percentile down to the 5th percentile.
- Even though results above the highest 5 percent or below the lowest 5 percent of results are not shown, sometimes outliers still exist. This is especially true in the upper end (when the blue bars are relatively higher).

- The numbers corresponding to the quartiles are shown in the table below the graph. The median results are outlined in gold.
- The title in the table includes a label indicating which plans are included in the exhibit (such as industry, plan size, or trade). In the bottom left corner, there will be a label if the exhibit includes only calendar year plans.
- The number of plans included is shown just below the years. A plan may be excluded from the sample in any given year due to missing or questionable data. This is a big reason why the number of plans changes year after year. To a lesser degree, plan terminations and mergers cause the counts to change.

For example, the quartile bar graph below shows historical net investment returns for construction industry plans covering Electrical Workers (IBEW members). For this graph, only results for plans with calendar year plan years are included.

Sample Exhibit (also Exhibit A.4.01)



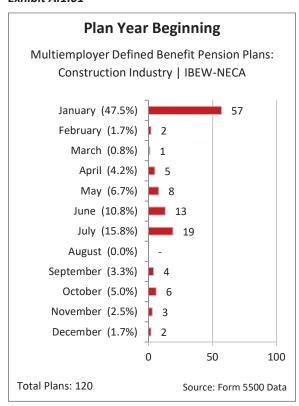


There are 120 ongoing defined benefit plans in the construction industry covering Electrical Workers that filed a Form 5500 in either of the last two plan years, ending on or about December 31, 2020. This section shows the distributions of those plans by asset value, number of participants, and number of employers. In total, these Electrical Worker plans have roughly \$36 billion in assets, and they cover about 357,000 participants and their beneficiaries, not including the NEBF.

Distribution of Plan Years

Exhibit A.1.01 below shows the distribution of plans by their plan years.

Exhibit A.1.01



Note that nearly half of the plans in the survey with recent Form 5500 filings have "calendar year plan years," in other words, plan years that begin in January and end in December.

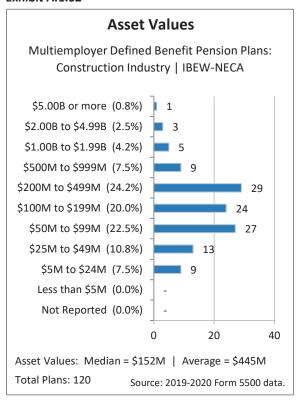
Also note that 15 plans (about 12.5% of the total) have plan years beginning in September through December. Exhibits showing historical trends include results for these plans in the column for the following plan year.

Plans by Asset Value

Exhibit A.1.02 below shows the distribution of Electrical Worker plans by asset value. The assets are market values of assets as of the end of the latest plan year for which a Form 5500 was filed.

For example, for a calendar year plan, the latest Form 5500 was filed for the plan year beginning January 1, 2020, and the asset value would be as of December 31, 2020. For a plan year beginning on October 1, the latest Form 5500 was probably filed for the plan year beginning October 1, 2019, and so the asset value would be as of September 30, 2020.

Exhibit A.1.02



The 120 plans in the survey had a median asset value of \$152 million. The average asset value was \$445 million, skewed by very large plans in the survey, in particular the National Electrical Benefit Fund (NEBF). The NEBF is discussed in more detail later in this section.

There were 18 plans with asset values of at least \$500 million. There were 9 plans with asset values of at least \$1 billion.

There were 53 plans with asset values of at least \$100 million but less than \$500 million. There were 49 plans with assets less than \$100 million, and no

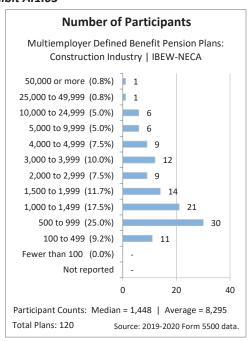


plans with assets less than \$5 million. There were also no plans receiving financial assistance from the Pension Benefit Guaranty Corporation (PBGC).

Plans by Number of Participants

Exhibit A.1.03 shows the distribution of plans by total number of participants as of the end of the latest plan year, usually on or about December 31, 2020. Participant counts include active participants, inactive participants with vested benefits, retired participants, and beneficiaries. See Section III for definitions of the different types of participants.

Exhibit A.1.03



The median number of participants and beneficiaries covered under Electrical Worker plans is 1,448. The average number of participants (again, skewed by the NEBF and other larger plans) is 8,295.

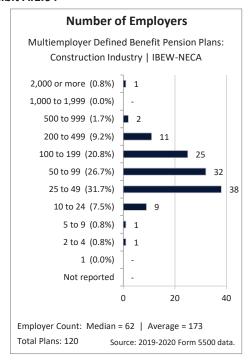
Over half of the plans, 62 in total, cover fewer than 1,500 participants. There were 8 plans covering at least 10,000 participants. There were no plans covering fewer than 100 participants.



Plans by Number of Employers

Exhibit A.1.04 shows the distribution of construction industry plans by number of contributing employers.

Exhibit A.1.04



The median number of contributing employers in Electrical Worker plans was 62. The average (skewed by larger plans) was 173.

About 67% of plans, 81 of 120, had fewer than 100 contributing employers. There were only 11 plans with fewer than 25 employers; no plans had only 1 contributing employer.

Plans by Geographic Region

Exhibit A.1.05 shows the number of Electrical Worker plans by geographic region. In addition to the number of plans, this exhibit shows the aggregate asset values (in millions of dollars) and number of covered participants and beneficiaries.

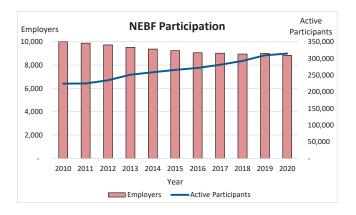
Exhibit A.1.05

Plans by Region -	Number	Total	Number of
Region	of Plans	Assets (\$M)	Participants
Eastern	46	\$12,898	126,563
Midwest	35	11,021	98,620
South	19	1,601	29,334
West	19	10,614	102,148
Subtotal	119	36,134	356,665
NEBF	1	16,773	630,397
Participants Only Cov	ered by NEBI	(difference)	273,732

Note that figures for the National Electrical Benefit Fund (NEBF) are shown separately.

Because the NEBF is unique due to its coverage of essentially all IBEW members in the United States, it was not included in a geographic region in the total in Exhibit A.1.05. Exhibit A.1.06 below shows the number of employers contributing to the NEBF in each year from 2009 (the first year this was reported) to 2020. As you can see, the number of employers decreased from just below 10,000 in 2011 to just below 9,000 in 2020. While the reasons for the decline are unclear, possibilities include employer withdrawing from the fund, employers ceasing operations, and consolidation, such as through company mergers. However, it is worth noting that while the number of employers declined, the number of active participants in the NEBF increased from 244,849 to 314,843, indicating growth in the industry.

Exhibit A.1.06





Technical Note: National Electrical Benefit Fund

The NEBF provides supplemental retirement benefits to Electrical Workers and their beneficiaries across the nation.

As shown above, the 119 plans other than the NEBF have total assets of about \$36 billion and cover about 357,000 participants and their beneficiaries. The NEBF itself has assets of roughly \$17 billion and covers 630,000 participants.

Almost all of the participants and beneficiaries covered under regional or local Electrical Worker plans are also covered under the NEBF, and vice versa. The data does not indicate which participants and beneficiaries are covered only under a regional or local plan, and which are covered only under the NEBF. However, it is a reasonable approximation that 274,000 participants (the difference between the 630,000 NEBF participants and the 356,000 participants in other plans) are only covered by the NEBF, and not by a local pension plan. This approximately 40% of total NEBF participants may receive retirement income through DC plans.

Section B of this report offers a high level overview of how locals provide retirement income through DB plans, DC plans, or a combination of both.

For reference, the following table shows the postal codes of the states (as well as the District of Columbia) included within each region. States were grouped into regions based on the locations of NECA chapters, as shown on NECA's website. If a state had chapters in more than one region, that state was assigned to one of the regions. It should be noted that the location of a plan is based on that of the Plan Administrator, which is not necessarily the same as the NECA chapter.

Region	States Included
Eastern	CT, DC, DE, MA, MD, ME, NH, NJ, NY, PA, RI, VT, WV
Midwest	IA, IL, IN, KY, MI, MN, MO, ND, NE, OH, SD, WI
South	AL, AR, AZ, FL, GA, KS, LA, MS, NC, NM, OK, SC, TN, TX, VA
West	AK, CA, CO, HI, ID, MT, NV, OR, UT, WA, WY

See the appendices to the report for listings of Electrical Worker plans by state, as well as a summary of plans, total asset values, and covered participants by state.



Section A.II: Plan Demographics

Having favorable demographics is a key factor in the long-term sustainability of a pension plan. In general, it is better for a plan's overall population to have a higher proportion of younger, working participants than older, inactive or retired participants. This section of the report reviews plan demographics and how they have changed over the past fifteen years.

Types of Participants

The following are definitions of the different types of participants shown in the exhibits in this section.

- "Active" participants are those individuals who were working enough, as of the end of the plan year, to earn service under their plan.
- "Inactive" participants are those individuals who were not working as of the end of the plan year, but who are entitled to vested benefits due to their prior service under the plan. Inactive participants include:
 - "Deferred Vested" participants, who are entitled to vested benefits that are deferred to a future retirement date.
 - "Retired" participants, who are currently receiving benefits from their plan.
 - "Beneficiaries," who are either receiving survivor benefits earned by a deceased participant, or who are entitled to future survivor benefits. It does not include beneficiaries of retirees who are still receiving benefits.

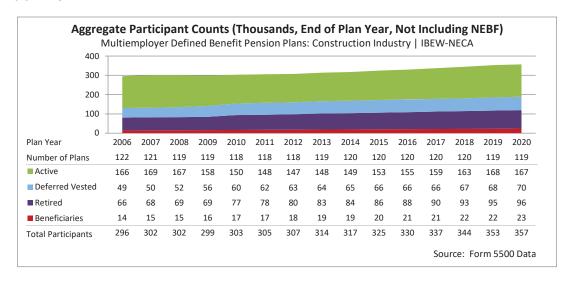
Number of Participants

Exhibit A.2.01 below shows aggregate participant counts for Electrical Worker plans over the 15 year period from 2006 through 2020. Participant counts are those reported on the Form 5500 and are as of the end of the plan year. Counts are shown in millions.

As discussed in Section A.1, while the NEBF covers almost all electrical workers in the United States, about 40% of individuals in the NEBF do not participate in any local electrical pension plan. To avoid double counting participants, the below chart excludes the NEBF participant counts.

The number of participants increased over the past 15 years, from 296 thousand at the end of 2006 to 357 thousand at the end of 2020. The number of active participants declined from 2008 through 2012 but has grown since then, while the number of inactive participants has increased. Note that in 2014, the number of active participants was the highest in any year since 2007, before declining slightly in 2020, possibly due to the impact of the pandemic.

The number of inactive participants with deferred vested benefits increased from 49 to 70 thousand over the period, with a large spike from 2008 to 2010, likely because of a decline in available work. The number of retired participants increased from 66 to 96 thousand over the period, and the number of beneficiaries of deceased participants increased as well, from 14 to 23 thousand.





Section A.II: Plan Demographics

Participant Ratios

Another way to analyze plan demographics is to look at the ratio of active participants to inactive participants. In general, the higher the ratio of active participants to inactive participants, the easier it is for a plan to correct any funding shortfall by increasing contribution rates or decreasing future benefit accruals. On the other hand, a lower ratio usually means that it is more difficult for a plan to improve funding through these means.

As a pension plan matures, the ratio of active participants to inactive participants will naturally decline. Such changes can be manageable if they occur gradually.

However, sudden shifts in demographics due to sharp declines in employment levels can be difficult to manage. Nearly every construction industry pension plan took a hit to its demographics following the 2008 market collapse. The subsequent decade saw a gradual improvement, with a slight dip in the ratio during 2020, possibly due to the impact of the pandemic.

Observation: Participant Ratios

Pension plan demographics have worsened somewhat over the past 15 years, with an especially sharp decline after 2008. Since then, demographics have generally stabilized, and the ratio of active to inactive participants has improved over the last several years, with a slight dip in 2020.

Exhibit A.2.03 below shows the distribution of these participant ratios for Electrical Worker plans from 2006 through 2020.

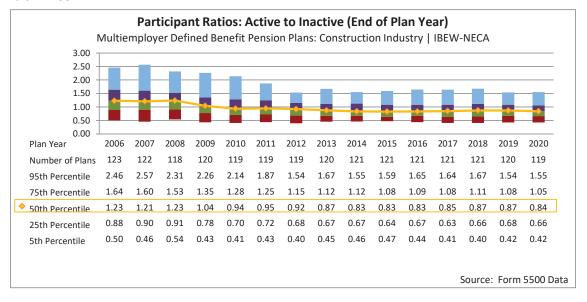
Focusing on the median results:

- At the end of 2006, the median ratio of active participants to inactive participants was 1.23. In other words, there were 1.23 participants who were actively working and having contributions made on their behalf for each participant who was not working.
- There was a sharp decline in the median ratio from 2006 to 2010, from 1.23 to 0.94, followed by a more gradual decline to 0.83 in 2014.
- Since 2014, the ratio had stayed fairly level, with 2020 ratio of 0.84. In other words, for the median Electrical Worker plan at the end of 2020, there were about 8 active participants for every 10 inactive participants. This ratio has been slightly increasing since 2014 but then saw a drop in 2020.
- It is important to note that participant ratios can vary significantly from plan to plan. For example, by December 31, 2020, 5% of Electrical Worker plans have participant ratios of 1.55 or greater, and 5% of plans have ratios of 0.42 or lower.

Comparison Against Other Plans

Electrical Worker plans have generally more favorable demographics than other construction industry plans. For example, at the end of 2020, the median participant ratio for Electrical Worker plans is 0.84, compared with a median participant ratio of 0.69 for all construction industry plans.

Exhibit A.2.03





Section A.III: Plan Cash Flows

A plan's cash flows are very closely tied to its demographics. As retired participants begin to outnumber active participants, benefit payments to retirees exceed contributions being made on behalf of the active participants. If contributions paid into the plan fall short of cash paid out of the plan, the difference must be made up by investment income, or else the plan's assets will shrink over time.

Types of Cash Flows

The following are definitions of the different types of cash flows shown in the exhibits in this section.

- Contributions are made by employers on behalf of the participants in the plan who are actively working. In most cases, this is the sole source of "cash in" for the plan.
- Benefit Payments are made by the plan to retired participants and beneficiaries of deceased participants. This is the main source of disbursements, or "cash out" for the plan.
- Operating Expenses include the cost of administration, professional fees (such as for attorneys, auditors, actuaries, and consultants), and insurance and PBGC premiums. They exclude investment fees. Operating expenses are another source of "cash out" for the plan.

If contributions to the plan exceed benefit payments and operating expenses, then the plan has a positive cash flow. On the other hand, if contributions to the plan do not cover benefit payments and operating expenses, then the plan has a negative cash flow.

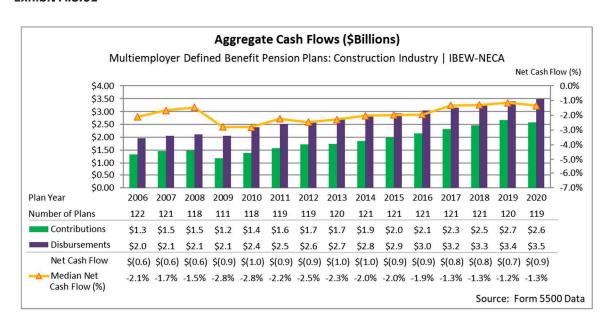
As plans mature, their cash flows tend to become increasingly negative. As with negative demographic trends, persistence of negative trends in cash flows will threaten a plan's viability – for participants and beneficiaries as well as contributing employers – over the long term.

Aggregate Cash Flows

Exhibit A.3.01 below shows the aggregate cash flows for Electrical Worker plans over the 15-year period from 2006 through 2020. Amounts are shown in billions of dollars. The median net cash flow, as a percentage of plan assets, is shown for reference.

Aggregate employer contributions doubled over the past fifteen years, from \$1.3 billion in 2006 to \$2.6 billion in 2020. This trend is likely driven by increases in employer contribution rates and also increases in hours in recent years. At the same time, plan disbursements also increased, from \$2.0 billion in 2006 to \$3.5 billion in 2020. Net cash flows became more negative in 2009 following the 2008 crash, but have become gradually less negative since then, largely due to the growth in contributions.

Exhibit A.3.01





Section A.III: Plan Cash Flows

Cash Flows as a Percentage of Assets

Another way to analyze the effects of positive or negative cash flows on a plan is to express the net cash flow as a percentage of plan assets.

For a plan with a negative cash flow, this percentage represents the return on investments that is needed to keep the plan's asset value from declining. For example, a plan with a negative cash flow of 3.0% of assets must have an investment return of at least 3.0% in order to avoid a decline in its asset value from one year to the next.

Exhibit A.3.02 shows the distribution of net cash flows as a percentage of plan assets for Electrical Worker plans from 2006 through 2020. Focusing on the median results, the negative cash flow increased from 2.1% of plan assets to 2.8% of plan assets from 2002 to 2010, with a spike from 2008 to 2009 due to the downturn in the work levels and the loss of asset values in the stock market decline.

The median negative cash flow improved to 1.3% of assets by 2020, in part as a result of actions taken by plan trustees to improve funding, such as increases to employer contributions and reductions in participant benefits, as well as high investment returns and work levels in recent years.

There is a wide range of results. For example, at the 95th percentile, there are plans that have annual positive cash flow that is over 3% of plan assets, compared to negative cash flow over 5% at the 5th percentile.

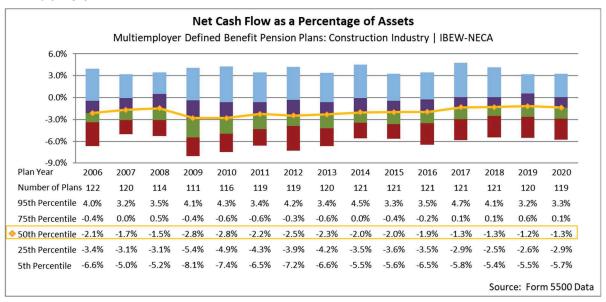
Observation: Cash Flows

Cash flows have been relatively stable over the past 15 years. While benefit payments have increased, in recent years, contributions have increased more quickly, making cash flows less negative overall.

Comparison Against Other Plans

Electrical Worker plans have generally more favorable cash flows than other construction industry plans. For example, at the end of 2020, the median negative cash flow for Electrical Worker plans is 1.3% of assets, whereas the median negative cash flow for all construction industry plans is 2.2% of assets.

Exhibit A.3.02







Section A.IV: Plan Investments

So far, the 21st Century has been turbulent for the financial markets, which in turn made for challenging times for pension plans. This section of the report analyzes the net investment returns for construction industry plans covering Electrical Workers over the fifteen-year period from 2006 to 2020. Asset returns are examined on a year-by-year basis, as well as annualized over the 15-year period. This section also reviews the assumed rates of investment return for the plans in the survey.

Year-by-Year Returns

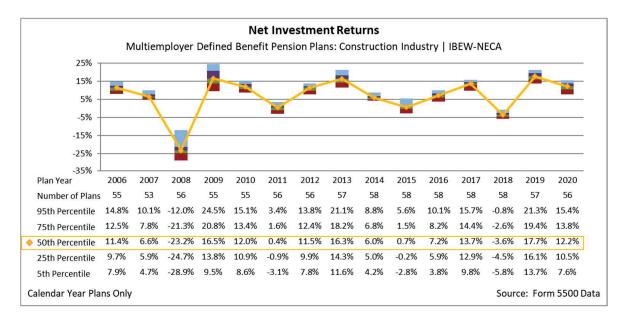
Exhibit A.4.01 shows net investment returns for Electrical Worker plans over the past 15 years, from January 1, 2006 through December 31, 2020. For consistency, exhibits in this section include only results for plans with calendar year plan years.

Observation: Investment Horizons

The exhibits in this report show results over a 15-year period in large part because complete data was not available in earlier years. In assessing the results in this section of the report, users should bear in mind that pension obligations are very long-term in nature, and 15 years may be too short a period from which to draw conclusions about investment policies.

After the severe market crash of 2008, investment returns have rebounded strongly, with median returns of more than 10% in 7 of the 12 years in that period including 2017, 2019 and 2020. These recent strong returns have contributed significantly to improved plan funding, as will be seen in Section A.5.

It is important to note that all investment returns shown in this section are *net* of fees. It is also important to keep in mind that a plan's investment allocation is a key driver of its investment returns.





Section A.IV: Plan Investments

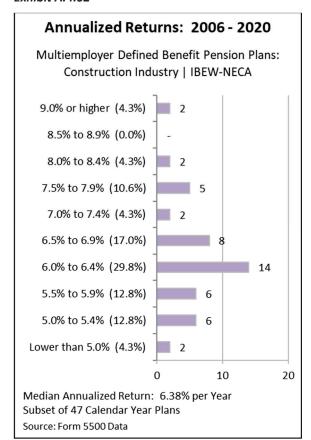
Annualized Returns

In addition to volatility over the past 15 years, most plans' returns fell short of expectations, which is mostly due to the market crash in 2008. Since 2008, investment returns have significantly rebounded, though not be enough for the 15-year annualized return to meet expectations for most plans. The previous exhibits showed net investment returns, year by year, for the 15-year period from January 1, 2006 through December 31, 2020. The following exhibits show *annualized* returns, which allows for better comparisons of investment performance for the entire 15-year period.

Technical Note: Methodology

Annualized investment returns are based on plans with calendar plan years only. Further, only plans for which complete Form 5500 data is available for *all 15 years* from 2006 through 2020 are included. There are 47 such plans in the survey, which are included in the following exhibits.

Exhibit A.4.02



As shown in Exhibit A.4.02, the median annualized return for the 48 plans in the sample was 6.4% per year. 72% had annualized returns of at least 5.0% but less than 7.0%.

Observation: Endpoint Sensitivity

As noted earlier, 15 years is too short a period from which to draw conclusions about investment policies. It is also important to keep in mind that the annualized returns analyzed here are very sensitive to the period endpoints. That is, shifting the 15-year period by a year could result in significantly different annualized returns. As shown Exhibit A.4.02, the median annualized return for the 15-year period from 2006 through 2020 was about 6.38%. Note that the median return for the period from 2007 through 2021 will likely be slightly higher, since in general, returns were higher in 2021 than in 2006.

Comparison Against Other Plans

In general, investment returns for multiemployer pension plans do not vary as significantly from industry to industry or trade to trade as other results, such as demographics or cash flows.

As shown in Exhibit A.4.02, the median annualized investment return from 2006 through 2020 for Electrical Worker plans was 6.38%. This was identical to the median annualized investment return for that period for all construction industry plans.

When comparing these results, it is important to note the relatively small sample size of 47 Electrical Worker plans with calendar plan years.



Section A.IV: Plan Investments

Assumed Return

Observation: Actual Returns vs. Expected Returns

The median Electrical Worker pension plan assumes it will earn 7.00% per year on its investments. However, from 2006 through 2020, the median plan earned only 6.38% per year. Without regard to cash flows, this produced a cumulative underperformance of about 8% at the end of the 15-year period.

In other words, as of the end of 2020, the median Electrical Worker plan had an asset value that was 8% lower than the plan would have expected at the beginning of the 15-year period. Since 2008, plans have worked to make up this investment shortfall up through higher employer contributions, reduced employee benefits, and a combination of the two.

When analyzing the actual investment returns (as done earlier in this section), it is important for users of this report to keep in mind how they compared with the returns the plan *assumed* it would earn.

Multiemployer pension plans are usually invested in a well-diversified mix of stocks, bonds, and alternative investments structured to maximize returns over the long term while minimizing return volatility. The plan actuary must evaluate the plan's asset mix and, based on expectations of future returns, develop an assumption for what plan assets are projected to earn over the long term.

As shown in Exhibit A.4.03 below, the most common return assumption is 7.0%, which is assumed by the actuaries for 36 plans. Thirty plans have lower interest rates, and 53 have higher interest rates. Return assumptions have declined significantly over the last 15 years, which is a trend common across multiemployer plans in all industries.

Technical Note: Investment Return Assumption

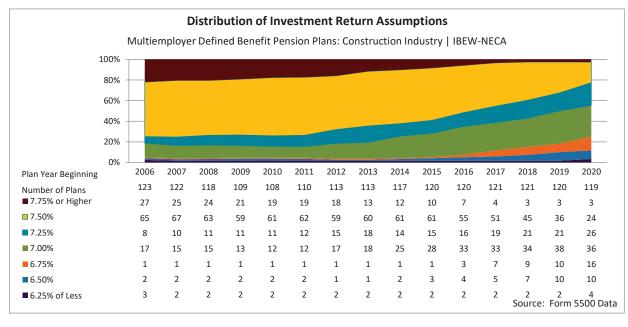
The investment return assumption is also known as the valuation interest rate. This assumption is used to discount future plan benefit payments in determining the actuarial accrued liability.

In these exhibits, investment return assumptions are rounded to the nearest 0.25%. Of the 120 plans in the survey, 119 reported the plan actuary's assumption on the Form 5500 filing.

Comparison Against Other Plans

As with actual investment returns, there are not significant differences in expected investment returns from industry to industry or trade to trade.

Exhibit A.4.03





This section of the report analyzes plan funding levels over the past fifteen years, as well as the annual certification status.

Funded Percentages

Before reviewing the results in this section, users should first understand the various methods that may be used to calculate funded percentages for multiemployer pension plans.

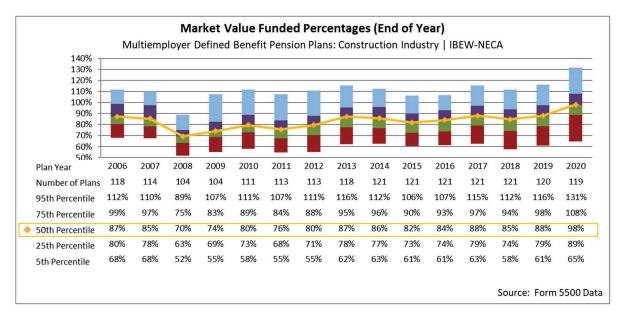
For one, under the Pension Protection Act of 2006 (PPA), the funded percentage is calculated as the ratio of the *actuarial value of assets* over the *actuarial accrued liability*. The actuarial value of assets usually smooths (averages) prior investment gains and losses over a five-year period. The actuarial accrued liability is the value of the accrued benefits under the plan, measured at a discount rate that reflects the expected return on plan assets over the long term (usually between 7.00% and 7.50% per year). Under PPA, a plan that is less than 80% funded based on this measure will generally not be in the "Green Zone".

The funded percentages in this section represent the ratio of the *market value of assets* over the *actuarial accrued liability*. This provides the plan's funded percentage at each point in time, without smoothing prior asset gains and losses, and provides a consistent comparison from plan to plan.

Note that while the funded percentages in this report are based on the market value of assets, the actuarial value of assets is used for the purpose of calculating contribution requirements under PPA.

The funded percentages shown in Exhibit A.5.01 below are measured as of the end of the Plan Year. In versions of this report prior to 2021, this exhibit only included results for plans with calendar years. To show a more full picture, we have included all plans, regardless of plan year. However, it should be noted that a Plan's market value funded percentage is sensitive to investment returns, and therefore the timing of the plan year can affect funded percentage.

As shown below, the median funded percentage for Electrical Worker plans increased from 87% at December 31, 2006 to 98% at December 31, 2020. Despite the volatility of the past 15 years, funded percentages for all but the bottom 5% of plans have increased. The 95th percentile increased from 112% to 131%, the 75% percentile increased from 99% to 108%, and the 25th percentile increased from 80% to 89%, while the 5th percentile decreased from 68% to 65%.





The median funded percentage has been volatile over the last 15 years. The historic investment losses during 2008 brought the median funded percentage down to 70% at December 31, 2008. Since then, the median funded percentage has gradually improved, to 98% in 2020. This improvement is due both to contributions being in excess of plan costs, and to investment returns generally being higher than expectation since 2008.

Earlier in this report, it was noted that there is a wide range of variability in plan demographics, cash flows, and investments. The same goes for funded percentages. In 2020, half of all plans were funded between 89% and 108%. Five percent of plans are higher than 131% funded, and 5% are lower than 65%.

The funding level for electrical industry plans is slightly better than that for plans in other trades in the construction industry, as the median funded percentage for all calendar year construction plans was 99% in 2020.

Technical Note: Actuarial Accrued Liability Data

The actuarial accrued liability is reported as of the beginning of the plan year on the Schedule MB to the Form 5500. In general, the actuarial accrued liability from the succeeding year is used to calculate the end-of-year funded percentages. For example, the funded percentage as of December 31, 2009 uses the actuarial accrued liability as of January 1, 2010. If the actuarial accrued liability is unavailable for a given year, the report uses a one-year "roll-forward" of the prior year figure is used.



PPA Certification Status

Under PPA, a multiemployer pension plan's actuary must certify the plan's status based on certain tests at the beginning of every plan year.

In simplified terms:

- A Plan is in critical and declining status if it is projected to run out of money to pay benefits within 20 years (or 15 years in some circumstances). This status was first established in 2015. There was two electrical industry plan in Critical and Declining status in 2020 which is an increase from 1 plan in 2019.
- A plan is in critical status ("red zone") if it is projected to have a deficiency in its funding standard account in the next four years (five years if the plan is less than 65% funded or if other conditions are met).
- A plan is in endangered status ("yellow zone") if it is less than 80% funded or if it is projected to have a deficiency in its funding standard account in the next seven years. If both of those criteria are true, then the plan is in seriously endangered status ("orange zone"). However, due to a rule enacted in 2015, if a Plan is projected to not be in the Yellow Zone in 10 years, it is considered to not be in the Yellow Zone.

 A plan is in neither critical, critical and declining, nor endangered status (i.e., it is in the "green zone") if none of the above criteria are met.

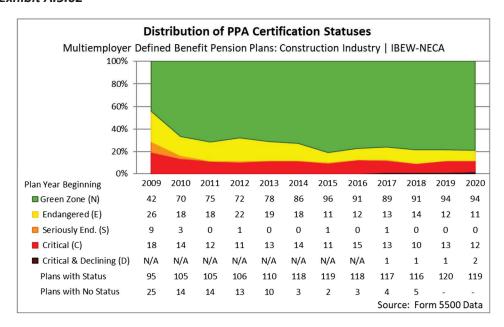
Exhibit A.5.02 summarizes the PPA certification statuses, as reported by each Electrical Worker plan on its Form 5500 filings for the 2010 through 2020 plan years.

Technical Note: Funding Standard Account

The funding standard account (FSA) is a notional account used to determine minimum required contributions under ERISA. To the extent that actual contributions exceed the requirements as determined by the FSA, the account will build up a credit balance. On the other hand, if contributions fall short of the FSA requirements, the credit balance will deteriorate. Once the credit balance is gone, there is a deficiency in the FSA. Most of the criteria for avoiding endangered status or critical status under PPA (as well as for developing funding improvement plans or rehabilitation plans) involve avoiding deficiencies in the FSA.

Data on PPA status was not available for the 2008 plan year (the first year for which PPA rules applied to multiemployer plans) as information from the Form 5500 Schedules MB was not recorded electronically.

Exhibit A.5.02







Of the plans that reported a PPA certification status for the 2009 plan year, 67% were in the green zone, 17% were in endangered status or seriously endangered status, and 16% were in critical status. The PPA certification statuses for the 2009 plan year came immediately after the 2008 investment losses, and before the vast majority of plans had begun to take action to improve their funded statuses. Therefore, these statuses represent where construction industry plans stood at (about) their lowest points.

Moving from 2009 to 2020, the percentage of Electrical Worker plans in the green zone increased from 44% to 79%.

The number of plans in the Green Zone has steadily increased from 2004 to 2020. This is partially due to investment returns being in excess of expectations during that period, and partially due to actions taken by trustees and bargaining parties, such as increasing contributions or adjusting benefits.

Comparison Against Other Plans

Electrical Worker plans generally have "better" PPA status than other construction industry plans. For example, in 2020, 79% of Electrical Worker plans were in the green zone, whereas 73% of construction industry plans were in the green zone.

Correcting Funding Shortfalls under PPA

If a plan is certified to be in endangered status, then under PPA, its trustees will be required to adopt a "funding improvement plan" designed to reduce the plan's underfunding by one-third over a ten-year period while also avoiding deficiencies in the funding standard account.

If a plan is certified to be in critical status (red zone), PPA requires its trustees to adopt a "rehabilitation plan" designed to enable the plan to emerge from critical status over a ten-year period. When the trustees of a plan are adopting either a funding improvement plan or a rehabilitation plan, they must consider both increases to employer contributions as well as reductions to participant benefits as measures to correct the funding shortfall over time.

Once the trustees have adopted either a funding improvement plan or a rehabilitation plan, the employers and the unions (the "bargaining parties") must select one of the "schedules" of contribution increases and/or benefit reductions set forth in the plan adopted by the trustees. If the bargaining parties do not reach an agreement on which schedule to choose within a certain amount of time, the so-called "default schedule" will be imposed upon them, which usually reduces benefits to the maximum extent allowed by law.

While plans in the Green Zone are generally not required to take action to improve funding, many boards of trustees and bargaining parties have taken action such as increasing contribution rates and adjusting benefits to protect against future volatility.

The American Rescue Plan Act of 2021 was recently passed and will provide support for troubled multiemployer pension plans. For the criteria to determine whether a plan qualifies for this financial assistance, please reference the Introduction and Overview section of this report.

At the time of this report there have been no applications for SFA filed by IBEW-NECA plans. Based on priority categories established by the Pension Benefit Guaranty Corporation, plans will become eligible to apply no later than March 11, 2023.



This section of the report analyzes annual plan costs and compares them to employer contributions. To the extent that employer contributions exceed the costs in a given plan year, the plan's funded status is expected to improve. To the extent that employer contributions fall short of plan costs, then the plan's funded status will deteriorate.

Annual Plan Costs

There are three key components when determining the annual "cost" of a pension plan:

- The cost of the benefit accruals, in other words, the benefits that will be earned by plan participants in the coming year.
- 2. The cost of operating the plan for the year.
- 3. The cost of paying down some portion of the plan's unfunded accrued liability, in other words, the shortfall between the plan's assets and its past service liabilities.

Of course, future plan experience – including and especially investment returns – is the most significant determinant of the plan's costs. For example, if investment returns are poor, then the cost of paying down some portion of the plan's unfunded accrued liability (the third cost component) will increase.

Under PPA, if trustees develop a Funding Improvement or Rehabilitation Plan, it is required to include "schedules" of increases in employer contribution rates and/or reductions in participant benefits. After the schedules are adopted by the trustees, employers and unions (the "bargaining parties") must select one of the schedules in collective bargaining.

Technical Note: Costs Per Active Participant

Plans often express employer contributions as dollars and cents per hour, and therefore, it often makes sense to express plan costs as dollars and cents per hour as well. However, the number of hours worked (or other base unit for employer contributions) is not reported on the Form 5500.

Moreover, it is difficult to choose a single hours-worked assumption that would be applicable to all Electrical Worker plans. Some plans have active participants who work 1,800 or 2,000 hours per year on average. Other plans (especially those in colder regions) might be seasonal and have average hours in the range of 1,000 to 1,200 per year.

For these reasons, costs and contributions will be examined on a *per active participant* basis rather than on an hourly basis.

The components of annual plan costs are reviewed on the following pages. For purposes of the comparison charts, we have rounded the cost items to the nearest \$100.



Cost of Benefit Accruals

The first component of the annual plan costs is the cost of benefit accruals for the coming year. Exhibit A.6.01 shows how the cost of benefit accruals has changed over the past fifteen years.

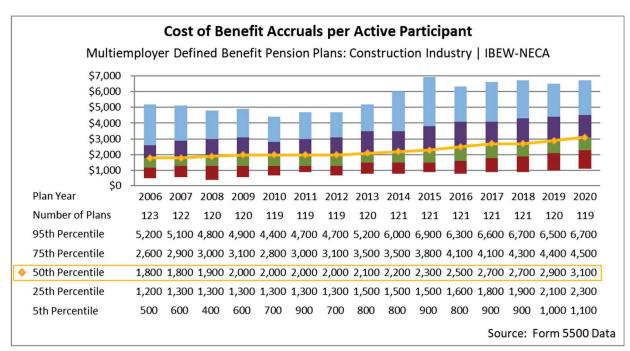
Technical Note: Normal Cost Data

The "normal cost" is reported on the Form 5500 Schedule MB. Generally, the normal cost is the cost of benefit accruals for the plan year plus assumed operating expenses. This analysis removes assumed operating expenses from the normal cost to focus solely on the cost of benefits being accrued each year.

Also note that many plans have changed their actuarial cost method over the past few years, which may cause some minor fluctuations in the data. The aggregate effect of method changes is minor. If the normal cost is unavailable for a given year, the average of the normal costs from prior and succeeding plan years was used. Note that all plans were missing normal cost data for plan years beginning in 2008.

In general, the cost of benefit accruals increased modestly over the past 15 years. For example, the median cost was \$1,803 for 2006, and it was \$3,087 for 2020, an annual increase of 3.9%.

The most significant increases occurred in 2017, 2019 and 2020. Possible reasons for the increase include accrual rate increases, an increase in the hours worked per active participant, aging active populations (because benefit accruals are more expensive for older participants), and changes to actuarial assumptions (such as lower interest rates or assuming that participants live longer).





Cost of Operating the Plan

Exhibit A.6.02 below shows the second component of plan costs – operating expenses paid over the past 15 years, on a per-active participant basis. Operating expenses include the cost of administration, fees paid to professionals (such as for attorneys, auditors, actuaries, and consultants), and insurance and PBGC premiums. They exclude investment fees.

As shown below, operating costs per active participant have risen over the past decade, from \$359 in 2006 to \$531 per active participant in 2020 for the median plan. This amounts to a 47.9% increase over the period, or an average increase of 2.8% per year.

At first glance, the rate at which operating expenses have increased over the past 15 years may seem high. However, it is important to note that the cost of operating a pension plan is not directly related to the number of *active* participants in the plan.

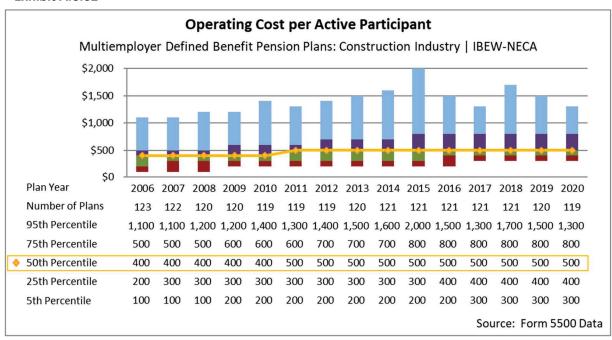
Rather, operating expenses are more closely related to the number of *total* participants, including those who are inactive or retired. There are still costs associated with participants after they stop working and are no longer active, such as maintaining their records, sending them notices, putting them into payment status, and paying the associated PBGC premiums.

When operating expenses are expressed on a perparticipant basis (including inactive and retired participants, not just active participants), the rate of increase is more modest (see Section A.VII). However, in this section, the costs of operating the plan are expressed on a per-active participant basis for consistency with the other cost components.

As shown in the discussion of demographics in Section A.II of the report, the ratio of active participants to inactive participants for most Electrical Worker plans has declined over the past fifteen years, so that there are fewer active participants across whom to spread operating expenses. At the same time the total number of participants has increased. The combined effect of these trends is a big reason why each active participant's share of the plan's total operating expenses has increased over the past 15 years.

About 25% of the increase in operating expenses over the last 15 years has been due to increases in the premium levels charged by the Pension Benefit Guaranty Corporation (PBGC). In 2006, the premium was \$8 per plan participant, or \$14.50 per active participant for the median plan with a 1.23:1 active to inactive participant ratio, as shown in Exhibit A.2.03. In 2020, the premium level was \$30 per participant, or \$64.48 per active participant, for the median plan with a 0.84:1 active to inactive participant ratio. This increase includes a doubling of the premium level in 2015 with passage of MPRA.

Exhibit A.6.02





Cost of Unfunded Liabilities

The third component of annual plan costs is paying a portion of the unfunded accrued liability, commonly called the "amortization payment."

The unfunded accrued liability is the amount by which the plan's asset value falls short of its actuarial accrued liability. In this analysis, the plan asset value is the market value of assets. (For annual status certifications, the actuarial value of assets would be used.) The actuarial accrued liability is the value of all benefits that are attributable to past service — service already earned as of the date the liability is measured.

Exhibit A.6.03 shows the cost of a 15-year amortization of unfunded accrued liabilities. In other words, these costs show what it would take for a plan to pay down its entire unfunded liability in equal installments (per active participant) over 15 years.

The median annual cost of the unfunded liabilities was \$2,100 per active participant in 2006. Favorable investment returns brought it down to \$1,500 per active participant at the beginning of 2008. The median annual cost skyrocketed following the investment losses of 2008 but has shown modest improvement following the investment gains since then. The median cost of unfunded liabilities was \$3,100 per active participant in 2020.

The median cost of the unfunded accrued liability for 2020 of \$3,100 is same as the median costs for benefit accruals of \$3,100 and higher than operating expenses of \$500, respectively.

Observation: Cost of Unfunded Liabilities

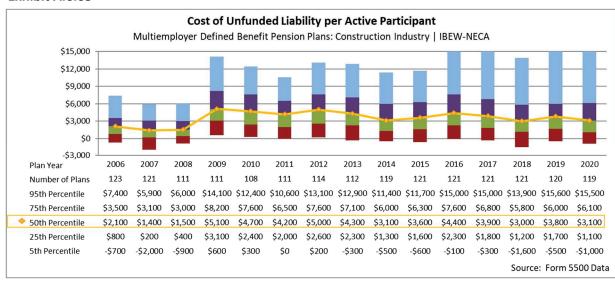
The annual cost of paying down unfunded past service liabilities dramatically increased following the market collapse of 2008. While there has been improvement in recent years, the unfunded liability costs for the highest cost plans are still around post-2008 levels, which illustrates the difficulty of overcoming significant funding shortfalls.

Technical Note: 15-Year Amortization Period

When determining a schedule over which to pay down a plan's unfunded accrued liabilities, many different payment (amortization) periods could be deemed appropriate.

In general, the more mature the plan, the shorter the amortization period should be. For example, a 10-year period might be appropriate for a very mature plan, and a 20-year period might be more appropriate for a younger plan that has a very high ratio of active participants to inactive participants. For simplicity, this analysis uses a 15-year amortization period.

Note that under PPA, changes in the unfunded liability are generally amortized over a period of 15 years. However, the net outstanding amortization period under PPA may be more or less than 15 years, depending on a number of factors.







Adjustable Benefits

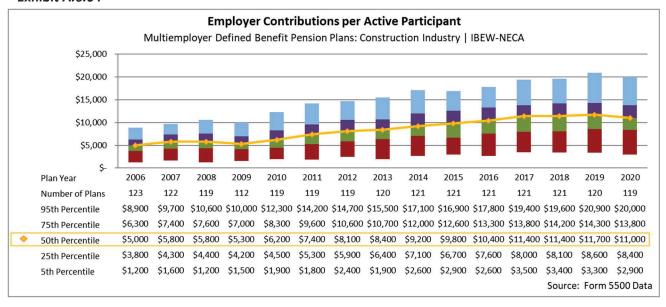
Prior to the passage of PPA, plans were prohibited from reducing benefits that participants had already accrued. When PPA became effective in 2008, it provided a rule that allowed plans in critical status to reduce or eliminate so-called "adjustable benefits" (such as early retirement benefits) as part of a rehabilitation plan. A participant's accrued benefit payable at his or her normal retirement date was still protected, as were benefits already being paid to retirees. Nevertheless, the ability to reduce adjustable benefits provided the trustees of plans in critical status with a meaningful tool that could be used in rehabilitating plan funding.

For reference, there were 34 plans in the Electrical industry that indicated that they were in critical status for at least one plan year from 2009 through 2020. Of those 34 plans, 21 of them (62%) indicated on their Form 5500 that adjustable benefits were reduced or eliminated as part of a rehabilitation plan.

Employer Contributions

While plan costs have stabilized somewhat in recent years as funding levels have improved, costs must still be covered by employer contributions. Exhibit A.6.04 below shows average employer contributions, per active participant, over the past decade. Average contributions per active participant increased significantly since 2009, with the largest increases occurring in 2009 to 2011. This is likely a result of plans requiring higher employer contribution rates. In some cases, the increase in contribution rates may have been offset by continued declines in work levels. In more recent years, recovering work levels may have contributed to increases in the average contribution amounts.

As you can see, the annual contribution per active participant increased from \$5,000 in 2006 to \$11,000 in 2020, an increase of 5.8% per year. This is significantly greater than the annual inflation over the period, which was 2.1% per year.



Contributions vs. Costs

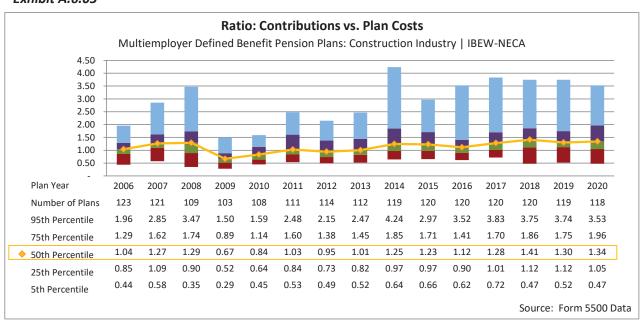
As described earlier, to the extent that employer contributions exceed the plan's annual costs, the plan's funding levels are generally expected to improve over time. If employer contributions do not cover annual costs, then the plan's funding levels are generally expected to detoriorate (or perhaps improve very slowly or remain flat) over time.

Exhibit A.6.05 shows the *ratio* of employer contributions to annual plan costs from 2006 through 2020. Ratios greater than 1.00 indicate that contributions exceed plan costs; ratios less than 1.00 indicate that costs exceed contributions. Recall that annual plan costs include the cost of benefit accruals, operating expenses, and a 15-year amortization of the unfunded accrued liability. A ratio of contributions to costs exceeding 1.00 implies that the plan will be projected to become 100% funded over a period of 15 years or shorter.

Focusing on the median results, the ratio of contributions to costs increased steadily through from 2006 to 2008. The improvement was driven by investment gains and corrective measures taken by plan trustees to improve plan funding levels. In 2008, the ratio of contributions to costs was 1.29.

Following the 2008 investment losses, however, the ratio of contributions to costs plummeted. For the median plan, the ratio fell to 0.67 in 2009. The investment gains during the period 2009 through 2012, coupled with many plans taking significant actions to improve plan funding, resulted in a sizeable decrease in contribution shortfalls after 2009. By 2011, the median ratio of contributions to plan costs had risen to 1.03, indicating that contributions were slightly higher than plan costs.

For 2014, the median ratio of contributions to plan costs had increased further to 1.25, due in large part to favorable investment returns in 2013. Increases in contributions and other corrective measures taken by plan trustees also would have played a role in the increase. The median ratio of contributions to plan costs increased from 2013 to 2020 and is now at 1.34, with contributions exceeding costs for more than 75% of plans.





Section A.VII: Plan Expenses

This section of the report takes a closer look at investment fees and operating expenses for Electrical Worker plans. The intent of this section is to provide plan trustees with a sense of how their plans' fees and expenses compare against other plans in the construction industry covering electrical workers.

Technical Note: Median and Average Results

The snapshot distribution graphs in this section show both median and average fees and expenses. However, as averages can be skewed by outliers, the commentary below focuses on median results.

Investment Fees

The majority of investment fees are paid to investment managers, usually as a percentage of assets. In general, more active or complicated investment strategies will have higher manager fees; passive or indexed strategies will have lower fees.

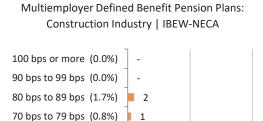
In most cases, investment fees will also include fees paid to consultants who advise plan trustees on investment decisions, as opposed to actually investing the money. Sometimes the Form 5500 preparer will classify investment consultant fees as professional fees, in which case they will count as operating expenses for purposes of this analysis.

Exhibit A.7.01 below shows historical investment fees, as a percent of plan assets, over the last 15 years. Investment fees as a percentage of assets have remained relatively level over the last 15 years, with slight decreases in recent years.

100 bps or more (0.0%) 90 bps to 99 bps (0.0%)

than 10 basis points.

Exhibit A.7.02



Investment Fees

Exhibit A.7.02 shows the distribution of investment

fees during the latest plan year. Median investment

fees were 33 basis points ("bps"), or 0.33% of assets. About 63% Electrical Worker plans have investment

fees between 20 and 49 basis points. Only about 3%

of plans paid investment fees of 70 basis points or

higher. Similarly, about 3% of plans paid fees less

60 bps to 69 bps (6.7%) 50 bps to 59 bps (10.1%) 40 bps to 49 bps (21.0%) 30 bps to 39 bps (14.3%) 17 20 bps to 29 bps (27.7%) 33 10 bps to 19 bps (14.3%) 17 0 bps to 9 bps (3.4%)

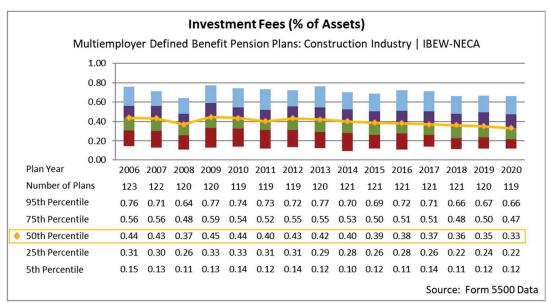
Median = 33 bps | Average = 36 bps

Not determinable

Total Plans: 119 Source: 2019-2020 Form 5500 data.

20

40







Section A.VII: Plan Expenses

Per-Participant Operating Expenses

Operating expenses include the cost of administering the plan, fees paid to professionals (such as attorneys, auditors, actuaries, and consultants), and insurance and PBGC premiums. They exclude investment fees.

Technical Note: Operating Expense Data

Operating expenses shown in this section are as reported on Schedule H of the Form 5500. Detailed information on fees and expenses by individual providers is reported on Schedule C. However, the survey does not contain sufficient data to perform a comprehensive analysis by type of provider (attorneys, actuaries, auditors, etc.). Instead, Exhibit A.707 reviews fees paid to professionals in total.

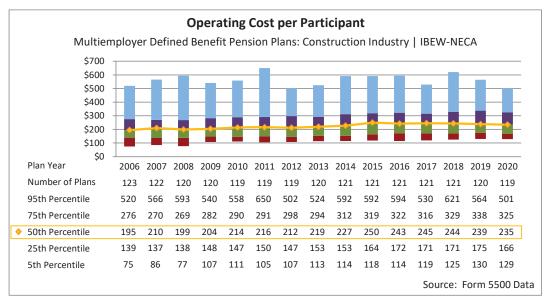
As shown in Exhibit A.7.03 below, when expressed as a per-participant cost, operating expenses have increased steadily over the period from 2006 through 2020. Median operating expenses increased from \$195 per participant to \$235 per participant over that period. That is a total increase of 21%, or 1.3% per year on average, about half of which is due to PBGC premium increases. Note that the increase in 2015 is largely due to a \$14 per capita increase in the PBGC premium rate, from \$12 to \$26.

Recall that, when expressed as a cost per active participant in Exhibit A.6.02, operating expenses appeared to be increasing at a much higher rate. As discussed in that section, it is more appropriate to express operating expenses on the basis of total participants rather than active participants only.

Exhibit A.7.04 shows the snapshot distribution of operating expenses per participant, based on the latest Form 5500 filings for all 119 plans in the survey. Exhibit A.7.05 (later in this section) shows operating expenses on the basis of total dollars paid.







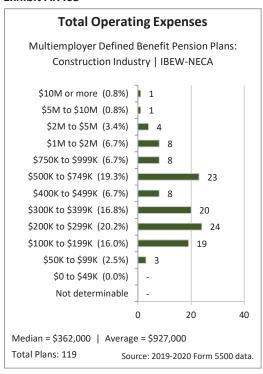


Section A.VII: Plan Expenses

Total Operating Expenses

In addition to reviewing operating expenses on a per participant basis, it may be useful for plan trustees to review operating expenses in total. The exhibits below are provided for reference.

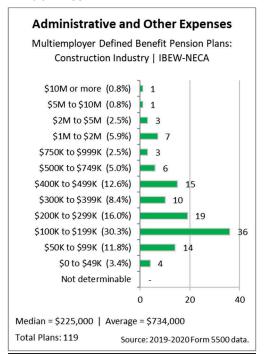
Exhibit A.7.05



Administrative and Other Expenses

As an additional reference, the following exhibits show administrative and other expenses, which include the cost of salaries for fund employees or third party administrator fees, PBGC and insurance premiums, and general administrative costs.

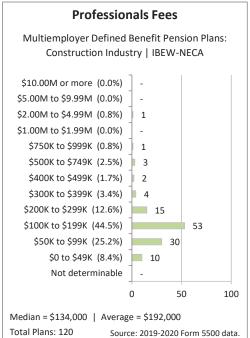
Exhibit A.7.06



Professionals Fees

As an additional reference, the following exhibits show professionals fees, which are the total fees paid to attorneys, auditors, actuaries, and consultants.

Exhibit A.7.07





Section B Defined Contribution Plans

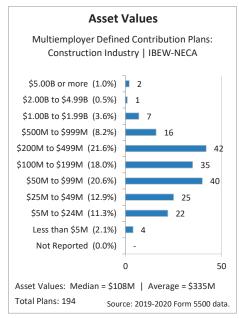
There are 194 defined contribution plans in the construction industry plans covering Electrical Workers that filed a Form 5500 in either of the last two plan years, ending on or about December 31, 2020. This section shows the distributions of those plans by asset value, number of participants, and number of employers. In total, these Electrical Worker plans have roughly \$65 billion in assets, and they cover about 682,000 participants and their beneficiaries.

Plans by Asset Value

Exhibit B.1.01 below shows the distribution of Electrical Worker plans by asset value. The assets are market values of assets as of the end of the latest plan year for which a Form 5500 was filed.

For example, for a calendar year plan, the latest Form 5500 was filed for the plan year beginning January 1, 2020, and the asset value would be as of December 31, 2020. For a plan year beginning on October 1, the latest Form 5500 was probably filed for the plan year beginning October 1, 2019, and so the asset value would be as of September 30, 2020.

Exhibit B.1.01



The 194 plans in the survey had a median asset value of \$108 million. The average asset value was \$335 million, skewed by large plans in the survey, in

particular the National Electrical Annuity Fund (NEAP). The NEAP is discussed in more detail later in this section.

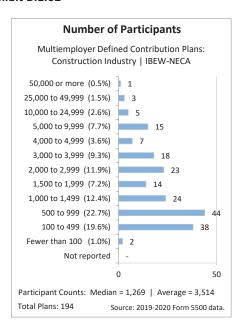
There were 26 plans with asset values of at least \$500 million. There were 10 plans with asset values of at least \$1 billion.

There were 77 plans with asset values of at least \$100 million but less than \$500 million. There were 91 plans with assets less than \$100 million, and no plans with assets less than \$5 million.

Plans by Number of Participants

Exhibit B.1.02 shows the distribution of plans by total number of participants as of the end of the latest plan year, usually on or about December 31, 2020. Participant counts include active participants, inactive participants with vested benefits, retired participants, and beneficiaries. See Section III for definitions of the different types of participants.

Exhibit B.1.02



The median number of participants and beneficiaries covered under Electrical Worker plans is 1,269. The average number of participants (again, skewed by the NEAP and other larger plans) is 3,514.

Over half of the plans, 108 in total, cover fewer than 1,500 participants. There were 9 plans covering at least 10,000 participants.

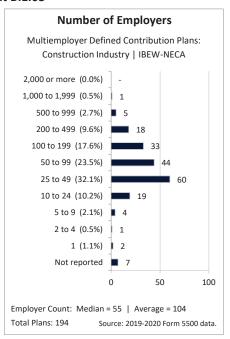




Plans by Number of Employers

Exhibit B.1.03 shows the distribution of construction industry plans by number of contributing employers.

Exhibit B.1.03



The median number of contributing employers in Electrical Worker plans was 55. The average (skewed by the NEAP and other larger plans) was 104.

About 70% of plans, 130 of 187 plans that reported it, had fewer than 100 contributing employers. There were 7 plans with fewer than 10 employers, and 2 plans had only 1 contributing employer.

Only one plan, the NEAP, had at least 1,000 contributing employers. The NEAP had 1,324 contributing employers.

Plans by Geographic Region

Exhibit B.1.04 shows the number of Electrical Worker plans by geographic region. In addition to the number of plans, this exhibit shows the aggregate asset values (in millions of dollars) and number of covered participants and beneficiaries.

Note that figures for the National Electrical Annuity Plan (NEAP) are shown separately.

Exhibit B.1.04

	Number of	Total	Number of
Region	Plans	Assets (\$M)	Participants
Eastern	67	\$23,121	213,226
Midwest	72	17,594	131,189
South	27	4,533	68,136
West	27	8,484	128,603
Subtotal	193	\$53,733	541,154
NEAP	1	11,345	140,650
GrandTotal	194	\$65,077	681,804

Technical Note: National Electrical Annuity Plan

The NEAP provides retirement benefits to Electrical Workers and their beneficiaries across the nation.

As shown above, the 193 plans other than the NEAP have total assets of about \$53.7 billion and cover about 541,000 participants and their beneficiaries. The NEAP itself has assets of roughly \$11.3 billion and covers 141,000 participants.

Unlike the NEBF, which provides defined benefits to almost all union electricians, even if they have defined benefits in other plans covering their local or region, it is less common for participants in the NEAP to also have benefits through a local DC Plan.

For reference, the following table shows the postal codes of the states (as well as the District of Columbia) included within each region.

Region	States Included
Eastern	CT, DC, DE, MA, MD, ME, NH, NJ, NY, PA, RI, VT, WV
Midwest	IA, IL, IN, KY, MI, MN, MO, ND, NE, OH, SD, WI
South	AL, AR, AZ, FL, GA, KS, LA, MS, NC, NM, OK, SC, TN, TX, VA
West	AK, CA, CO, HI, ID, MT, NV, OR, UT, WA, WY



Section B.II: Plan Demographics

For defined benefit plans, having favorable demographics is a key factor in the long-term sustainability. However, they are not as significant for defined contribution plans, which have no long-term fixed obligations.

In addition, DC plans typically pay participants their entire benefit entitlement under the plan as a single lump sum at retirement or upon permanent termination from covered employment. Once a participant's account balance has been distributed, the participant generally is no longer considered to be covered under the plan. Therefore, most multiemployer DC plans report very few (often zero) inactive participants on their Form 5500 filings.

According to the Form 5500 instructions, participants and beneficiaries receiving annuities purchased from a separate insurance company should not be reported as plan participants. For this reason, most plans report no retired participants or beneficiaries receiving benefits from the plan. However, a relatively small number of plans do report retired participants and beneficiaries. In some cases, these individuals may be receiving annuities payable for a fixed period of time rather than for the individual's lifetime.

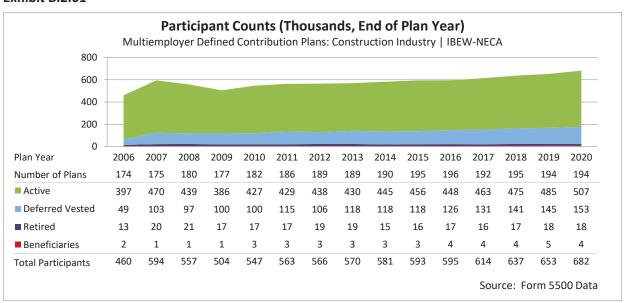
Types of Participants

"Active" participants are those individuals who were working enough, as of the end of the plan year, to earn service under their plan.

As noted previously, multiemployer DC plans generally cover *active participants*—those who are currently working in employment covered under the plan.

In some cases, participant counts for multiemployer DC plans may also cover *inactive participants*—those who are no longer working. In most cases, the inactive participants reported will be those with deferred vested benefits under the plan—in other words, those participants who have terminated covered employment but have not yet received their account balance from the plan.

Exhibit B.2.01





Section B.III: Plan Cash Flows

A plan's cash flows are very closely tied to its demographics. This section of the report provides an overview of cash flow trends for multiemployer DC plans in the electrical industry from 2006 through 2020.

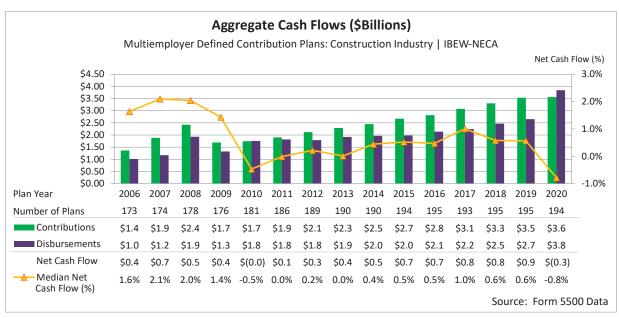
Note the large jump in disbursements in 2020, which is possibly due to participants retiring and cashing out account balances during the pandemic.

Types of Cash Flows

The following are definitions of the different types of cash flows shown in the exhibits in this section.

- Contributions include both contributions made by employees and contributions made by employers on behalf of the participants in the plan who are actively working. In most cases, this is the sole source of "cash in" for the plan.
- Benefit Payments are made by the plan are primarily the payments made to participants or their beneficiaries upon their retirement, termination from covered employment or death. This is the main source of disbursements, or "cash out" for the plan.
- Operating Expenses include the cost of administration and certain other fees. They exclude investment fees. Operating expenses are another source of "cash out" for the plan.

Exhibit B.3.01





Section B.III: Plan Cash Flows

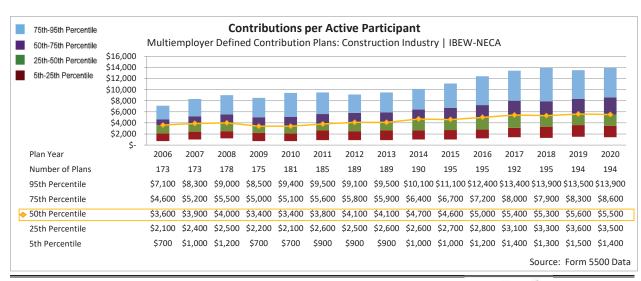
Contributions per Active Participant

Exhibit B.3.01 showed *total* contributions for all multiemployer DC plans. The following exhibits analyze *average* contributions for active participants in these plans. As with Exhibit B.3.01, the contribution figures shown in the following exhibits include both employer and participant contributions.

Exhibit B.3.02 shows the amounts of total contributions, per active participant, over the past 15 years. In nearly every year, contributions have increased over the prior year. A notable exception to that trend was a decrease in contributions per active participant from 2008 to 2009. That decrease could have been driven by a number of factors, including changes to wage packages stemming from the economic turmoil at the time. The median contribution per active participant increased from 2010 to 2011, remained relatively flat in 2012, and has increased since then, except for a slight decrease in 2020, possibly due to the impact of the pandemic.

The average contribution per active participant increased from \$3,600 in 2006 to \$5,500 in 2020, an increase of 3.1%. This is significantly more than inflation during the period, which was 2.0% per year, but less than the increase in contributions to defined benefit plans, which was 5.8% per year, as shown in Section A.VI.

Exhibit B.3.02



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Section B.IV: Investment Returns

So far, the 21st Century has been turbulent for the financial markets, which in turn made for challenging times for retirement plans. This section of the report analyzes the net investment returns for construction industry plans covering Electrical Workers over the fifteen-year period from 2006 to 2020. Asset returns are examined on a year-by-year basis, as well as annualized over the 15-year period.

Year-by-Year Returns

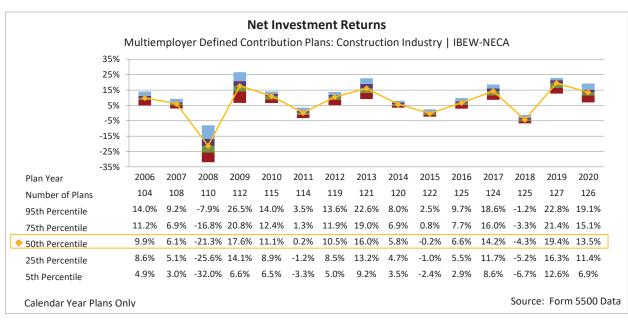
Exhibit B.4.01 shows net investment returns for Electrical Worker plans over the past 15 years, from January 1, 2006 through December 31, 2020. For consistency, exhibits in this section include only results for plans with calendar year plan years.

After the severe market crash of 2008, investment returns have rebounded strongly, with median returns of more than 10% in 7 of the 12 years in that period including 2017, 2019 and 2020.

It is important to note that all investment returns shown in this section are net of fees. It is also important to keep in mind that a plan's investment allocation is a key driver of its investment returns.

Note that some defined contribution plans allow participants to select the investments for their account balances, while others have investment decisions made by Plan trustees and investment professionals, similar to how defined benefit plans are invested. We are not able to determine which plans use which approach based on the available 5500 data, though participant directed and trustee directed portfolios may have significantly different investment experience.

Exhibit B.4.01







Section B.IV: Investment Returns

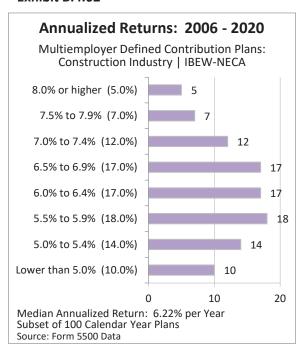
Annualized Returns

The previous exhibits showed net investment returns, year by year, for the 15-year period from January 1, 2006 through December 31, 2020. The following exhibits show *annualized* returns, which allows for better comparisons of investment performance for the entire 15-year period.

Technical Note: Methodology

Annualized investment returns are based on plans with calendar plan years only. Further, only plans for which complete Form 5500 data is available for all 15 years from 2006 through 2020 are included. There are 100 such plans in the survey, which are included in the following exhibits.

Exhibit B.4.02



As shown in Exhibit B.4.02, the median annualized return for the plans in the sample was 6.22% per year, with most results ranging from 5.0% to 8.0%. Note that, as shown in Section A of the report, the median 15-year annualized return for defined benefit plans was 6.38%, or 0.16% greater than for DC plans. While it is impossible to say with certainty why defined benefit plans average higher returns over time, possible reasons include the benefits of professional management, lower fees on larger asset balances, and defined benefit plans' greater access to alternative classes such as private equity. It is also possible that participants in defined contribution plans invest more conservatively than defined benefit plans, which could lead to lower returns over time.

Observation: Endpoint Sensitivity

As noted earlier, 15 years is too short a period from which to draw conclusions about investment policies. It is also important to keep in mind that the annualized returns analyzed here are very sensitive to the period endpoints. That is, shifting the 15 year period by a year could result in significantly different annualized returns.



Section B.V: Account Balances

This section of the report analyzes how average account balances in electrical industry DC plans have changed over the past 15 years.

Average Account Balances

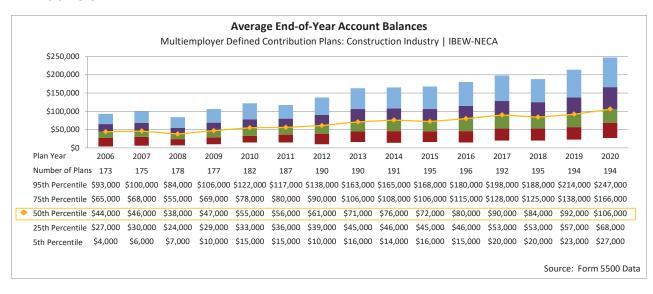
Ideally, this report would be able to analyze the amounts of account balances distributed to participants at retirement. Unfortunately, that information is not determinable from Form 5500 data. From the Form 5500 data, however, we can analyze the amounts of the average account balances for *all* participants in each DC multiemployer plan.

The averages shown in this section are for account balances not yet distributed. In other words, the balances are for participants who have just started working, are in the middle of their careers and are nearing retirement. The average balances also include inactive participants who have deferred receipt of their benefit and retired participants currently receiving benefits from the plan. It is important not to confuse the account balances shown in this section with what the average participant will receive at retirement.

As shown in Exhibit B.5.01, average account balances for multiemployer DC plans have increased significantly over the past 15 years, growing with contributions as well as investment returns. For example, the average account balance for the median plan (in other words, the *median average* account balance) increased from \$44,000 at the end of 2006 to \$106,000 at the end of 2020. Average account balances are measured as of the end of the plan year—in other words, on December 31 for plans with calendar year plan years.

Account balances dropped significantly from 2007 to 2008, likely because of the significant investment losses from 2008. Account balances have increased steadily after 2008, however, as financial markets rebounded. At the end of the 2020 plan year (on or about December 31, 2020), average account balances were significantly higher than their levels before the 2008 financial market collapse. The increases in the account balances since 2008 are likely driven by participant decisions not to draw down their account balances as well as positive investment performance. The small decline in account balances from 2017 to 2018 is attributable to investment losses at the end of 2018.

Exhibit B.5.01





Appendices: Plan Listings

Defined Benefit Plans

Attached is a listing of the defined benefit plans covering Electrical Workers in the construction industry that were included in the survey. Note that only the 120 plans that filed a Form 5500 for 2019 or later are included.

Plans are listed alphabetically by state (postal code) and then by city. The location shown is often for the administrator or other party that filed the Form 5500, and not necessarily for the plan itself.

Also note that national and regional plans are classified based on the addresses listed on their Form 5500 filings. For example, the National Electrical Benefit Fund (NEBF) is based in Maryland and is therefore listed under "MD."

This listing may be useful to employers who wish to learn more about the Electrical Worker plans in which they participate.

Much can be learned about a plan from its Form 5500, and the Department of Labor makes Form 5500 filings (for 2009 and later) available for public inspection on its EFAST2 website. To find a Form 5500 filing for a given plan, click on the link for "Form 5500 search" and then enter the plan's employer identification number (EIN) and plan number. The EIN and plan number for every plan in the survey are shown in the attached listing.

Employers may also use this listing and EFAST2 to gather information needed for the disclosure requirements required by the Financial Accounting Standards Board (FASB) regarding participation in multiemployer plans.

More information on the FASB requirements and how to comply with them – including a sample disclosure exhibit and frequently asked questions – can be found on the Horizon Actuarial website. The standard itself (Subtopic 715-80) can be found on the FASB website.

For reference, Exhibit A.09 to the right summarizes the plans in the listing by state. Total plan asset values and the total number of participants are also shown. The asset values and participant counts are as reported in each plan's latest Form 5500 filing.

Note that the total participant count (988,300) is not adjusted for double-coverage: those participants and beneficiaries covered under both a local or regional plan as well as the NEBF.

Exhibit A.09

Electrical Wor	ker Pla	ns by State	е	
State Name	Code	Number	Total Assets	Total
Alabama	AL	2	101.6	1.8
Alaska	AK	1	2,110.2	10.7
Arizona	AZ	4	555.5	8.5
Arkansas	AR	-	_	_
California	CA	12	4,518.1	43.9
Colorado	CO	-	· -	-
Connecticut	CT	6	431.5	6.4
Delaware	DE	1	205.4	1.4
District of Colum	DC	-	_	_
Florida	FL	2	223.5	3.2
Georgia	GA	-	-	_
Hawaii	HI	1	257.6	3.4
Idaho	ID	-	-	_
Illinois	IL	6	4,902.1	37.4
Indiana	IN	3	736.2	6.3
Iowa	IA	-	-	-
Kansas	KS	1	70.3	1.1
Kentecky	KY	_	-	-
Louisiana	LA	2	117.6	2.0
Maine	ME	-	-	-
Maryland*	MD	3	17,829.0	645.0
Massachusetts	MA	2	1,351.2	10.2
Michigan	MI	10	2,295.2	23.7
Minnesota	MN	3	736.4	9.3
Mississippi	MS	-	730.4	-
Missouri	MO	2	438.5	4.6
Montana	MT	_	436.3	4.0
Nebraska	NE	1	162.3	2.4
Nevada	NV	2	1,579.0	2.4
	NH	1	63.0	0.6
New Hampshire New Jersey	NJ	7		17.3
New Mexico	NM	,	2,358.7	-
New York	NY	18	6,386.0	64.5
North Carolina	NC	10	0,360.0	04.3
North Dakota		-	-	-
	ND	-	1 101 0	- 10.2
Ohio	OH OK	9	1,194.9	10.2
Oklahoma	• • • •	-	-	-
Oregon	OR	1	800.9	7.3
Pennsylvania	PA	8	977.4	10.8
Rhode Island	RI	-	-	-
South Carolina	SC	-	-	-
South Dakota	SD	-	-	-
Tennessee	TN	1	44.7	1.5
Texas	TX	5	398.5	10.0
Utah	UT	-	-	-
Vermont	VT	-	-	-
Virginia	VA	2	89.5	1.3
Washington	WA	2	1,347.7	12.0
West Virginia	WV	1	68.0	0.8
Wisconsin	WI	1	555.7	4.8
Wyoming	WY	-	-	-
TOTAL		120	52,906.2	987.1
*The NEBF is based i	n Marylar	nd.	Source: 2019-2020	Form 5500 Data





Appendices: Plan Listings

Defined Contribution Plans

Attached is a listing of the construction industry plans covering Electrical Workers that were included in the survey. Note that only the 195 plans that filed a Form 5500 for 2019 or later are included.

Plans are listed alphabetically by state (postal code) and then by city. The location shown is often for the administrator or other party that filed the Form 5500, and not necessarily for the plan itself.

Also note that national and regional plans are classified based on the addresses listed on their Form 5500 filings. For example, the National Electrical Annuity Plan (NEAP) is based in Maryland and is therefore listed under "MD."

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Employers may also use this listing and EFAST2 to gather information needed for the disclosure requirements required by the Financial Accounting Standards Board (FASB) regarding participation in multiemployer plans.

For reference, Exhibit B.09 to the right summarizes the plans in the listing by state. Total plan asset values and the total number of participants are also shown. The asset values and participant counts are as reported in each plan's latest Form 5500 filing.

Exhibit B.09

Electrical Wor	ker Pla	ns by State	e	
				Total
		Number	Total Assets	Participants
State Name	Code	of Plans	(\$Millions)	(Thousands)
Alabama	AL	-	-	-
Alaska	AK	1	207.0	4.3
Arizona	AZ	2	136.7	5.1
Arkansas	AR	-	-	-
California	CA	16	4,877.1	64.5
Colorado	CO	-	-	-
Connecticut	CT	6	964.0	10.6
Delaware	DE	1	179.8	1.4
District of Colum	DC	1	68.7	19.8
Florida	FL	5	351.4	5.0
Georgia	GA	2	701.0	7.3
Hawaii	HI	1	377.6	5.2
Idaho	ID	-	-	-
Illinois	IL	12	4,894.2	32.9
Indiana	IN	8	1,053.5	7.6
Iowa	IA	3	282.0	1.3
Kansas	KS	2	153.5	1.0
Kentecky	KY	1	452.4	3.4
Louisiana	LA	-	-	-
Maine	ME	2	108.6	1.1
Maryland*	MD	3	12,598.7	155.2
Massachusetts	MA	2	1,195.5	9.8
Michigan	MI	12	1,972.3	18.3
Minnesota	MN	10	3,439.2	24.5
Mississippi	MS	1	105.7	1.1
Missouri	MO	6	1,745.2	13.2
Montana	MT	-	-	-
Nebraska	NE	2	320.8	3.6
Nevada	NV	3	1,332.2	26.9
New Hampshire	NH	1	29.0	0.5
New Jersey	NJ	11	2,926.4	21.6
New Mexico	NM	2	277.9	5.7
New York	NY	20	12,352.3	106.2
North Carolina	NC	-	-	-
North Dakota	ND	1	474.4	3.8
Ohio	ОН	12	1,295.0	12.4
Oklahoma	OK	2	150.9	2.2
Oregon	OR	-	-	-
Pennsylvania	PA	14	3,398.0	23.7
Rhode Island	RI	-	-	-
South Carolina	SC	-	-	-
South Dakota	SD	-	-	-
Tennessee	TN	5	2,219.3	27.4
Texas	TX	5	393.5	12.9
Utah	UT	2	465.3	7.6
Vermont	VT	1	38.3	0.3
Virginia	VA	1	43.6	0.4
Washington	WA	4	1,225.2	20.1
West Virginia	WV	6	606.5	3.6
Wisconsin	WI	5	1,664.6	10.2
Wyoming	WY			
TOTAL		194	65,077.5	681.8
*The NEAP is based	in Marylan	ıd.	Source: 2019-2020	Form 5500 Data





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926005171 001	PENSION FUND LOCAL 96-IBEW	WALLINGFORD	SIAILE	2021-06-30	ASSETS (SW) F	AKIICIPANIS 804	PPA STATIOS E
	IBEW LOCAL NO. 236 PENSION PLAN	SCHENECTADY	ΥN	2021-06-30	345.5	2,110	z
646151461 001	143 IBEW BENEFIT FUNDS - PENSION FUND	HARRISBURG	PA	2020-12-31	75.3	886	z
860323980 001	ALASKA ELECTRICAL PENSION PLAN	ANCHORAGE	AK	2020-12-31	2,110.2	10,665	z
866089862 001	I.B.E.W. LOCAL 490 PENSION FUND	CONCORD	HN	2021-05-31	63.0	613	z
	IBEW LOCAL 573 PENSION PLAN	YOUNGSTOWN	НО	2020-12-31	48.4	455	N
866049763 001	I.B.E.W. LOCAL 38 PENSION PLAN	CLEVELAND	НО	2021-04-30	436.6	3,460	С
		STEUBENVILLE	НО	2021-05-31	51.7	402	Е
	INTERNATIONAL BROTHERHOOD OF ELECTRICAL WORKERS LOCAL UNION NO. 99 RETIREMENT PLAN	WALLINGFORD	CT	2021-05-31	8.06	1,379	z
	PENSION AND INSURANCE FUND OF LOCAL 1783 I.B.E.W.	ARMONK	λN	2020-12-31	22.2	881	O
	I.B.E.W. PACIFIC COAST PENSION FUND	SPOKANE	WA	2021-03-31	249.7	3,413	Ü
946279341 001	DEW LOCAL ZES PENSION PLAN I REW LOCAL ZES PENSION FLAN	WALLINGEORD	YM E	2020-12-51	1.04	1147	ی ر
	I.B.E.W. LOCAL ONION NO. 50 PENSION FUND N E.C.A., I.B.E.W. LOCAL INION NO. 35 PENSION FIND	WALLINGFORD	5 5	2020-12-31	94.4	1,147	Z
	SOUTHERN CT IBEW PENSION PLAN	WALLINGFORD	5 5	2020-12-31	53.0	1.055	: ш
	IBEW LOCAL 595 PENSION PLAN	PLEASANTON	S	2020-12-31	504.1	3,215	z
	NORTHERN CALIFORNIA ELECTRICAL WORKERS PENSION PLAN	SAN FRANCISCO	Ą	2020-12-31	642.7	3,574	z
942584061 001	PENSION, HOSPITALIZATION & BENEFIT PLAN OF THE ELEC IND-PENSION TRUST ACCT	FLUSHING	ΑN	2020-09-30	4,019.2	40,828	Z
946220673 001	LOCAL UNION NO. 1430 PENSION FUND	ARMONK	NY	2021-06-30	11.4	374	C
	CENTRAL CALIFORNIA IBEW-NECA PENSION TRUST FUND	SAN JOSE	CA	2021-06-30	140.4	1,155	N
	I. B. E. W. LOCAL 25 PENSION FUND	HAUPPAUGE	NY	2020-12-31	268.2	3,967	Z
066077020 001	ELECTRICAL WORKERS PENSION PLAN LOCAL 103 I.B.E.W.	BOSTON	MA	2020-10-31	1,305.1	9,491	Z
	LOCAL UNION 1710 IBEW PENSION TRUST FUND	WEST COVINA	R	2021-06-30	20.4	2,036	Z
	IBEW LOCAL 1249 PENSION PLAN	CICERO	À.	2020-12-31	410.7	4,217	z
066152969 001	LOCAL NO. 41 IBEW PENSION PLAN	ORCHARD PARK	λN	2021-04-30	259.0	1,347	z :
		WESTIRENION	2 2	2021-03-31	172.8	1,2,1	Z
160359878 001	INTERNATIONAL BROTHERHOUD OF ELECTRICAL WORKERS LOCAL UNION 98 PENSION PLAN	WANDDENNILLE	A =	2020-12-31	4/3.8	4,5/9	n n
	IBEW LOCAL VOLY FENSION FUND	CRYSTALLAKE	= =	2020-12-31	435,4	816	u Z
581254974 001	NETA LOCAL 145 IREW PENSION FIND	MOLINE	! =	2020-08-31	193.7	1513	: z
	IBEW LOCAL 325 PENSION FUND	BINGHAMTON	λN	2020-08-31	57.3	557	: ш
	LOCAL #241 OF THE INTERNATIONAL BROTHERHOOD OF ELECTRICAL WORKERS PENSION PLAN	ТНАСА	Ν	2021-05-31	24.3	224	z
366474808 001	I.B.E.W. LOCAL NO. 106 PENSION PLAN	JAMESTOWN	NY	2021-06-30	41.0	330	z
	IBEW LOCAL UNION 64 PENSION PLAN	AUSTINTOWN	ЮН	2020-12-31	35.0	554	Z
		MENTOR	НО	2020-12-31	88.1	255	C
366455509 001	INTERNATIONAL BROTHERHOOD OF ELECTRICAL WORKERS LOCAL UNION NO 226 OPEN END PENSION FUND	TOPEKA	SS ::	2020-12-31	70.3	1,091	0
	BEW LOCAL NO. 229 PENSION FUND	KOANOKE	AV .	2021-05-31	37.9	504	Z C
3511025/9 001	IBEW LOCAL ISO PENSION PLAN INDIANA EJ ECTRICAL WORKERS PENSION PLAN	LANSING	≅ ≥	2021-06-30	432.4	1,683	2 د
١.	INTERNATIONAL BROTHERHOOD OF ELECTRICAL WORKERS LOCAL UNION NO. 252 PENSION PLAN	ANN ARBOR	Ξ	2021-05-31	206.3	1,305	z
		WAUWATOSA	IW	2021-05-31	555.7	4,770	z
		WEST TRENTON	2	2020-12-31	474.5	3,693	z
720575303 001	JOINT PENSION FUND LOCAL UNION IBEW	ROSELAND	N	2020-12-31	526.2	4,468	Z
		MARQUETTE	MI	2020-12-31	76.2	619	z
	IBEW LOCAL NO. 82 PENSION PLAN	PITTSBURGH	PA	2021-06-30	135.4	1,539	z
526117919 001	LOCAL UNION ZIZ IBEW PENSION I RUST FUND I B F W. LOCAL 456 PENSION PLAN	WEST TRENTON	5 2	2020-12-31	287.6	1.513	zz
	IBEW LOCAL NO. 32 - NECA PENSION PLAN	LANSING	. ⊠	2020-12-31	33.3	439	z
	IBEW LOCAL 683 PENSION FUND PENSION PLAN	LANSING	IW	2020-12-31	253.5	2,807	z
	I.B.E.W. LOCAL UNION # 654 - DEFINED BENEFIT PENSION PLAN	MOUNT LAUREL	Ñ	2020-12-31	118.1	830	z
356269273 001	IBEW LOCAL NO. 86 PENSION FUND	ROCHESTER	NY	2021-03-31	264.1	1,670	z
	IBEW LOCAL 840 PENSION FUND	GENEVA	Ν	2020-12-31	26.2	237	z
386142222 001	IBEW LUCAL UNION NO. 237 PENSION PLAN	NIAGARA FALLS	Å Z	2020-12-31	16.2	429	2 Z
	IBEW LOCAL UNION NO 607 PENSION	CAMP HILL	PA	2020-12-31	18.5	283	z
	IBEW 648 PENSION PLAN	ONA	W	2021-02-28	68.0	751	В
416052631 001	I.B.E.W. LOCAL 81 DEFINED BENEFIT PENSION PLAN	SCRANTON	PA	2021-05-31	15.0	513	N
	ELECTRICIAN'S RETIREMENT FUND	HOLBROOK	NY	2020-12-31	152.8	2,682	Z
	IBEW LOCAL 688 PENSION PLAN	MANSFIELD	НО	2021-05-31	21.5	385	ш :
436142137 001	IBEW LOCAL 129 PENSION FUND PENSION PLAN DENGLOM BI MI GETTE INTERMATIONAL BENTLOMAL BENTLOMAL WOODERS LOCAL MO AMERICAN ELIMIN	LORAIN	НО	2021-04-30	115.8	651	z z
	PENSION PEAN OF THE INTERNATIONAL BNOTHERMOOD OF ELECTRICAL WORKERS LOCAL INC. 445 PENSION FOND FIFTRICAL WORKERS FOR NO 392 PENSION PIAN	MADIE GROVE	NS NS	2021-04-30	28.3	4 773	z z
	ELECTRICAL WORKERS PENSION FUND ELECTRICAL WORKERS PENSION FUND	DULUTH	MN	2020-12-31	90.0	1,220	: z
	ST. PAUL ELECTRICAL CONSTRUCTION PENSION PLAN	ST. PAUL	ZΣ	2020-03-30	261.5	3,308	: z
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221615726 0	PLAN PLAN NAME 001 I.B.E.W. LOCAL 910 PENSION FUND	WATERTOWN	STATE	2021-06-30	ASSEIS (\$M) PAI 66.5	RIIGIPANIS 691	PPA STATUS N
226031199 0	001 IBEW LOCAL 43 & ELECTRICAL CONTRACTORS PENSION FUND	SYRACUSE	Ν	2021-06-30	222.3	1,888	Z
		ERIE	PA	2021-04-30	9'69	524	z
		PHILADELPHIA	PA	2020-12-31	93.6	1,243	С
223417366 0	001 IBEW LOCAL 531 & NECA PENSION PLAN	LAPORTE	Z	2020-11-30	0.96	189	z
		WEST TRENTON	Z	2020-12-31	184.9	1,448	z
886023284 0	LOCAL UNION NO. 124 I. B. E. W. PENSION TRUST FUND	KANSAS CITY	MO	2020-08-31	261.2	3,656	z
		OMAHA	NE	2020-12-31	162.3	2,435	Z
		AUSTINTOWN	НО	2020-10-31	110.1	978	Z
		MADISON HEIGHTS	MI	2021-01-31	49.7	1,532	N
	001 MICHIGAN ELECTRICAL EMPLOYEES' PENSION PLAN	LANSING	MI	2020-12-31	467.8	4,960	N
		PITTSBURGH	PA	2020-12-31	96.3	1,090	Z
		LANSING	MI	2021-06-30	193.2	1,588	Z
	LOCAL 309 WIREMANS PENSION TRUST	EARTH CITY	MO	2021-06-30	177.3	910	Z
	3.1 ELECTRICAL WORKERS PENSION TRUST FUND OF LOCAL UNION NO. 58 - IBEW	MADISON HEIGHTS	MI	2020-12-31	734.3	8,301	Z
		DALLAS	XT	2020-12-31	75.5	2,383	N
		DECATUR	II.	2021-05-31	1,467.4	11,332	N
	001 NECA - IBEW LOCAL 584 PENSION PLAN	RICHARDSON	XT	12/31/20	36.2	813	N
		PEMBROKE PINES	FL	2020-12-31	66.4	1,349	N
		BEAUMONT	XT	2020-12-31	130.7	1,892	N
		HOUSTON	XT	2020-12-31	181.6	4,989	N
	IBEW LOCAL UNION NO. 527 PENSION PLAN	TEXAS CITY	XT	2020-12-31	10.8	692	С
141490934 0	001 ELECTRICAL CONTRACTORS ASSOC. OF THE CITY OF CHGO LOCAL UNION 134, IBEW JOINT PENSION TRUST OF CHGO PENSION PLAN #2	CHICAGO	IL	2021-06-30	2,328.3	19,162	N
		PHOENIX	AZ	2020-12-31	126.0	2,298	С
166149240 0	001 IBEW 332 PENSION PLAN - PART A	SAN JOSE	CA	2020-12-31	728.6	4,569	N
	I.B.E.W. LOCAL 139 PENSION PLAN	ELMIRA	ΝΥ	2021-06-30	46.2	428	N
		PHOENIX	AZ	2020-12-31	108.3	1,520	Z
	001 IBEW LOCAL SOS NECA PENSION PLAN	MOBILE	AL	2020-08-31	20.0	943	Z
		ROCKVILLE	MD	2020-12-31	16,772.5	630,397	Z
		HONOLULU	Ξ	2020-09-30	257.6	3,351	Z
	NEW ORLEANS ELECTRICAL PENSION FUND	GOODLETTSVILLE	ΝL	2020-12-31	44.7	1,493	Z
		PHOENIX	AZ	2020-12-31	175.8	3,394	Z
		SAN DIEGO	হ	2020-09-30	379.4	669'9	z
		BAKERSFIELD	5	2020-12-31	153.6	1,276	Z
	001 EDISON PLAN	PORTLAND	OR	2020-12-31	800.9	7,304	Z
		PHOENIX	AZ	2021-06-30	145.3	1,277	Z
	001 TIDEWATER ELECTRICAL INDUSTRY PENSION FUND	NORFOLK	۸۸	2020-12-31	51.6	787	z
		WILMINGTON	3 :	2020-12-31	205.4	1,426	z
		LAKE CHARLES	¥.	2020-12-31	51.9	671	ш
256149244 0	001 IBEW LOCAL UNION 363 PENSION	HARRIMAN	À S	2020-12-31	132.8	1,595	z :
		BALIIMORE	MID	2020-12-31	265.5	3,632	z ;
236399/3/ 0	UUI LUCAL UNION 903 PENDION PLAN	MOBILE	AL.	2020-11-30	51.6	8/9	z z
		TIMI EV DABY	= =	2020-12-31	7537	1,001	2 2
	ELECTRICAL WORKERS LOCAL NO 36 DENSION FIND	INTERIOR	MD	2020-10-31	7501.0	10 990	2 2
		JACKSONVILLE	4	2020-03-30	157.0	1,880	z
		BATON ROUGE	LA	2020-09-30	65.7	1,292	C
720219840 0	001 EIGHTH DISTRICT ELECTRICAL PENSION FUND	LAS VEGAS	N N	2021-03-31	1,090.7	18,954	z
		SEATTLE	WA	2021-05-31	1,098.0	8,564	z
741870479 0	001 I.B.E.W. LOCAL UNION NO 357 PENSION TRUST FUND, PLAN A	LAS VEGAS	N	2020-12-31	488.3	5,973	Z
746174676 0		PASADENA	Q	2021-06-30	1,444.3	17,753	Е
	001 IBEW LOCAL #952 VENTURA DIVISION OF LA COUNTY CHAPTER NECA PENSION TRUST FUND	FRESNO	S	2021-06-30	115.2	829	Е
		WALLINGFORD	CT	2021-05-31	65.3	1,131	Z
		FRESNO	5	2021-06-30	168.8	1,262	Z
		PLEASANTON	CA	2021-01-31	152.0	834	z
946128032 0	001 IBEW LOCAL 684 PENSION TRUST	PLEASANTON	8	2021-03-31	68.4	769	N

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EIN PLAN	PLAN NAVIE	CITY	STATE	PLAN YEAR END		PARTICIPANTS
926005171 001	IBEW LOCAL UNION 94 ANNUITY FUND	EAST WINDSOR	ΙN	2020-12-31	223.3	2,500
_	IBEW LOCAL 3G3-MONEY PURCHASE PENSION PLAN	HARRIMAN	Ň	2020-12-31	136.5	1,853
646151461 001	BEAUTO CALLS STAREY FLAN	WEST TRENTON	2 3	2020-12-31	223.4	2,779
860323980 001	CENTRAL CALIFORNIA BEWANNER PROFIT STARMS PLAN	SAN JOSE	5	2020-12-31	956.2	893
866089862 001	PROFIT SHARING & 401() RETREMENT PLAN LOCAL 567	LEWISTON	ME	2021-03-31	10.4	669
		HONOLULU	Ξ .	2020-09-30	0.996.0	3,15b
	THE INTERNATIONAL INVALIDATION OF ELECTRICAL WORKERS LOCAL / ANNOTHY PLAN	WALLINGFORD	J 2	2021-05-31	42.7	828
956123049 001	TOREN, DOCARD STORMAN IN THE CONTRACT OF THE C	WAIEKIUWN	AN N	2021-06-30	226.4	705
956392774 001	COCAL BOTH IN THE TOTAL TH	GENEVA	AN IN	2020-12-31	226.5	295
.	ELCAL UNIVERSITY AND ITEM TO THE TAIL OF T	WEST TRENTON	2 2	2021-03-31	732.3	1,490
	ELECTRICIAN IN PROPERTY - INC. 435	WEST TRENTON	2 5	2020-12-31	7777	1,999
	LUCAL NU. S BEW KE HIRWHEN PLAN &: NUSI	KUSSFUKU	H .	2020-12-31	34b.b	2,654
, l	IN TRANTIONAL BROTHERINGOD OF LECCIRICAL WORKERS LOCAL UNIONS SAVINGS & RE-IREMEN PLAN	IRVINGTON	À	2020-12-31	271.7	1,033
956101801 001	IBEW ICCAL UNION NO 102 SURETY PLAN	PARSIPPANY	S i	2020-12-31	222.3	3,747
	LE.E.W. LOCAL 673 PROFIT SHARING ANNUITY PLAN	MENTOR	HO :	2020-12-31	346.7	408
	THE ELECTRICIANS SALARY DEFERRANT FLAN OF LOCAL NO. 601, CHAMPARON-DROBANAS I REALON: FONTIAL DIVISION, ILLINOIS CHAPTER, NELA	CHAMPAIGN	=	2020-12-31	300.3	970
	BUILDING IRADES ANNUIT BENEFIT FUND	HOLBROOK	A S	2020-12-31	261.1	65/19
	IBEN DOLA I. I. PROFIL SPAN	PILISBURGH	A S	2020-12-31	251.3	1,130
	DEFINITION OF THE PRINCIPLE AND THE PRINCIPLE AN	MANSHELD	5 8	2021-02-31	34T.3	303
955828845 UUI	IDEN ULCAL CALE SADRICUL TANNING ANNUITY OF AN	LORAIN	5 2	2020-12-31	341.4	333
	ANNIHITY COLO COTTAL SILECTION OF THE STANDARD	HALIDDALIGE	AN AN	2020-12-31	116.0	2,007
	DEMINISTRATION OF THE PROPERTY	HOLTSAILE	N	2020-12-31	1131	2000
	IBBW TOCALLIAND TAS RETRIEF ON THE TOTAL OF	COLLEGEVILLE	ρΔ	2020-12-31	232.2	5 720
	IREM MELCON OF THE TRANSPORT OF THE TRAN	READING	Δq	2020-12-31	232.2	479
		ALIFNTOWN	Y d	2020-12-31	232.1	720
	IRVA INCAL 38 A011(I RETREMENTED TO THE TRANSPORT OF THE	CLEVELAND	HO	2020-12-31	341.6	2,265
	INFORM TO THE THE TABLE OF THE TRANSPORT	VOLINGSTOWN	H	2020-12-31	341.7	985
	IBEAT TO CHE OWN TO STANDED AND THE STANDARD TO STANDA	PITTSRIRGH	PΔ	2021-053	311.1	1 022
	IRVA INCALINION GERMAN OYERS PRISION PLAN	IAFAYETTE	Z	2021-05-31	311.3	529
	FIELD TO WORKER DEEPER INCOME AND IOCAL TO A LEW	BOSTON	MA	2020-11-30	42.5	9 315
ı,	CENTRAL TYPING OF A MANUAL TYPIN	ROSELAND	ī	2020-12-31	226.0	3 837
	INTERNATION FOR SECURE AND SECURE	PHII ADEI PHIA	P.A.	2020-12-31	232.3	4 609
		WEST TRENTON	: Z	2020-12-31	222.2	1,856
	THE RELATIONS AND ANNUAL VALUE BY ANNUAL VALUE	BEALINGONT	2 }	2020-12-31	202 8	1 537
366455509 001	IBDALITY COLOR IN SOLUTION FOR THE STATE OF	PITTSRIRGH	VI	2020-12-31 2021-06:30	310.3	156
	NATIONAL ELECTRICAL ANTICID AN	WASHINGTON	DC.	2020-12-31	263.4	19 834
	LOCAL NO. 41 IBEW ANNUITY FUND	ORCHARD PARK	Ν	2020-10-31	166.1	1,450
356068417 001	INT BROTHERHOOD OF ELECTRICAL WORKERS LOCAL 141 PROFIT SHARING PLAN	WHEELING	WV	2020-12-31	206.0	602
ı	IBEW LOCAL #972 PENSION PLAN AND TRUST	RENO	Ю	2020-12-31	311.0	722
	IBEW JOGAL #241 ANNUITY PLAN	ITHACA	Ν	2021-05-31	166.1	192
l	INTERNATIONAL BROTHERHOOD OF ELECTRICAL WORKERS LOCAL UNIONS SAVINGS & SECURITY PLAN	IRVINGTON	Νλ	2020-12-31	271.7	3,334
720575303 001		JAMESTOWN	ΝΥ	2020-10-31	166.1	192
046063734 001	IBEW LOCAL NO. 86 ANNUITY FUND	ROCHESTER	Ν	2021-03-31	166.2	1,300
042780301 005	WESTERN PENNSYLVANIA ELECTRICAL EMPLOYEES DEFERRED COMPENSATION PLAN	PITTSBURGH	PA	2020-12-31	251.4	3,241
	IBEW LOCAL UNION 306 401 (K) WAGE REDUCTION RETIREMENT FUND	AUSTINTOWN	НО	2020-12-31	311.5	1,289
_	SAN DIEGO ELECTRICAL ANNUITY PLAN	SAN DIEGO	CA	2020-12-31	336.2	1,912
	IBEW LOCAL 56 EMPLOYEES DEFERRED SAVINGS PLAN	ERIE	PA	2021-05-31	251.4	311
386323896 001		MOLINE	П	2021-03-31	363.7	1,235
	PASSAIC VALLEY SEWERAGE COMMISSION / I.B.E.W 1158 ANNUITY PLAN AND TRUST	NEWARK	Z	2020-12-31	220.9	636
_	LB.E.W. LOCAL 540 SECURITY PLAN	AUSTINTOWN	НО	2020-12-31	340.2	694
	IBEW ICCAL NO. 229 ANNUITY FUND	ROANOKE	× ₹	2021-05-31	251.6	399
386142222 001	REWOOD EMPIRE ELECTRICAL WORKERS INDIVIDUALLY ALLOCATED PENSION PLAN	SANIA KUSA	5	2020-12-31	946.2	1,016
	ERWINGAL MINISTER OF THE TRANSPORT OF TH	SCHENECIADY	A S	2021-06-30	518.1	2,005
	ELECTRICAL METALOGRAPHICAL AND	DULUIH	NIN S	2020-12-31	/43.1	797
	ON MAINTER DE WAYNER OF THE DE CONTRICTED ON THE	REDLANDS	5 5	2021-06-30 2020-13-31	4/1.1	2,007
416025631 001	SOUNDINGS SEEL NICHOLING SEEL NICHOL	SALTIAKECITY	5 ±	2020-12-31	346.2	667
, ,	BEW COLOL SHIP THE REPORT WAS THE WAS A WHITTEN THE WAS A WAS AN AREA OF THE WAS A W	BALTIMAGRE	io de	2021-03-31	404.4	2,304
	WINTERNATIONAL BECTHERHOOD OF BESTERAL WORKERS SCHEMEN INCREMENT BEINER BEINET BIND. WINTERNATIONAL BECTHERHOOD OF BESTERLA WORKERS SCHEMEN DISTRICT BEINET BIND.	AMARIIIO	JIM YT	2020-12-31	521.0 751.7	2,846
	INTERNAL SECURITY OF THE SECOND SECURITY OF THE SECOND SEC	ONA	× M	2020-12-31	516.1	1.097
	IBEW JOCAL UNION NO. 444 PENSION PLAN	OKLAHOMA CITY	ĕ	2021-05-31	736.2	54
	SOUTHERN CALIFORNIA BEW. HECK DEFINED CONTRIBUTION PLAN	PASADENA	5 5	2021-06-30	950.1	26.419
236538183 001	CONTRA COSTA COUNTY ELECTRICAL WORKERS RETREMENT PLAN & TRUST	MARTINEZ	8	2020-12-31	946.1	1,629
	IBEW LOCAL 595 MONEY PURCHASE PENSION PLAN	PLEASANTON	CA	2020-12-31	946.1	3,203
	IBEW LOCAL UNION NO. 22/NECA DEFINED CONTRIBUTION PENSION FUND, PLAN B	ОМАНА	NE	2020-12-31	476.1	3,087
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EIN PLAN	PLAN VAME	CITY	STATE	9	S (\$M) PARTICIPANTS
237301491 001	IBEW LOCAL 684 MONEY PURCHASE PENSION AND PROFIT SHARING PLAN	PLEASANTON	CA		946.4 67
	IBEW LOCAL NO. 32 NECA PROFIT SHARING ANNUITY PLAN	LANSING	≅	2021-05-31	621.1 53
	NEW ORLEANS ELECTRICAL ANNUITY PLAN	GOODLETTSVILLE	N.		721.4 1,47
	IBEW LOCAL UNION NO. SZY ANNUITY PLAN	TEXAS CITY	× :	2020-12-31	742.1 49
886023284 001	NECA-BEW MEMPHIS RETIREMENT PLAN	LANSING	W		621.3 2,21
	BEW LUCAL 308 PRINCE	AILANIA	89 =		586.1 81 841.6 E1
156035161 001	IBEW JCCAL 2014 ALTHOUGH IT FERNING PART FOR INTERNITION BLAN	PHOENIX	1L Δ7		21 Sept. 8 3 4 4
	DEW JOCAL IN OW 27 MEGA 901KM RETREBERING FOR AN AUGUST AND AUGUST AND AUGUST AND AUGUST AND AUGUST	WICHITA	. S		77 480.9
ı.	IBEW JOCAL NO. 661 RETIREMENT PIAN	HUTCHINSON	KS	2020-12-31	480.9 24
166075984 001	IBEW LOCAL 332 PENSION PLAN PART B	SAN JOSE	S		516.1 3,95
516041178 001	NEW MEXICO ELECTRICIANS RETIREMENT BENEFIT FUND	ALBUQUERQUE	ΣN		516.1 2,42
116038558 001	IBEW LOCAL 1245 MONEY PURCHASE PENSION PLAN	SAN RAMON	CA		946.6 4,90
	SACRAMENTO AREA ELECTRICAL WORKERS PENSION AND PROFIT SHARING PLAN	SAN JOSE	CA		942.8 2,37
166118689 001	IBEW LOCAL 968 PENSION FUND	PARKERSBURG	WV		516.1 41
166126150 001	BOARD OF ELECTRICAL WORKERS LOCAL #26 INDIVIDUAL ACCOUNT PLAN	LANHAM	MD		521.3 11,67
	ELECTRICIANS LOCAL UNION NO. 606 PENSION-ANNUITY FUND	FT LAUDERDALE	FL		591.9 71
	I.B.F.W. LOCAL UNION NO. 728 ANNUITY FUND	PEMBROKE PINES	FL		592.8 1,76
	THE SUPPLEMENTAL PENSION 401(K) PLAN TO IBEW LU 11	EDMOND	Ж		736.1 2,10
-	ANNUITY PLAN IBEW LOCAL 96	WALLINGFORD	b	2021-06-30	46.3 81
_	NECA-IBEW LOCAL UNION 1701 PENSION BENEFIT TRUST FUND	LANSING	Σ		610.5 44
-	EIGHTH DISTRICT ELECTRICAL PENSION FUND ANNUITY PLAN	LAS VEGAS	N		846.1 19,04
166149240 001	ELECTRICAL WORKERS LOCAL 369 RETREWENT FUND	LOUISVILLE	Κλ		611.0 3,37
	NECESSION AND PROBLEM AND PROB	JACKSUNVILLE	4		593.1 /3
316152294 001	DEFERRID SALARY PLAN OF THE LECTRICAL INDUSTRY	FLUSHING	NY	2020-12-31	112.7 33,50
316137380 001	IN THE PROPERTY OF THE PROPERT	GOUDLEITSVILLE	N 2		390.5 L,//
	1. B. E. WILDON AND AND AND EAST AND	MALINCLOBO	TU		55.5
	I EQUAL ON THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL ON THE TOTAL OF THE TOT	WALLINGFORD	I W		646.3
	SOUTH FRANCE EFFORMAT FILID	GOODLETTSVILLE	R N		626.1 21.31
346701406 001	IRVA INCREMENTATION OF A STAND SOLITHERN AZ CHAP MECA ANNIINITY PI AN	PHOFNIX	A7		866.1
	INTERNATIONAL RECTHERHOOD OF EFFIKIAL WORKERS (DCA I INKIDN #756 PENSION BIND	IACKSONVILLE			596.6
		ONA	AW.		621.1 52
	NECA-IBEW 177 PENSION FUND	JACKSONVILLE	13		1.31
346570323 001	IBEW LOCAL 325 ANNUITY FUND	BINGHAMTON	Ν		161.4 35
	IBEW IOCA, 223 DEFERED INCOME PLAN	TAUNTON	MA		46.6 49
	IBEW LOCAL UNION NO 237 ANNUITY FUND	NIAGARA FALLS	Ν		161.4
I.	ELECTRICAL WORKERS DEFINED CONTRIBUTION PLAN FOR N	RENO	N	2020-12-31	880.1
236537047 001	SAN FRANCISCO ELECTRICAL WORKERS RETIREMENT SAVINGS PLAN	SAN FRANCISCO	8		946.1 3,99
236399737 001	I.B.E.W. LOCAL UNION NO 357 PENSION TRUST FUND, PLAN B	LAS VEGAS	N		886.0 5,95
236423158 001	IBEW LOCAL 40 - NECA 401(K) PLAN	SAN DIEGO	CA		912.0 34
	I.B.E.W. LOCAL 1253 RETREMENT PLAN	NEWPORT	ME		16.0 42
231990722 001	112/73 RETIREMENT PLAN NECA-18EW	SPOKANE	WA		911.2 5,60
251297810 001	LOCAL 191 I.B.E.W. MONEY PURCHASE PLAN	BOTHELL	WA		911.2 4,24
	I.B.E.W. LOCAL #490 ANNUITY PLAN	CONCORD	¥		26.1 53
720219840 001	PUGET SOUND ELECTRICAL WORKERS 401(S) SAVINGS PLAN	SEATTLE	WA		916.2 7,74
745183757 001	REHIRVINDEN PLANCE HEBEN LOCK. A REHIRVINDEN PLANCE DAWN	SPUKANE	WA		916.2 2,52
	NECESARY CONTROL OF A SANITITY PLAN	WAITINGFORD	í Li	2021-05-31	52,4
	SOUTHERN CT IBEW ANNUITY PLAN	WALLINGFORD	CT		60.9
	NEW ENGLAND ELECTRICAL WORKERS MONEY PURCHASE PLAN AND TRUST	WALLINGFORD	CT	2020-12-31	61.0 7,06
١.	IBEW LOCAL 143 ANNUITY PLAN	HARRISBURG	ΡΑ		232.5 51
916180333 001	ANNUITY PLAN OF THE ELECTRICAL INDUSTRY	FLUSHING	NY		136.1 41,45
	IBEW LOCAL UNION NO. 812 ANNUITY PLAN	CAMP HILL	PA		232.6
	I.B.E.W. LOCAL 300 - UNIT 1 PENSION PILAN	SOUTH BURLINGTON	ΙΛ		30.3
	IBEW LOCAL NO. 607 ANNUITY FUND	CAMP HILL	PA		232.3 20
391291994 002	ELECTRICIANS ANNUITY FUND LOCAL 81	SCRANTON	PA	2021-05-31	236.5 56
	BEW LOCAL OF MODEL FUNDING TO A REAL OF THE STATE OF THE	LANSING	M S		362.9 88
391291994 002	I BEW LOCAL DIS RETIDEMENTS FLAW AND THOST I BEW LOCAL DIS RETIDEMENTS FLAW AND THOST	TOUNGSLOWIN	5 8		341.3 66
	MEDICAN, LOCAL INSURING EDISONAL TOUR WILLIAM MEDICAN LOCAL INSURING TOUR LOCAL IN	DITTORIDGE	5 8		356.0 A 99
391291994 002	I WESTERN TO EXCENDED FOR THE STATE OF THE S	MOUNTIAURE	£ 2		236.5 65
	ELECTRICAL WORKERS IBEW LOCAL 163 ANNUTTY FUND	WEST TRENTON	2		236.5 44
ı	INTL. BROTHERHOOD OF ELECTRICAL WORKERS LOCAL UNION NO. 1919 ANNUITY FUND	MT LAUREL	2		236.6 1,64
391291994 002	IBEW LOCAL 538 401(I) SALARY DEFERRAL & RETIREMENT PLAN	DANVILLE	11	2020-12-31	370.6 23
	NECA-IBEW LOCAL 176 PENSION TRUST FUND	JOLIET	=		363.0 2,67

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	PLAN NAME	CITY	STATE	Q.	ASSETS (\$M) PARTI	ICIPANTS
391291994 002	IBEW JOCAL NO. 71 RETERMENT DATE AND ARCHITECTURE OF THE SERVICE O	ANN ABBOD	XI W	2020-12-31	316.6	4,947
301201004 002	MECHANICAL SCANNING TO CONTROL OF THE WAY FOR THE SCANNING TO CONTROL OF TH	POCKEOPD	<u> </u>	2021-03-31	363.3	0477
	NECESTRATE OF THE PROPERTY OF	ALISTIMITOWN	1 70	2021-04-30	305.3	1 300
391291994 002	INCLUARION IN DISTRIBUTE PRESENTAL HUMAN THE PRESENTAL HUMAN THE PRESENTAL IN INCLUARION IN INCLUARION OF THE PRESENTAL HUMAN	FORT WAYNE	5 =	2020-12-31	346.7	1,289
	INTERNATIONAL DROTHER WORKER, EACH UNIVERSITY OF THE WORKER OF THE WORKE	VOVOIAO	A 3	2021-03-31	350.4	607
		MAPIFGROVE	NN	2020-10-31	4118	502 6 147
	I OCEA TIME OF THE POST TO THE TOTAL TO THE TOTAL TO THE TIME OF T	TINIFY PARK	=	2020-10-31	364.3	2,446
391291994 002		CEDAR RAPIDS	¥.	2020-12-31	421.5	832
ı	ELECTRICAL WORKERS LOCAL 242 401(s) PLAN	ригитн	MN	2020-12-31	412.0	481
391291994 002	WISCONSIN NECA-IBEW RETREMENT PLAN	MADISON	WI	2020-12-31	391.6	2,408
L	ELECTRICAL CONSTRUCTION INDUSTRY ANNUITY PLAN	WAUWATOSA	WI	2021-05-31	391.7	4,291
	ELECTRICAL WORKERS LOCAL NO. 294 401(ft) PLAN	ригитн	MN	2020-12-31	412.0	187
391291994 002	ST. PAUL ELECTRICAL CONSTRUCTION WORKERS SUPPLEMENTAL PENSION PLAN	ST. PAUL	MN	2020-09-30	416.0	3,580
	IBEW LOCAL 150 SUPPLEMENTAL PENSION FUND	LANSING	MI	2021-06-30	364.4	1,301
	I.B.E.W. LOCAL 8SS DEFINED CONTRIBUTION PENSION PLAN & TRUST	MUNCIE	2	2020-12-31	351.5	337
391291994 002	IBEW LOCAL 16, AFL-CIO & MULTI-EMPLOYER PENSION PLAN	GOODLETTSVILLE	NT	2020-12-31	351.5	2,065
	I.B.E.W. LOCAL UNION 481 DEFINED CONTRIBUTION PLAN	INDIANAPOLIS	N.	2021-06-30	351.5	2,796
	IBEW LOCAL 193 401(K) PLAN	SPRINGFIELD	2	2020-12-31	371.4	166
	IBEW & ELECTRICAL INDUSTRY LOC 697, MONEY PURCHASE PLAN	MERRILLVILLE	N.	2020-12-31	351.8	1,044
391291994 002	IBEW LOCAL 701 RETIREMENT SAVINGS FUND	WARRENVILLE	II.	2021-05-31	366.5	2,115
	INTERNATIONAL BROTHERHOOD OF ELECTRICAL WORKERS LOCAL NO 725 SUPPLEMENTAL PENSION TRUST	INDIANAPOLIS	N	2021-05-31	351.9	1,007
391291994 002	MICHIANA AREA ELECTRICAL WORKERS' MONEY PURCHASE PLAN	LANSING	MI	2020-12-31	351.9	1,163
	IBEW LOCAL UNION NO. 9 AND LINE CLEARANCE CONTRACT 401 (K) RETIREMENT FUND	LANSING	MI	2021-06-30	366.5	1,793
	I.B.E.W. LOCAL NO. 704 401K) PLAN	MOLINE	II.	2020-12-31	420.3	200
391291994 002	LOCAL 231 IBEW RETIREMENT PLAN	ОМАНА	NE	2021-01-31	421.1	509
	IBEW LOCAL 13 RETREMENT PLAN	ALTOONA	ΙΑ	2021-05-31	421.1	311
	INTERNATIONAL BROTHERHOOD OF ELECTRICAL WORKERS LOCAL UNION NO. 252 DEFINED CONTRIBUTION PLAN/401(K)PLAN	DEXTER	MI	2020-12-31	382.7	1
391291994 002	IBEW LOCAL NO. 58 ANNUITY FUND	MADISON HEIGHTS	MI	2020-12-31	382.7	5,426
	NECA-IBEW PENSION BENEFIT TRUST FUND	ST. LOUIS	MO	2021-01-31	436.2	3,977
391291994 002	CAROLINA ELECTRICAL WORKERS RETIREMENT FUND	SALT LAKE CITY	TO	2020-12-31	561.4	5,049
	IBEW LOCAL 288 RETREMENT AND 401K PLAN	WATERLOO	ΑI	2020-12-31	562.4	165
		ATLANTA	GA	2020-12-31	581.6	6,481
391291994 002	THE ELECTRICIANS SALARY DEFERRAL PLAN OF LOCAL 146 IBEW/MIDSTATE DIVISION, ILLINOIS CHAPTER, NECA	DECATUR	=	2020-12-31	370.4	491
391291994 002	IBEW LOCAL 531 & NECA MONEY PURCHASE PENSION PLAN	LAPORTE	≥	2021-07-31	356.1	568
	PENSION PLAN FOR THE LOCAL UNION NO. 131 INTERNATIONAL BROTHERHOOD OF ELECTRICAL WRKRS	LANSING	M	2020-12-31	386.2	775
	NECA LU NO 313 IBEW DEFERRED INCOME PLAN	WILMINGTON	DE	2020-12-31	510.3	1,365
	I.B.E.W. LOCAL 139 ANNUITY PLAN	ELMIRA	×	2021-06-30	516.0	375
	ELECTRICAL CONTRACTORS ASSOC. OF THE CITY OF CHGO UNION 134, IBEW JOINT PENSION TRUST OF CHGO PLAN S	CHICAGO	=	2021-06-30	516.0	21,290
391291994 002	SAN MATEO COUNTY ELECTRICAL CONSTRUCTION INDUSTRY RETIREMT PLAN	SAN JOSE	8	2020-12-31	516.1	2,061
	IBEW-NECA RETREMENT PLAN	ST. LOUIS	MO	2020-12-31	431.2	635
	I. B. E. W. LOCAL UNION NO. 124 ANNUITY PLAN	KANSAS CITY	MO:	2020-12-31	431.3	3,301
391291994 002	IBEW LOCAL 43 AND ELECTRICAL CONTRACTORS ANNUITY F	SYRACUSE	Ν	2021-06-30	516.1	1,684
	SOUTH CHRITACL MINNESOTA ELECTRICAL WORKERS RETIREMENT AND 401(K) PLAN	BLOOMINGTON	NN :	2021-06-30	411.4	1,483
	FIFT INTO STANKES INTO A BETTERMENT DE LAND FIFT INTO STANKES DET TEMBER TO BE AN	MADISON	NI IW	2020-12-31	390.4	1 437
391291994 002	GEREATURE AND STREET OF THE ST	GBEEN BAY	IWI	2020-12-31	390.9	912
	IRAN CAZA I UNION NO SOA ANNI ILIYO PI AN	AIBUOUFROUF	NZ.	2020-12-31	752.1	3.323
١.	GREATER TEXAS BEW NECA ANNUITY PLAN	RICHARDSON	×	2020-12-31	756.2	3.599
L	NATIONAL ELECTRICAL ANNUITY PIAN	ROCKVILLE	MD	2020-12-31	526.1	140,650
	ORANGE COUNTY IBEW-NECA ELECTRICAL WORKERS DEFINED CONTRIBUTION PENSION PLAN	SAN JOSE	S	2021-06-30	760.8	5,270
	ST. PAUL ELECTRICAL CONSTRUCTION WORKERS 401(K) PLAN	ST. PAUL	MN	2020-09-30	416.0	1,929
391291994 002	WESTERN WISCONSIN ELECTRICAL WORKERS RETIREMENT PLAN	FALL CREEK	WI	2020-12-31	391.8	1,188
	ELECTRICAL WORKERS PENSION FUND PART B	ригитн	MN	2020-12-31	416.1	847
391291994 002	ELECTRICAL WORKERS PENSION FUND PART C	ригитн	MN	2020-12-31	416.1	400
	I. B. E. W. LOCAL UNION NO. 124 401(t) PLAN	KANSAS CITY	MO	2020-12-31	431.3	2,912
	ELECTRICIANS' SALARY DEFERRAL PLAN OF LOCAL I, IBEW-ST. LOUIS CHAPTER NECA	ST. LOUIS	MO	2020-12-31	431.5	1,970
	LOCAL UNION NO. 4, IBEW PENSION PLAN	SAINT LOUIS	MO	2020-12-31	436.0	445
	IBEW LOCAL 596 PENSION FUND	ONA	W	2020-12-31	550.7	526
	IBEW IDCAL 466 PRISION PLAN	ONA	W E	2020-12-31	550.7	420
391291994 002	SHEVERORT ELECTRICAL MODIFIER YR ROHT SHARMING PL NAVOTRE CHARMING PRICE A SHARMING AND PRITED RETURN AND AND AND AND PRITED RETURN AND AND AND AND AND AND AND AND AND AN	GOODLETTSVILLE	N S	2021-03-31	721.1	124
391291994 002	DAKOTAS ARFAMIDE IBEW.NECA SAVINGS AND RE INEMEN I PLAN	FARGO	ΩN	2020-12-31	450.3	5,812