



**Bureau of Workers'
Compensation**

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To: **Legislative Service Commission**
Chair, Senate Transportation, Commerce and Workforce Committee
Chair, Senate Insurance and Financial Institutions Committee
Chair, House Insurance Committee

From: **Chan Cochran, Chair, Ohio Bureau of Workers' Compensation (BWC) Board of Directors**

Date: October 30, 2020

Re: **Required Actuarial Revised of Mortality Assumptions – ORC 4121.125**

Attached you will find the report that provides a summary of the recently completed actuarial investigation of the actuarial mortality assumptions as required under Ohio Revised Code 4121.125.

This report was prepared for BWC and the Board by the firm Oliver Wyman Actuarial Consulting, Inc.

Please feel free to contact our BWC staff if you have questions with respect to information contained in this executive summary report.

Mr. Christopher S. Carlson, FCAS, MAAA
Chief Actuarial Officer
Ohio Bureau of Workers' Compensation
30 W. Spring St.
Columbus, Ohio 43215-2256

July 7, 2020

Dear Mr. Carlson:

The Ohio Bureau of Workers' Compensation ("BWC") has engaged Oliver Wyman Actuarial Consulting, Inc. ("Oliver Wyman", "we", or "us") to assist with the development of mortality and termination rate experience studies and assumption tables, as well as annuity benefit factors related to its Permanent and Total Disability ("PTD") claims, Survivor Benefit claims and Orphan claims.

The accompanying report, and the work that underlies it, was performed in accordance with the Consulting Services Agreement between Oliver Wyman and BWC with an effective date of October 1, 2019.

This report was prepared for the sole use of BWC and Oliver Wyman and particular attention is drawn to the reliances and limitations contained in sections 1 and 8.

The report is considered a statement of actuarial opinion under the guidelines promulgated by the American Academy of Actuaries (the "Academy"). Guillaume Briere-Giroux is a member of the Academy and meets the Qualification Standards of the Academy to render the opinion contained herein.

Thank you for the opportunity to be of service to BWC. If you have any questions about this report, please do not hesitate to contact us.

Sincerely,



Guillaume Briere-Giroux, FSA, MAAA, CFA
Direct Dial: 860.723.5637



OHIO BUREAU OF WORKERS' COMPENSATION 2020 MORTALITY STUDY

07 July 2020

CONTENTS

1.	Introduction & Scope of Work	1
1.1.	Scope	1
1.2.	Reliances	1
2.	Executive Summary	3
3.	Analysis of Change	4
4.	Permanent and Total Disability (PTD)	8
4.1.	Introduction	8
4.2.	Data Analysis	8
4.3.	Methodology Updates	13
4.4.	Development of Final Mortality Rates	13
5.	Survivor Benefit	15
5.1.	Introduction	15
5.2.	Data Analysis	15
5.3.	Methodology Updates	17
5.4.	Development of Final Mortality and Remarriage Rates	17
6.	Orphan	19
6.1.	Introduction	19
6.2.	Data Analysis	19
6.3.	Methodology Updates	22
6.4.	Development of Final Termination Rates	22

7. Distribution and Use 23

8. Considerations and Limitations..... 24

9. Acknowledgement of Qualifications 25

Appendix A. Information Received..... 26

Appendix B. Comparison of 2015 and 2020 Mortality / Termination Rates 27

Appendix C. Comparison of 2015 and 2020 Gender Neutral Annuity Factors 32

Appendix D. 2020 Mortality / Termination Rates 46

Appendix E. 2020 Annuity Factors 54

1. INTRODUCTION & SCOPE OF WORK

1.1. Scope

The Ohio Bureau of Workers' Compensation ("BWC") provides workers' compensation insurance coverage to employers and employees in the state of Ohio. The coverage includes benefits for work-related injuries, occupational diseases ("OD") and survivor benefits.

BWC has asked Oliver Wyman Actuarial Consulting, Inc. ("Oliver Wyman", "we", or "us") to assist with the development of mortality and termination rate experience studies and assumption tables, as well as annuity benefit factors related to its Permanent and Total Disability ("PTD") claims, Survivor Benefit claims and Orphan claims. A description of the scope and deliverables for the various claim segments is provided below:

Table 1: Description of claim segment scope and deliverables

Group	Claim segment	Scope description	Deliverables
PTD	<ul style="list-style-type: none"> Public employers, regular accident type Private employers, regular accident type OD – Lung OD – Non-Lung 	<ul style="list-style-type: none"> Development of mortality rates and annuity factors for PTD claims payable to the injured worker 	<ul style="list-style-type: none"> 12 mortality and annuity factor tables Tables are produced for four PTD groups and three risk classes (male, female, gender neutral)
Survivor Benefit	<ul style="list-style-type: none"> Public employers Private employers 	<ul style="list-style-type: none"> Development of termination rates and annuity factors for Survivor Benefit claims payable to the surviving spouse and children 	<ul style="list-style-type: none"> Two termination and annuity factor tables (two Survivor Benefit groups, gender neutral only)
Orphan	<ul style="list-style-type: none"> Orphan claims (all employers) 	<ul style="list-style-type: none"> Development of termination rates and annuity factors for Survivor Benefit claims payable to the surviving "orphan(s)" 	<ul style="list-style-type: none"> One termination table and one annuity factor table (one Orphan group, gender neutral only)

Oliver Wyman performed the experience study ("2020 study") based on data available as of July 2019 ("2020 data"). Our work included reconciling the results of the 2020 study to the 2015 study.

1.2. Reliances

We have used data supplied by BWC in completing our analysis. While Oliver Wyman has not performed an independent technical review of this data, we have reviewed the data for overall reasonableness and consistency with our knowledge of the industry.

Information relied upon includes but is not limited to:

- PTD claim data file as of July 31st, 2019

- PTD Gender mapping file as of January 8th, 2020
- Survivor Benefit claim data file as of July 31st, 2019
- Verbal and written communications / clarifications on BWC's data

A list of the source files provided by BWC, and used in our analysis, can be found in Appendix A.

2. EXECUTIVE SUMMARY

Mortality rates and termination rates informed by the experience study and the subsequent assumption setting ultimately feed into annuity factors that are applied to benefit claims to estimate claim liabilities.

The table below compares the average annuity factors from the 2015 study to the annuity factors from the 2020 study (both weighted using the 2020 study population as of July 31st 2019).

Table 2: Average annuity factor changes for PTD, Survivor Benefit and Orphan

Category	Mortality study year	Average annuity factor (annual)	Change from 2015 study to 2020 study	Change from 2015 study to 2020 study (%)
PTD Private Regular	2015	9.09		
	2020	8.97	- 0.12	- 1.3%
PTD Public Regular	2015	9.28		
	2020	9.13	- 0.15	- 1.6%
PTD OD Lung	2015	5.79		
	2020	5.71	- 0.08	- 1.4%
PTD OD Non-Lung	2015	8.57		
	2020	8.50	- 0.07	- 0.8%
Survivor Benefit Private	2015	10.14		
	2020	10.28	+ 0.14	+ 1.4%
Survivor Benefit Public	2015	9.55		
	2020	9.66	+ 0.11	+ 1.2%
Orphan	2015	6.10		
	2020	6.07	- 0.03	- 0.5%

For PTD groups, annuity factors for a given attained age have generally decreased. Data updates resulting from the transition to a new BWC claim processing system and improvements to the calculation of exposures to account for fractional years have increased mortality rates and decreased annuity factors. There is no visible sign of realized mortality improvement between the 2015 study and the 2020 study which is anecdotally consistent with broader population trends in recent years.

For the Survivor Benefit groups, data updates from the claim processing system transition increased the annuity factors by 1.4% (private group) and 1.2% (public group).

For Orphan, annuity factors for a given age are largely unchanged.

More detail on the drivers of the change in annuity factors is provided in Section 3.

3. ANALYSIS OF CHANGE

Table 3 below shows the analysis of change for PTD annuity factors. The annuity factors bolded correspond to the beginning and end points previously shown in Table 2.

Table 3: Analysis of change for PTD

Category	Step	Average annuity factor (annual)	Change from prior step	Change from prior step (%)
Private Regular	2015 annuity factors (2015 study)	9.36		
	Replication of 2015 study	9.36	+ 0.00	+ 0.0%
	Update age distribution to 2020 study	9.09	- 0.27	- 2.9%
	Exposure methodology update	9.04	- 0.05	- 0.5%
	Update data (2020 data excluding 2015-2019)	8.97	- 0.07	- 0.7%
	Incorporate new data	8.97	+ 0.00	+ 0.0%
Public Regular	2015 annuity factors (2015 study)	9.09		
	Replication of 2015 study	9.09	+ 0.00	+ 0.0%
	Update age distribution to 2020 study	9.28	+ 0.19	+ 2.1%
	Exposure methodology update	9.21	- 0.07	- 0.7%
	Update data (2020 data excluding 2015-2019)	9.14	- 0.07	- 0.8%
	Incorporate new data	9.13	- 0.01	- 0.1%
OD Lung	2015 annuity factors (2015 study)	5.76		
	Replication of 2015 study	5.76	+ 0.00	+ 0.0%
	Update age distribution to 2020 study	5.79	+ 0.03	+ 0.5%
	Exposure methodology update	5.78	- 0.01	- 0.2%
	Update data (2020 data excluding 2015-2019)	5.60	- 0.18	- 3.1%
	Incorporate new data	5.71	+ 0.11	+ 1.9%
OD Non-Lung	2015 annuity factors (2015 study)	9.41		
	Replication of 2015 study	9.41	+ 0.00	+ 0.0%
	Update age distribution to 2020 study	8.57	- 0.84	- 8.9%
	Exposure methodology update	8.50	- 0.07	- 0.8%
	Update data (2020 data excluding 2015-2019)	8.48	- 0.02	- 0.3%
	Incorporate new data	8.50	+ 0.02	+ 0.2%

Note: Mortality improvement between the 2015 study and the 2020 study was not realized and is not shown as a separate attribution step

The rationale for the steps above and their impact is described below:

- **2015 annuity factors (2015 study):** As a starting point, we computed an average annuity factor for each of the four PTD groups using 2015 annuity factors with age weights from the March 2010 population (to tie out to information shown in 2015 report).
- **Replication of 2015 study:** For validation and analysis of change purposes, we replicated the 2015 study results using the same PTD claim population and same methodologies described in the 2015 mortality study report. The replication reproduced the prior results for Private Regular, Public Regular, OD Lung and OD Non-Lung.
- **Update age distribution to 2020:** To set a baseline for the average annuity factor calculation, the age weights are updated to the July 2019 population.
- **Exposure methodology update:** The exposure calculation is refined to account for fractional exposures in claim start year and termination year. As a result, the mortality rates slightly increased for each group, lowering annuity factors.
- **Update data (2020 data excluding 2015-2019):** Using the 2020 data, the annuity factors are recalculated to reflect potential data changes. Small decreases are seen by Private Regular, Public Regular, and OD Non-Lung. OD Lung experienced a larger decrease that can be attributed to the volatility of the small block.
- **Incorporate new data:** Mortality tables and annuity factors were calibrated to the new PTD data provided by BWC as of July 31st, 2019 applying the same methodologies as described above. The impact of this step varied by group and are generally small in magnitude. The bigger increase for OD Lung is due to low recent mortality (37 deaths between 2015 and 2019).

Table 4 below shows the analysis of change for Survivor Benefit annuity factors. The annuity factors bolded correspond to the beginning and end points previously shown in Table 2.

Table 4: Analysis of change for Survivor Benefit

Category	Step	Average annuity factor (annual)	Change from prior step	Change from prior step (%)
Survivor Benefit Private	2015 annuity factors (2015 study)	10.76		
	Replication of 2015 study	10.76	+ 0.00	+ 0.0%
	Update age distribution to 2020 study	10.14	- 0.62	- 5.8%
	Exposure methodology update	10.16	+ 0.03	+ 0.3%
	Update data (2020 data excluding 2015-2019)	10.31	+ 0.14	+ 1.4%
	Incorporate new data	10.28	- 0.02	- 0.2%
Survivor Benefit Public	2015 annuity factors (2015 study)	10.00		
	Replication of 2015 study	10.00	+ 0.00	+ 0.0%
	Update age distribution to 2020 study	9.55	- 0.45	- 4.5%
	Exposure methodology update	9.57	+ 0.03	+ 0.3%
	Update data (2020 data excluding 2015-2019)	9.70	+ 0.13	+ 1.3%
	Incorporate new data	9.66	- 0.05	- 0.5%

The rationale and impact for the steps above is described below:

- **2015 annuity factors (2015 study):** As a starting point, we computed an average annuity factor for each of the two Survivor Benefit groups using 2015 annuity factors and age weights from the March 2010 population (to tie out to information shown in 2015 report).
- **Replication of 2015 study:** For validation and analysis of change purposes, we replicated the 2015 study results using the same Survivor Benefit claim population and same methodologies described in the 2015 mortality study report. The replication closely reproduced the prior results.
- **Update age distribution to 2020:** To set a baseline for the average annuity factor calculation, the age weights are updated to the July 2019 population.
- **Exposure methodology update:** The exposure calculation is refined to account for fractional exposures in claim start year and termination year. The resulting impact is minimal.
- **Update data (2020 data excluding 2015-2019):** Using the 2020 data, the annuity factors are recalculated to reflect potential data changes. Small increases are seen by Survivor Benefit Private and Survivor Benefit Public.
- **Incorporate new data:** Mortality tables and annuity factors were calibrated to new Survivor Benefit data provided by BWC as of July 31th, 2019 applying the same methodologies as described above. In addition to providing new experience data from 2015 to 2019, BWC added some backdated claims which increased the resulting decrement rates and thus lowered the annuity factors.

Table 5 below shows the analysis of change for Orphan annuity factors. The annuity factors bolded correspond to the beginning and end points previously shown in Table 2.

Table 5: Analysis of change for Orphan factors

Category	Step	Average annuity factor (annual)	Change from prior step	Change from prior step (%)
Orphan	2015 annuity factors (2015 study)	3.84		
	Replication of 2015 study	3.84	+ 0.00	+ 0.0%
	Update age distribution to 2020 study	6.10	+ 2.26	+ 58.9%
	Exposure methodology update	6.09	- 0.01	- 0.2%
	Update data (2020 data excluding 2015-2019)	6.09	- 0.01	- 0.1%
	Incorporate new data	6.07	- 0.02	- 0.3%

The rationale and impact for the steps above is described below:

- **2015 annuity factors (2015 method):** As a starting point, we computed an average annuity factor for the Orphan group using 2015 annuity factors with age weights from the March 2010 population (attained age 25 and below).

- **Replication of 2015 study:** For validation and analysis of change purposes, we replicated the 2015 study results using the same Orphan claim population and same methodologies described in the 2015 mortality study report. The replication closely reproduced the prior results.
- **Update age distribution to 2020:** To set a baseline for the average annuity factor calculation, the age weights are update to the July 2019 population.
- **Exposure methodology update:** The exposure calculation is refined to account for fractional exposures in claim start year and termination year. The resulting impact is a small decrease in annuity factors.
- **Update data (2020 data excluding 2015-2019):** Using the 2020 data, the annuity factors are recalculated to reflect potential data changes. The annuity factors decreased slightly.
- **Incorporate new data:** Decrement rates and annuity factors were recalibrated to the new orphan data provided by BWC as of July 31st, 2019, applying the same methodologies as described above. In addition to providing new experience data from 2015 to 2019, BWC added backdated claims which increased the resulting decrement rates and thus decreased the annuity factors.

Additional support and rationale for the PTD, Survivor Benefit and Orphan methodology is provided in the remainder of this report.

4. PERMANENT AND TOTAL DISABILITY (PTD)

4.1. Introduction

BWC provides PTD compensation to injured workers with permanent and total impairment of earning capacity. PTD claims are grouped into four categories according to their accident types (e.g. regular accident, occupational disease) and employer sectors (e.g. private, public).

- **Private Regular Group:** The largest group in PTD sector. Claimants are injured by work-related regular accident(s), and the employers are in the private sector.
- **Public Regular Group:** The second largest group in PTD sector. Claimants are injured by work-related regular accident(s), and the employers are in the public sector.
- **Occupational Disease Lung:** Claimants have an occupational disease related to lung conditions. Employers are in either the private or public sectors.
- **Occupational Disease Non-Lung:** Claimants have an occupational disease unrelated to lung conditions. Employers are in either the private or public sectors.

4.2. Data Analysis

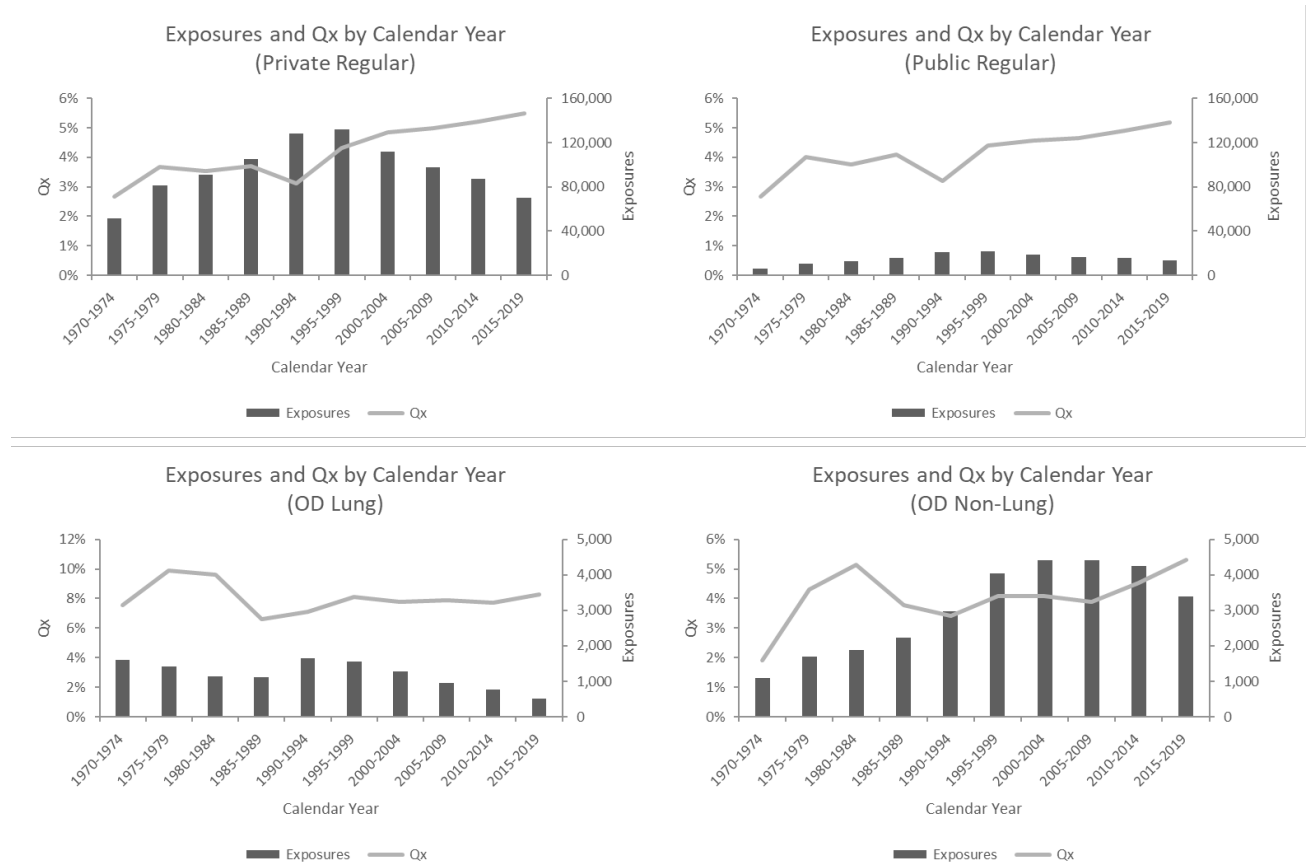
Overview

The purpose of the data analysis is to detect patterns that might be useful for the experience study, and to confirm the overall reasonableness of the data.

Experience by calendar year

The figure below shows exposures (columns) and mortality rates, or “Qx”, (line) by calendar year for the four PTD groups.

Figure 1: Distribution of exposures and actual Qx by calendar year for PTD



In the charts above, the columns show exposures in “number of claims times years”, or “claim years”. For instance, there are approximately 70,000 claims years in the 2015-2019 period for Private Regular (five years of exposure). This signifies that on average there were approximately 14,000 (70,000 divided by five) active Private Regular claims during the period.

The line represents the annual death rate and is calculated as the number of deaths over the five-year period (e.g., 3,900 deaths for Private Regular in 2015-2019) divided by the exposure (70,000 claim years in 2015-2019) to produce an annual death rate of approximately 6%.

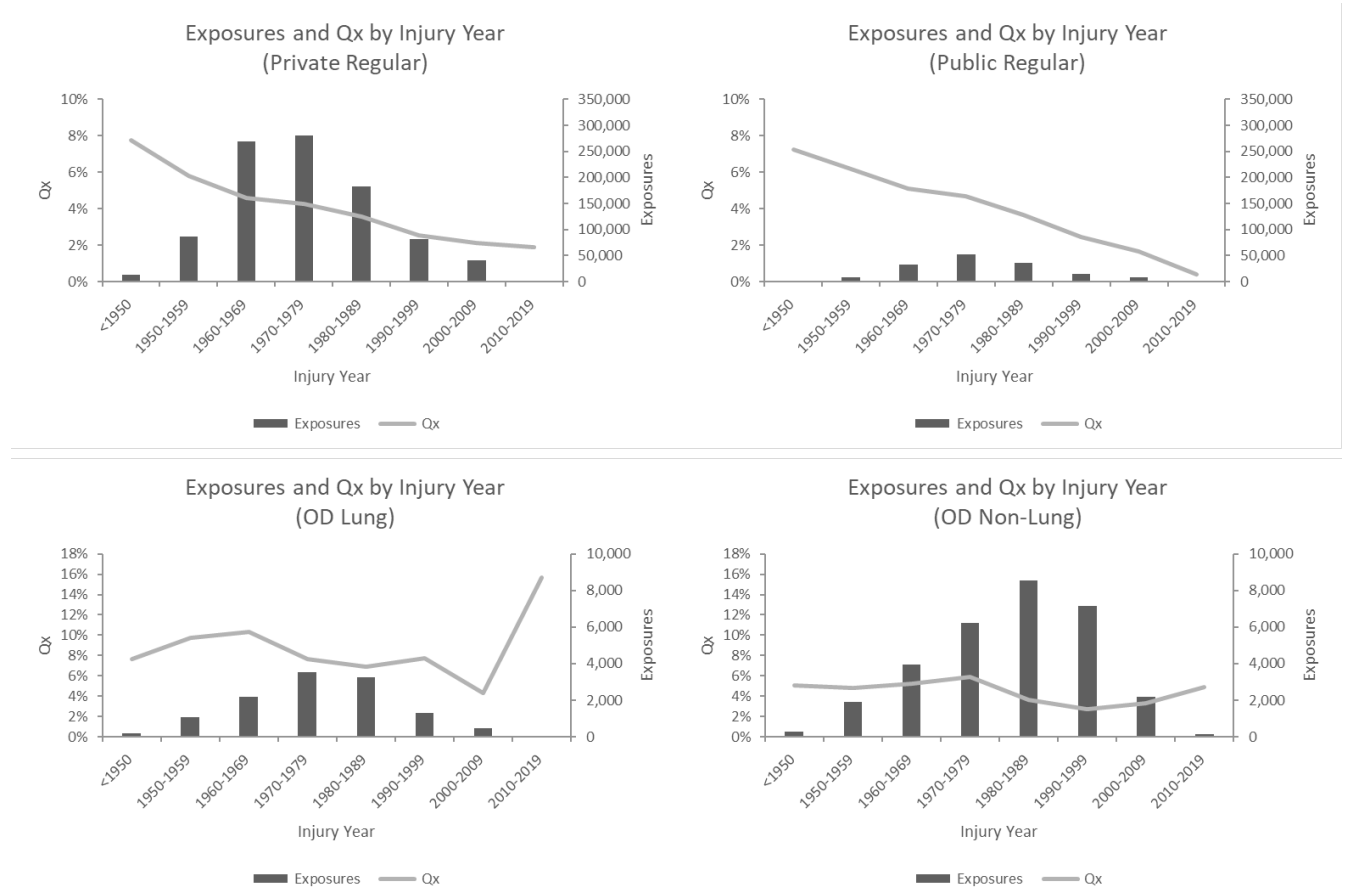
The two regular accident groups (private and public) have much greater exposures than the OD groups (Lung and Non-Lung), and are more credible. OD Lung group has the highest mortality rates across all groups, and has been consistent over time.

Overall, the patterns of exposures and mortality rates appear reasonable.

Experience by injury year

The figure below shows exposures (columns) and mortality rates (line) by injury year for the four PTD groups.

Figure 2: Distribution of exposures and actual Qx by injury year for PTD



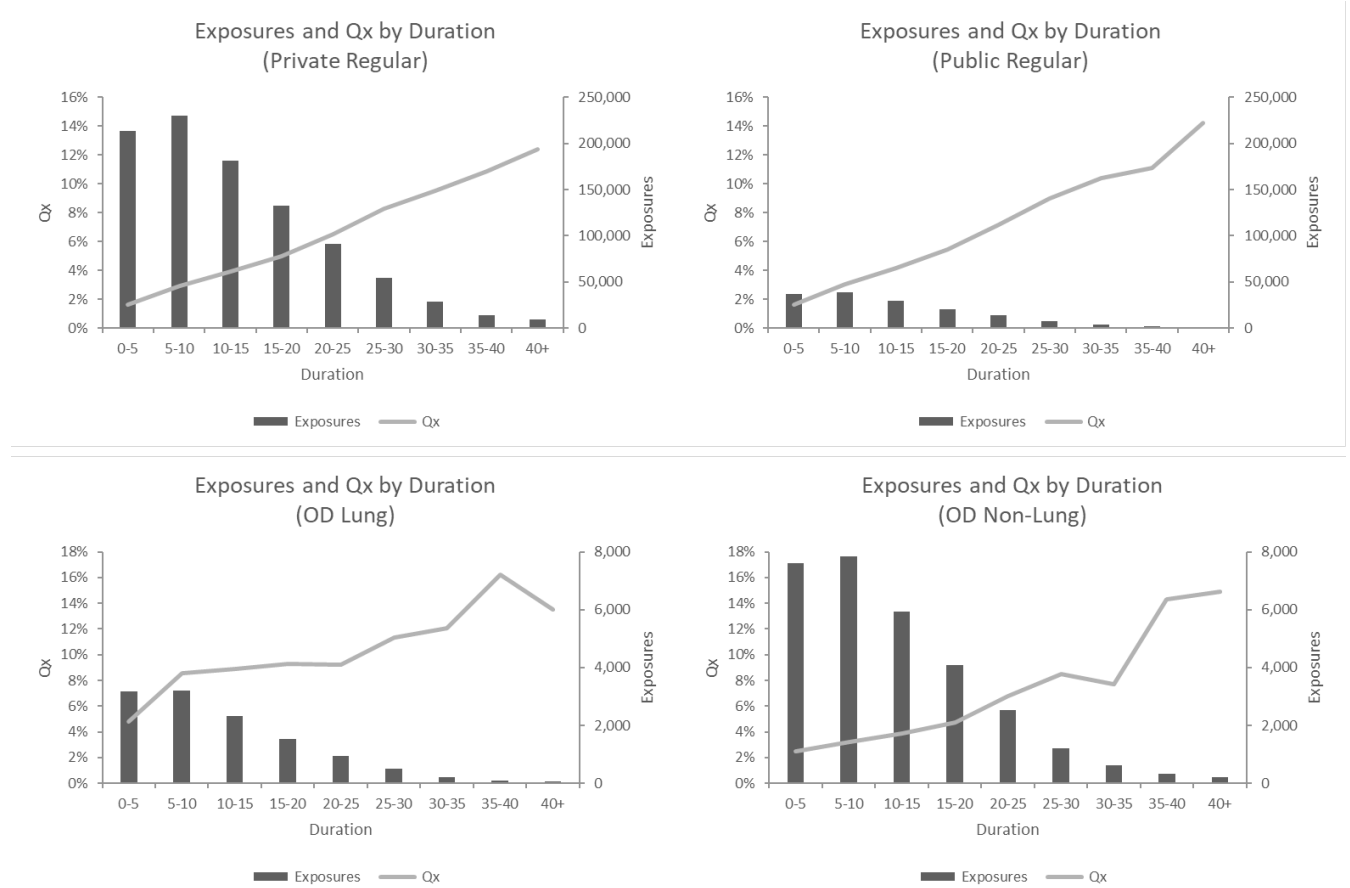
The pattern of exposures for each injury year group appears reasonable.

The mortality rates (line) are intuitively higher for older occurrences of injuries. OD Lung and OD Non-Lung have very low exposures for claims with injury years between 2010 and 2019 (32 exposures with 5 terminations for OD Lung and 123 exposures with 6 terminations for OD Non-Lung).

Experience by duration

The figure below shows exposures (columns) and mortality rates (line) by duration, i.e., the number of years since the injury date, for the four PTD groups.

Figure 3: Distribution of exposures and actual Qx by duration for PTD

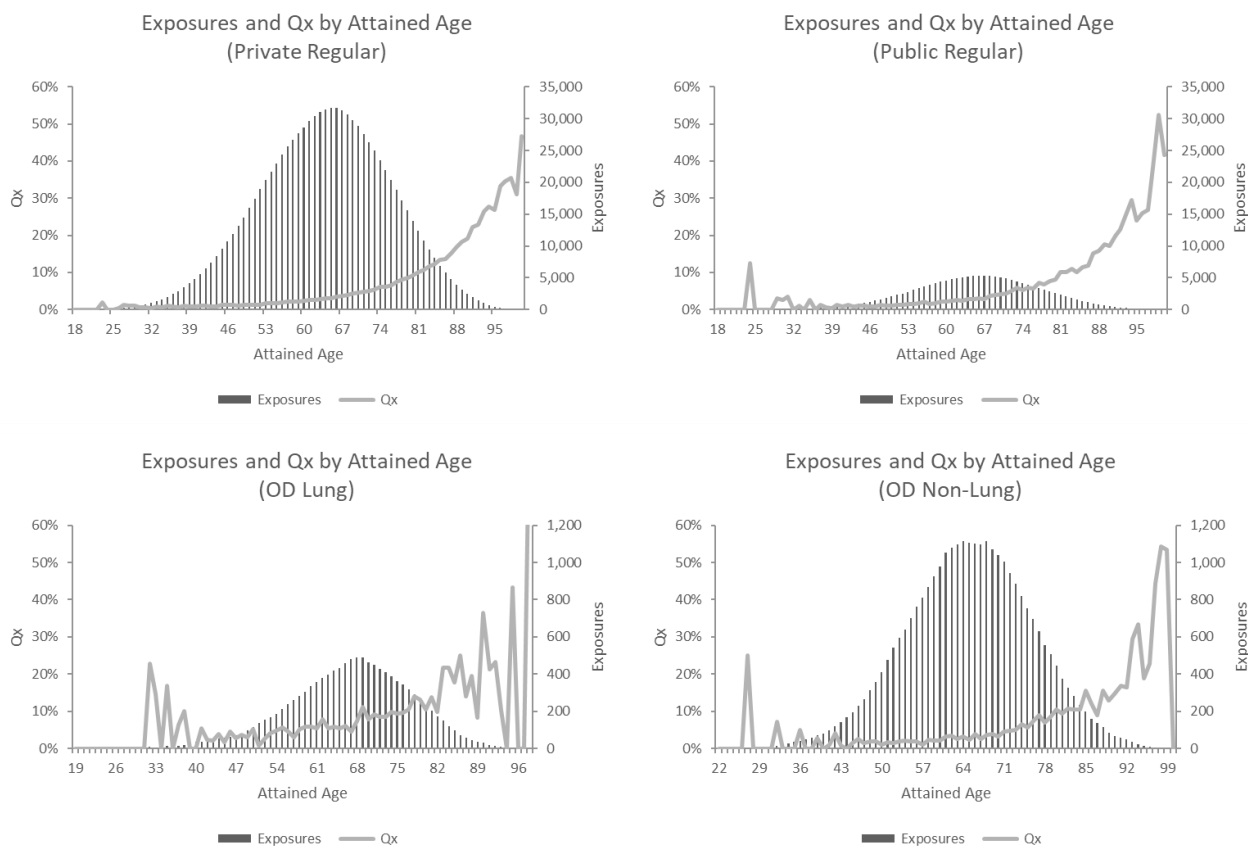


The pattern of exposures appears reasonable. Higher duration exposures intuitively have higher mortality as a result of higher attained ages.

Experience by attained age

The figure below shows exposures (columns) and mortality rates (line) by attained age.

Figure 4: Distribution of exposures and actual Qx by attained age for PTD



As shown above, mortality experience behaves intuitively by attained age. From the lower exposures and fluctuations in mortality rates, we can also see that the groups other than Private Regular are less credible (which supports using the Private Regular group to construct the main mortality table, and adjusting the relative experience to obtain group-specific tables for the other three PTD groups).

The OD Lung group has significantly higher mortality rates than the other groups and, as a result, the relative adjustment for this group (to create the OD Lung mortality table from the Private Regular table) is the highest. We also noted that OD Lung mortality is comparatively much higher than Private Regular for attained ages under 70 (and the relativity of OD Lung mortality to Private Regular mortality is higher for those ages relative to the whole OD Lung group). For simplicity, we applied the same OD Lung relativity across all attained ages. The rationale for this simplification is the following:

- The credibility of the OD Lung block is relatively more limited (see the volatility in the death rate in Figure 4) and a portion of the higher mortality at the younger ages could be driven by random fluctuations.
- The number of active OD Lung claims under age 70 as of July 2019 is small (approximately 80 claims)

If OD Lung exposures under attained age 70 become more material in the future, a potential area of improvement in the methodology could be to calibrate an age-dependent relativity.

4.3. Methodology Updates

A refinement was made to the exposure calculation in the 2020 study. The 2020 study assigns fractional exposures in the claim start year and fractional exposures for claims that has settled as the reason for termination. This approach is a more accurate representation of the situation when the claims are active i.e. when there is a possibility the claimant will not receive benefits for the full year.

Although historical mortality improvement was not observed between the 2015 study and the 2020 study (and thus not shown as a step in the analysis of change), the application of future mortality improvement was maintained as part of the methodology.

4.4. Development of Final Mortality Rates

This section summarizes the steps involved in the development of the final 2020 mortality tables:

- **Data cleaning:** Exclude claims that have unreasonable / missing data elements, or are categorized as fraud / split
- **Assign exposures using Balducci hypothesis:** Fractional exposures for the first year entering the study, fractional exposures for settled claims, and a full year of exposure in the year of death.
- **Exclude pre-1970 and pre-award exposures**
- **For PTD Private Regular group:**
 - **Smooth the raw mortality curve between age 45 to 95:** Use Whittaker-Henderson graduation technique with a smoothing factor set to the average exposure and difference polynomial degree set to 4
 - **Extrapolate the mortality rates below 45 or beyond 95:** Based on ratios implied from Annuity 2000 Basic Male table
 - **Scale the expected mortality rates:** Apply a factor to bring the mortality table forward to be current, i.e., make the actual-to-expected mortality ratio equal to 100% for the 2005-2019 period to produce the final mortality table as of 12/31/2019 (2020 table)
- **For the other three PTD groups:**
 - **Adjust all actual mortality rates to bring them forward to 2020:** Adjust actual mortality rates by the number of years between the year of exposure and year 2020 assuming the improvement of mortality to be 1% per year. The aim of this step (performed on all four groups) is to bring mortality rates to a consistent date (12/31/2019) for comparative purposes between the groups.
 - **Calculate the adjustment factor:** Calculate the ratio of the adjusted actual mortality experience for each of the smaller groups against the adjusted experience from Private Regular (this ratio is attained age mix adjusted)

- **Compute the final mortality table:** Apply the adjustment factor ratio to the final Private Regular mortality table to obtain the final group specific mortality table
- **Derive the gender specific mortality tables:** Use gender neutral mortality rates and the implied male to female mortality ratios and gender mix to compute gender specific mortality rates

5. SURVIVOR BENEFIT

5.1. Introduction

If a worker dies from a work-related injury or occupational disease, BWC pays benefits to the surviving spouse until the spouse dies or remarries. Upon remarriage, the spouse receives two years of payment as a lump sum and spousal benefits cease. However, spousal benefits are portable to surviving children aged under 18, or aged under 25 and attending college full time.

Survivor Benefit claims are grouped by employer sector:

- **Private Survivor Benefit:** The larger group in Survivor Benefit sector (private employers)
- **Public Survivor Benefit:** The smaller group in Survivor Benefit sector (public employers)

5.2. Data Analysis

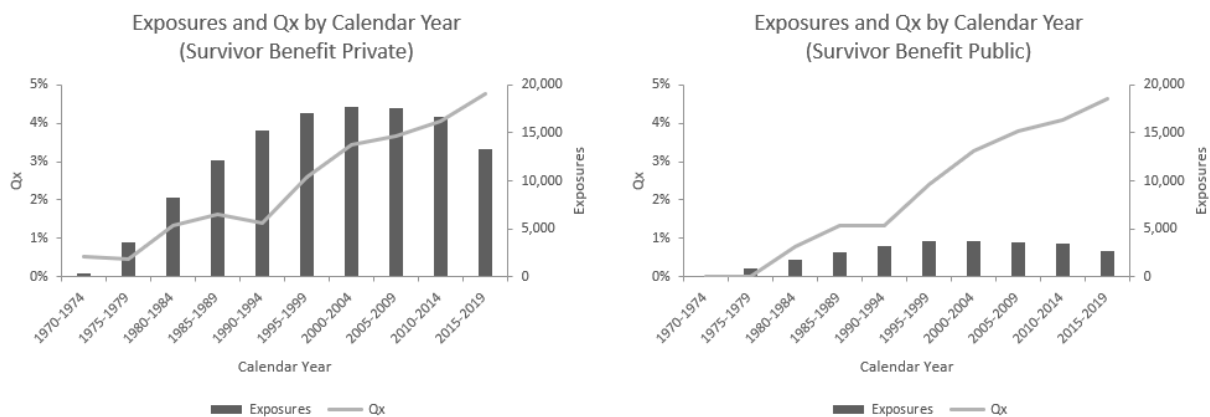
Overview

The purpose of the data analysis is to detect patterns that might be useful for the experience study and to confirm the overall reasonableness of the data.

Experience by calendar year

The figure below shows exposures (columns) and termination rates (line) by calendar year for the two Survivor Benefit groups.

Figure 5: Distribution of exposures and actual decrements by calendar year for Survivor Benefit groups

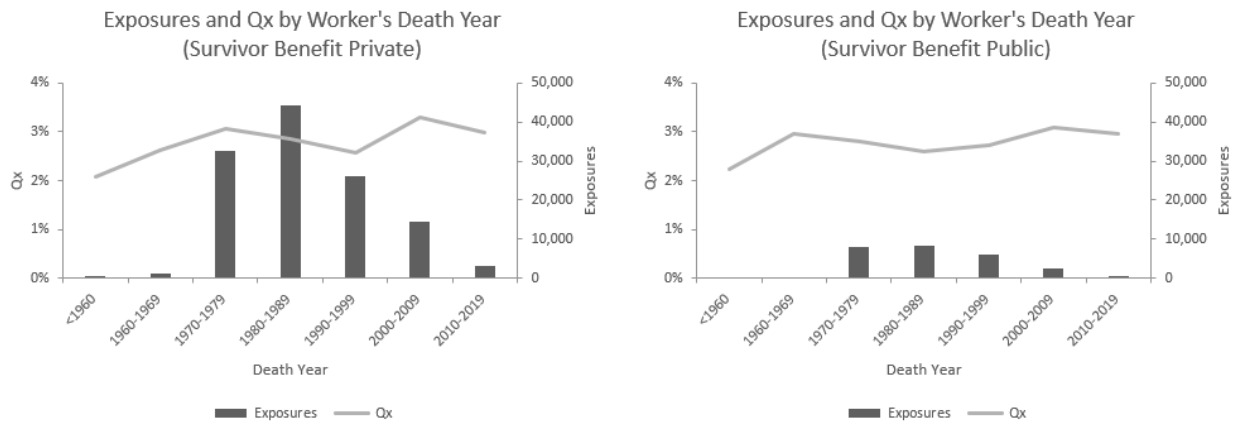


For both groups, there is an increasing trend in the termination rate over the years.

Experience by death year

The figure below shows exposures (columns) and termination rates (line) by the year of death giving rise to Survivor Benefits.

Figure 6: Distribution of exposures and actual decrements by death year for Survivor Benefit

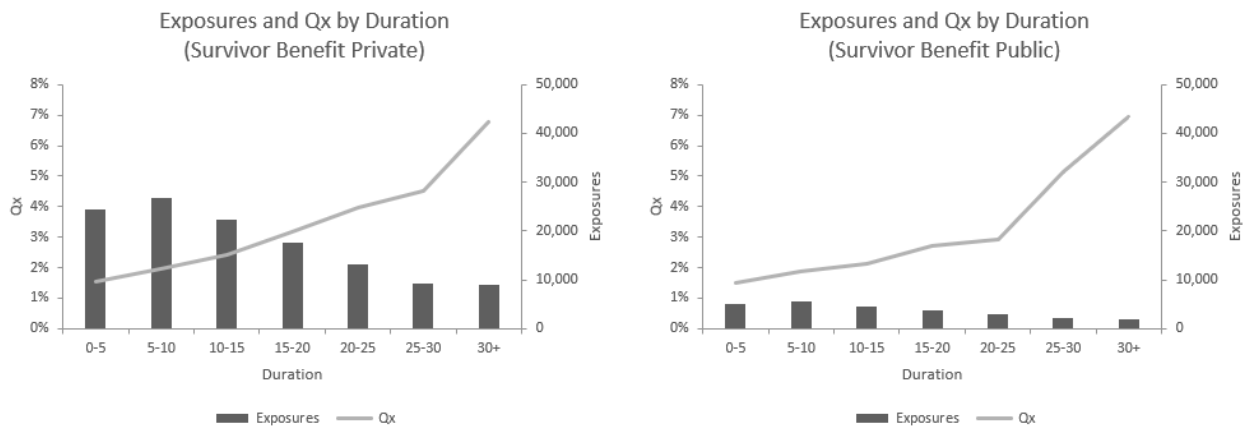


The Survivor Benefit claims exposures are intuitively lower for more recent worker death years.

Experience by duration

The figure below shows exposures (columns) and mortality rates (line) by the number of years since the death of the worker.

Figure 7: Distribution of exposures and actual decrements by duration for Survivor Benefit

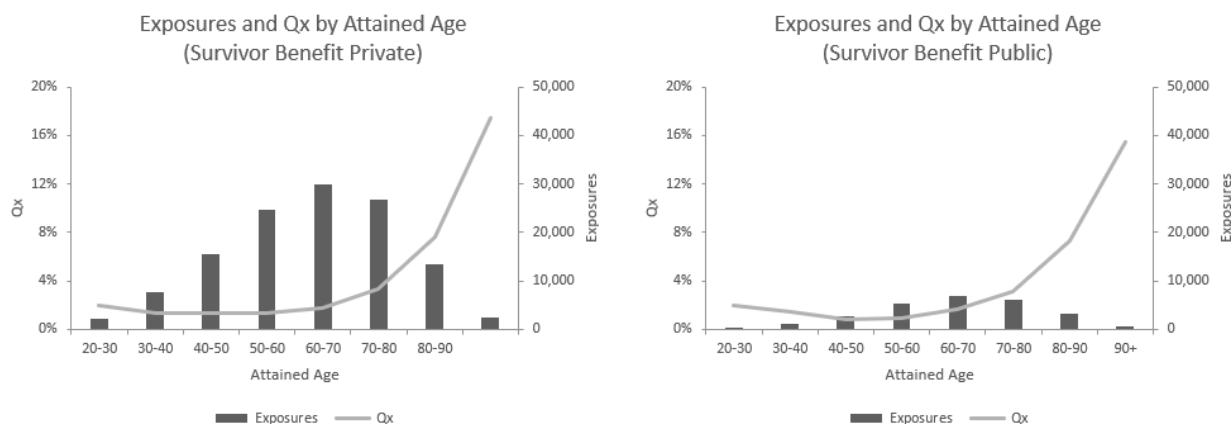


Generally, the total termination rate increases as the duration increases. Termination rates at low durations (0-5) are much higher than what mortality rates would otherwise suggest for adults of working age (which is explained by the propensity to remarry).

Experience by attained age

The figure below shows exposures (columns) and mortality rates (line) by the spouse's attained age.

Figure 8: Distribution of exposures and actual decrements by attained age for Survivor Benefit



The termination rates are stable for ages 60 and below, which indicates that the propensity to remarry and the death rate directionally offset each other. Also, we noticed that decrement experience curves for two Survivor Benefit groups followed a similar trend. Thus, we considered the larger group, Survivor Benefit Private, to be a good approximation for Survivor Benefit Public.

5.3. Methodology Updates

A refinement was made to the exposure calculation in the 2020 study. The 2020 study assigns fractional exposures in the claim start year and fractional exposures for claims that has settled as the reason for termination. This approach is a more accurate representation of the situation when the claims are active i.e. when there is a possibility the claimant will not receive benefits for the full year.

5.4. Development of Final Mortality and Remarriage Rates

This section summarizes the steps involved in the development of the final 2020 termination table:

- **Data cleaning:** Exclude claims that have unreasonable / missing data elements, or are categorized as fraud / split
- **Assign exposures using Balducci hypothesis:** Fractional exposures for the first year entering the study, and full year of exposure in the year of death
- **Exclude pre-1970 exposures**
- **For Survivor Benefit Private group:**
 - Scale the expected mortality table (GAM 1994 Female) by a factor of 80% (approximately 1% improvement over 20 years)
 - Derive the implied remarriage rates as the total decrement rates less the scaled expected mortality rates (set to zero for age below 18 or above 80)
 - Smooth the implied remarriage rates using a logarithmic curve
 - Derive the implied mortality rates as the total decrement rates less the smoothed remarriage rates

- Smooth the implied mortality rates between age 53 and 95 using a cubic polynomial regression
- Extrapolate the expected mortality rates below age 53 or above 95 using ratios implied from the expected mortality curve (1994 GAM Female table)
- Set the total termination rate as the mortality rate plus the remarriage rate (the remarriage rate is graded down starting at attained age 76, reaching zero at 85)
- **For Survivor Benefit Public group:** set the final assumptions equal to the Survivor Benefit Private group

6. ORPHAN

6.1. Introduction

If a worker dies from a work-related injury or occupational disease and if there is no surviving spouse, surviving orphan(s) under age 18, and full-time college students under age 25 are eligible for survivor benefits.

6.2. Data Analysis

Overview

The purpose of the data analysis is to detect patterns that might be useful for the experience study and to confirm the overall reasonableness of the data.

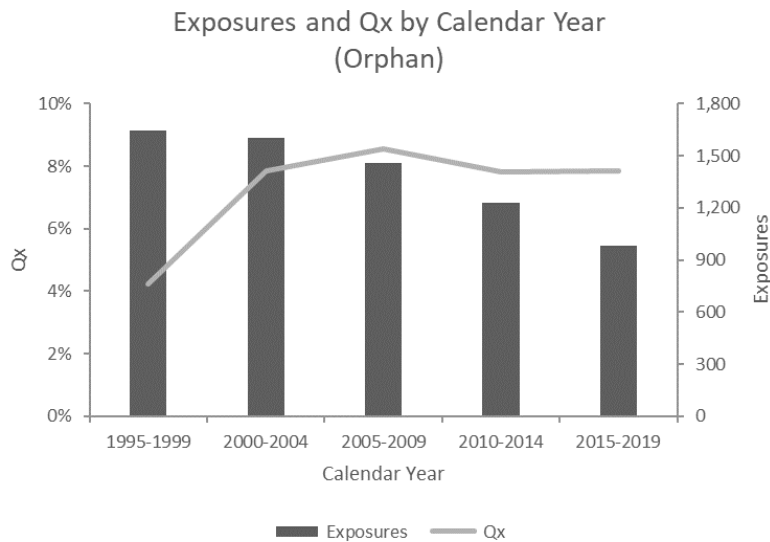
Underlying Orphan exposures

Due to the sparse experience in the Orphan group, we merged private and public together in data analysis and the development of the annuity factors.

Experience by calendar year

The figure below shows exposures (columns) and the termination rate (line) by calendar year.

Figure 9: Distribution of exposures and actual decrements by calendar year for Orphan



The Orphan group exposures are small and stable through time.

Experience by death year

The figure below shows exposures (columns) and the termination rate (line) by death year.

Figure 10: Distribution of exposures and actual decrements by death year for Orphan

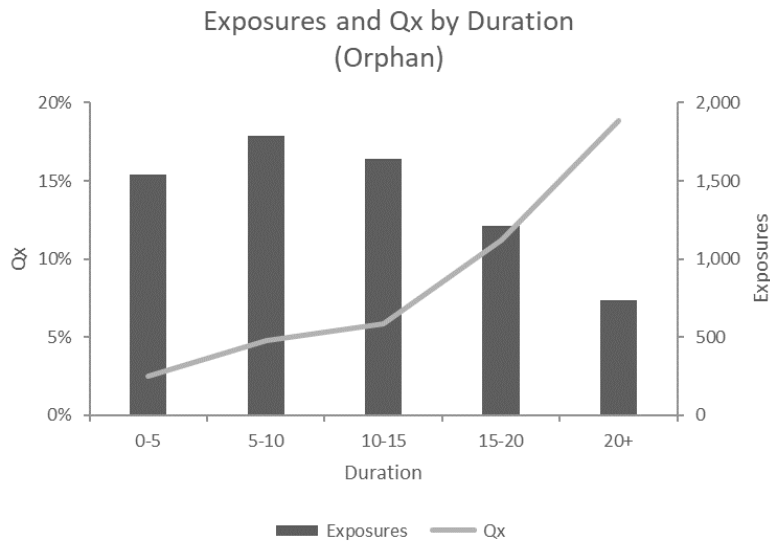


Intuitively, the annualized termination rate is highest for older claims as nearly all of the orphans reached age 25 for the older cohorts.

Experience by duration

The figure below shows exposures (columns) and the termination rate (line) by the number of years since the death of the worker.

Figure 11: Distribution of exposures and actual decrements by duration for Orphan



Since the survivorship benefit is expected to cease when the orphan reaches age 18 or 25, it is reasonable for the decrement rate to rise as the duration increases.

Experience by attained age

The figure below shows exposures (columns) and the termination rate (line) by attained age of the orphan.

Figure 12: Distribution of exposures and actual decrements by attained age for Orphan



The decrement rates spike up at age 18 (for orphans that do not attend college) and subsequently increases to peak at age 25, which is intuitive.

6.3. Methodology Updates

A refinement was made to the exposure calculation in the 2020 study. The 2020 study assigns fractional exposures in the claim start year and fractional exposures for claims that has settled as the reason for termination. This approach is a more accurate representation of the situation when the claims are active i.e. when there is a possibility the claimant will not receive benefits for the full year.

6.4. Development of Final Termination Rates

This section summarizes the steps involved in the development of the final 2020 termination rate table:

- **Data cleaning:** Exclude claims that have unreasonable / missing data elements, or are categorized as fraud / split
- **Assign exposures using Balducci hypothesis:** Fractional exposures for the first year entering the study, and full year of exposure in the year of death
- **Exclude pre-1995 exposures:** Orphan decrements were prior to 1995 were not recorded in the data, so exposures before then should not be included in the study
- **Smooth the total decrement rates:**
 - For attained age below 18, set to the 1994 GAM tables with a scalar of 80% and assuming the orphan population has a 50 / 50 split between male and female
 - For attained age 18 and above, set to the actual decrement rates

7. DISTRIBUTION AND USE

Usage and Responsibility of Client – Oliver Wyman prepared this report for the sole use of the BWC. This report includes important considerations, assumptions, and limitations and, as a result, is intended to be read and used only as a whole. This report may not be separated into, or distributed, in parts other than by the BWC to whom this report was issued, as needed, in the case of distribution to such client’s directors, officers, or employees. All decisions in connection with the implementation or use of advice or recommendations contained in this report are the sole responsibility of the BWC.

Third Party Reliance and Due Diligence – Oliver Wyman’s consent to any distribution of this report (whether herein or in the written agreement pursuant to which we issued this report) to parties other than the BWC does not constitute advice by Oliver Wyman to any such third parties. Any distribution to third parties shall be solely for informational purposes and not for purposes of reliance by any such parties. Oliver Wyman assumes no liability related to third party use of this report or any actions taken or decisions made as a consequence of the results, advice or recommendations set forth herein. This report should not replace the due diligence on behalf of any such third party.

8. CONSIDERATIONS AND LIMITATIONS

Data Verification – For our analysis, we relied on data and information provided by the BWC without independent audit. Though we have reviewed the data for reasonableness and consistency, we have not audited or otherwise verified this data. Our review of data may not always reveal imperfections. We have assumed that the data provided is both accurate and complete. The results of our analysis are dependent on this assumption. If this data or information is inaccurate or incomplete, our findings and conclusions might therefore be unreliable.

Supplemental Data – Where historical data of the BWC was either (i) not available, (ii) not appropriate or (iii) not sufficiently credible to develop our actuarial assumptions, we supplemented it with external information, as we deemed appropriate. Although we believe these external sources may be more predictive of future experience of the BWC than any other data of which we are aware, the use of external data adds to the uncertainty associated with our projections.

Unanticipated Changes – We developed our conclusions are based on an analysis of data of the BWC and on the estimation of the outcome of many contingent events. We developed our estimates from the historical claim experience and covered exposure, with adjustments for anticipated changes. Our estimates make no provision for extraordinary future emergence of new types of losses not sufficiently represented in historical databases or which are not yet quantifiable.

Uncertainty Inherent in Projections – While this analysis complies with applicable Actuarial Standards of Practice, users of this analysis should recognize that our projections involve estimates of future events and are subject to economic and statistical variations from expected values. Unless otherwise specified, we have assumed a continuation of the current accounting, regulatory, legal and tax environment. Any changes in these external factors could have a material impact on the analysis. Even without a change in the environments relative to expected and the parameters around them, experience will vary from expected due to normal random fluctuations.

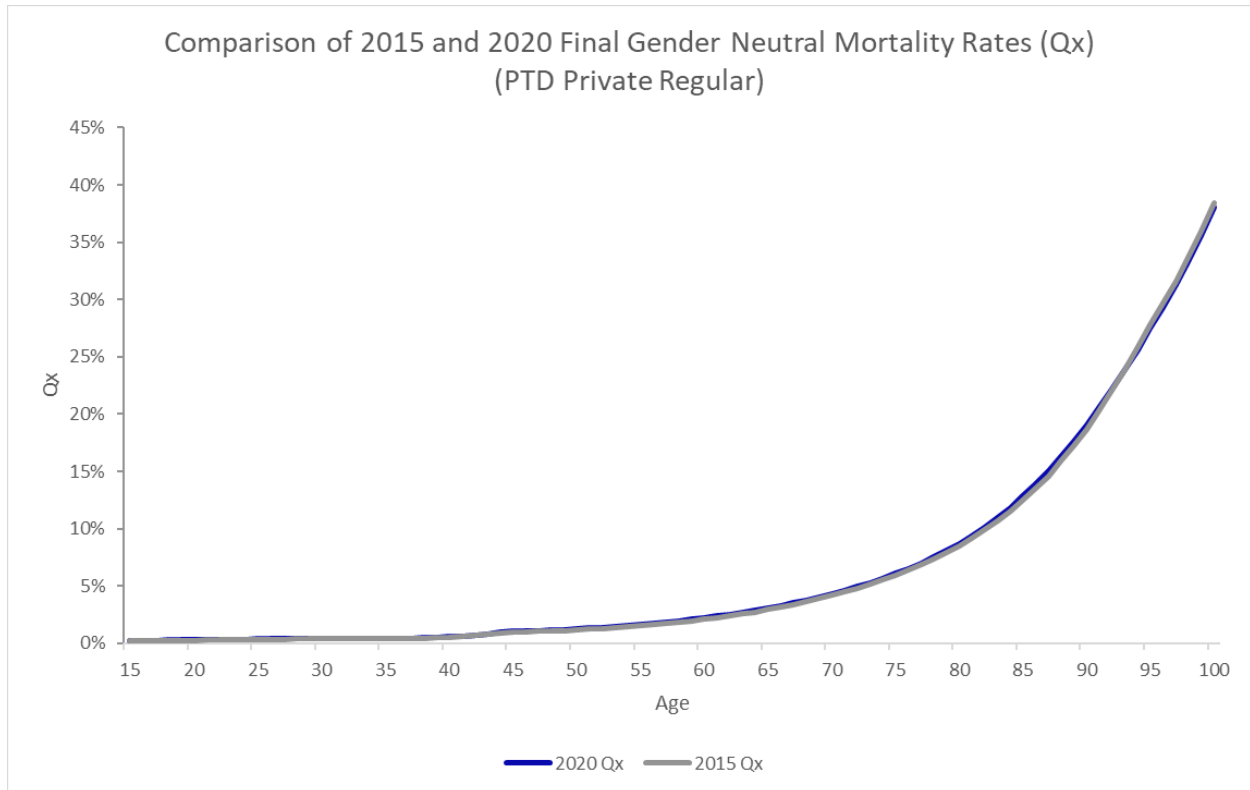
9. ACKNOWLEDGEMENT OF QUALIFICATIONS

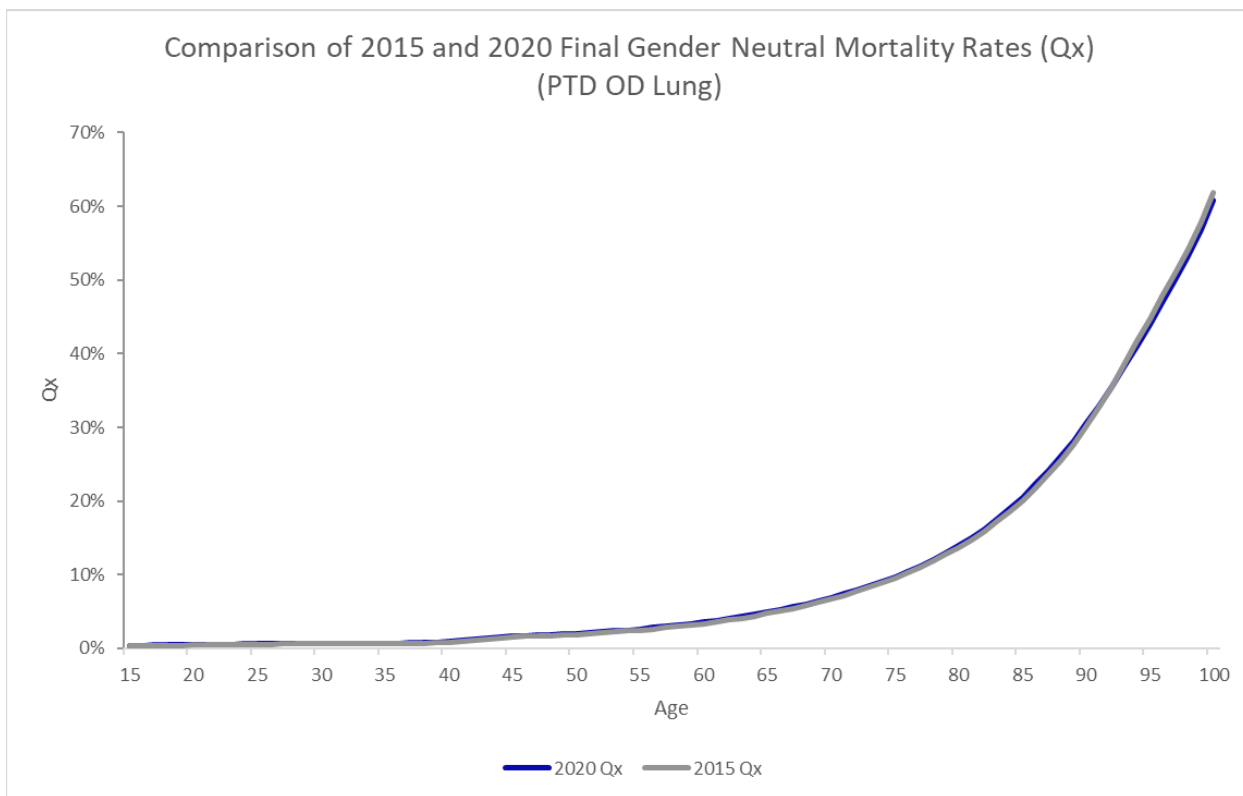
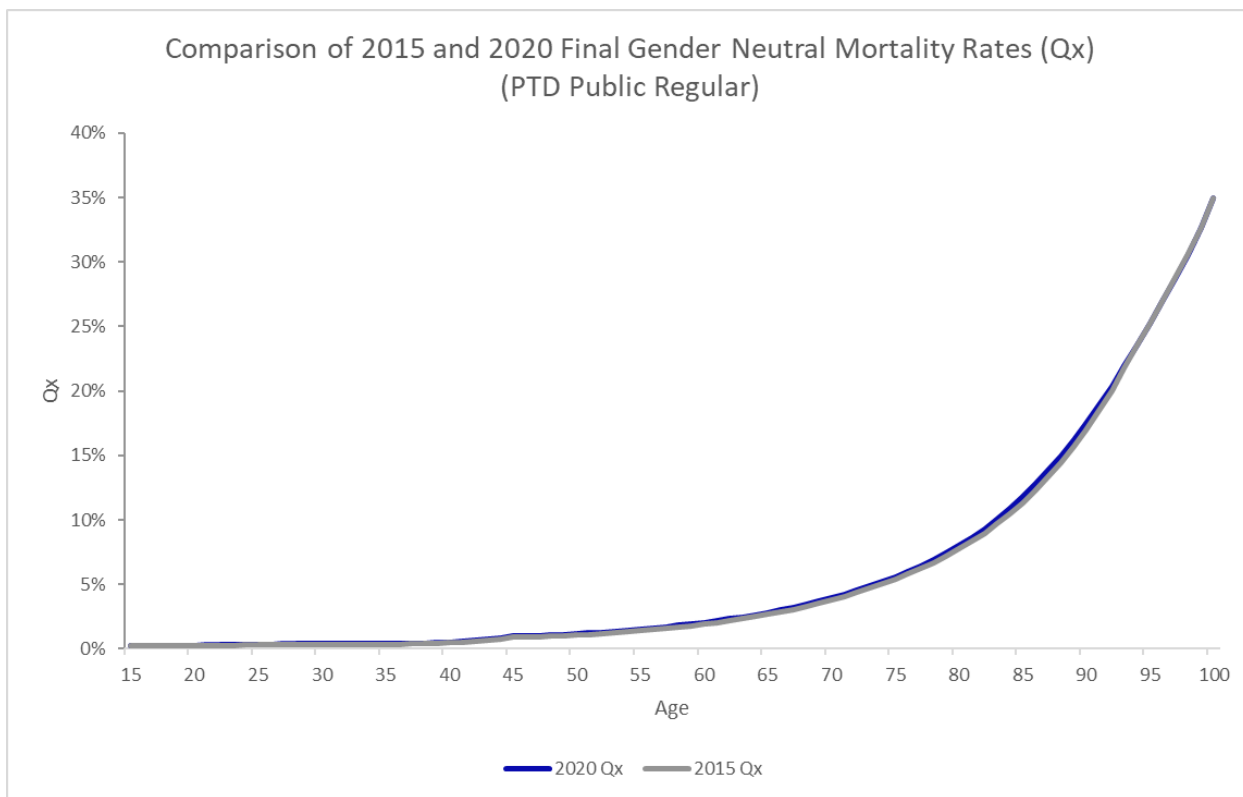
Guillaume Briere-Giroux, Partner at Oliver Wyman, is a member of the American Academy of Actuaries and meets the Qualification Standards of the American Academy of Actuaries to render the statements of actuarial opinion contained herein.

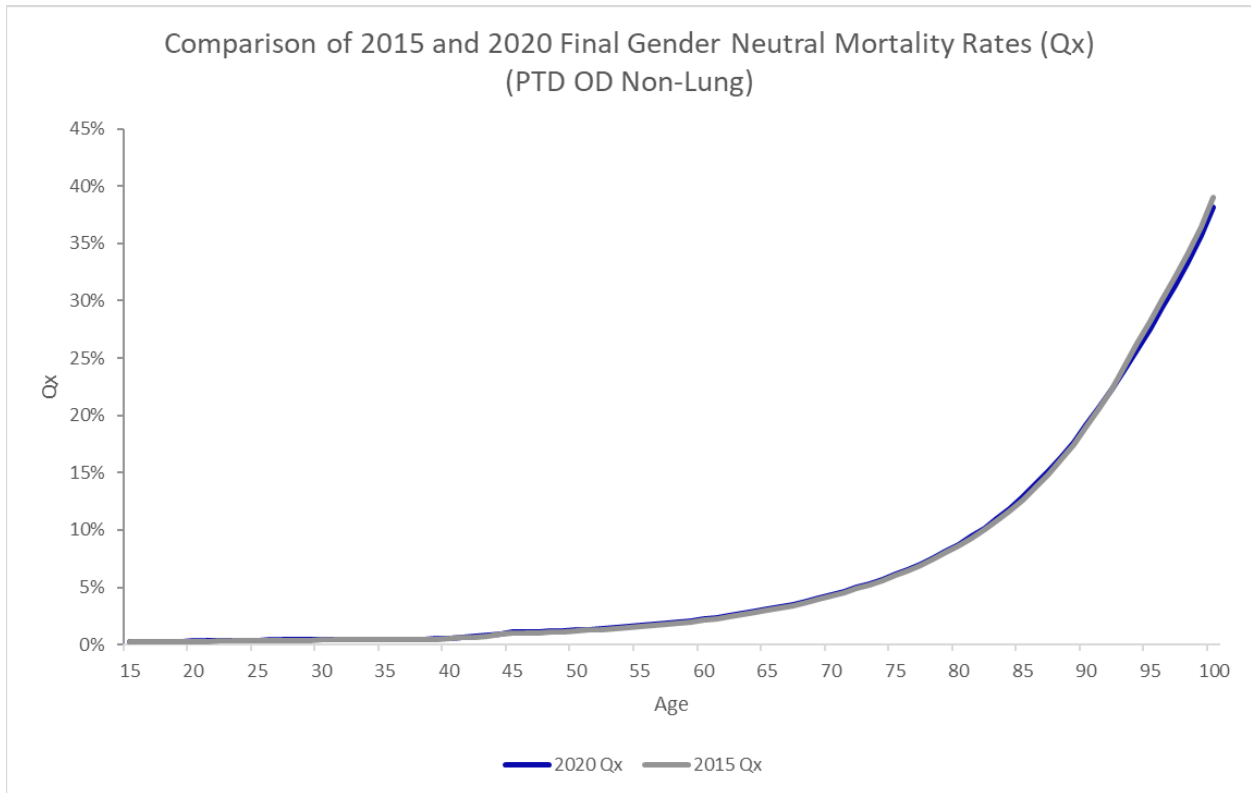
APPENDIX A. INFORMATION RECEIVED

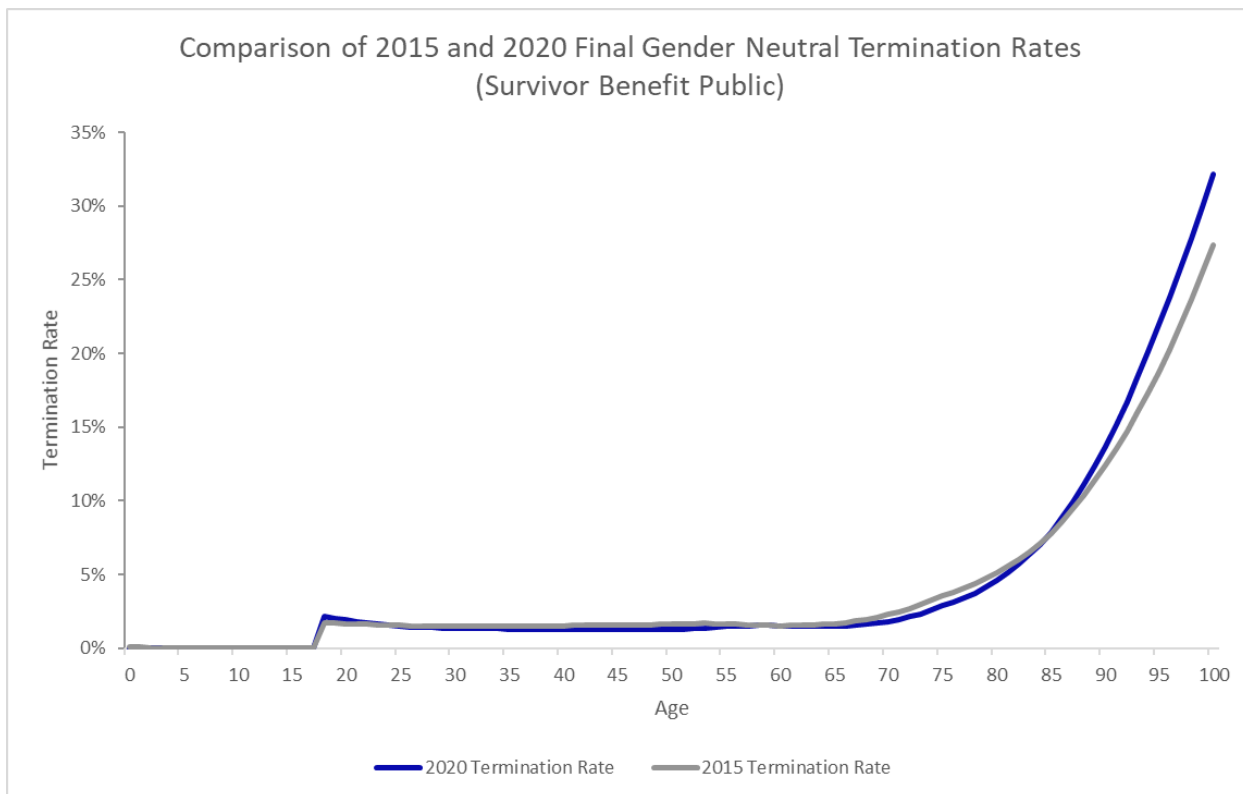
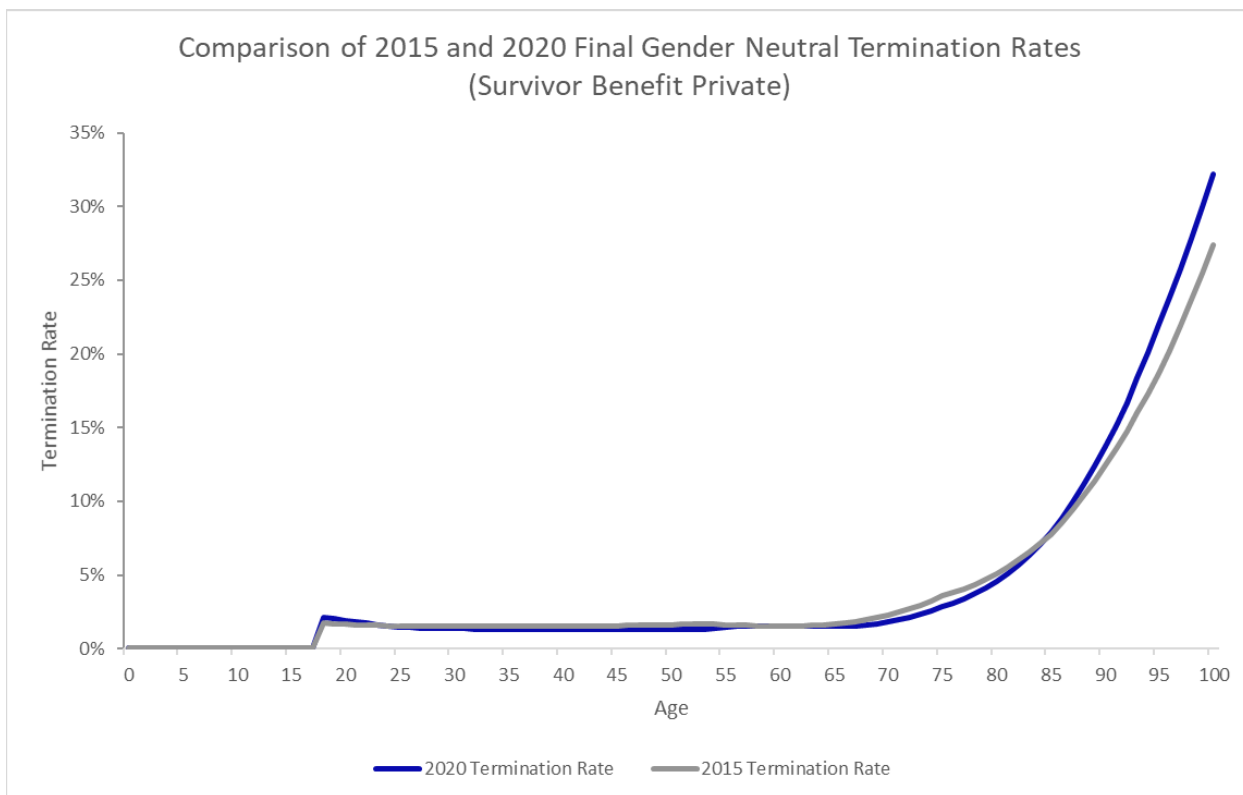
	File Name
2015 Study	2015 PTD and Death Mortality Study -Oliver Wyman.accdb (PTD portion)
	2015 PTD and Death Mortality Study -Oliver Wyman.accdb (Death portion)
	Gender PTD Mortality.xlsx
	Communications / clarification on data questions
2020 Study	2019 PTD and Death Mortality Study - Oliver Wyman - Feb 2020 Revision.accdb (PTD portion)
	2019 PTD and Death Mortality Study - Oliver Wyman - 2nd Revision in Nov 19.accdb (Death portion)
	Gender PTD Mortality - 2019.xlsx
	Communications / clarification on data questions

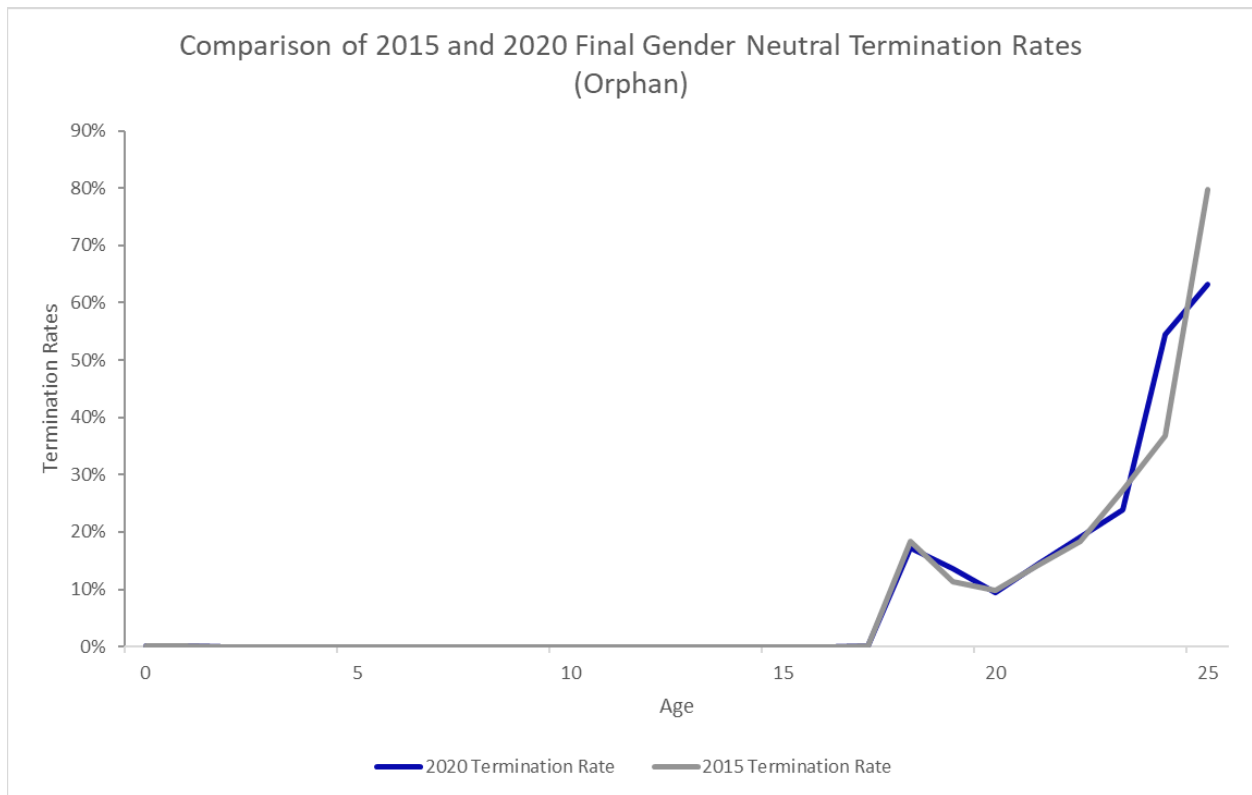
APPENDIX B. COMPARISON OF 2015 AND 2020 MORTALITY / TERMINATION RATES











APPENDIX C. COMPARISON OF 2015 AND 2020 GENDER NEUTRAL ANNUITY FACTORS

The annuity factors below are calculated with a 4% valuation interest rate.

PTD Private Regular

Age	2019 Annuity Factor				Age	2015 Annuity Factor				Age	2019/2015			
	Yearly	Monthly	Biweekly	Weekly		Yearly	Monthly	Weekly	Biweekly		Yearly	Monthly	Weekly	Biweekly
1	22.45	274.99	596.39	1,193.27	1	22.59	276.64	599.96	1,200.43	1	99%	99%	99%	99%
2	22.45	274.67	595.70	1,191.90	2	22.59	276.30	599.23	1,198.95	2	99%	99%	99%	99%
3	22.40	273.95	594.13	1,188.77	3	22.54	275.58	597.68	1,195.86	3	99%	99%	99%	99%
4	22.33	273.07	592.24	1,184.98	4	22.47	274.73	595.84	1,192.17	4	99%	99%	99%	99%
5	22.25	272.09	590.12	1,180.74	5	22.39	273.78	593.78	1,188.06	5	99%	99%	99%	99%
6	22.17	271.02	587.80	1,176.10	6	22.31	272.75	591.54	1,183.58	6	99%	99%	99%	99%
7	22.07	269.87	585.31	1,171.12	7	22.22	271.64	589.13	1,178.77	7	99%	99%	99%	99%
8	21.98	268.69	582.75	1,165.99	8	22.13	270.50	586.66	1,173.82	8	99%	99%	99%	99%
9	21.88	267.51	580.19	1,160.88	9	22.03	269.35	584.18	1,168.86	9	99%	99%	99%	99%
10	21.78	266.32	577.61	1,155.73	10	21.93	268.20	581.68	1,163.86	10	99%	99%	99%	99%
11	21.68	265.12	575.00	1,150.50	11	21.84	267.03	579.14	1,158.78	11	99%	99%	99%	99%
12	21.58	263.89	572.33	1,145.17	12	21.74	265.83	576.54	1,153.58	12	99%	99%	99%	99%
13	21.47	262.62	569.59	1,139.69	13	21.64	264.59	573.87	1,148.24	13	99%	99%	99%	99%
14	21.37	261.32	566.77	1,134.04	14	21.53	263.32	571.11	1,142.73	14	99%	99%	99%	99%
15	21.26	259.97	563.85	1,128.21	15	21.42	262.01	568.26	1,137.03	15	99%	99%	99%	99%
16	21.14	258.58	560.83	1,122.17	16	21.31	260.64	565.31	1,131.13	16	99%	99%	99%	99%
17	21.02	257.14	557.71	1,115.93	17	21.20	259.24	562.26	1,125.02	17	99%	99%	99%	99%
18	20.90	255.65	554.49	1,109.48	18	21.08	257.78	559.11	1,118.71	18	99%	99%	99%	99%
19	20.77	254.12	551.17	1,102.84	19	20.95	256.28	555.85	1,112.21	19	99%	99%	99%	99%
20	20.64	252.54	547.75	1,096.00	20	20.83	254.73	552.50	1,105.50	20	99%	99%	99%	99%
21	20.51	250.92	544.24	1,088.99	21	20.70	253.14	549.06	1,098.61	21	99%	99%	99%	99%
22	20.37	249.26	540.65	1,081.79	22	20.56	251.51	545.52	1,091.54	22	99%	99%	99%	99%
23	20.23	247.56	536.96	1,074.42	23	20.42	249.84	541.89	1,084.29	23	99%	99%	99%	99%
24	20.09	245.82	533.19	1,066.88	24	20.28	248.12	538.18	1,076.85	24	99%	99%	99%	99%
25	19.94	244.04	529.33	1,059.17	25	20.14	246.36	534.37	1,069.23	25	99%	99%	99%	99%
26	19.79	242.21	525.38	1,051.25	26	19.99	244.56	530.45	1,061.41	26	99%	99%	99%	99%
27	19.64	240.34	521.31	1,043.12	27	19.84	242.70	526.43	1,053.36	27	99%	99%	99%	99%
28	19.48	238.40	517.11	1,034.73	28	19.68	240.78	522.27	1,045.04	28	99%	99%	99%	99%
29	19.32	236.39	512.77	1,026.04	29	19.51	238.79	517.96	1,036.43	29	99%	99%	99%	99%
30	19.15	234.31	508.26	1,017.02	30	19.35	236.73	513.49	1,027.48	30	99%	99%	99%	99%
31	18.97	232.14	503.55	1,007.60	31	19.17	234.57	508.82	1,018.14	31	99%	99%	99%	99%
32	18.78	229.87	498.63	997.75	32	18.99	232.32	503.94	1,008.37	32	99%	99%	99%	99%
33	18.59	227.49	493.47	987.43	33	18.79	229.96	498.82	998.14	33	99%	99%	99%	99%
34	18.38	224.99	488.06	976.62	34	18.59	227.48	493.46	987.43	34	99%	99%	99%	99%
35	18.17	222.38	482.40	965.30	35	18.38	224.89	487.85	976.21	35	99%	99%	99%	99%
36	17.95	219.64	476.47	953.44	36	18.16	222.18	481.98	964.46	36	99%	99%	99%	99%
37	17.71	216.79	470.29	941.09	37	17.93	219.36	475.87	952.23	37	99%	99%	99%	99%
38	17.47	213.85	463.93	928.35	38	17.69	216.45	469.55	939.60	38	99%	99%	99%	99%
39	17.22	210.84	457.41	915.32	39	17.44	213.46	463.08	926.66	39	99%	99%	99%	99%
40	16.97	207.79	450.80	902.10	40	17.19	210.42	456.50	913.50	40	99%	99%	99%	99%
41	16.71	204.72	444.15	888.80	41	16.94	207.36	449.86	900.23	41	99%	99%	99%	99%
42	16.46	201.66	437.52	875.55	42	16.68	204.30	443.22	886.94	42	99%	99%	99%	99%
43	16.20	198.65	430.99	862.47	43	16.42	201.26	436.64	873.77	43	99%	99%	99%	99%
44	15.96	195.70	424.60	849.70	44	16.17	198.27	430.16	860.82	44	99%	99%	99%	99%
45	15.71	192.85	418.42	837.35	45	15.93	195.35	423.85	848.19	45	99%	99%	99%	99%
46	15.48	190.00	412.24	824.98	46	15.69	192.43	417.52	835.55	46	99%	99%	99%	99%
47	15.24	187.03	405.82	812.14	47	15.44	189.42	411.00	822.50	47	99%	99%	99%	99%
48	14.99	183.97	399.19	798.87	48	15.18	186.33	404.30	809.09	48	99%	99%	99%	99%
49	14.73	180.82	392.37	785.24	49	14.92	183.16	397.42	795.34	49	99%	99%	99%	99%
50	14.46	177.60	385.39	771.27	50	14.65	179.91	390.39	781.27	50	99%	99%	99%	99%
51	14.19	174.31	378.26	757.03	51	14.38	176.60	383.21	766.91	51	99%	99%	99%	99%
52	13.91	170.97	371.01	742.52	52	14.10	173.22	375.89	752.28	52	99%	99%	99%	99%
53	13.63	167.56	363.64	727.78	53	13.82	169.78	368.44	737.39	53	99%	99%	99%	99%
54	13.35	164.11	356.16	712.82	54	13.53	166.29	360.88	722.26	54	99%	99%	99%	99%
55	13.06	160.61	348.58	697.66	55	13.24	162.75	353.20	706.90	55	99%	99%	99%	99%

PTD Private Regular

Age	2019 Annuity Factor				Age	2015 Annuity Factor				Age	2019/2015			
	Yearly	Monthly	Biweekly	Weekly		Yearly	Monthly	Weekly	Biweekly		Yearly	Monthly	Weekly	Biweekly
56	12.76	157.07	340.91	682.31	56	12.94	159.15	345.41	691.33	56	99%	99%	99%	99%
57	12.47	153.49	333.14	666.78	57	12.64	155.51	337.53	675.56	57	99%	99%	99%	99%
58	12.17	149.87	325.29	651.08	58	12.33	151.83	329.55	659.60	58	99%	99%	99%	99%
59	11.86	146.21	317.37	635.23	59	12.02	148.11	321.49	643.47	59	99%	99%	99%	99%
60	11.56	142.52	309.37	619.23	60	11.71	144.35	313.35	627.19	60	99%	99%	99%	99%
61	11.25	138.80	301.31	603.11	61	11.40	140.57	305.14	610.78	61	99%	99%	99%	99%
62	10.94	135.05	293.19	586.89	62	11.08	136.76	296.89	594.27	62	99%	99%	99%	99%
63	10.62	131.29	285.04	570.58	63	10.76	132.93	288.59	577.67	63	99%	99%	99%	99%
64	10.31	127.51	276.85	554.21	64	10.44	129.08	280.26	561.03	64	99%	99%	99%	99%
65	9.99	123.72	268.65	537.80	65	10.12	125.23	271.92	544.35	65	99%	99%	99%	99%
66	9.68	119.93	260.44	521.38	66	9.80	121.39	263.59	527.67	66	99%	99%	99%	99%
67	9.36	116.15	252.23	504.97	67	9.48	117.54	255.26	511.01	67	99%	99%	99%	99%
68	9.05	112.37	244.04	488.59	68	9.16	113.71	246.95	494.41	68	99%	99%	99%	99%
69	8.73	108.60	235.88	472.25	69	8.84	109.89	238.68	477.86	69	99%	99%	99%	99%
70	8.42	104.84	227.74	455.99	70	8.53	106.09	230.45	461.41	70	99%	99%	99%	99%
71	8.11	101.11	219.65	439.80	71	8.21	102.32	222.28	445.05	71	99%	99%	99%	99%
72	7.80	97.39	211.60	423.70	72	7.90	98.57	214.16	428.81	72	99%	99%	99%	99%
73	7.49	93.70	203.60	407.71	73	7.59	94.85	206.10	412.70	73	99%	99%	99%	99%
74	7.19	90.04	195.66	391.83	74	7.28	91.17	198.11	396.72	74	99%	99%	99%	99%
75	6.88	86.40	187.79	376.07	75	6.97	87.51	190.19	380.89	75	99%	99%	99%	99%
76	6.58	82.80	179.98	360.46	76	6.67	83.89	182.35	365.21	76	99%	99%	99%	99%
77	6.28	79.23	172.25	345.00	77	6.37	80.31	174.60	349.69	77	99%	99%	99%	99%
78	5.99	75.70	164.60	329.71	78	6.08	76.77	166.92	334.35	78	99%	99%	99%	99%
79	5.70	72.22	157.06	314.62	79	5.78	73.28	159.35	319.19	79	98%	99%	99%	99%
80	5.41	68.79	149.62	299.74	80	5.50	69.82	151.86	304.23	80	98%	99%	99%	99%
81	5.13	65.41	142.31	285.12	81	5.21	66.42	144.49	289.48	81	98%	98%	98%	98%
82	4.85	62.11	135.15	270.79	82	4.93	63.07	137.24	274.98	82	98%	98%	98%	98%
83	4.58	58.87	128.14	256.78	83	4.66	59.79	130.12	260.74	83	98%	98%	98%	98%
84	4.31	55.73	121.32	243.14	84	4.39	56.57	123.15	246.79	84	98%	99%	99%	99%
85	4.05	52.67	114.70	229.89	85	4.12	53.43	116.34	233.18	85	98%	99%	99%	99%
86	3.81	49.72	108.30	217.10	86	3.86	50.37	109.72	219.93	86	98%	99%	99%	99%
87	3.56	46.87	102.14	204.78	87	3.61	47.41	103.29	207.09	87	99%	99%	99%	99%
88	3.33	44.15	96.23	192.96	88	3.37	44.54	97.09	194.68	88	99%	99%	99%	99%
89	3.11	41.54	90.59	181.67	89	3.14	41.79	91.13	182.76	89	99%	99%	99%	99%
90	2.90	39.06	85.21	170.93	90	2.92	39.16	85.43	171.36	90	100%	100%	100%	100%
91	2.70	36.71	80.11	160.72	91	2.71	36.66	80.01	160.51	91	100%	100%	100%	100%
92	2.52	34.48	75.28	151.06	92	2.50	34.30	74.89	150.27	92	100%	101%	101%	101%
93	2.34	32.37	70.72	141.93	93	2.32	32.09	70.11	140.71	93	101%	101%	101%	101%
94	2.17	30.38	66.40	133.30	94	2.14	30.07	65.72	131.94	94	101%	101%	101%	101%
95	2.01	28.49	62.31	125.12	95	1.98	28.19	61.66	123.81	95	101%	101%	101%	101%
96	1.86	26.69	58.41	117.31	96	1.83	26.40	57.78	116.06	96	101%	101%	101%	101%
97	1.71	24.95	54.63	109.76	97	1.69	24.67	54.03	108.56	97	101%	101%	101%	101%
98	1.57	23.24	50.92	102.35	98	1.55	22.97	50.35	101.20	98	101%	101%	101%	101%
99	1.43	21.54	47.25	95.00	99	1.41	21.29	46.70	93.90	99	101%	101%	101%	101%
100	1.30	19.85	43.59	87.68	100	1.28	19.61	43.07	86.64	100	102%	101%	101%	101%
101	1.16	18.17	39.95	80.39	101	1.14	17.94	39.45	79.40	101	102%	101%	101%	101%
102	1.03	16.50	36.32	73.14	102	1.01	16.28	35.85	72.20	102	102%	101%	101%	101%
103	0.89	14.84	32.73	65.95	103	0.88	14.63	32.28	65.06	103	102%	101%	101%	101%
104	0.76	13.20	29.18	58.86	104	0.75	13.01	28.76	58.01	104	102%	102%	101%	101%
105	0.63	11.59	25.69	51.88	105	0.62	11.41	25.29	51.08	105	102%	102%	102%	102%
106	0.51	10.02	22.27	45.04	106	0.50	9.84	21.89	44.27	106	103%	102%	102%	102%
107	0.39	8.47	18.91	38.32	107	0.38	8.30	18.54	37.57	107	103%	102%	102%	102%
108	0.28	6.93	15.58	31.65	108	0.27	6.76	15.22	30.92	108	104%	102%	102%	102%
109	0.18	5.38	12.22	24.94	109	0.16	5.22	11.87	24.23	109	107%	103%	103%	103%
110	0.08	3.99	9.19	18.86	110	0.07	3.97	9.15	18.79	110	112%	100%	100%	100%

PTD Public Regular

Age	2019 Annuity Factor				Age	2015 Annuity Factor				Age	2019/2015			
	Yearly	Monthly	Biweekly	Weekly		Yearly	Monthly	Weekly	Biweekly		Yearly	Monthly	Weekly	Biweekly
1	22.59	276.66	600.00	1,200.51	1	22.74	278.37	603.71	1,207.92	1	99%	99%	99%	99%
2	22.59	276.33	599.31	1,199.11	2	22.73	278.02	602.96	1,206.42	2	99%	99%	99%	99%
3	22.54	275.63	597.79	1,196.07	3	22.68	277.33	601.47	1,203.44	3	99%	99%	99%	99%
4	22.47	274.79	595.96	1,192.43	4	22.62	276.52	599.70	1,199.91	4	99%	99%	99%	99%
5	22.40	273.85	593.93	1,188.35	5	22.54	275.61	597.74	1,195.97	5	99%	99%	99%	99%
6	22.32	272.83	591.71	1,183.91	6	22.46	274.62	595.60	1,191.70	6	99%	99%	99%	99%
7	22.23	271.73	589.32	1,179.14	7	22.38	273.57	593.31	1,187.12	7	99%	99%	99%	99%
8	22.13	270.59	586.86	1,174.23	8	22.29	272.48	590.95	1,182.39	8	99%	99%	99%	99%
9	22.04	269.46	584.41	1,169.32	9	22.20	271.38	588.58	1,177.66	9	99%	99%	99%	99%
10	21.94	268.32	581.94	1,164.37	10	22.11	270.28	586.19	1,172.87	10	99%	99%	99%	99%
11	21.85	267.16	579.42	1,159.35	11	22.01	269.16	583.75	1,168.01	11	99%	99%	99%	99%
12	21.75	265.97	576.86	1,154.21	12	21.92	268.01	581.26	1,163.03	12	99%	99%	99%	99%
13	21.65	264.75	574.22	1,148.93	13	21.82	266.82	578.70	1,157.90	13	99%	99%	99%	99%
14	21.55	263.50	571.49	1,143.49	14	21.72	265.60	576.05	1,152.61	14	99%	99%	99%	99%
15	21.44	262.20	568.68	1,137.86	15	21.62	264.34	573.32	1,147.13	15	99%	99%	99%	99%
16	21.33	260.86	565.77	1,132.04	16	21.51	263.03	570.48	1,141.47	16	99%	99%	99%	99%
17	21.22	259.47	562.76	1,126.02	17	21.40	261.68	567.55	1,135.60	17	99%	99%	99%	99%
18	21.10	258.03	559.65	1,119.79	18	21.28	260.28	564.52	1,129.54	18	99%	99%	99%	99%
19	20.98	256.55	556.44	1,113.38	19	21.16	258.83	561.39	1,123.28	19	99%	99%	99%	99%
20	20.85	255.02	553.14	1,106.77	20	21.04	257.34	558.16	1,116.82	20	99%	99%	99%	99%
21	20.72	253.46	549.74	1,099.99	21	20.92	255.81	554.84	1,110.19	21	99%	99%	99%	99%
22	20.59	251.85	546.26	1,093.02	22	20.79	254.24	551.44	1,103.37	22	99%	99%	99%	99%
23	20.45	250.21	542.69	1,085.89	23	20.65	252.63	547.94	1,096.37	23	99%	99%	99%	99%
24	20.31	248.52	539.04	1,078.58	24	20.52	250.97	544.35	1,089.20	24	99%	99%	99%	99%
25	20.17	246.79	535.30	1,071.09	25	20.38	249.27	540.67	1,081.83	25	99%	99%	99%	99%
26	20.03	245.02	531.46	1,063.41	26	20.23	247.52	536.88	1,074.27	26	99%	99%	99%	99%
27	19.88	243.20	527.51	1,055.51	27	20.09	245.72	532.99	1,066.47	27	99%	99%	99%	99%
28	19.72	241.31	523.43	1,047.36	28	19.93	243.87	528.96	1,058.42	28	99%	99%	99%	99%
29	19.56	239.36	519.21	1,038.91	29	19.78	241.94	524.79	1,050.08	29	99%	99%	99%	99%
30	19.40	237.34	514.82	1,030.14	30	19.61	239.94	520.46	1,041.41	30	99%	99%	99%	99%
31	19.22	235.23	510.24	1,020.99	31	19.44	237.85	515.93	1,032.37	31	99%	99%	99%	99%
32	19.04	233.02	505.46	1,011.41	32	19.26	235.67	511.20	1,022.91	32	99%	99%	99%	99%
33	18.85	230.70	500.44	1,001.38	33	19.08	233.39	506.25	1,013.00	33	99%	99%	99%	99%
34	18.66	228.28	495.19	990.88	34	18.88	230.99	501.07	1,002.63	34	99%	99%	99%	99%
35	18.45	225.74	489.69	979.88	35	18.68	228.49	495.64	991.77	35	99%	99%	99%	99%
36	18.23	223.08	483.93	968.36	36	18.46	225.86	489.95	980.41	36	99%	99%	99%	99%
37	18.01	220.32	477.93	956.37	37	18.24	223.13	484.04	968.57	37	99%	99%	99%	99%
38	17.77	217.46	471.75	943.99	38	18.01	220.31	477.93	956.35	38	99%	99%	99%	99%
39	17.53	214.54	465.41	931.32	39	17.77	217.42	471.66	943.82	39	99%	99%	99%	99%
40	17.28	211.57	458.98	918.46	40	17.52	214.48	465.28	931.06	40	99%	99%	99%	99%
41	17.03	208.58	452.50	905.50	41	17.28	211.50	458.83	918.17	41	99%	99%	99%	99%
42	16.78	205.59	446.03	892.56	42	17.03	208.52	452.37	905.25	42	99%	99%	99%	99%
43	16.54	202.64	439.64	879.77	43	16.78	205.56	445.95	892.41	43	99%	99%	99%	99%
44	16.29	199.75	433.37	867.24	44	16.53	202.63	439.62	879.75	44	99%	99%	99%	99%
45	16.05	196.94	427.29	855.08	45	16.29	199.78	433.43	867.36	45	99%	99%	99%	99%
46	15.82	194.13	421.20	842.89	46	16.06	196.91	427.22	854.94	46	99%	99%	99%	99%
47	15.58	191.21	414.86	830.23	47	15.81	193.95	420.81	842.12	47	99%	99%	99%	99%
48	15.34	188.19	408.32	817.15	48	15.56	190.91	414.21	828.93	48	99%	99%	99%	99%
49	15.08	185.08	401.60	803.70	49	15.31	187.78	407.45	815.40	49	99%	99%	99%	99%
50	14.82	181.90	394.71	789.92	50	15.04	184.59	400.52	801.54	50	99%	99%	99%	99%
51	14.55	178.66	387.67	775.84	51	14.77	181.32	393.45	787.39	51	98%	99%	99%	99%
52	14.28	175.35	380.50	761.50	52	14.50	177.99	386.23	772.96	52	98%	99%	99%	99%
53	14.00	171.98	373.21	746.91	53	14.22	174.60	378.88	758.26	53	98%	99%	99%	99%
54	13.72	168.56	365.80	732.10	54	13.93	171.15	371.40	743.31	54	98%	98%	98%	98%
55	13.43	165.09	358.28	717.07	55	13.64	167.64	363.81	728.11	55	98%	98%	98%	98%

PTD Public Regular

Age	2019 Annuity Factor				Age	2015 Annuity Factor				Age	2019/2015			
	Yearly	Monthly	Biweekly	Weekly		Yearly	Monthly	Weekly	Biweekly		Yearly	Monthly	Weekly	Biweekly
56	13.14	161.58	350.67	701.83	56	13.35	164.08	356.10	712.69	56	98%	98%	98%	98%
57	12.84	158.02	342.95	686.41	57	13.05	160.47	348.28	697.05	57	98%	98%	98%	98%
58	12.54	154.41	335.15	670.80	58	12.75	156.82	340.36	681.21	58	98%	98%	98%	98%
59	12.24	150.77	327.26	655.01	59	12.44	153.12	332.34	665.19	59	98%	98%	98%	98%
60	11.94	147.09	319.29	639.07	60	12.13	149.38	324.25	648.99	60	98%	98%	98%	98%
61	11.63	143.38	311.24	622.99	61	11.82	145.61	316.07	632.65	61	98%	98%	98%	98%
62	11.32	139.64	303.14	606.78	62	11.50	141.81	307.84	616.17	62	98%	98%	98%	98%
63	11.01	135.88	294.98	590.46	63	11.18	137.99	299.55	599.60	63	98%	98%	98%	98%
64	10.69	132.09	286.79	574.07	64	10.86	134.14	291.22	582.95	64	98%	98%	98%	98%
65	10.38	128.30	278.56	557.62	65	10.54	130.29	282.87	566.24	65	98%	98%	98%	98%
66	10.06	124.49	270.32	541.14	66	10.22	126.43	274.51	549.51	66	98%	98%	98%	98%
67	9.74	120.69	262.07	524.64	67	9.90	122.56	266.14	532.78	67	98%	98%	98%	98%
68	9.43	116.88	253.82	508.15	68	9.58	118.71	257.78	516.06	68	98%	98%	98%	98%
69	9.11	113.08	245.59	491.68	69	9.26	114.86	249.44	499.39	69	98%	98%	98%	98%
70	8.79	109.29	237.38	475.26	70	8.94	111.03	241.14	482.77	70	98%	98%	98%	98%
71	8.48	105.51	229.20	458.89	71	8.62	107.21	232.87	466.23	71	98%	98%	98%	98%
72	8.16	101.75	221.05	442.60	72	8.30	103.41	224.64	449.78	72	98%	98%	98%	98%
73	7.85	98.01	212.94	426.38	73	7.99	99.64	216.46	433.43	73	98%	98%	98%	98%
74	7.54	94.29	204.88	410.26	74	7.68	95.89	208.34	417.19	74	98%	98%	98%	98%
75	7.23	90.59	196.87	394.24	75	7.36	92.17	200.28	401.07	75	98%	98%	98%	98%
76	6.93	86.93	188.92	378.34	76	7.06	88.48	192.29	385.08	76	98%	98%	98%	98%
77	6.62	83.29	181.04	362.58	77	6.75	84.82	184.37	369.23	77	98%	98%	98%	98%
78	6.32	79.69	173.24	346.98	78	6.45	81.20	176.52	353.53	78	98%	98%	98%	98%
79	6.02	76.13	165.53	331.55	79	6.15	77.62	168.75	338.00	79	98%	98%	98%	98%
80	5.73	72.62	157.92	316.33	80	5.85	74.07	161.08	322.65	80	98%	98%	98%	98%
81	5.44	69.16	150.43	301.35	81	5.56	70.58	153.50	307.50	81	98%	98%	98%	98%
82	5.16	65.77	143.07	286.64	82	5.27	67.13	146.04	292.57	82	98%	98%	98%	98%
83	4.88	62.44	135.88	272.25	83	4.99	63.75	138.70	277.90	83	98%	98%	98%	98%
84	4.60	59.20	128.86	258.21	84	4.71	60.43	131.50	263.51	84	98%	98%	98%	98%
85	4.34	56.06	122.04	244.57	85	4.44	57.18	124.47	249.44	85	98%	98%	98%	98%
86	4.08	53.01	115.43	231.36	86	4.17	54.02	117.61	235.73	86	98%	98%	98%	98%
87	3.83	50.07	109.07	218.63	87	3.91	50.94	110.96	222.42	87	98%	98%	98%	98%
88	3.59	47.25	102.95	206.40	88	3.66	47.97	104.52	209.55	88	98%	98%	98%	98%
89	3.37	44.55	97.10	194.70	89	3.42	45.11	98.33	197.15	89	98%	99%	99%	99%
90	3.15	41.97	91.52	183.54	90	3.19	42.38	92.39	185.28	90	99%	99%	99%	99%
91	2.94	39.52	86.21	172.92	91	2.97	39.77	86.74	173.98	91	99%	99%	99%	99%
92	2.74	37.20	81.17	162.84	92	2.76	37.30	81.40	163.29	92	100%	100%	100%	100%
93	2.56	34.99	76.40	153.30	93	2.56	34.99	76.39	153.28	93	100%	100%	100%	100%
94	2.38	32.91	71.88	144.25	94	2.38	32.86	71.78	144.05	94	100%	100%	100%	100%
95	2.21	30.92	67.58	135.66	95	2.21	30.88	67.48	135.47	95	100%	100%	100%	100%
96	2.05	29.03	63.47	127.43	96	2.05	28.98	63.37	127.25	96	100%	100%	100%	100%
97	1.90	27.19	59.48	119.46	97	1.90	27.14	59.39	119.28	97	100%	100%	100%	100%
98	1.75	25.38	55.56	111.62	98	1.75	25.34	55.48	111.45	98	100%	100%	100%	100%
99	1.61	23.58	51.68	103.85	99	1.60	23.55	51.60	103.69	99	100%	100%	100%	100%
100	1.46	21.80	47.81	96.11	100	1.46	21.76	47.73	95.96	100	100%	100%	100%	100%
101	1.31	20.02	43.95	88.40	101	1.31	19.99	43.88	88.26	101	100%	100%	100%	100%
102	1.17	18.25	40.12	80.74	102	1.17	18.22	40.05	80.60	102	100%	100%	100%	100%
103	1.03	16.50	36.33	73.16	103	1.03	16.47	36.27	73.03	103	100%	100%	100%	100%
104	0.89	14.78	32.60	65.69	104	0.89	14.75	32.54	65.57	104	100%	100%	100%	100%
105	0.75	13.09	28.94	58.38	105	0.75	13.07	28.88	58.26	105	100%	100%	100%	100%
106	0.62	11.45	25.37	51.24	106	0.62	11.42	25.32	51.13	106	100%	100%	100%	100%
107	0.50	9.84	21.90	44.29	107	0.50	9.82	21.85	44.20	107	100%	100%	100%	100%
108	0.38	8.29	18.52	37.53	108	0.38	8.27	18.49	37.48	108	100%	100%	100%	100%
109	0.27	6.79	15.28	31.06	109	0.27	6.82	15.33	31.16	109	100%	100%	100%	100%
110	0.17	5.60	12.69	25.86	110	0.17	5.82	13.16	26.81	110	98%	96%	96%	96%

PTD OD Lung

Age	2019 Annuity Factor			
	Yearly	Monthly	Biweekly	Weekly
1	21.53	264.04	572.66	1,145.82
2	21.55	263.81	572.17	1,144.85
3	21.49	262.97	570.35	1,141.19
4	21.41	261.91	568.05	1,136.60
5	21.31	260.70	565.42	1,131.35
6	21.20	259.36	562.53	1,125.56
7	21.09	257.91	559.40	1,119.30
8	20.96	256.43	556.18	1,112.87
9	20.84	254.97	553.01	1,106.52
10	20.72	253.50	549.84	1,100.18
11	20.60	252.03	546.65	1,093.80
12	20.47	250.53	543.41	1,087.32
13	20.35	249.00	540.09	1,080.68
14	20.22	247.43	536.68	1,073.87
15	20.08	245.81	533.17	1,066.84
16	19.95	244.14	529.54	1,059.59
17	19.80	242.41	525.80	1,052.10
18	19.66	240.63	521.95	1,044.40
19	19.51	238.80	517.99	1,036.48
20	19.35	236.93	513.93	1,028.36
21	19.20	235.01	509.78	1,020.06
22	19.03	233.06	505.54	1,011.59
23	18.87	231.07	501.23	1,002.95
24	18.70	229.04	496.83	994.16
25	18.53	226.97	492.35	985.21
26	18.36	224.86	487.78	976.07
27	18.18	222.70	483.11	966.71
28	18.00	220.48	478.29	957.09
29	17.81	218.19	473.32	947.14
30	17.61	215.80	468.16	936.82
31	17.41	213.32	462.77	926.04
32	17.20	210.71	457.12	914.75
33	16.98	207.98	451.20	902.90
34	16.74	205.11	444.98	890.46
35	16.50	202.09	438.45	877.40
36	16.24	198.93	431.60	863.70
37	15.97	195.64	424.47	849.43
38	15.69	192.25	417.12	834.75
39	15.40	188.80	409.64	819.78
40	15.11	185.31	402.09	804.68
41	14.82	181.83	394.56	789.62
42	14.53	178.41	387.13	774.76
43	14.25	175.07	379.90	760.31
44	13.98	171.87	372.96	746.43
45	13.72	168.84	366.39	733.29
46	13.47	165.84	359.89	720.29
47	13.22	162.72	353.13	706.77
48	12.95	159.50	346.16	692.82
49	12.68	156.19	339.00	678.51
50	12.40	152.82	331.70	663.90
51	12.12	149.40	324.28	649.06
52	11.83	145.93	316.76	634.02
53	11.54	142.42	309.15	618.81
54	11.25	138.88	301.48	603.46
55	10.95	135.31	293.75	588.00

Age	2015 Annuity Factor			
	Yearly	Monthly	Weekly	Biweekly
1	21.71	266.23	577.41	1,155.31
2	21.73	265.96	576.82	1,154.15
3	21.67	265.12	575.01	1,150.53
4	21.59	264.09	572.77	1,146.04
5	21.49	262.91	570.21	1,140.93
6	21.39	261.61	567.41	1,135.31
7	21.28	260.21	564.38	1,129.26
8	21.16	258.78	561.27	1,123.03
9	21.04	257.35	558.18	1,116.87
10	20.92	255.93	555.10	1,110.69
11	20.80	254.49	551.98	1,104.46
12	20.68	253.03	548.81	1,098.13
13	20.56	251.53	545.57	1,091.63
14	20.43	249.99	542.23	1,084.96
15	20.30	248.40	538.78	1,078.07
16	20.16	246.76	535.23	1,070.95
17	20.03	245.06	531.55	1,063.60
18	19.88	243.32	527.77	1,056.03
19	19.73	241.52	523.87	1,048.25
20	19.58	239.67	519.88	1,040.25
21	19.43	237.78	515.78	1,032.07
22	19.27	235.85	511.60	1,023.70
23	19.10	233.88	507.33	1,015.16
24	18.94	231.87	502.97	1,006.45
25	18.77	229.82	498.53	997.56
26	18.59	227.73	493.99	988.47
27	18.42	225.58	489.33	979.16
28	18.24	223.36	484.53	969.57
29	18.05	221.07	479.57	959.65
30	17.85	218.70	474.42	949.35
31	17.65	216.21	469.05	938.59
32	17.44	213.62	463.42	927.33
33	17.22	210.89	457.51	915.52
34	16.99	208.03	451.31	903.13
35	16.74	205.03	444.81	890.13
36	16.48	201.88	438.00	876.50
37	16.22	198.61	430.90	862.30
38	15.94	195.23	423.58	847.67
39	15.65	191.78	416.12	832.73
40	15.36	188.30	408.56	817.63
41	15.07	184.81	401.00	802.50
42	14.78	181.35	393.51	787.52
43	14.49	177.97	386.17	772.85
44	14.22	174.69	379.07	758.65
45	13.95	171.55	372.28	745.06
46	13.69	168.45	365.55	731.61
47	13.43	165.25	358.63	717.75
48	13.16	161.97	351.52	703.54
49	12.88	158.62	344.26	689.02
50	12.60	155.20	336.86	674.21
51	12.31	151.73	329.33	659.16
52	12.02	148.21	321.70	643.90
53	11.73	144.64	313.98	628.45
54	11.43	141.04	306.17	612.83
55	11.13	137.40	298.28	597.07

Age	2019/2015			
	Yearly	Monthly	Weekly	Biweekly
1	99%	99%	99%	99%
2	99%	99%	99%	99%
3	99%	99%	99%	99%
4	99%	99%	99%	99%
5	99%	99%	99%	99%
6	99%	99%	99%	99%
7	99%	99%	99%	99%
8	99%	99%	99%	99%
9	99%	99%	99%	99%
10	99%	99%	99%	99%
11	99%	99%	99%	99%
12	99%	99%	99%	99%
13	99%	99%	99%	99%
14	99%	99%	99%	99%
15	99%	99%	99%	99%
16	99%	99%	99%	99%
17	99%	99%	99%	99%
18	99%	99%	99%	99%
19	99%	99%	99%	99%
20	99%	99%	99%	99%
21	99%	99%	99%	99%
22	99%	99%	99%	99%
23	99%	99%	99%	99%
24	99%	99%	99%	99%
25	99%	99%	99%	99%
26	99%	99%	99%	99%
27	99%	99%	99%	99%
28	99%	99%	99%	99%
29	99%	99%	99%	99%
30	99%	99%	99%	99%
31	99%	99%	99%	99%
32	99%	99%	99%	99%
33	99%	99%	99%	99%
34	99%	99%	99%	99%
35	99%	99%	99%	99%
36	99%	99%	99%	99%
37	98%	99%	99%	99%
38	98%	98%	98%	98%
39	98%	98%	98%	98%
40	98%	98%	98%	98%
41	98%	98%	98%	98%
42	98%	98%	98%	98%
43	98%	98%	98%	98%
44	98%	98%	98%	98%
45	98%	98%	98%	98%
46	98%	98%	98%	98%
47	98%	98%	98%	98%
48	98%	98%	98%	98%
49	98%	98%	98%	98%
50	98%	98%	98%	98%
51	98%	98%	98%	98%
52	98%	98%	98%	98%
53	98%	98%	98%	98%
54	98%	98%	98%	98%
55	98%	98%	98%	98%

PTD OD Lung

Age	2019 Annuity Factor				Age	2015 Annuity Factor				Age	2019/2015			
	Yearly	Monthly	Biweekly	Weekly		Yearly	Monthly	Weekly	Biweekly		Yearly	Monthly	Weekly	Biweekly
56	10.65	131.72	285.97	572.44	56	10.82	133.73	290.34	581.18	56	98%	98%	98%	98%
57	10.35	128.11	278.15	556.79	57	10.52	130.04	282.34	565.17	57	98%	99%	99%	99%
58	10.05	124.48	270.28	541.07	58	10.21	126.33	274.29	549.07	58	98%	99%	99%	99%
59	9.75	120.84	262.39	525.28	59	9.90	122.59	266.20	532.91	59	98%	99%	99%	99%
60	9.44	117.18	254.48	509.46	60	9.59	118.85	258.10	516.69	60	99%	99%	99%	99%
61	9.14	113.53	246.56	493.62	61	9.27	115.11	249.98	500.45	61	99%	99%	99%	99%
62	8.84	109.87	238.64	477.78	62	8.96	111.36	241.86	484.22	62	99%	99%	99%	99%
63	8.53	106.22	230.73	461.96	63	8.65	107.62	233.76	468.02	63	99%	99%	99%	99%
64	8.23	102.59	222.85	446.20	64	8.34	103.90	225.70	451.90	64	99%	99%	99%	99%
65	7.93	98.97	215.01	430.52	65	8.03	100.20	217.68	435.86	65	99%	99%	99%	99%
66	7.63	95.37	207.22	414.95	66	7.72	96.53	209.73	419.96	66	99%	99%	99%	99%
67	7.33	91.81	199.50	399.50	67	7.42	92.89	201.85	404.20	67	99%	99%	99%	99%
68	7.03	88.28	191.86	384.21	68	7.12	89.30	194.06	388.62	68	99%	99%	99%	99%
69	6.74	84.79	184.29	369.09	69	6.82	85.75	186.37	373.24	69	99%	99%	99%	99%
70	6.45	81.34	176.82	354.15	70	6.53	82.25	178.79	358.07	70	99%	99%	99%	99%
71	6.17	77.94	169.45	339.40	71	6.24	78.80	171.31	343.13	71	99%	99%	99%	99%
72	5.89	74.58	162.18	324.86	72	5.96	75.40	163.96	328.42	72	99%	99%	99%	99%
73	5.61	71.28	155.01	310.52	73	5.68	72.07	156.73	313.95	73	99%	99%	99%	99%
74	5.34	68.02	147.95	296.40	74	5.40	68.79	149.62	299.74	74	99%	99%	99%	99%
75	5.07	64.81	141.00	282.51	75	5.13	65.56	142.64	285.77	75	99%	99%	99%	99%
76	4.81	61.66	134.17	268.83	76	4.87	62.40	135.78	272.06	76	99%	99%	99%	99%
77	4.55	58.55	127.45	255.40	77	4.61	59.29	129.05	258.60	77	99%	99%	99%	99%
78	4.29	55.51	120.85	242.21	78	4.35	56.25	122.45	245.40	78	99%	99%	99%	99%
79	4.04	52.53	114.39	229.27	79	4.10	53.26	115.98	232.45	79	99%	99%	99%	99%
80	3.80	49.61	108.06	216.62	80	3.86	50.33	109.64	219.77	80	98%	99%	99%	99%
81	3.56	46.75	101.88	204.26	81	3.62	47.47	103.44	207.37	81	98%	98%	98%	99%
82	3.32	43.98	95.87	192.23	82	3.38	44.68	97.38	195.25	82	98%	98%	98%	98%
83	3.10	41.28	90.03	180.55	83	3.15	41.95	91.47	183.43	83	98%	98%	98%	98%
84	2.88	38.68	84.38	169.26	84	2.93	39.30	85.72	171.94	84	98%	98%	98%	98%
85	2.67	36.17	78.94	158.37	85	2.72	36.72	80.15	160.79	85	98%	98%	98%	98%
86	2.46	33.75	73.71	147.93	86	2.51	34.24	74.76	150.01	86	98%	99%	99%	99%
87	2.27	31.45	68.72	137.95	87	2.31	31.84	69.56	139.62	87	98%	99%	99%	99%
88	2.08	29.26	63.97	128.45	88	2.11	29.54	64.58	129.65	88	99%	99%	99%	99%
89	1.91	27.18	59.47	119.44	89	1.93	27.34	59.81	120.12	89	99%	99%	99%	99%
90	1.74	25.22	55.22	110.94	90	1.75	25.24	55.27	111.05	90	100%	100%	100%	100%
91	1.59	23.37	51.22	102.93	91	1.58	23.26	50.98	102.46	91	100%	100%	100%	100%
92	1.44	21.64	47.46	95.42	92	1.43	21.40	46.95	94.39	92	101%	101%	101%	101%
93	1.31	20.01	43.94	88.37	93	1.28	19.68	43.21	86.91	93	102%	102%	102%	102%
94	1.18	18.49	40.65	81.79	94	1.15	18.12	39.83	80.17	94	103%	102%	102%	102%
95	1.06	17.07	37.57	75.63	95	1.03	16.71	36.79	74.07	95	103%	102%	102%	102%
96	0.95	15.73	34.66	69.82	96	0.92	15.39	33.91	68.33	96	103%	102%	102%	102%
97	0.85	14.45	31.89	64.27	97	0.82	14.12	31.17	62.83	97	103%	102%	102%	102%
98	0.75	13.20	29.17	58.84	98	0.72	12.88	28.48	57.46	98	104%	102%	102%	102%
99	0.65	11.96	26.48	53.45	99	0.63	11.65	25.81	52.12	99	104%	103%	103%	103%
100	0.55	10.71	23.77	48.04	100	0.53	10.42	23.14	46.77	100	104%	103%	103%	103%
101	0.46	9.45	21.04	42.58	101	0.44	9.17	20.43	41.35	101	105%	103%	103%	103%
102	0.36	8.17	18.26	37.02	102	0.34	7.89	17.67	35.83	102	106%	103%	103%	103%
103	0.27	6.85	15.41	31.31	103	0.25	6.58	14.82	30.13	103	108%	104%	104%	104%
104	0.18	5.46	12.39	25.27	104	0.16	5.18	11.79	24.07	104	111%	105%	105%	105%
105	0.09	3.85	8.89	18.26	105	0.07	3.58	8.30	17.08	105	121%	108%	107%	107%
106	0.01	1.83	4.48	9.43	106	0.00	0.00	0.00	0.00	106	-	-	-	-
107	0.00	0.00	0.00	0.00	107	0.00	0.00	0.00	0.00	107	-	-	-	-
108	0.00	0.00	0.00	0.00	108	0.00	0.00	0.00	0.00	108	-	-	-	-
109	0.00	0.00	0.00	0.00	109	0.00	0.00	0.00	0.00	109	-	-	-	-
110	0.00	0.00	0.00	0.00	110	0.00	0.00	0.00	0.00	110	-	-	-	-

PTD OD Non-Lung

2019 Annuity Factor					2015 Annuity Factor					2019/2015				
Age	Yearly	Monthly	Biweekly	Weekly	Age	Yearly	Monthly	Weekly	Biweekly	Age	Yearly	Monthly	Weekly	Biweekly
1	22.45	274.93	596.26	1,193.03	1	22.57	276.38	599.41	1,199.32	1	99%	99%	99%	99%
2	22.45	274.61	595.58	1,191.66	2	22.57	276.04	598.67	1,197.85	2	99%	99%	99%	99%
3	22.39	273.89	594.01	1,188.52	3	22.51	275.32	597.12	1,194.74	3	99%	99%	99%	99%
4	22.33	273.02	592.12	1,184.73	4	22.45	274.47	595.27	1,191.03	4	99%	99%	99%	99%
5	22.25	272.03	589.99	1,180.48	5	22.37	273.51	593.19	1,186.89	5	99%	99%	99%	99%
6	22.16	270.96	587.67	1,175.84	6	22.29	272.47	590.94	1,182.38	6	99%	99%	99%	99%
7	22.07	269.81	585.18	1,170.85	7	22.20	271.35	588.52	1,177.54	7	99%	99%	99%	99%
8	21.97	268.63	582.61	1,165.72	8	22.10	270.20	586.02	1,172.55	8	99%	99%	99%	99%
9	21.87	267.45	580.05	1,160.59	9	22.01	269.05	583.53	1,167.56	9	99%	99%	99%	99%
10	21.77	266.26	577.47	1,155.44	10	21.91	267.89	581.02	1,162.53	10	99%	99%	99%	99%
11	21.67	265.05	574.85	1,150.21	11	21.81	266.71	578.46	1,157.42	11	99%	99%	99%	99%
12	21.57	263.82	572.18	1,144.87	12	21.71	265.51	575.85	1,152.19	12	99%	99%	99%	99%
13	21.47	262.55	569.44	1,139.38	13	21.61	264.27	573.16	1,146.82	13	99%	99%	99%	99%
14	21.36	261.24	566.61	1,133.73	14	21.50	262.99	570.39	1,141.27	14	99%	99%	99%	99%
15	21.25	259.90	563.69	1,127.88	15	21.40	261.66	567.52	1,135.54	15	99%	99%	99%	99%
16	21.13	258.50	560.67	1,121.84	16	21.28	260.29	564.55	1,129.60	16	99%	99%	99%	99%
17	21.02	257.06	557.54	1,115.59	17	21.17	258.88	561.48	1,123.46	17	99%	99%	99%	99%
18	20.89	255.57	554.32	1,109.14	18	21.05	257.41	558.31	1,117.12	18	99%	99%	99%	99%
19	20.77	254.04	550.99	1,102.49	19	20.92	255.90	555.04	1,110.58	19	99%	99%	99%	99%
20	20.64	252.46	547.57	1,095.64	20	20.79	254.35	551.67	1,103.84	20	99%	99%	99%	99%
21	20.50	250.84	544.06	1,088.62	21	20.66	252.75	548.21	1,096.91	21	99%	99%	99%	99%
22	20.37	249.17	540.46	1,081.42	22	20.53	251.11	544.65	1,089.81	22	99%	99%	99%	99%
23	20.23	247.47	536.77	1,074.04	23	20.39	249.43	541.01	1,082.51	23	99%	99%	99%	99%
24	20.08	245.73	533.00	1,066.49	24	20.25	247.70	537.27	1,075.04	24	99%	99%	99%	99%
25	19.94	243.95	529.13	1,058.77	25	20.10	245.94	533.44	1,067.39	25	99%	99%	99%	99%
26	19.79	242.12	525.17	1,050.85	26	19.95	244.12	529.51	1,059.52	26	99%	99%	99%	99%
27	19.63	240.24	521.10	1,042.71	27	19.80	242.25	525.47	1,051.43	27	99%	99%	99%	99%
28	19.47	238.30	516.90	1,034.31	28	19.64	240.33	521.29	1,043.08	28	99%	99%	99%	99%
29	19.31	236.30	512.56	1,025.61	29	19.48	238.33	516.97	1,034.43	29	99%	99%	99%	99%
30	19.14	234.21	508.04	1,016.58	30	19.31	236.26	512.47	1,025.44	30	99%	99%	99%	99%
31	18.96	232.04	503.33	1,007.16	31	19.13	234.09	507.78	1,016.06	31	99%	99%	99%	99%
32	18.77	229.76	498.40	997.30	32	18.95	231.83	502.87	1,006.25	32	99%	99%	99%	99%
33	18.58	227.38	493.24	986.97	33	18.75	229.46	497.74	995.97	33	99%	99%	99%	99%
34	18.38	224.88	487.83	976.15	34	18.55	226.97	492.35	985.21	34	99%	99%	99%	99%
35	18.16	222.27	482.16	964.81	35	18.34	224.37	486.72	973.94	35	99%	99%	99%	99%
36	17.94	219.53	476.22	952.94	36	18.12	221.65	480.82	962.14	36	99%	99%	99%	99%
37	17.71	216.67	470.04	940.58	37	17.88	218.81	474.67	949.85	37	99%	99%	99%	99%
38	17.46	213.73	463.67	927.83	38	17.64	215.88	468.33	937.16	38	99%	99%	99%	99%
39	17.21	210.72	457.14	914.79	39	17.39	212.88	461.83	924.16	39	99%	99%	99%	99%
40	16.96	207.67	450.53	901.55	40	17.14	209.83	455.22	910.95	40	99%	99%	99%	99%
41	16.70	204.60	443.87	888.24	41	16.89	206.76	448.56	897.62	41	99%	99%	99%	99%
42	16.45	201.53	437.24	874.98	42	16.63	203.68	441.89	884.28	42	99%	99%	99%	99%
43	16.19	198.52	430.70	861.90	43	16.37	200.63	435.28	871.06	43	99%	99%	99%	99%
44	15.94	195.57	424.31	849.12	44	16.12	197.63	428.79	858.07	44	99%	99%	99%	99%
45	15.70	192.71	418.13	836.76	45	15.87	194.71	422.45	845.41	45	99%	99%	99%	99%
46	15.47	189.86	411.94	824.39	46	15.63	191.79	416.12	832.73	46	99%	99%	99%	99%
47	15.23	186.89	405.52	811.54	47	15.38	188.77	409.58	819.66	47	99%	99%	99%	99%
48	14.97	183.83	398.88	798.27	48	15.13	185.67	402.86	806.22	48	99%	99%	99%	99%
49	14.72	180.68	392.06	784.63	49	14.87	182.49	395.97	792.43	49	99%	99%	99%	99%
50	14.45	177.46	385.08	770.66	50	14.60	179.23	388.92	778.34	50	99%	99%	99%	99%
51	14.18	174.17	377.95	756.41	51	14.32	175.91	381.72	763.95	51	99%	99%	99%	99%
52	13.90	170.82	370.70	741.89	52	14.04	172.53	374.39	749.29	52	99%	99%	99%	99%
53	13.62	167.42	363.32	727.15	53	13.76	169.09	366.94	734.37	53	99%	99%	99%	99%
54	13.33	163.97	355.84	712.18	54	13.47	165.59	359.36	719.22	54	99%	99%	99%	99%
55	13.04	160.47	348.26	697.02	55	13.18	162.04	351.67	703.84	55	99%	99%	99%	99%

PTD OD Non-Lung

Age	2019 Annuity Factor				Age	2015 Annuity Factor				Age	2019/2015			
	Yearly	Monthly	Biweekly	Weekly		Yearly	Monthly	Weekly	Biweekly		Yearly	Monthly	Weekly	Biweekly
56	12.75	156.92	340.58	681.67	56	12.88	158.44	343.88	688.25	56	99%	99%	99%	99%
57	12.45	153.34	332.82	666.14	57	12.58	154.80	335.98	672.46	57	99%	99%	99%	99%
58	12.15	149.72	324.97	650.44	58	12.27	151.11	327.99	656.49	58	99%	99%	99%	99%
59	11.85	146.06	317.04	634.58	59	11.96	147.39	319.92	640.35	59	99%	99%	99%	99%
60	11.54	142.37	309.04	618.58	60	11.65	143.63	311.78	624.06	60	99%	99%	99%	99%
61	11.23	138.65	300.98	602.46	61	11.34	139.84	303.57	607.65	61	99%	99%	99%	99%
62	10.92	134.90	292.87	586.24	62	11.02	136.03	295.31	591.13	62	99%	99%	99%	99%
63	10.61	131.14	284.71	569.93	63	10.70	132.20	287.02	574.53	63	99%	99%	99%	99%
64	10.30	127.36	276.53	553.56	64	10.38	128.36	278.69	557.89	64	99%	99%	99%	99%
65	9.98	123.57	268.33	537.15	65	10.06	124.51	270.36	541.22	65	99%	99%	99%	99%
66	9.67	119.79	260.12	520.73	66	9.74	120.67	262.02	524.55	66	99%	99%	99%	99%
67	9.35	116.00	251.91	504.33	67	9.42	116.83	253.70	507.91	67	99%	99%	99%	99%
68	9.04	112.22	243.72	487.95	68	9.10	113.00	245.41	491.32	68	99%	99%	99%	99%
69	8.72	108.45	235.56	471.62	69	8.78	109.18	237.15	474.80	69	99%	99%	99%	99%
70	8.41	104.70	227.43	455.36	70	8.47	105.39	228.93	458.36	70	99%	99%	99%	99%
71	8.10	100.96	219.34	439.18	71	8.15	101.62	220.77	442.04	71	99%	99%	99%	99%
72	7.79	97.25	211.29	423.09	72	7.84	97.88	212.67	425.83	72	99%	99%	99%	99%
73	7.48	93.56	203.30	407.10	73	7.53	94.17	204.63	409.75	73	99%	99%	99%	99%
74	7.17	89.90	195.37	391.23	74	7.22	90.50	196.66	393.81	74	99%	99%	99%	99%
75	6.87	86.27	187.49	375.48	75	6.92	86.85	188.76	378.03	75	99%	99%	99%	99%
76	6.57	82.67	179.69	359.88	76	6.62	83.25	180.95	362.39	76	99%	99%	99%	99%
77	6.27	79.10	171.96	344.43	77	6.32	79.68	173.22	346.93	77	99%	99%	99%	99%
78	5.98	75.57	164.33	329.15	78	6.02	76.15	165.57	331.64	78	99%	99%	99%	99%
79	5.69	72.09	156.78	314.07	79	5.73	72.66	158.02	316.54	79	99%	99%	99%	99%
80	5.40	68.66	149.35	299.21	80	5.45	69.22	150.57	301.63	80	99%	99%	99%	99%
81	5.12	65.29	142.05	284.60	81	5.16	65.84	143.22	286.95	81	99%	99%	99%	99%
82	4.84	61.99	134.89	270.28	82	4.88	62.50	136.00	272.50	82	99%	99%	99%	99%
83	4.57	58.76	127.89	256.28	83	4.61	59.23	128.91	258.33	83	99%	99%	99%	99%
84	4.30	55.61	121.08	242.65	84	4.34	56.03	121.97	244.45	84	99%	99%	99%	99%
85	4.05	52.56	114.46	229.42	85	4.08	52.90	115.20	230.90	85	99%	99%	99%	99%
86	3.80	49.61	108.07	216.64	86	3.82	49.86	108.61	217.72	86	99%	99%	100%	100%
87	3.56	46.77	101.92	204.33	87	3.57	46.91	102.22	204.94	87	100%	100%	100%	100%
88	3.33	44.05	96.02	192.53	88	3.33	44.07	96.05	192.61	88	100%	100%	100%	100%
89	3.11	41.45	90.38	181.26	89	3.10	41.33	90.13	180.75	89	100%	100%	100%	100%
90	2.90	38.97	85.01	170.52	90	2.88	38.71	84.46	169.41	90	101%	101%	101%	101%
91	2.70	36.62	79.92	160.33	91	2.67	36.23	79.07	158.63	91	101%	101%	101%	101%
92	2.51	34.39	75.09	150.69	92	2.47	33.88	73.98	148.46	92	102%	102%	102%	102%
93	2.33	32.29	70.53	141.57	93	2.28	31.69	69.23	138.97	93	102%	102%	102%	102%
94	2.16	30.30	66.22	132.95	94	2.11	29.68	64.88	130.25	94	102%	102%	102%	102%
95	2.00	28.41	62.14	124.78	95	1.95	27.82	60.85	122.19	95	103%	102%	102%	102%
96	1.85	26.62	58.24	116.99	96	1.80	26.04	57.00	114.50	96	103%	102%	102%	102%
97	1.71	24.88	54.48	109.45	97	1.66	24.33	53.29	107.07	97	103%	102%	102%	102%
98	1.57	23.17	50.78	102.05	98	1.52	22.64	49.64	99.77	98	103%	102%	102%	102%
99	1.43	21.48	47.11	94.72	99	1.39	20.98	46.02	92.55	99	103%	102%	102%	102%
100	1.29	19.79	43.46	87.41	100	1.25	19.31	42.42	85.35	100	103%	102%	102%	102%
101	1.16	18.11	39.82	80.14	101	1.12	17.66	38.84	78.17	101	103%	103%	103%	103%
102	1.02	16.44	36.20	72.90	102	0.99	16.01	35.27	71.03	102	104%	103%	103%	103%
103	0.89	14.79	32.61	65.72	103	0.85	14.38	31.73	63.95	103	104%	103%	103%	103%
104	0.76	13.15	29.07	58.64	104	0.73	12.77	28.23	56.96	104	104%	103%	103%	103%
105	0.63	11.55	25.59	51.67	105	0.60	11.18	24.79	50.08	105	105%	103%	103%	103%
106	0.51	9.97	22.17	44.84	106	0.48	9.62	21.41	43.31	106	106%	104%	104%	104%
107	0.39	8.42	18.81	38.12	107	0.36	8.08	18.07	36.64	107	107%	104%	104%	104%
108	0.28	6.89	15.48	31.46	108	0.25	6.55	14.75	29.99	108	109%	105%	105%	105%
109	0.17	5.34	12.12	24.73	109	0.15	4.98	11.35	23.20	109	114%	107%	107%	107%
110	0.08	3.93	9.06	18.61	110	0.06	3.66	8.48	17.45	110	134%	107%	107%	107%

Survivor Benefit Private

Age	2019 Annuity Factor				Age	2015 Annuity Factor				Age	2019/2015			
	Yearly	Monthly	Biweekly	Weekly		Yearly	Monthly	Weekly	Biweekly		Yearly	Monthly	Weekly	Biweekly
1	21.86	266.82	578.69	1,157.87	1	21.78	265.87	576.64	1,153.78	1	100%	100%	100%	100%
2	21.74	265.34	575.48	1,151.46	2	21.66	264.41	573.47	1,147.44	2	100%	100%	100%	100%
3	21.61	263.78	572.11	1,144.71	3	21.53	262.86	570.11	1,140.72	3	100%	100%	100%	100%
4	21.48	262.15	568.58	1,137.66	4	21.40	261.23	566.58	1,133.65	4	100%	100%	100%	100%
5	21.34	260.46	564.90	1,130.31	5	21.26	259.52	562.89	1,126.27	5	100%	100%	100%	100%
6	21.20	258.69	561.07	1,122.65	6	21.12	257.75	559.04	1,118.58	6	100%	100%	100%	100%
7	21.05	256.85	557.09	1,114.67	7	20.97	255.90	555.03	1,110.55	7	100%	100%	100%	100%
8	20.89	254.93	552.93	1,106.37	8	20.81	253.97	550.84	1,102.19	8	100%	100%	100%	100%
9	20.73	252.94	548.61	1,097.72	9	20.65	251.96	546.49	1,093.48	9	100%	100%	100%	100%
10	20.56	250.86	544.12	1,088.74	10	20.48	249.87	541.96	1,084.42	10	100%	100%	100%	100%
11	20.38	248.71	539.45	1,079.40	11	20.30	247.70	537.26	1,075.02	11	100%	100%	100%	100%
12	20.20	246.47	534.60	1,069.70	12	20.12	245.44	532.38	1,065.26	12	100%	100%	100%	100%
13	20.01	244.14	529.56	1,059.62	13	19.93	243.11	527.32	1,055.13	13	100%	100%	100%	100%
14	19.82	241.73	524.33	1,049.16	14	19.73	240.69	522.07	1,044.65	14	100%	100%	100%	100%
15	19.61	239.23	518.90	1,038.31	15	19.53	238.18	516.64	1,033.78	15	100%	100%	100%	100%
16	19.40	236.62	513.27	1,027.04	16	19.32	235.58	511.00	1,022.50	16	100%	100%	100%	100%
17	19.18	233.92	507.41	1,015.32	17	19.10	232.88	505.15	1,010.79	17	100%	100%	100%	100%
18	18.95	233.43	506.36	1,013.21	18	18.87	231.88	502.99	1,006.47	18	100%	101%	101%	101%
19	19.06	234.62	508.93	1,018.37	19	18.90	232.23	503.74	1,007.97	19	101%	101%	101%	101%
20	19.13	235.32	510.45	1,021.39	20	18.90	232.25	503.80	1,008.10	20	101%	101%	101%	101%
21	19.17	235.78	511.44	1,023.38	21	18.90	232.16	503.60	1,007.70	21	101%	102%	102%	102%
22	19.20	236.00	511.92	1,024.34	22	18.88	231.94	503.12	1,006.74	22	102%	102%	102%	102%
23	19.21	235.98	511.88	1,024.26	23	18.86	231.58	502.34	1,005.18	23	102%	102%	102%	102%
24	19.19	235.73	511.33	1,023.17	24	18.82	231.08	501.25	1,002.99	24	102%	102%	102%	102%
25	19.16	235.28	510.36	1,021.21	25	18.77	230.43	499.85	1,000.20	25	102%	102%	102%	102%
26	19.12	234.68	509.06	1,018.63	26	18.71	229.68	498.21	996.92	26	102%	102%	102%	102%
27	19.06	233.95	507.48	1,015.45	27	18.64	228.80	496.33	993.15	27	102%	102%	102%	102%
28	18.99	233.09	505.60	1,011.71	28	18.56	227.82	494.19	988.87	28	102%	102%	102%	102%
29	18.91	232.09	503.45	1,007.39	29	18.46	226.71	491.78	984.07	29	102%	102%	102%	102%
30	18.82	230.96	501.00	1,002.50	30	18.36	225.47	489.10	978.71	30	102%	102%	102%	102%
31	18.72	229.74	498.36	997.21	31	18.25	224.15	486.25	972.99	31	103%	102%	102%	102%
32	18.61	228.43	495.52	991.53	32	18.14	222.75	483.20	966.91	32	103%	103%	103%	103%
33	18.50	227.03	492.48	985.45	33	18.02	221.26	479.97	960.44	33	103%	103%	103%	103%
34	18.37	225.53	489.23	978.95	34	17.89	219.67	476.54	953.57	34	103%	103%	103%	103%
35	18.24	223.93	485.76	972.02	35	17.75	217.99	472.90	946.29	35	103%	103%	103%	103%
36	18.11	222.27	482.17	964.83	36	17.61	216.26	469.14	938.79	36	103%	103%	103%	103%
37	17.97	220.55	478.44	957.38	37	17.46	214.47	465.28	931.06	37	103%	103%	103%	103%
38	17.82	218.77	474.58	949.65	38	17.31	212.64	461.30	923.10	38	103%	103%	103%	103%
39	17.67	216.92	470.57	941.64	39	17.15	210.75	457.20	914.90	39	103%	103%	103%	103%
40	17.51	215.00	466.42	933.33	40	16.99	208.80	452.98	906.45	40	103%	103%	103%	103%
41	17.36	213.11	462.31	925.12	41	16.83	206.90	448.87	898.23	41	103%	103%	103%	103%
42	17.20	211.23	458.24	916.98	42	16.68	205.05	444.86	890.21	42	103%	103%	103%	103%
43	17.05	209.36	454.19	908.88	43	16.53	203.24	440.93	882.36	43	103%	103%	103%	103%
44	16.90	207.49	450.14	900.77	44	16.39	201.46	437.08	874.65	44	103%	103%	103%	103%
45	16.74	205.61	446.07	892.64	45	16.24	199.71	433.28	867.06	45	103%	103%	103%	103%
46	16.59	203.69	441.91	884.32	46	16.10	197.94	429.45	859.40	46	103%	103%	103%	103%
47	16.43	201.72	437.64	875.79	47	15.95	196.15	425.58	851.67	47	103%	103%	103%	103%
48	16.26	199.70	433.26	867.02	48	15.81	194.35	421.68	843.85	48	103%	103%	103%	103%
49	16.09	197.62	428.75	858.01	49	15.66	192.52	417.72	835.94	49	103%	103%	103%	103%
50	15.92	195.48	424.11	848.73	50	15.50	190.68	413.71	827.93	50	103%	103%	103%	103%
51	15.74	193.27	419.33	839.16	51	15.35	188.80	409.66	819.82	51	103%	102%	102%	102%
52	15.55	190.99	414.40	829.29	52	15.19	186.91	405.55	811.61	52	102%	102%	102%	102%
53	15.36	188.64	409.29	819.09	53	15.04	184.99	401.38	803.27	53	102%	102%	102%	102%
54	15.16	186.27	404.16	808.81	54	14.87	182.97	397.03	794.55	54	102%	102%	102%	102%
55	14.97	183.92	399.08	798.65	55	14.70	180.81	392.34	785.18	55	102%	102%	102%	102%

Survivor Benefit Private

Age	2019 Annuity Factor				Age	2015 Annuity Factor				Age	2019/2015			
	Yearly	Monthly	Biweekly	Weekly		Yearly	Monthly	Weekly	Biweekly		Yearly	Monthly	Weekly	Biweekly
56	14.77	181.55	393.93	788.36	56	14.51	178.47	387.27	775.04	56	102%	102%	102%	102%
57	14.57	179.10	388.64	777.78	57	14.31	175.95	381.80	764.10	57	102%	102%	102%	102%
58	14.36	176.56	383.13	766.76	58	14.09	173.24	375.93	752.37	58	102%	102%	102%	102%
59	14.15	173.89	377.34	755.18	59	13.86	170.35	369.66	739.83	59	102%	102%	102%	102%
60	13.92	171.06	371.22	742.93	60	13.61	167.27	363.00	726.50	60	102%	102%	102%	102%
61	13.67	168.06	364.72	729.95	61	13.35	164.02	355.95	712.40	61	102%	102%	102%	102%
62	13.42	164.88	357.83	716.16	62	13.07	160.59	348.53	697.57	62	103%	103%	103%	103%
63	13.14	161.51	350.52	701.55	63	12.77	157.01	340.77	682.04	63	103%	103%	103%	103%
64	12.85	157.94	342.80	686.09	64	12.47	153.28	332.69	665.88	64	103%	103%	103%	103%
65	12.55	154.19	334.65	669.80	65	12.15	149.42	324.32	649.15	65	103%	103%	103%	103%
66	12.23	150.24	326.11	652.72	66	11.82	145.44	315.70	631.91	66	103%	103%	103%	103%
67	11.89	146.13	317.19	634.88	67	11.49	141.36	306.87	614.23	67	103%	103%	103%	103%
68	11.54	141.85	307.93	616.36	68	11.14	137.20	297.85	596.20	68	104%	103%	103%	103%
69	11.18	137.44	298.37	597.24	69	10.79	132.98	288.70	577.91	69	104%	103%	103%	103%
70	10.80	132.91	288.55	577.60	70	10.44	128.71	279.46	559.42	70	103%	103%	103%	103%
71	10.42	128.28	278.53	557.55	71	10.08	124.42	270.16	540.82	71	103%	103%	103%	103%
72	10.03	123.58	268.35	537.19	72	9.72	120.12	260.85	522.20	72	103%	103%	103%	103%
73	9.64	118.84	258.07	516.64	73	9.36	115.84	251.57	503.64	73	103%	103%	103%	103%
74	9.24	114.08	247.75	496.00	74	9.01	111.59	242.36	485.21	74	103%	102%	102%	102%
75	8.84	109.32	237.45	475.39	75	8.65	107.39	233.25	467.01	75	102%	102%	102%	102%
76	8.47	104.81	227.66	455.82	76	8.33	103.52	224.87	450.24	76	102%	101%	101%	101%
77	8.09	100.25	217.79	436.08	77	8.01	99.61	216.40	433.30	77	101%	101%	101%	101%
78	7.71	95.68	207.88	416.26	78	7.68	95.68	207.88	416.27	78	100%	100%	100%	100%
79	7.33	91.12	198.00	396.50	79	7.35	91.74	199.36	399.21	79	100%	99%	99%	99%
80	6.95	86.59	188.19	376.88	80	7.03	87.81	190.85	382.20	80	99%	99%	99%	99%
81	6.57	82.11	178.50	357.50	81	6.70	83.91	182.39	365.28	81	98%	98%	98%	98%
82	6.20	77.71	168.96	338.42	82	6.38	80.04	174.00	348.50	82	97%	97%	97%	97%
83	5.84	73.40	159.61	319.72	83	6.06	76.21	165.70	331.90	83	96%	96%	96%	96%
84	5.48	69.18	150.46	301.43	84	5.74	72.43	157.50	315.51	84	96%	96%	96%	96%
85	5.14	65.06	141.55	283.59	85	5.43	68.69	149.41	299.32	85	95%	95%	95%	95%
86	4.80	61.09	132.94	266.37	86	5.12	65.05	141.52	283.55	86	94%	94%	94%	94%
87	4.48	57.30	124.73	249.95	87	4.82	61.56	133.96	268.42	87	93%	93%	93%	93%
88	4.17	53.69	116.92	234.33	88	4.54	58.21	126.71	253.92	88	92%	92%	92%	92%
89	3.88	50.27	109.50	219.51	89	4.27	55.01	119.77	240.05	89	91%	91%	91%	91%
90	3.60	47.03	102.49	205.47	90	4.01	51.95	113.14	226.78	90	90%	91%	91%	91%
91	3.34	43.97	95.85	192.21	91	3.76	49.02	106.79	214.09	91	89%	90%	90%	90%
92	3.10	41.09	89.61	179.71	92	3.52	46.22	100.73	201.95	92	88%	89%	89%	89%
93	2.86	38.38	83.74	167.97	93	3.29	43.54	94.92	190.34	93	87%	88%	88%	88%
94	2.65	35.84	78.25	156.99	94	3.08	40.97	89.36	179.21	94	86%	87%	88%	88%
95	2.45	33.49	73.14	146.78	95	2.87	38.50	84.01	168.52	95	85%	87%	87%	87%
96	2.26	31.29	68.38	137.27	96	2.67	36.15	78.90	158.31	96	85%	87%	87%	87%
97	2.09	29.23	63.92	128.34	97	2.48	33.93	74.10	148.70	97	84%	86%	86%	86%
98	1.92	27.31	59.75	119.99	98	2.30	31.85	69.59	139.68	98	84%	86%	86%	86%
99	1.77	25.51	55.86	112.22	99	2.14	29.90	65.38	131.25	99	83%	85%	85%	85%
100	1.63	23.84	52.24	104.98	100	1.98	28.09	61.44	123.37	100	82%	85%	85%	85%
101	1.50	22.28	48.86	98.21	101	1.84	26.38	57.74	115.98	101	82%	84%	85%	85%
102	1.38	20.81	45.68	91.86	102	1.71	24.77	54.25	109.01	102	81%	84%	84%	84%
103	1.26	19.46	42.74	85.98	103	1.58	23.27	50.99	102.48	103	80%	84%	84%	84%
104	1.16	18.22	40.05	80.60	104	1.46	21.86	47.96	96.41	104	79%	83%	84%	84%
105	1.07	17.08	37.59	75.68	105	1.35	20.54	45.08	90.66	105	79%	83%	83%	83%
106	0.98	15.99	35.23	70.97	106	1.25	19.19	42.17	84.84	106	79%	83%	84%	84%
107	0.89	14.84	32.74	65.97	107	1.13	17.69	38.91	78.32	107	79%	84%	84%	84%
108	0.79	13.47	29.77	60.04	108	1.00	15.81	34.85	70.20	108	80%	85%	85%	86%
109	0.66	11.53	25.56	51.62	109	0.81	13.13	29.03	58.56	109	82%	88%	88%	88%
110	0.45	8.03	17.98	36.47	110	0.52	8.65	19.33	39.17	110	85%	93%	93%	93%

Survivor Benefit Public

Age	2019 Annuity Factor				Age	2015 Annuity Factor				Age	2019/2015			
	Yearly	Monthly	Biweekly	Weekly		Yearly	Monthly	Weekly	Biweekly		Yearly	Monthly	Weekly	Biweekly
1	21.86	266.82	578.69	1,157.87	1	21.78	265.87	576.64	1,153.78	1	100%	100%	100%	100%
2	21.74	265.34	575.48	1,151.46	2	21.66	264.41	573.47	1,147.44	2	100%	100%	100%	100%
3	21.61	263.78	572.11	1,144.71	3	21.53	262.86	570.11	1,140.72	3	100%	100%	100%	100%
4	21.48	262.15	568.58	1,137.66	4	21.40	261.23	566.58	1,133.65	4	100%	100%	100%	100%
5	21.34	260.46	564.90	1,130.31	5	21.26	259.52	562.89	1,126.27	5	100%	100%	100%	100%
6	21.20	258.69	561.07	1,122.65	6	21.12	257.75	559.04	1,118.58	6	100%	100%	100%	100%
7	21.05	256.85	557.09	1,114.67	7	20.97	255.90	555.03	1,110.55	7	100%	100%	100%	100%
8	20.89	254.93	552.93	1,106.37	8	20.81	253.97	550.84	1,102.19	8	100%	100%	100%	100%
9	20.73	252.94	548.61	1,097.72	9	20.65	251.96	546.49	1,093.48	9	100%	100%	100%	100%
10	20.56	250.86	544.12	1,088.74	10	20.48	249.87	541.96	1,084.42	10	100%	100%	100%	100%
11	20.38	248.71	539.45	1,079.40	11	20.30	247.70	537.26	1,075.02	11	100%	100%	100%	100%
12	20.20	246.47	534.60	1,069.70	12	20.12	245.44	532.38	1,065.26	12	100%	100%	100%	100%
13	20.01	244.14	529.56	1,059.62	13	19.93	243.11	527.32	1,055.13	13	100%	100%	100%	100%
14	19.82	241.73	524.33	1,049.16	14	19.73	240.69	522.07	1,044.65	14	100%	100%	100%	100%
15	19.61	239.23	518.90	1,038.31	15	19.53	238.18	516.34	1,033.78	15	100%	100%	100%	100%
16	19.40	236.62	513.27	1,027.04	16	19.32	235.58	511.00	1,022.50	16	100%	100%	100%	100%
17	19.18	233.92	507.41	1,015.32	17	19.10	232.88	505.15	1,010.79	17	100%	100%	100%	100%
18	18.95	233.43	506.36	1,013.21	18	18.87	231.88	502.99	1,006.47	18	100%	101%	101%	101%
19	19.06	234.62	508.93	1,018.37	19	18.90	232.23	503.74	1,007.97	19	101%	101%	101%	101%
20	19.13	235.32	510.45	1,021.39	20	18.90	232.25	503.80	1,008.10	20	101%	101%	101%	101%
21	19.17	235.78	511.44	1,023.38	21	18.90	232.16	503.60	1,007.70	21	101%	102%	102%	102%
22	19.20	236.00	511.92	1,024.34	22	18.88	231.94	503.12	1,006.74	22	102%	102%	102%	102%
23	19.21	235.98	511.88	1,024.26	23	18.86	231.58	502.34	1,005.18	23	102%	102%	102%	102%
24	19.19	235.73	511.33	1,023.17	24	18.82	231.08	501.25	1,002.99	24	102%	102%	102%	102%
25	19.16	235.28	510.36	1,021.21	25	18.77	230.43	499.85	1,000.20	25	102%	102%	102%	102%
26	19.12	234.68	509.06	1,018.63	26	18.71	229.68	498.21	996.92	26	102%	102%	102%	102%
27	19.06	233.95	507.48	1,015.45	27	18.64	228.80	496.33	993.15	27	102%	102%	102%	102%
28	18.99	233.09	505.60	1,011.71	28	18.56	227.82	494.19	988.87	28	102%	102%	102%	102%
29	18.91	232.09	503.45	1,007.39	29	18.46	226.71	491.78	984.07	29	102%	102%	102%	102%
30	18.82	230.96	501.00	1,002.50	30	18.36	225.47	489.10	978.71	30	102%	102%	102%	102%
31	18.72	229.74	498.36	997.21	31	18.25	224.15	486.25	972.99	31	103%	102%	102%	102%
32	18.61	228.43	495.52	991.53	32	18.14	222.75	483.20	966.91	32	103%	103%	103%	103%
33	18.50	227.03	492.48	985.45	33	18.02	221.26	479.97	960.44	33	103%	103%	103%	103%
34	18.37	225.53	489.23	978.95	34	17.89	219.67	476.54	953.57	34	103%	103%	103%	103%
35	18.24	223.93	485.76	972.02	35	17.75	217.99	472.90	946.29	35	103%	103%	103%	103%
36	18.11	222.27	482.17	964.83	36	17.61	216.26	469.14	938.79	36	103%	103%	103%	103%
37	17.97	220.55	478.44	957.38	37	17.46	214.47	465.28	931.06	37	103%	103%	103%	103%
38	17.82	218.77	474.58	949.65	38	17.31	212.64	461.30	923.10	38	103%	103%	103%	103%
39	17.67	216.92	470.57	941.64	39	17.15	210.75	457.20	914.90	39	103%	103%	103%	103%
40	17.51	215.00	466.42	933.33	40	16.99	208.80	452.98	906.45	40	103%	103%	103%	103%
41	17.36	213.11	462.31	925.12	41	16.83	206.90	448.87	898.23	41	103%	103%	103%	103%
42	17.20	211.23	458.24	916.98	42	16.68	205.05	444.86	890.21	42	103%	103%	103%	103%
43	17.05	209.36	454.19	908.88	43	16.53	203.24	440.93	882.36	43	103%	103%	103%	103%
44	16.90	207.49	450.14	900.77	44	16.39	201.46	437.08	874.65	44	103%	103%	103%	103%
45	16.74	205.61	446.07	892.64	45	16.24	199.71	433.28	867.06	45	103%	103%	103%	103%
46	16.59	203.69	441.91	884.32	46	16.10	197.94	429.45	859.40	46	103%	103%	103%	103%
47	16.43	201.72	437.64	875.79	47	15.95	196.15	425.58	851.67	47	103%	103%	103%	103%
48	16.26	199.70	433.26	867.02	48	15.81	194.35	421.68	843.85	48	103%	103%	103%	103%
49	16.09	197.62	428.75	858.01	49	15.66	192.52	417.72	835.94	49	103%	103%	103%	103%
50	15.92	195.48	424.11	848.73	50	15.50	190.68	413.71	827.93	50	103%	103%	103%	103%
51	15.74	193.27	419.33	839.16	51	15.35	188.80	409.66	819.82	51	103%	102%	102%	102%
52	15.55	190.99	414.40	829.29	52	15.19	186.91	405.55	811.61	52	102%	102%	102%	102%
53	15.36	188.64	409.29	819.09	53	15.04	184.99	401.38	803.27	53	102%	102%	102%	102%
54	15.16	186.27	404.16	808.81	54	14.87	182.97	397.03	794.55	54	102%	102%	102%	102%
55	14.97	183.92	399.08	798.65	55	14.70	180.81	392.34	785.18	55	102%	102%	102%	102%

Survivor Benefit Public

Age	2019 Annuity Factor				Age	2015 Annuity Factor				Age	2019/2015			
	Yearly	Monthly	Biweekly	Weekly		Yearly	Monthly	Weekly	Biweekly		Yearly	Monthly	Weekly	Biweekly
56	14.77	181.55	393.93	788.36	56	14.51	178.47	387.27	775.04	56	102%	102%	102%	102%
57	14.57	179.10	388.64	777.78	57	14.31	175.95	381.80	764.10	57	102%	102%	102%	102%
58	14.36	176.56	383.13	766.76	58	14.09	173.24	375.93	752.37	58	102%	102%	102%	102%
59	14.15	173.89	377.34	755.18	59	13.86	170.35	369.66	739.83	59	102%	102%	102%	102%
60	13.92	171.06	371.22	742.93	60	13.61	167.27	363.00	726.50	60	102%	102%	102%	102%
61	13.67	168.06	364.72	729.95	61	13.35	164.02	355.95	712.40	61	102%	102%	102%	102%
62	13.42	164.88	357.83	716.16	62	13.07	160.59	348.53	697.57	62	103%	103%	103%	103%
63	13.14	161.51	350.52	701.55	63	12.77	157.01	340.77	682.04	63	103%	103%	103%	103%
64	12.85	157.94	342.80	686.09	64	12.47	153.28	332.69	665.88	64	103%	103%	103%	103%
65	12.55	154.19	334.65	669.80	65	12.15	149.42	324.32	649.15	65	103%	103%	103%	103%
66	12.23	150.24	326.11	652.72	66	11.82	145.44	315.70	631.91	66	103%	103%	103%	103%
67	11.89	146.13	317.19	634.88	67	11.49	141.36	306.87	614.23	67	103%	103%	103%	103%
68	11.54	141.85	307.93	616.36	68	11.14	137.20	297.85	596.20	68	104%	103%	103%	103%
69	11.18	137.44	298.37	597.24	69	10.79	132.98	288.70	577.91	69	104%	103%	103%	103%
70	10.80	132.91	288.55	577.60	70	10.44	128.71	279.46	559.42	70	103%	103%	103%	103%
71	10.42	128.28	278.53	557.55	71	10.08	124.42	270.16	540.82	71	103%	103%	103%	103%
72	10.03	123.58	268.35	537.19	72	9.72	120.12	260.85	522.20	72	103%	103%	103%	103%
73	9.64	118.84	258.07	516.64	73	9.36	115.84	251.57	503.64	73	103%	103%	103%	103%
74	9.24	114.08	247.75	496.00	74	9.01	111.59	242.36	485.21	74	103%	102%	102%	102%
75	8.84	109.32	237.45	475.39	75	8.65	107.39	233.25	467.01	75	102%	102%	102%	102%
76	8.47	104.81	227.66	455.82	76	8.33	103.52	224.87	450.24	76	102%	101%	101%	101%
77	8.09	100.25	217.79	436.08	77	8.01	99.61	216.40	433.30	77	101%	101%	101%	101%
78	7.71	95.68	207.88	416.26	78	7.68	95.68	207.88	416.27	78	100%	100%	100%	100%
79	7.33	91.12	198.00	396.50	79	7.35	91.74	199.36	399.21	79	100%	99%	99%	99%
80	6.95	86.59	188.19	376.88	80	7.03	87.81	190.85	382.20	80	99%	99%	99%	99%
81	6.57	82.11	178.50	357.50	81	6.70	83.91	182.39	365.28	81	98%	98%	98%	98%
82	6.20	77.71	168.96	338.42	82	6.38	80.04	174.00	348.50	82	97%	97%	97%	97%
83	5.84	73.40	159.61	319.72	83	6.06	76.21	165.70	331.90	83	96%	96%	96%	96%
84	5.48	69.18	150.46	301.43	84	5.74	72.43	157.50	315.51	84	96%	96%	96%	96%
85	5.14	65.06	141.55	283.59	85	5.43	68.69	149.41	299.32	85	95%	95%	95%	95%
86	4.80	61.09	132.94	266.37	86	5.12	65.05	141.52	283.55	86	94%	94%	94%	94%
87	4.48	57.30	124.73	249.95	87	4.82	61.56	133.96	268.42	87	93%	93%	93%	93%
88	4.17	53.69	116.92	234.33	88	4.54	58.21	126.71	253.92	88	92%	92%	92%	92%
89	3.88	50.27	109.50	219.51	89	4.27	55.01	119.77	240.05	89	91%	91%	91%	91%
90	3.60	47.03	102.49	205.47	90	4.01	51.95	113.14	226.78	90	90%	91%	91%	91%
91	3.34	43.97	95.85	192.21	91	3.76	49.02	106.79	214.09	91	89%	90%	90%	90%
92	3.10	41.09	89.61	179.71	92	3.52	46.22	100.73	201.95	92	88%	89%	89%	89%
93	2.86	38.38	83.74	167.97	93	3.29	43.54	94.92	190.34	93	87%	88%	88%	88%
94	2.65	35.84	78.25	156.99	94	3.08	40.97	89.36	179.21	94	86%	87%	88%	88%
95	2.45	33.49	73.14	146.78	95	2.87	38.50	84.01	168.52	95	85%	87%	87%	87%
96	2.26	31.29	68.38	137.27	96	2.67	36.15	78.90	158.31	96	85%	87%	87%	87%
97	2.09	29.23	63.92	128.34	97	2.48	33.93	74.10	148.70	97	84%	86%	86%	86%
98	1.92	27.31	59.75	119.99	98	2.30	31.85	69.59	139.68	98	84%	86%	86%	86%
99	1.77	25.51	55.86	112.22	99	2.14	29.90	65.38	131.25	99	83%	85%	85%	85%
100	1.63	23.84	52.24	104.98	100	1.98	28.09	61.44	123.37	100	82%	85%	85%	85%
101	1.50	22.28	48.86	98.21	101	1.84	26.38	57.74	115.98	101	82%	84%	85%	85%
102	1.38	20.81	45.68	91.86	102	1.71	24.77	54.25	109.01	102	81%	84%	84%	84%
103	1.26	19.46	42.74	85.98	103	1.58	23.27	50.99	102.48	103	80%	84%	84%	84%
104	1.16	18.22	40.05	80.60	104	1.46	21.86	47.96	96.41	104	79%	83%	84%	84%
105	1.07	17.08	37.59	75.68	105	1.35	20.54	45.08	90.66	105	79%	83%	83%	83%
106	0.98	15.99	35.23	70.97	106	1.25	19.19	42.17	84.84	106	79%	83%	84%	84%
107	0.89	14.84	32.74	65.97	107	1.13	17.69	38.91	78.32	107	79%	84%	84%	84%
108	0.79	13.47	29.77	60.04	108	1.00	15.81	34.85	70.20	108	80%	85%	85%	86%
109	0.66	11.53	25.56	51.62	109	0.81	13.13	29.03	58.56	109	82%	88%	88%	88%
110	0.45	8.03	17.98	36.47	110	0.52	8.65	19.33	39.17	110	85%	93%	93%	93%

Orphan

Age	2019 Annuity Factor			
	Yearly	Monthly	Biweekly	Weekly
1	13.84	168.61	365.89	732.27
2	13.40	163.18	354.13	708.74
3	12.94	157.52	341.87	684.23
4	12.46	151.63	329.11	658.70
5	11.96	145.51	315.83	632.14
6	11.44	139.13	302.01	604.51
7	10.90	132.50	287.64	575.76
8	10.33	125.60	272.69	545.86
9	9.75	118.42	257.13	514.75
10	9.14	110.95	240.96	482.39
11	8.51	103.19	224.13	448.74
12	7.85	95.11	206.63	413.75
13	7.16	86.71	188.44	377.36
14	6.45	77.98	169.52	339.52
15	5.71	68.90	149.84	300.16
16	4.94	59.46	129.38	259.23
17	4.14	49.63	108.09	216.66
18	3.31	43.68	95.20	190.87
19	3.16	40.58	88.48	177.42
20	2.80	34.83	76.00	152.46
21	2.21	28.05	61.31	123.08
22	1.68	21.65	47.42	95.29
23	1.17	14.90	32.77	65.98
24	0.59	9.46	20.94	42.26
25	0.35	4.48	9.93	20.07
26	0.00	0.00	0.00	0.00

Age	2015 Annuity Factor			
	Yearly	Monthly	Weekly	Biweekly
1	13.86	168.85	366.40	733.30
2	13.42	163.43	354.66	709.82
3	12.96	157.78	342.43	685.34
4	12.48	151.90	329.69	659.86
5	11.98	145.78	316.43	633.35
6	11.46	139.42	302.64	605.77
7	10.92	132.80	288.29	577.07
8	10.36	125.91	273.36	547.22
9	9.77	118.74	257.84	516.16
10	9.17	111.29	241.69	483.87
11	8.53	103.54	224.89	450.28
12	7.88	95.48	207.43	415.34
13	7.19	87.09	189.27	379.02
14	6.48	78.38	170.38	341.24
15	5.74	69.31	150.74	301.96
16	4.97	59.88	130.31	261.10
17	4.17	50.08	109.06	218.60
18	3.34	44.52	97.02	194.52
19	3.26	41.39	90.22	180.92
20	2.82	35.29	77.00	154.47
21	2.26	28.66	62.64	125.75
22	1.73	22.22	48.69	97.83
23	1.21	15.96	35.09	70.62
24	0.73	9.50	21.07	42.55
25	0.20	3.83	8.61	17.49
26	0.00	0.00	0.00	0.00

Age	2019/2015			
	Yearly	Monthly	Weekly	Biweekly
1	100%	100%	100%	100%
2	100%	100%	100%	100%
3	100%	100%	100%	100%
4	100%	100%	100%	100%
5	100%	100%	100%	100%
6	100%	100%	100%	100%
7	100%	100%	100%	100%
8	100%	100%	100%	100%
9	100%	100%	100%	100%
10	100%	100%	100%	100%
11	100%	100%	100%	100%
12	100%	100%	100%	100%
13	100%	100%	100%	100%
14	100%	99%	99%	99%
15	99%	99%	99%	99%
16	99%	99%	99%	99%
17	99%	99%	99%	99%
18	99%	98%	98%	98%
19	97%	98%	98%	98%
20	99%	99%	99%	99%
21	98%	98%	98%	98%
22	97%	97%	97%	97%
23	96%	93%	93%	93%
24	81%	100%	99%	99%
25	181%	117%	115%	115%
26	-	-	-	-

APPENDIX D. 2020 MORTALITY / TERMINATION RATES

The data shown in this appendix represents the following:

- PTD: Death rates
- Survivor Benefit: Combination of death rates and remarriage rates
- Orphan: Termination rate (due to attaining an age at which benefits are no longer eligible, or due to no longer attending college full time)

PTD Private Regular

Age	Male	Female	Gender Neutral	Age	Male	Female	Gender Neutral
1	0.57%	0.33%	0.50%	56	1.93%	1.29%	1.75%
2	0.32%	0.18%	0.28%	57	2.05%	1.37%	1.86%
3	0.26%	0.15%	0.23%	58	2.17%	1.46%	1.97%
4	0.23%	0.13%	0.20%	59	2.31%	1.56%	2.09%
5	0.21%	0.12%	0.18%	60	2.45%	1.66%	2.23%
6	0.19%	0.11%	0.17%	61	2.61%	1.78%	2.37%
7	0.18%	0.10%	0.16%	62	2.78%	1.90%	2.52%
8	0.21%	0.12%	0.18%	63	2.96%	2.03%	2.69%
9	0.23%	0.13%	0.20%	64	3.15%	2.18%	2.87%
10	0.25%	0.14%	0.22%	65	3.37%	2.33%	3.07%
11	0.26%	0.15%	0.23%	66	3.60%	2.50%	3.28%
12	0.27%	0.16%	0.24%	67	3.85%	2.69%	3.51%
13	0.28%	0.16%	0.25%	68	4.12%	2.89%	3.76%
14	0.29%	0.17%	0.25%	69	4.41%	3.11%	4.02%
15	0.30%	0.17%	0.26%	70	4.73%	3.34%	4.31%
16	0.31%	0.18%	0.27%	71	5.06%	3.59%	4.62%
17	0.31%	0.18%	0.28%	72	5.42%	3.86%	4.94%
18	0.32%	0.19%	0.28%	73	5.81%	4.15%	5.30%
19	0.33%	0.19%	0.29%	74	6.22%	4.46%	5.68%
20	0.35%	0.20%	0.31%	75	6.67%	4.81%	6.09%
21	0.33%	0.19%	0.32%	76	7.16%	5.18%	6.53%
22	0.35%	0.20%	0.33%	77	7.69%	5.59%	7.01%
23	0.36%	0.21%	0.35%	78	8.27%	6.03%	7.53%
24	0.38%	0.22%	0.37%	79	8.89%	6.51%	8.10%
25	0.40%	0.24%	0.38%	80	9.57%	7.04%	8.72%
26	0.42%	0.25%	0.40%	81	10.33%	7.62%	9.40%
27	0.43%	0.26%	0.41%	82	11.16%	8.27%	10.14%
28	0.45%	0.27%	0.42%	83	12.07%	8.98%	10.96%
29	0.46%	0.28%	0.43%	84	13.07%	9.76%	11.85%
30	0.47%	0.28%	0.44%	85	14.15%	10.61%	12.83%
31	0.47%	0.28%	0.44%	86	15.35%	11.55%	13.89%
32	0.47%	0.29%	0.44%	87	16.64%	12.58%	15.05%
33	0.47%	0.29%	0.44%	88	18.05%	13.69%	16.30%
34	0.47%	0.29%	0.44%	89	19.59%	14.92%	17.64%
35	0.48%	0.29%	0.44%	90	21.18%	16.20%	19.07%
36	0.48%	0.29%	0.44%	91	22.91%	17.59%	20.59%
37	0.49%	0.31%	0.46%	92	24.71%	19.05%	22.19%
38	0.52%	0.33%	0.48%	93	26.61%	20.59%	23.88%
39	0.57%	0.36%	0.53%	94	28.78%	22.36%	25.65%
40	0.63%	0.40%	0.58%	95	30.64%	23.90%	27.47%
41	0.71%	0.45%	0.65%	96	32.78%	25.67%	29.34%
42	0.80%	0.51%	0.73%	97	35.02%	27.53%	31.27%
43	0.91%	0.58%	0.84%	98	37.70%	29.76%	33.32%
44	1.04%	0.66%	0.95%	99	39.95%	31.66%	35.56%
45	1.19%	0.76%	1.08%	100	42.96%	34.18%	38.06%
46	1.20%	0.77%	1.10%	101	46.05%	36.78%	40.88%
47	1.23%	0.80%	1.13%	102	49.57%	39.75%	44.09%
48	1.27%	0.83%	1.16%	103	53.59%	43.14%	47.76%
49	1.33%	0.86%	1.21%	104	58.18%	47.03%	51.95%
50	1.39%	0.91%	1.26%	105	63.42%	51.46%	56.75%
51	1.46%	0.96%	1.33%	106	69.38%	56.52%	62.21%
52	1.54%	1.01%	1.40%	107	76.13%	62.27%	68.39%
53	1.63%	1.07%	1.48%	108	83.74%	68.76%	75.38%
54	1.72%	1.14%	1.56%	109	92.28%	76.08%	83.24%
55	1.82%	1.21%	1.65%	110	100.00%	84.28%	92.03%

PTD Public Regular

Age	Male	Female	Gender Neutral
1	0.55%	0.32%	0.46%
2	0.31%	0.18%	0.26%
3	0.25%	0.14%	0.21%
4	0.22%	0.13%	0.18%
5	0.20%	0.11%	0.17%
6	0.18%	0.11%	0.15%
7	0.18%	0.10%	0.15%
8	0.20%	0.12%	0.17%
9	0.22%	0.13%	0.18%
10	0.24%	0.14%	0.20%
11	0.25%	0.15%	0.21%
12	0.26%	0.15%	0.22%
13	0.27%	0.16%	0.23%
14	0.28%	0.16%	0.23%
15	0.29%	0.17%	0.24%
16	0.29%	0.17%	0.25%
17	0.30%	0.17%	0.25%
18	0.31%	0.18%	0.26%
19	0.32%	0.19%	0.27%
20	0.34%	0.19%	0.28%
21	0.35%	0.20%	0.29%
22	0.37%	0.21%	0.31%
23	0.38%	0.22%	0.32%
24	0.40%	0.24%	0.34%
25	0.42%	0.25%	0.35%
26	0.43%	0.26%	0.36%
27	0.45%	0.27%	0.38%
28	0.46%	0.27%	0.39%
29	0.47%	0.28%	0.40%
30	0.49%	0.30%	0.40%
31	0.49%	0.30%	0.40%
32	0.48%	0.29%	0.40%
33	0.48%	0.29%	0.40%
34	0.47%	0.29%	0.40%
35	0.47%	0.29%	0.40%
36	0.47%	0.29%	0.41%
37	0.48%	0.30%	0.42%
38	0.50%	0.31%	0.45%
39	0.55%	0.34%	0.48%
40	0.60%	0.38%	0.53%
41	0.67%	0.42%	0.60%
42	0.76%	0.48%	0.67%
43	0.87%	0.55%	0.77%
44	1.00%	0.64%	0.88%
45	1.14%	0.73%	0.99%
46	1.15%	0.74%	1.01%
47	1.18%	0.76%	1.03%
48	1.21%	0.79%	1.07%
49	1.26%	0.82%	1.11%
50	1.31%	0.86%	1.16%
51	1.38%	0.91%	1.22%
52	1.46%	0.96%	1.28%
53	1.54%	1.02%	1.36%
54	1.62%	1.08%	1.43%
55	1.72%	1.14%	1.52%

Age	Male	Female	Gender Neutral
56	1.82%	1.22%	1.61%
57	1.93%	1.30%	1.71%
58	2.05%	1.38%	1.81%
59	2.18%	1.48%	1.92%
60	2.32%	1.58%	2.04%
61	2.47%	1.69%	2.18%
62	2.63%	1.80%	2.32%
63	2.80%	1.93%	2.47%
64	2.99%	2.06%	2.64%
65	3.19%	2.21%	2.82%
66	3.42%	2.38%	3.01%
67	3.65%	2.55%	3.22%
68	3.91%	2.74%	3.45%
69	4.18%	2.94%	3.69%
70	4.47%	3.16%	3.96%
71	4.79%	3.40%	4.24%
72	5.14%	3.66%	4.54%
73	5.50%	3.93%	4.86%
74	5.90%	4.23%	5.21%
75	6.32%	4.55%	5.59%
76	6.77%	4.90%	5.99%
77	7.29%	5.29%	6.43%
78	7.82%	5.70%	6.91%
79	8.41%	6.16%	7.43%
80	9.06%	6.66%	8.00%
81	9.79%	7.22%	8.63%
82	10.55%	7.82%	9.31%
83	11.41%	8.49%	10.06%
84	12.36%	9.23%	10.88%
85	13.39%	10.04%	11.78%
86	14.49%	10.91%	12.75%
87	15.75%	11.91%	13.81%
88	17.05%	12.94%	14.96%
89	18.50%	14.09%	16.19%
90	19.96%	15.26%	17.51%
91	21.57%	16.56%	18.90%
92	23.43%	18.06%	20.38%
93	25.44%	19.69%	21.92%
94	27.49%	21.36%	23.54%
95	29.21%	22.78%	25.22%
96	31.49%	24.66%	26.94%
97	33.43%	26.28%	28.71%
98	36.67%	28.95%	30.59%
99	35.53%	28.16%	32.65%
100	37.98%	30.21%	34.94%
101	40.73%	32.54%	37.53%
102	43.87%	35.18%	40.47%
103	47.46%	38.21%	43.84%
104	51.56%	41.68%	47.70%
105	56.25%	45.64%	52.10%
106	61.57%	50.16%	57.11%
107	67.61%	55.30%	62.79%
108	74.41%	61.10%	69.20%
109	82.05%	67.65%	76.42%
110	90.59%	74.99%	84.49%

PTD OD Lung

Age	Male	Female	Gender Neutral	Age	Male	Female	Gender Neutral
1	0.85%	0.49%	0.81%	56	2.95%	1.97%	2.80%
2	0.47%	0.27%	0.45%	57	3.12%	2.09%	2.97%
3	0.38%	0.22%	0.36%	58	3.30%	2.22%	3.15%
4	0.34%	0.19%	0.32%	59	3.50%	2.37%	3.35%
5	0.30%	0.17%	0.29%	60	3.72%	2.53%	3.56%
6	0.28%	0.16%	0.27%	61	3.96%	2.70%	3.79%
7	0.27%	0.15%	0.25%	62	4.20%	2.87%	4.04%
8	0.31%	0.18%	0.29%	63	4.47%	3.07%	4.30%
9	0.34%	0.20%	0.32%	64	4.77%	3.29%	4.59%
10	0.37%	0.21%	0.35%	65	5.09%	3.53%	4.91%
11	0.39%	0.22%	0.37%	66	5.42%	3.77%	5.25%
12	0.40%	0.23%	0.38%	67	5.79%	4.04%	5.62%
13	0.42%	0.24%	0.40%	68	6.21%	4.35%	6.01%
14	0.43%	0.25%	0.41%	69	6.64%	4.68%	6.44%
15	0.44%	0.25%	0.42%	70	7.12%	5.03%	6.89%
16	0.45%	0.26%	0.43%	71	7.62%	5.40%	7.38%
17	0.46%	0.27%	0.44%	72	8.14%	5.80%	7.91%
18	0.48%	0.28%	0.45%	73	8.71%	6.23%	8.47%
19	0.50%	0.29%	0.47%	74	9.36%	6.72%	9.08%
20	0.52%	0.30%	0.49%	75	9.99%	7.20%	9.73%
21	0.54%	0.31%	0.51%	76	10.72%	7.75%	10.44%
22	0.56%	0.33%	0.53%	77	11.53%	8.37%	11.21%
23	0.59%	0.34%	0.56%	78	12.40%	9.04%	12.04%
24	0.62%	0.36%	0.58%	79	13.28%	9.72%	12.95%
25	0.64%	0.38%	0.61%	80	14.32%	10.53%	13.94%
26	0.67%	0.40%	0.63%	81	15.48%	11.43%	15.03%
27	0.69%	0.41%	0.66%	82	16.75%	12.41%	16.22%
28	0.71%	0.42%	0.67%	83	18.05%	13.43%	17.52%
29	0.72%	0.44%	0.69%	84	19.61%	14.65%	18.95%
30	0.73%	0.44%	0.70%	85	21.25%	15.93%	20.51%
31	0.74%	0.45%	0.70%	86	22.83%	17.19%	22.22%
32	0.74%	0.45%	0.70%	87	24.74%	18.69%	24.06%
33	0.74%	0.45%	0.70%	88	26.93%	20.43%	26.06%
34	0.74%	0.45%	0.70%	89	29.09%	22.16%	28.20%
35	0.74%	0.46%	0.70%	90	31.42%	24.03%	30.49%
36	0.74%	0.46%	0.71%	91	33.91%	26.04%	32.92%
37	0.77%	0.48%	0.73%	92	36.54%	28.17%	35.49%
38	0.81%	0.51%	0.78%	93	39.30%	30.42%	38.19%
39	0.88%	0.55%	0.84%	94	42.19%	32.78%	41.01%
40	1.01%	0.64%	0.93%	95	45.17%	35.23%	43.92%
41	1.13%	0.71%	1.04%	96	48.24%	37.77%	46.93%
42	1.27%	0.81%	1.18%	97	51.39%	40.40%	50.01%
43	1.44%	0.92%	1.34%	98	54.74%	43.20%	53.29%
44	1.67%	1.06%	1.52%	99	58.39%	46.27%	56.87%
45	1.89%	1.21%	1.73%	100	62.46%	49.69%	60.86%
46	1.92%	1.23%	1.76%	101	67.06%	53.56%	65.37%
47	1.97%	1.27%	1.80%	102	72.30%	57.97%	70.50%
48	2.02%	1.31%	1.86%	103	78.28%	63.02%	76.37%
49	2.10%	1.36%	1.93%	104	85.13%	68.81%	83.08%
50	2.15%	1.41%	2.02%	105	92.94%	75.42%	90.75%
51	2.24%	1.47%	2.12%	106	100.00%	82.97%	99.48%
52	2.35%	1.55%	2.24%	107	100.00%	83.70%	100.00%
53	2.48%	1.64%	2.36%	108	100.00%	84.00%	100.00%
54	2.63%	1.75%	2.50%	109	100.00%	84.30%	100.00%
55	2.80%	1.86%	2.64%	110	100.00%	84.60%	100.00%

PTD OD Non-Lung

Age	Male	Female	Gender Neutral
1	0.60%	0.35%	0.51%
2	0.34%	0.19%	0.28%
3	0.27%	0.16%	0.23%
4	0.24%	0.14%	0.20%
5	0.22%	0.12%	0.18%
6	0.20%	0.12%	0.17%
7	0.19%	0.11%	0.16%
8	0.22%	0.13%	0.18%
9	0.24%	0.14%	0.20%
10	0.26%	0.15%	0.22%
11	0.27%	0.16%	0.23%
12	0.29%	0.16%	0.24%
13	0.30%	0.17%	0.25%
14	0.30%	0.18%	0.26%
15	0.31%	0.18%	0.26%
16	0.32%	0.18%	0.27%
17	0.33%	0.19%	0.28%
18	0.34%	0.20%	0.28%
19	0.35%	0.20%	0.29%
20	0.36%	0.21%	0.31%
21	0.38%	0.22%	0.32%
22	0.40%	0.23%	0.33%
23	0.41%	0.24%	0.35%
24	0.43%	0.26%	0.37%
25	0.45%	0.27%	0.38%
26	0.47%	0.28%	0.40%
27	0.49%	0.29%	0.41%
28	0.50%	0.30%	0.42%
29	0.51%	0.31%	0.43%
30	0.51%	0.31%	0.44%
31	0.52%	0.31%	0.44%
32	0.52%	0.31%	0.44%
33	0.52%	0.32%	0.44%
34	0.52%	0.32%	0.44%
35	0.54%	0.33%	0.44%
36	0.54%	0.33%	0.44%
37	0.55%	0.34%	0.46%
38	0.58%	0.36%	0.49%
39	0.62%	0.39%	0.53%
40	0.68%	0.43%	0.58%
41	0.77%	0.48%	0.65%
42	0.86%	0.55%	0.74%
43	0.98%	0.62%	0.84%
44	1.12%	0.72%	0.96%
45	1.27%	0.81%	1.09%
46	1.29%	0.83%	1.10%
47	1.32%	0.85%	1.13%
48	1.34%	0.87%	1.17%
49	1.39%	0.91%	1.21%
50	1.47%	0.96%	1.27%
51	1.54%	1.01%	1.33%
52	1.63%	1.07%	1.40%
53	1.72%	1.13%	1.48%
54	1.82%	1.20%	1.57%
55	1.92%	1.28%	1.66%

Age	Male	Female	Gender Neutral
56	2.02%	1.35%	1.76%
57	2.13%	1.43%	1.86%
58	2.27%	1.53%	1.98%
59	2.40%	1.62%	2.10%
60	2.55%	1.73%	2.23%
61	2.70%	1.84%	2.38%
62	2.87%	1.97%	2.53%
63	3.06%	2.11%	2.70%
64	3.26%	2.25%	2.88%
65	3.47%	2.41%	3.08%
66	3.70%	2.58%	3.29%
67	3.96%	2.77%	3.52%
68	4.23%	2.97%	3.77%
69	4.52%	3.18%	4.04%
70	4.83%	3.41%	4.32%
71	5.16%	3.66%	4.63%
72	5.52%	3.93%	4.96%
73	5.91%	4.23%	5.31%
74	6.33%	4.54%	5.69%
75	6.78%	4.89%	6.10%
76	7.26%	5.25%	6.55%
77	7.83%	5.69%	7.03%
78	8.43%	6.15%	7.55%
79	9.08%	6.64%	8.12%
80	9.74%	7.16%	8.74%
81	10.58%	7.81%	9.42%
82	11.41%	8.45%	10.17%
83	12.30%	9.15%	10.99%
84	13.35%	9.97%	11.88%
85	14.37%	10.77%	12.86%
86	15.46%	11.64%	13.93%
87	16.74%	12.65%	15.09%
88	18.09%	13.72%	16.34%
89	19.39%	14.77%	17.69%
90	20.93%	16.00%	19.12%
91	22.72%	17.44%	20.65%
92	24.65%	19.00%	22.26%
93	26.39%	20.42%	23.95%
94	28.10%	21.83%	25.72%
95	30.06%	23.45%	27.54%
96	32.07%	25.12%	29.43%
97	34.14%	26.84%	31.36%
98	36.33%	28.68%	33.42%
99	38.72%	30.68%	35.66%
100	41.38%	32.92%	38.16%
101	44.39%	35.46%	40.99%
102	47.81%	38.34%	44.21%
103	51.73%	41.65%	47.89%
104	56.20%	45.43%	52.10%
105	61.31%	49.75%	56.91%
106	67.11%	54.68%	62.38%
107	73.69%	60.28%	68.59%
108	81.11%	66.61%	75.59%
109	89.45%	73.74%	83.47%
110	98.76%	81.75%	92.29%

Survivor Benefit Private

Age	2019 Termination Rate	Age	2019 Termination Rate
1	0.03%	56	1.50%
2	0.02%	57	1.52%
3	0.02%	58	1.53%
4	0.01%	59	1.53%
5	0.01%	60	1.52%
6	0.01%	61	1.51%
7	0.01%	62	1.50%
8	0.01%	63	1.49%
9	0.01%	64	1.49%
10	0.01%	65	1.50%
11	0.01%	66	1.52%
12	0.01%	67	1.56%
13	0.01%	68	1.62%
14	0.02%	69	1.70%
15	0.02%	70	1.81%
16	0.02%	71	1.95%
17	0.02%	72	2.12%
18	2.15%	73	2.33%
19	2.03%	74	2.58%
20	1.92%	75	2.88%
21	1.81%	76	3.11%
22	1.71%	77	3.39%
23	1.62%	78	3.73%
24	1.53%	79	4.13%
25	1.48%	80	4.58%
26	1.44%	81	5.10%
27	1.41%	82	5.68%
28	1.39%	83	6.34%
29	1.37%	84	7.06%
30	1.36%	85	7.87%
31	1.34%	86	8.86%
32	1.33%	87	9.94%
33	1.32%	88	11.10%
34	1.31%	89	12.36%
35	1.30%	90	13.71%
36	1.30%	91	15.15%
37	1.29%	92	16.69%
38	1.29%	93	18.34%
39	1.28%	94	20.10%
40	1.28%	95	21.96%
41	1.28%	96	23.82%
42	1.28%	97	25.78%
43	1.27%	98	27.84%
44	1.27%	99	29.98%
45	1.27%	100	32.17%
46	1.27%	101	34.39%
47	1.27%	102	36.71%
48	1.28%	103	39.15%
49	1.28%	104	41.60%
50	1.29%	105	43.94%
51	1.30%	106	46.07%
52	1.31%	107	48.19%
53	1.31%	108	50.37%
54	1.40%	109	52.31%
55	1.46%	110	53.69%

Survivor Benefit Public

Age	2019 Termination Rate	Age	2019 Termination Rate
1	0.03%	56	1.50%
2	0.02%	57	1.52%
3	0.02%	58	1.53%
4	0.01%	59	1.53%
5	0.01%	60	1.52%
6	0.01%	61	1.51%
7	0.01%	62	1.50%
8	0.01%	63	1.49%
9	0.01%	64	1.49%
10	0.01%	65	1.50%
11	0.01%	66	1.52%
12	0.01%	67	1.56%
13	0.01%	68	1.62%
14	0.02%	69	1.70%
15	0.02%	70	1.81%
16	0.02%	71	1.95%
17	0.02%	72	2.12%
18	2.15%	73	2.33%
19	2.03%	74	2.58%
20	1.92%	75	2.88%
21	1.81%	76	3.11%
22	1.71%	77	3.39%
23	1.62%	78	3.73%
24	1.53%	79	4.13%
25	1.48%	80	4.58%
26	1.44%	81	5.10%
27	1.41%	82	5.68%
28	1.39%	83	6.34%
29	1.37%	84	7.06%
30	1.36%	85	7.87%
31	1.34%	86	8.86%
32	1.33%	87	9.94%
33	1.32%	88	11.10%
34	1.31%	89	12.36%
35	1.30%	90	13.71%
36	1.30%	91	15.15%
37	1.29%	92	16.69%
38	1.29%	93	18.34%
39	1.28%	94	20.10%
40	1.28%	95	21.96%
41	1.28%	96	23.82%
42	1.28%	97	25.78%
43	1.27%	98	27.84%
44	1.27%	99	29.98%
45	1.27%	100	32.17%
46	1.27%	101	34.39%
47	1.27%	102	36.71%
48	1.28%	103	39.15%
49	1.28%	104	41.60%
50	1.29%	105	43.94%
51	1.30%	106	46.07%
52	1.31%	107	48.19%
53	1.31%	108	50.37%
54	1.40%	109	52.31%
55	1.46%	110	53.69%

Orphan

Age	2019 Termination Rate
0	0.04%
1	0.03%
2	0.02%
3	0.02%
4	0.02%
5	0.02%
6	0.01%
7	0.01%
8	0.01%
9	0.01%
10	0.01%
11	0.01%
12	0.02%
13	0.02%
14	0.02%
15	0.03%
16	0.03%
17	0.03%
18	17.29%
19	13.56%
20	9.37%
21	14.33%
22	19.21%
23	23.84%
24	54.57%
25	63.28%
26	100.00%

APPENDIX E. 2020 ANNUITY FACTORS

The annuity factors below are calculated with a 4% valuation interest rate.

PTD Private Regular

Age	Male				Female				Gender Neutral			
	Yearly	Monthly	Biweekly	Weekly	Yearly	Monthly	Biweekly	Weekly	Yearly	Monthly	Biweekly	Weekly
1	22.27	272.86	591.79	1,184.07	23.00	281.45	610.40	1,221.29	22.45	274.99	596.39	1,193.27
2	22.28	272.60	591.21	1,182.92	22.99	281.08	609.59	1,219.68	22.45	274.67	595.70	1,191.90
3	22.23	271.87	589.64	1,179.78	22.94	280.43	608.17	1,216.84	22.40	273.95	594.13	1,188.77
4	22.16	270.98	587.71	1,175.92	22.88	279.66	606.52	1,213.54	22.33	273.07	592.24	1,184.98
5	22.08	269.98	585.53	1,171.56	22.81	278.82	604.70	1,209.89	22.25	272.09	590.12	1,180.74
6	21.99	268.87	583.14	1,166.78	22.74	277.91	602.73	1,205.95	22.17	271.02	587.80	1,176.10
7	21.89	267.68	580.56	1,161.62	22.66	276.94	600.62	1,201.74	22.07	269.87	585.31	1,171.12
8	21.79	266.46	577.91	1,156.33	22.57	275.94	598.45	1,197.39	21.98	268.69	582.75	1,165.99
9	21.69	265.25	575.29	1,151.07	22.49	274.93	596.26	1,193.02	21.88	267.51	580.19	1,160.88
10	21.59	264.03	572.65	1,145.80	22.41	273.90	594.04	1,188.57	21.78	266.32	577.61	1,155.73
11	21.49	262.80	569.98	1,140.47	22.32	272.86	591.77	1,184.04	21.68	265.12	575.00	1,150.50
12	21.38	261.55	567.27	1,135.04	22.23	271.78	589.44	1,179.39	21.58	263.89	572.33	1,145.17
13	21.28	260.26	564.49	1,129.47	22.14	270.67	587.05	1,174.59	21.47	262.62	569.59	1,139.69
14	21.17	258.94	561.62	1,123.74	22.05	269.53	584.57	1,169.63	21.37	261.32	566.77	1,134.04
15	21.06	257.58	558.67	1,117.83	21.95	268.35	582.00	1,164.50	21.26	259.97	563.85	1,128.21
16	20.94	256.17	555.61	1,111.73	21.85	267.12	579.34	1,159.17	21.14	258.58	560.83	1,122.17
17	20.82	254.71	552.46	1,105.43	21.74	265.84	576.58	1,153.66	21.02	257.14	557.71	1,115.93
18	20.70	253.21	549.21	1,098.93	21.64	264.53	573.72	1,147.95	20.90	255.65	554.49	1,109.48
19	20.57	251.67	545.87	1,092.24	21.52	263.17	570.78	1,142.05	20.77	254.12	551.17	1,102.84
20	20.44	250.09	542.43	1,085.37	21.41	261.76	567.73	1,135.97	20.64	252.54	547.75	1,096.00
21	20.31	248.42	538.83	1,078.15	21.29	260.29	564.55	1,129.60	20.51	250.92	544.24	1,088.99
22	20.16	246.67	535.04	1,070.58	21.16	258.76	561.22	1,122.94	20.37	249.26	540.65	1,081.79
23	20.01	244.89	531.17	1,062.84	21.03	257.18	557.80	1,116.10	20.23	247.56	536.96	1,074.42
24	19.86	243.06	527.20	1,054.90	20.90	255.55	554.28	1,109.05	20.09	245.82	533.19	1,066.88
25	19.71	241.19	523.16	1,046.81	20.76	253.88	550.66	1,101.83	19.94	244.04	529.33	1,059.17
26	19.55	239.28	519.02	1,038.53	20.62	252.17	546.95	1,094.40	19.79	242.21	525.38	1,051.25
27	19.39	237.32	514.77	1,030.03	20.48	250.40	543.12	1,086.75	19.64	240.34	521.31	1,043.12
28	19.22	235.29	510.39	1,021.28	20.33	248.58	539.17	1,078.85	19.48	238.40	517.11	1,034.73
29	19.05	233.21	505.86	1,012.22	20.17	246.69	535.08	1,070.67	19.32	236.39	512.77	1,026.04
30	18.88	231.04	501.17	1,002.83	20.01	244.73	530.84	1,062.18	19.15	234.31	508.26	1,017.02
31	18.69	228.78	496.27	993.05	19.84	242.69	526.42	1,053.34	18.97	232.14	503.55	1,007.60
32	18.50	226.42	491.16	982.81	19.67	240.57	521.81	1,044.12	18.78	229.87	498.63	997.75
33	18.30	223.95	485.80	972.10	19.49	238.34	516.99	1,034.48	18.59	227.49	493.47	987.43
34	18.09	221.36	480.19	960.89	19.30	236.02	511.96	1,024.42	18.38	224.99	488.06	976.62
35	17.86	218.65	474.33	949.15	19.10	233.60	506.71	1,013.91	18.17	222.38	482.40	965.30
36	17.63	215.81	468.18	936.86	18.89	231.06	501.22	1,002.93	17.95	219.64	476.47	953.44
37	17.39	212.86	461.78	924.06	18.68	228.43	495.50	991.51	17.71	216.79	470.29	941.09
38	17.14	209.82	455.18	910.87	18.45	225.70	489.61	979.71	17.47	213.85	463.93	928.35
39	16.88	206.70	448.44	897.38	18.22	222.91	483.55	967.61	17.22	210.84	457.41	915.32
40	16.62	203.55	441.61	883.73	17.99	220.06	477.39	955.27	16.97	207.79	450.80	902.10
41	16.36	200.39	434.75	870.01	17.75	217.18	471.14	942.78	16.71	204.72	444.15	888.80
42	16.09	197.24	427.93	856.36	17.51	214.29	464.87	930.23	16.46	201.66	437.52	875.55
43	15.83	194.14	421.22	842.94	17.26	211.40	458.61	917.72	16.20	198.65	430.99	862.47
44	15.58	191.12	414.68	829.87	17.02	208.54	452.42	905.34	15.96	195.70	424.60	849.70
45	15.33	188.22	408.39	817.27	16.79	205.73	446.34	893.18	15.71	192.85	418.42	837.35
46	15.09	185.31	402.10	804.69	16.56	202.90	440.21	880.92	15.48	190.00	412.24	824.98
47	14.84	182.30	395.57	791.63	16.32	199.97	433.85	868.20	15.24	187.03	405.82	812.14
48	14.59	179.19	388.83	778.16	16.07	196.94	427.29	855.08	14.99	183.97	399.19	798.87
49	14.33	176.00	381.91	764.32	15.81	193.83	420.55	841.59	14.73	180.82	392.37	785.24
50	14.06	172.73	374.84	750.17	15.55	190.64	413.63	827.77	14.46	177.60	385.39	771.27
51	13.78	169.40	367.63	735.75	15.28	187.38	406.57	813.63	14.19	174.31	378.26	757.03
52	13.50	166.02	360.30	721.09	15.00	184.05	399.35	799.21	13.91	170.97	371.01	742.52
53	13.22	162.59	352.86	706.22	14.72	180.66	392.01	784.52	13.63	167.56	363.64	727.78
54	12.93	159.11	345.33	691.15	14.44	177.21	384.53	769.57	13.35	164.11	356.16	712.82
55	12.64	155.59	337.70	675.90	14.15	173.70	376.94	754.37	13.06	160.61	348.58	697.66

PTD Private Regular

Age	Male				Female				Gender Neutral			
	Yearly	Monthly	Biweekly	Weekly	Yearly	Monthly	Biweekly	Weekly	Yearly	Monthly	Biweekly	Weekly
56	12.34	152.04	329.99	660.49	13.85	170.14	369.22	738.94	12.76	157.07	340.91	682.31
57	12.05	148.44	322.20	644.90	13.55	166.52	361.39	723.27	12.47	153.49	333.14	666.78
58	11.74	144.81	314.34	629.17	13.25	162.86	353.44	707.39	12.17	149.87	325.29	651.08
59	11.44	141.15	306.40	613.30	12.94	159.14	345.39	691.29	11.86	146.21	317.37	635.23
60	11.13	137.46	298.40	597.31	12.63	155.38	337.24	674.99	11.56	142.52	309.37	619.23
61	10.83	133.74	290.36	581.21	12.32	151.58	329.00	658.51	11.25	138.80	301.31	603.11
62	10.52	130.01	282.26	565.02	12.00	147.74	320.68	641.86	10.94	135.05	293.19	586.89
63	10.20	126.25	274.13	548.76	11.68	143.86	312.28	625.06	10.62	131.29	285.04	570.58
64	9.89	122.49	265.98	532.45	11.35	139.95	303.81	608.12	10.31	127.51	276.85	554.21
65	9.58	118.72	257.81	516.12	11.03	136.02	295.29	591.08	9.99	123.72	268.65	537.80
66	9.26	114.95	249.65	499.79	10.70	132.07	286.73	573.96	9.68	119.93	260.44	521.38
67	8.95	111.19	241.50	483.49	10.37	128.10	278.13	556.77	9.36	116.15	252.23	504.97
68	8.64	107.44	233.37	467.23	10.04	124.13	269.52	539.54	9.05	112.37	244.04	488.59
69	8.33	103.70	225.27	451.05	9.70	120.15	260.90	522.29	8.73	108.60	235.88	472.25
70	8.02	99.99	217.23	434.95	9.37	116.17	252.28	505.05	8.42	104.84	227.74	455.99
71	7.71	96.30	209.22	418.95	9.04	112.19	243.66	487.82	8.11	101.11	219.65	439.80
72	7.40	92.63	201.28	403.05	8.71	108.22	235.06	470.62	7.80	97.39	211.60	423.70
73	7.10	88.99	193.38	387.27	8.38	104.26	226.48	453.46	7.49	93.70	203.60	407.71
74	6.79	85.37	185.55	371.60	8.05	100.31	217.93	436.36	7.19	90.04	195.66	391.83
75	6.50	81.79	177.78	356.07	7.72	96.38	209.41	419.32	6.88	86.40	187.79	376.07
76	6.20	78.24	170.09	340.69	7.40	92.47	200.94	402.38	6.58	82.80	179.98	360.46
77	5.91	74.73	162.49	325.48	7.07	88.59	192.53	385.56	6.28	79.23	172.25	345.00
78	5.62	71.26	154.99	310.47	6.75	84.74	184.19	368.88	5.99	75.70	164.60	329.71
79	5.33	67.85	147.58	295.66	6.43	80.93	175.93	352.37	5.70	72.22	157.06	314.62
80	5.05	64.48	140.28	281.07	6.12	77.16	167.77	336.04	5.41	68.79	149.62	299.74
81	4.77	61.17	133.12	266.74	5.81	73.45	159.72	319.95	5.13	65.41	142.31	285.12
82	4.50	57.93	126.11	252.71	5.50	69.80	151.81	304.13	4.85	62.11	135.15	270.79
83	4.23	54.77	119.26	239.02	5.20	66.22	144.06	288.63	4.58	58.87	128.14	256.78
84	3.98	51.70	112.60	225.71	4.91	62.73	136.50	273.50	4.31	55.73	121.32	243.14
85	3.72	48.73	106.15	212.81	4.62	59.33	129.14	258.78	4.05	52.67	114.70	229.89
86	3.48	45.85	99.92	200.34	4.34	56.04	122.00	244.49	3.81	49.72	108.30	217.10
87	3.25	43.08	93.93	188.36	4.07	52.86	115.10	230.70	3.56	46.87	102.14	204.78
88	3.02	40.44	88.19	176.88	3.82	49.79	108.47	217.43	3.33	44.15	96.23	192.96
89	2.81	37.92	82.74	165.98	3.57	46.87	102.13	204.75	3.11	41.54	90.59	181.67
90	2.61	35.53	77.56	155.63	3.33	44.08	96.08	192.65	2.90	39.06	85.21	170.93
91	2.42	33.26	72.65	145.80	3.11	41.41	90.31	181.11	2.70	36.71	80.11	160.72
92	2.24	31.12	68.01	136.51	2.89	38.88	84.82	170.13	2.52	34.48	75.28	151.06
93	2.06	29.09	63.61	127.72	2.69	36.47	79.60	159.69	2.34	32.37	70.72	141.93
94	1.90	27.20	59.52	119.54	2.49	34.21	74.70	149.89	2.17	30.38	66.40	133.30
95	1.76	25.43	55.67	111.84	2.31	32.06	70.05	140.59	2.01	28.49	62.31	125.12
96	1.61	23.70	51.92	104.33	2.14	29.97	65.51	131.52	1.86	26.69	58.41	117.31
97	1.47	22.02	48.28	97.06	1.97	27.94	61.12	122.74	1.71	24.95	54.63	109.76
98	1.34	20.42	44.83	90.15	1.81	26.01	56.92	114.34	1.57	23.24	50.92	102.35
99	1.21	18.87	41.47	83.44	1.65	24.12	52.83	106.16	1.43	21.54	47.25	95.00
100	1.09	17.31	38.09	76.68	1.50	22.23	48.75	98.00	1.30	19.85	43.59	87.68
101	0.96	15.79	34.79	70.08	1.35	20.40	44.77	90.03	1.16	18.17	39.95	80.39
102	0.84	14.27	31.50	63.49	1.20	18.57	40.82	82.13	1.03	16.50	36.32	73.14
103	0.72	12.76	28.21	56.92	1.05	16.77	36.92	74.33	0.89	14.84	32.73	65.95
104	0.60	11.25	24.96	50.41	0.91	15.00	33.08	66.66	0.76	13.20	29.18	58.86
105	0.49	9.76	21.73	43.95	0.77	13.27	29.33	59.16	0.63	11.59	25.69	51.88
106	0.38	8.29	18.52	37.53	0.64	11.59	25.68	51.86	0.51	10.02	22.27	45.04
107	0.27	6.80	15.30	31.10	0.51	9.95	22.13	44.76	0.39	8.47	18.91	38.32
108	0.17	5.27	11.98	24.46	0.39	8.36	18.69	37.88	0.28	6.93	15.58	31.65
109	0.07	3.58	8.31	17.11	0.27	6.85	15.40	31.29	0.18	5.38	12.22	24.94
110	0.00	0.00	0.00	0.00	0.17	5.62	12.75	25.98	0.08	3.99	9.19	18.86

PTD Public Regular

Age	Male				Female				Gender Neutral			
	Yearly	Monthly	Biweekly	Weekly	Yearly	Monthly	Biweekly	Weekly	Yearly	Monthly	Biweekly	Weekly
1	22.33	273.50	593.16	1,186.81	23.04	281.95	611.48	1,223.46	22.59	276.66	600.00	1,200.51
2	22.33	273.22	592.55	1,185.60	23.03	281.58	610.67	1,221.83	22.59	276.33	599.31	1,199.11
3	22.28	272.49	590.98	1,182.46	22.98	280.93	609.26	1,219.02	22.54	275.63	597.79	1,196.07
4	22.21	271.61	589.06	1,178.62	22.92	280.18	607.63	1,215.76	22.47	274.79	595.96	1,192.43
5	22.13	270.61	586.90	1,174.29	22.85	279.34	605.83	1,212.16	22.40	273.85	593.93	1,188.35
6	22.04	269.51	584.53	1,169.55	22.78	278.45	603.89	1,208.27	22.32	272.83	591.71	1,183.91
7	21.95	268.33	581.97	1,164.45	22.70	277.49	601.81	1,204.12	22.23	271.73	589.32	1,179.14
8	21.85	267.12	579.35	1,159.20	22.62	276.50	599.66	1,199.83	22.13	270.59	586.86	1,174.23
9	21.75	265.92	576.74	1,153.98	22.54	275.50	597.50	1,195.50	22.04	269.46	584.41	1,169.32
10	21.64	264.71	574.12	1,148.74	22.45	274.49	595.31	1,191.11	21.94	268.32	581.94	1,164.37
11	21.54	263.48	571.47	1,143.43	22.37	273.45	593.06	1,186.63	21.85	267.16	579.42	1,159.35
12	21.44	262.24	568.76	1,138.03	22.28	272.39	590.76	1,182.02	21.75	265.97	576.86	1,154.21
13	21.33	260.96	565.99	1,132.48	22.19	271.30	588.39	1,177.28	21.65	264.75	574.22	1,148.93
14	21.23	259.64	563.14	1,126.77	22.10	270.16	585.93	1,172.37	21.55	263.50	571.49	1,143.49
15	21.11	258.28	560.19	1,120.88	22.00	268.99	583.39	1,167.28	21.44	262.20	568.68	1,137.86
16	21.00	256.87	557.14	1,114.79	21.90	267.77	580.75	1,162.01	21.33	260.86	565.77	1,132.04
17	20.88	255.42	554.00	1,108.49	21.80	266.51	578.02	1,156.54	21.22	259.47	562.76	1,126.02
18	20.76	253.92	550.75	1,102.00	21.69	265.20	575.19	1,150.88	21.10	258.03	559.65	1,119.79
19	20.63	252.38	547.41	1,095.32	21.58	263.85	572.27	1,145.03	20.98	256.55	556.44	1,113.38
20	20.50	250.80	543.97	1,088.45	21.47	262.46	569.25	1,139.00	20.85	255.02	553.14	1,106.77
21	20.36	249.17	540.45	1,081.40	21.35	261.03	566.14	1,132.79	20.72	253.46	549.74	1,099.99
22	20.23	247.50	536.84	1,074.18	21.23	259.55	562.95	1,126.39	20.59	251.85	546.26	1,093.02
23	20.09	245.80	533.15	1,066.79	21.10	258.04	559.66	1,119.82	20.45	250.21	542.69	1,085.89
24	19.94	244.06	529.37	1,059.24	20.97	256.48	556.29	1,113.07	20.31	248.52	539.04	1,078.58
25	19.80	242.28	525.51	1,051.53	20.84	254.88	552.82	1,106.13	20.17	246.79	535.30	1,071.09
26	19.65	240.45	521.56	1,043.62	20.71	253.23	549.25	1,099.00	20.03	245.02	531.46	1,063.41
27	19.49	238.58	517.50	1,035.50	20.57	251.53	545.57	1,091.65	19.88	243.20	527.51	1,055.51
28	19.33	236.65	513.32	1,027.13	20.42	249.78	541.77	1,084.05	19.72	241.31	523.43	1,047.36
29	19.17	234.65	508.98	1,018.47	20.27	247.96	537.84	1,076.18	19.56	239.36	519.21	1,038.91
30	19.00	232.59	504.52	1,009.55	20.12	246.09	533.78	1,068.05	19.40	237.34	514.82	1,030.14
31	18.83	230.46	499.91	1,000.31	19.96	244.15	529.57	1,059.63	19.22	235.23	510.24	1,020.99
32	18.64	228.21	495.04	990.58	19.80	242.11	525.15	1,050.80	19.04	233.02	505.46	1,011.41
33	18.45	225.84	489.90	980.30	19.62	239.97	520.51	1,041.52	18.85	230.70	500.44	1,001.38
34	18.25	223.34	484.49	969.48	19.44	237.72	515.64	1,031.78	18.66	228.28	495.19	990.88
35	18.03	220.71	478.79	958.09	19.25	235.36	510.54	1,021.57	18.45	225.74	489.69	979.88
36	17.81	217.95	472.82	946.13	19.04	232.90	505.19	1,010.89	18.23	223.08	483.93	968.36
37	17.57	215.08	466.58	933.67	18.83	230.33	499.63	999.76	18.01	220.32	477.93	956.37
38	17.33	212.10	460.14	920.78	18.62	227.67	493.87	988.24	17.77	217.46	471.75	943.99
39	17.08	209.05	453.53	907.57	18.39	224.94	487.95	976.39	17.53	214.54	465.41	931.32
40	16.82	205.96	446.82	894.14	18.16	222.15	481.90	964.30	17.28	211.57	458.98	918.46
41	16.56	202.84	440.07	880.64	17.92	219.32	475.77	952.03	17.03	208.58	452.50	905.50
42	16.30	199.74	433.36	867.21	17.69	216.47	469.60	939.71	16.78	205.59	446.03	892.56
43	16.04	196.69	426.75	854.00	17.45	213.64	463.46	927.42	16.54	202.64	439.64	879.77
44	15.79	193.73	420.32	841.15	17.21	210.83	457.38	915.26	16.29	199.75	433.37	867.24
45	15.55	190.87	414.13	828.76	16.98	208.07	451.41	903.32	16.05	196.94	427.29	855.08
46	15.31	188.01	407.94	816.37	16.75	205.29	445.38	891.27	15.82	194.13	421.20	842.89
47	15.07	185.04	401.50	803.49	16.52	202.41	439.13	878.76	15.58	191.21	414.86	830.23
48	14.82	181.97	394.85	790.19	16.27	199.43	432.67	865.84	15.34	188.19	408.32	817.15
49	14.56	178.81	388.00	776.50	16.02	196.35	426.02	852.53	15.08	185.08	401.60	803.70
50	14.29	175.57	380.98	762.46	15.76	193.20	419.18	838.86	14.82	181.90	394.71	789.92
51	14.02	172.26	373.82	748.14	15.49	189.97	412.19	824.87	14.55	178.66	387.67	775.84
52	13.74	168.90	366.53	733.56	15.22	186.67	405.04	810.59	14.28	175.35	380.50	761.50
53	13.46	165.48	359.13	718.76	14.94	183.31	397.76	796.02	14.00	171.98	373.21	746.91
54	13.17	162.02	351.62	703.73	14.66	179.89	390.34	781.18	13.72	168.56	365.80	732.10
55	12.88	158.50	344.00	688.50	14.37	176.40	382.79	766.08	13.43	165.09	358.28	717.07

PTD Public Regular

Age	Male				Female				Gender Neutral			
	Yearly	Monthly	Biweekly	Weekly	Yearly	Monthly	Biweekly	Weekly	Yearly	Monthly	Biweekly	Weekly
56	12.59	154.94	336.29	673.08	14.08	172.86	375.11	750.72	13.14	161.58	350.67	701.83
57	12.29	151.34	328.50	657.49	13.78	169.26	367.31	735.12	12.84	158.02	342.95	686.41
58	11.99	147.71	320.63	641.75	13.48	165.61	359.40	719.30	12.54	154.41	335.15	670.80
59	11.68	144.05	312.69	625.88	13.17	161.91	351.39	703.28	12.24	150.77	327.26	655.01
60	11.38	140.36	304.70	609.90	12.86	158.17	343.28	687.06	11.94	147.09	319.29	639.07
61	11.07	136.65	296.66	593.82	12.55	154.38	335.08	670.66	11.63	143.38	311.24	622.99
62	10.76	132.92	288.57	577.63	12.23	150.56	326.79	654.08	11.32	139.64	303.14	606.78
63	10.45	129.16	280.43	561.36	11.91	146.69	318.42	637.34	11.01	135.88	294.98	590.46
64	10.13	125.39	272.26	545.02	11.59	142.80	309.97	620.45	10.69	132.09	286.79	574.07
65	9.82	121.61	264.08	528.65	11.26	138.87	301.47	603.44	10.38	128.30	278.56	557.62
66	9.50	117.84	255.89	512.28	10.93	134.93	292.92	586.34	10.06	124.49	270.32	541.14
67	9.19	114.06	247.72	495.93	10.61	130.96	284.34	569.17	9.74	120.69	262.07	524.64
68	8.88	110.29	239.55	479.61	10.27	126.99	275.72	551.95	9.43	116.88	253.82	508.15
69	8.56	106.54	231.42	463.34	9.94	123.01	267.09	534.69	9.11	113.08	245.59	491.68
70	8.25	102.80	223.31	447.12	9.61	119.02	258.45	517.40	8.79	109.29	237.38	475.26
71	7.94	99.07	215.24	430.97	9.28	115.02	249.80	500.10	8.48	105.51	229.20	458.89
72	7.63	95.37	207.21	414.93	8.95	111.04	241.16	482.82	8.16	101.75	221.05	442.60
73	7.32	91.69	199.25	398.99	8.62	107.06	232.54	465.58	7.85	98.01	212.94	426.38
74	7.02	88.04	191.34	383.18	8.28	103.09	223.94	448.38	7.54	94.29	204.88	410.26
75	6.72	84.42	183.49	367.49	7.95	99.14	215.38	431.25	7.23	90.59	196.87	394.24
76	6.42	80.83	175.71	351.92	7.63	95.20	206.84	414.18	6.93	86.93	188.92	378.34
77	6.12	77.28	168.01	336.52	7.30	91.28	198.36	397.23	6.62	83.29	181.04	362.58
78	5.83	73.77	160.41	321.31	6.98	87.40	189.95	380.41	6.32	79.69	173.24	346.98
79	5.54	70.30	152.89	306.28	6.65	83.55	181.61	363.72	6.02	76.13	165.53	331.55
80	5.25	66.87	145.48	291.45	6.34	79.74	173.36	347.21	5.73	72.62	157.92	316.33
81	4.97	63.52	138.20	276.90	6.02	75.99	165.22	330.94	5.44	69.16	150.43	301.35
82	4.69	60.23	131.07	262.64	5.71	72.29	157.22	314.93	5.16	65.77	143.07	286.64
83	4.42	57.01	124.09	248.69	5.41	68.67	149.36	299.21	4.88	62.44	135.88	272.25
84	4.16	53.87	117.30	235.10	5.11	65.12	141.67	283.84	4.60	59.20	128.86	258.21
85	3.90	50.83	110.71	221.93	4.82	61.67	134.19	268.88	4.34	56.06	122.04	244.57
86	3.65	47.89	104.33	209.17	4.53	58.31	126.92	254.33	4.08	53.01	115.43	231.36
87	3.41	45.05	98.19	196.89	4.26	55.06	119.89	240.27	3.83	50.07	109.07	218.63
88	3.18	42.34	92.32	185.13	4.00	51.94	113.12	226.75	3.59	47.25	102.95	206.40
89	2.96	39.75	86.70	173.89	3.74	48.95	106.63	213.76	3.37	44.55	97.10	194.70
90	2.76	37.26	81.31	163.13	3.50	46.07	100.39	201.28	3.15	41.97	91.52	183.54
91	2.55	34.87	76.14	152.77	3.27	43.30	94.39	189.29	2.94	39.52	86.21	172.92
92	2.36	32.62	71.26	143.01	3.04	40.68	88.72	177.93	2.74	37.20	81.17	162.84
93	2.18	30.55	66.77	134.04	2.83	38.25	83.46	167.41	2.56	34.99	76.40	153.30
94	2.02	28.68	62.71	125.93	2.64	36.03	78.64	157.78	2.38	32.91	71.88	144.25
95	1.88	26.93	58.93	118.36	2.47	33.94	74.12	148.74	2.21	30.92	67.58	135.66
96	1.73	25.31	55.41	111.31	2.30	31.99	69.89	140.27	2.05	29.03	63.47	127.43
97	1.61	23.85	52.25	105.00	2.15	30.21	66.02	132.55	1.90	27.19	59.48	119.46
98	1.50	22.75	49.87	100.25	2.00	28.75	62.87	126.23	1.75	25.38	55.56	111.62
99	1.44	21.61	47.41	95.31	1.91	27.21	59.53	119.55	1.61	23.58	51.68	103.85
100	1.30	19.95	43.80	88.09	1.75	25.19	55.17	110.83	1.46	21.80	47.81	96.11
101	1.17	18.29	40.20	80.89	1.58	23.20	50.84	102.17	1.31	20.02	43.95	88.40
102	1.04	16.63	36.61	73.71	1.42	21.22	46.55	93.59	1.17	18.25	40.12	80.74
103	0.90	14.99	33.05	66.59	1.26	19.27	42.32	85.14	1.03	16.50	36.33	73.16
104	0.77	13.37	29.53	59.56	1.10	17.35	38.18	76.85	0.89	14.78	32.60	65.69
105	0.65	11.77	26.07	52.64	0.95	15.49	34.13	68.77	0.75	13.09	28.94	58.38
106	0.52	10.20	22.68	45.85	0.80	13.68	30.22	60.93	0.62	11.45	25.37	51.24
107	0.41	8.67	19.35	39.19	0.66	11.94	26.45	53.39	0.50	9.84	21.90	44.29
108	0.30	7.15	16.05	32.60	0.53	10.29	22.86	46.21	0.38	8.29	18.52	37.53
109	0.19	5.64	12.77	26.04	0.41	8.77	19.56	39.62	0.27	6.79	15.28	31.06
110	0.10	4.32	9.90	20.30	0.31	7.64	17.11	34.71	0.17	5.60	12.69	25.86

PTD OD Lung

Age	Male				Female				Gender Neutral			
	Yearly	Monthly	Biweekly	Weekly	Yearly	Monthly	Biweekly	Weekly	Yearly	Monthly	Biweekly	Weekly
1	21.40	262.56	569.47	1,139.43	22.38	274.07	594.40	1,189.30	21.53	264.04	572.66	1,145.82
2	21.43	262.35	569.02	1,138.53	22.37	273.68	593.56	1,187.63	21.55	263.81	572.17	1,144.85
3	21.37	261.50	567.16	1,134.83	22.31	272.90	591.86	1,184.22	21.49	262.97	570.35	1,141.19
4	21.28	260.42	564.82	1,130.14	22.24	271.96	589.84	1,180.17	21.41	261.91	568.05	1,136.60
5	21.19	259.18	562.13	1,124.76	22.16	270.92	587.58	1,175.66	21.31	260.70	565.42	1,131.35
6	21.08	257.81	559.17	1,118.83	22.07	269.79	585.12	1,170.75	21.20	259.36	562.53	1,125.56
7	20.96	256.32	555.95	1,112.41	21.97	268.57	582.49	1,165.49	21.09	257.91	559.40	1,119.30
8	20.83	254.80	552.66	1,105.81	21.86	267.32	579.78	1,160.06	20.96	256.43	556.18	1,112.87
9	20.70	253.30	549.41	1,099.31	21.76	266.07	577.07	1,154.63	20.84	254.97	553.01	1,106.52
10	20.58	251.81	546.17	1,092.83	21.66	264.80	574.32	1,149.14	20.72	253.50	549.84	1,100.18
11	20.45	250.30	542.90	1,086.31	21.55	263.51	571.53	1,143.56	20.60	252.03	546.65	1,093.80
12	20.33	248.77	539.59	1,079.68	21.44	262.20	568.67	1,137.85	20.47	250.53	543.41	1,087.32
13	20.20	247.21	536.21	1,072.91	21.33	260.84	565.74	1,131.97	20.35	249.00	540.09	1,080.68
14	20.07	245.61	532.73	1,065.95	21.21	259.44	562.70	1,125.90	20.22	247.43	536.68	1,073.87
15	19.93	243.95	529.14	1,058.78	21.09	257.99	559.56	1,119.63	20.08	245.81	533.17	1,066.84
16	19.79	242.24	525.44	1,051.39	20.97	256.49	556.31	1,113.13	19.95	244.14	529.54	1,059.59
17	19.65	240.48	521.63	1,043.76	20.84	254.94	552.95	1,106.40	19.80	242.41	525.80	1,052.10
18	19.50	238.67	517.70	1,035.90	20.71	253.33	549.47	1,099.45	19.66	240.63	521.95	1,044.40
19	19.34	236.81	513.66	1,027.83	20.58	251.68	545.89	1,092.27	19.51	238.80	517.99	1,036.48
20	19.18	234.90	509.53	1,019.56	20.44	249.97	542.19	1,084.89	19.35	236.93	513.93	1,028.36
21	19.02	232.95	505.30	1,011.10	20.29	248.22	538.40	1,077.31	19.20	235.01	509.78	1,020.06
22	18.86	230.96	500.99	1,002.47	20.14	246.43	534.51	1,069.53	19.03	233.06	505.54	1,011.59
23	18.69	228.93	496.59	993.68	19.99	244.59	530.53	1,061.56	18.87	231.07	501.23	1,002.95
24	18.52	226.86	492.12	984.73	19.84	242.71	526.45	1,053.40	18.70	229.04	496.83	994.16
25	18.35	224.76	487.56	975.62	19.68	240.78	522.27	1,045.05	18.53	226.97	492.35	985.21
26	18.17	222.61	482.91	966.32	19.52	238.80	517.99	1,036.48	18.36	224.86	487.78	976.07
27	17.99	220.42	478.15	956.81	19.35	236.77	513.59	1,027.68	18.18	222.70	483.11	966.71
28	17.80	218.16	473.26	947.02	19.18	234.68	509.05	1,018.60	18.00	220.48	478.29	957.09
29	17.61	215.82	468.20	936.90	19.00	232.51	504.36	1,009.21	17.81	218.19	473.32	947.14
30	17.41	213.40	462.95	926.40	18.81	230.26	499.48	999.47	17.61	215.80	468.16	936.82
31	17.21	210.87	457.46	915.43	18.62	227.92	494.41	989.32	17.41	213.32	462.77	926.04
32	16.99	208.21	451.71	903.92	18.42	225.47	489.11	978.71	17.20	210.71	457.12	914.75
33	16.76	205.43	445.67	891.85	18.21	222.91	483.56	967.61	16.98	207.98	451.20	902.90
34	16.53	202.50	439.33	879.16	18.00	220.23	477.75	956.01	16.74	205.11	444.98	890.46
35	16.28	199.43	432.67	865.85	17.77	217.43	471.68	943.86	16.50	202.09	438.45	877.40
36	16.01	196.20	425.68	851.87	17.53	214.50	465.33	931.16	16.24	198.93	431.60	863.70
37	15.74	192.84	418.40	837.30	17.28	211.45	458.72	917.94	15.97	195.64	424.47	849.43
38	15.45	189.38	410.90	822.30	17.02	208.30	451.91	904.31	15.69	192.25	417.12	834.75
39	15.16	185.85	403.26	807.02	16.75	205.09	444.94	890.37	15.40	188.80	409.64	819.78
40	14.86	182.33	395.63	791.76	16.48	201.85	437.92	876.33	15.11	185.31	402.09	804.68
41	14.57	178.86	388.10	776.71	16.21	198.61	430.91	862.32	14.82	181.83	394.56	789.62
42	14.28	175.44	380.70	761.90	15.94	195.39	423.93	848.36	14.53	178.41	387.13	774.76
43	14.00	172.12	373.50	747.51	15.68	192.21	417.04	834.59	14.25	175.07	379.90	760.31
44	13.73	168.96	366.66	733.82	15.41	189.12	410.35	821.20	13.98	171.87	372.96	746.43
45	13.48	166.01	360.27	721.05	15.16	186.16	403.93	808.36	13.72	168.84	366.39	733.29
46	13.24	163.11	353.99	708.48	14.92	183.20	397.52	795.54	13.47	165.84	359.89	720.29
47	12.99	160.10	347.47	695.43	14.67	180.14	390.89	782.28	13.22	162.72	353.13	706.77
48	12.74	156.99	340.74	681.97	14.41	176.99	384.05	768.60	12.95	159.50	346.16	692.82
49	12.48	153.80	333.82	668.14	14.14	173.74	377.03	754.55	12.68	156.19	339.00	678.51
50	12.21	150.52	326.71	653.91	13.87	170.41	369.80	740.10	12.40	152.82	331.70	663.90
51	11.93	147.15	319.40	639.30	13.58	166.98	362.38	725.26	12.12	149.40	324.28	649.06
52	11.64	143.71	311.96	624.42	13.30	163.49	354.81	710.12	11.83	145.93	316.76	634.02
53	11.36	140.23	304.42	609.34	13.00	159.94	347.11	694.72	11.54	142.42	309.15	618.81
54	11.07	136.73	296.84	594.18	12.70	156.34	339.33	679.16	11.25	138.88	301.48	603.46
55	10.77	133.23	289.24	578.98	12.40	152.72	331.48	663.46	10.95	135.31	293.75	588.00

PTD OD Lung

Age	Male				Female				Gender Neutral			
	Yearly	Monthly	Biweekly	Weekly	Yearly	Monthly	Biweekly	Weekly	Yearly	Monthly	Biweekly	Weekly
56	10.48	129.70	281.60	563.70	12.10	149.06	323.55	647.61	10.65	131.72	285.97	572.44
57	10.19	126.14	273.89	548.28	11.79	145.36	315.53	631.55	10.35	128.11	278.15	556.79
58	9.89	122.56	266.14	532.78	11.48	141.62	307.42	615.34	10.05	124.48	270.28	541.07
59	9.59	118.97	258.35	517.20	11.17	137.84	299.24	598.97	9.75	120.84	262.39	525.28
60	9.29	115.37	250.54	501.58	10.85	134.04	291.00	582.49	9.44	117.18	254.48	509.46
61	8.99	111.77	242.74	485.98	10.54	130.22	282.72	565.94	9.14	113.53	246.56	493.62
62	8.69	108.16	234.93	470.36	10.22	126.38	274.40	549.29	8.84	109.87	238.64	477.78
63	8.39	104.56	227.12	454.74	9.90	122.52	266.04	532.57	8.53	106.22	230.73	461.96
64	8.09	100.97	219.34	439.18	9.58	118.65	257.67	515.83	8.23	102.59	222.85	446.20
65	7.79	97.40	211.61	423.71	9.25	114.79	249.30	499.09	7.93	98.97	215.01	430.52
66	7.50	93.84	203.91	408.31	8.93	110.93	240.93	482.36	7.63	95.37	207.22	414.95
67	7.20	90.31	196.25	393.00	8.61	107.07	232.57	465.63	7.33	91.81	199.50	399.50
68	6.91	86.81	188.67	377.84	8.29	103.23	224.24	448.99	7.03	88.28	191.86	384.21
69	6.62	83.36	181.19	362.88	7.97	99.41	215.98	432.46	6.74	84.79	184.29	369.09
70	6.34	79.95	173.82	348.13	7.66	95.63	207.79	416.07	6.45	81.34	176.82	354.15
71	6.05	76.60	166.55	333.59	7.34	91.88	199.66	399.82	6.17	77.94	169.45	339.40
72	5.78	73.28	159.35	319.21	7.03	88.16	191.59	383.68	5.89	74.58	162.18	324.86
73	5.50	70.00	152.24	304.99	6.72	84.46	183.58	367.65	5.61	71.28	155.01	310.52
74	5.23	66.77	145.25	291.01	6.42	80.80	175.66	351.81	5.34	68.02	147.95	296.40
75	4.97	63.59	138.37	277.23	6.12	77.19	167.82	336.14	5.07	64.81	141.00	282.51
76	4.70	60.45	131.56	263.62	5.82	73.60	160.05	320.61	4.81	61.66	134.17	268.83
77	4.45	57.37	124.88	250.26	5.52	70.07	152.40	305.30	4.55	58.55	127.45	255.40
78	4.19	54.35	118.35	237.19	5.23	66.60	144.88	290.26	4.29	55.51	120.85	242.21
79	3.95	51.39	111.92	224.33	4.94	63.18	137.46	275.42	4.04	52.53	114.39	229.27
80	3.70	48.47	105.59	211.69	4.66	59.80	130.15	260.81	3.80	49.61	108.06	216.62
81	3.46	45.63	99.45	199.40	4.38	56.51	123.03	246.55	3.56	46.75	101.88	204.26
82	3.23	42.89	93.51	187.52	4.11	53.32	116.10	232.70	3.32	43.98	95.87	192.23
83	3.01	40.23	87.75	175.99	3.85	50.21	109.36	219.23	3.10	41.28	90.03	180.55
84	2.79	37.67	82.19	164.88	3.60	47.20	102.85	206.19	2.88	38.68	84.38	169.26
85	2.59	35.23	76.91	154.32	3.36	44.32	96.61	193.72	2.67	36.17	78.94	158.37
86	2.39	32.87	71.80	144.10	3.12	41.53	90.57	181.63	2.46	33.75	73.71	147.93
87	2.20	30.58	66.83	134.16	2.89	38.82	84.70	169.89	2.27	31.45	68.72	137.95
88	2.01	28.42	62.15	124.80	2.67	36.26	79.14	158.78	2.08	29.26	63.97	128.45
89	1.84	26.39	57.77	116.03	2.47	33.84	73.90	148.30	1.91	27.18	59.47	119.44
90	1.68	24.48	53.61	107.71	2.28	31.54	68.92	138.34	1.74	25.22	55.22	110.94
91	1.53	22.67	49.69	99.87	2.09	29.37	64.21	128.92	1.59	23.37	51.22	102.93
92	1.39	20.97	46.01	92.51	1.92	27.32	59.77	120.04	1.44	21.64	47.46	95.42
93	1.25	19.38	42.56	85.62	1.76	25.40	55.60	111.70	1.31	20.01	43.94	88.37
94	1.13	17.89	39.34	79.17	1.60	23.59	51.69	103.88	1.18	18.49	40.65	81.79
95	1.01	16.50	36.33	73.15	1.46	21.89	48.01	96.52	1.06	17.07	37.57	75.63
96	0.91	15.19	33.49	67.47	1.33	20.29	44.53	89.56	0.95	15.73	34.66	69.82
97	0.81	13.94	30.77	62.04	1.20	18.75	41.19	82.89	0.85	14.45	31.89	64.27
98	0.71	12.71	28.12	56.73	1.08	17.24	37.94	76.37	0.75	13.20	29.17	58.84
99	0.61	11.50	25.48	51.45	0.96	15.76	34.73	69.95	0.65	11.96	26.48	53.45
100	0.52	10.27	22.83	46.15	0.84	14.29	31.53	63.56	0.55	10.71	23.77	48.04
101	0.43	9.03	20.14	40.78	0.73	12.82	28.35	57.20	0.46	9.45	21.04	42.58
102	0.33	7.77	17.40	35.30	0.61	11.36	25.18	50.86	0.36	8.17	18.26	37.02
103	0.24	6.46	14.57	29.63	0.50	9.91	22.03	44.56	0.27	6.85	15.41	31.31
104	0.15	5.07	11.55	23.58	0.39	8.47	18.92	38.33	0.18	5.46	12.39	25.27
105	0.07	3.49	8.12	16.72	0.29	7.10	15.95	32.39	0.09	3.85	8.89	18.26
106	0.00	0.00	0.00	0.00	0.20	6.16	13.91	28.32	0.01	1.83	4.48	9.43
107	0.00	0.00	0.00	0.00	0.19	6.04	13.65	27.80	0.00	0.00	0.00	0.00
108	0.00	0.00	0.00	0.00	0.18	5.98	13.51	27.52	0.00	0.00	0.00	0.00
109	0.00	0.00	0.00	0.00	0.18	5.91	13.37	27.24	0.00	0.00	0.00	0.00
110	0.00	0.00	0.00	0.00	0.18	5.85	13.23	26.96	0.00	0.00	0.00	0.00

PTD OD Non-Lung

Age	Male				Female				Gender Neutral			
	Yearly	Monthly	Biweekly	Weekly	Yearly	Monthly	Biweekly	Weekly	Yearly	Monthly	Biweekly	Weekly
1	22.16	271.57	588.98	1,178.46	22.93	280.59	608.53	1,217.57	22.45	274.93	596.26	1,193.03
2	22.17	271.29	588.39	1,177.27	22.91	280.21	607.71	1,215.91	22.45	274.61	595.58	1,191.66
3	22.12	270.54	586.75	1,174.01	22.86	279.54	606.24	1,212.99	22.39	273.89	594.01	1,188.52
4	22.04	269.62	584.75	1,170.00	22.80	278.75	604.54	1,209.58	22.33	273.02	592.12	1,184.73
5	21.96	268.57	582.48	1,165.47	22.73	277.88	602.65	1,205.81	22.25	272.03	589.99	1,180.48
6	21.87	267.42	580.00	1,160.50	22.66	276.94	600.62	1,201.73	22.16	270.96	587.67	1,175.84
7	21.77	266.19	577.32	1,155.14	22.58	275.93	598.44	1,197.38	22.07	269.81	585.18	1,170.85
8	21.66	264.92	574.57	1,149.63	22.49	274.90	596.19	1,192.88	21.97	268.63	582.61	1,165.72
9	21.56	263.65	571.83	1,144.16	22.40	273.85	593.92	1,188.35	21.87	267.45	580.05	1,160.59
10	21.45	262.39	569.09	1,138.68	22.31	272.79	591.63	1,183.75	21.77	266.26	577.47	1,155.44
11	21.35	261.11	566.32	1,133.13	22.22	271.71	589.28	1,179.06	21.67	265.05	574.85	1,150.21
12	21.24	259.80	563.49	1,127.48	22.13	270.60	586.88	1,174.25	21.57	263.82	572.18	1,144.87
13	21.13	258.47	560.59	1,121.69	22.04	269.45	584.40	1,169.29	21.47	262.55	569.44	1,139.38
14	21.02	257.09	557.61	1,115.73	21.94	268.27	581.83	1,164.16	21.36	261.24	566.61	1,133.73
15	20.90	255.67	554.54	1,109.57	21.84	267.04	579.17	1,158.85	21.25	259.90	563.69	1,127.88
16	20.78	254.20	551.36	1,103.21	21.74	265.77	576.42	1,153.34	21.13	258.50	560.67	1,121.84
17	20.65	252.69	548.07	1,096.64	21.63	264.45	573.57	1,147.64	21.02	257.06	557.54	1,115.59
18	20.53	251.12	544.69	1,089.87	21.52	263.09	570.61	1,141.73	20.89	255.57	554.32	1,109.14
19	20.39	249.52	541.20	1,082.90	21.40	261.68	567.56	1,135.62	20.77	254.04	550.99	1,102.49
20	20.26	247.86	537.62	1,075.73	21.28	260.23	564.42	1,129.33	20.64	252.46	547.57	1,095.64
21	20.12	246.17	533.94	1,068.39	21.16	258.73	561.18	1,122.85	20.50	250.84	544.06	1,088.62
22	19.97	244.43	530.18	1,060.87	21.03	257.20	557.84	1,116.19	20.37	249.17	540.46	1,081.42
23	19.83	242.66	526.34	1,053.17	20.90	255.62	554.42	1,109.34	20.23	247.47	536.77	1,074.04
24	19.68	240.84	522.41	1,045.32	20.77	253.99	550.90	1,102.31	20.08	245.73	533.00	1,066.49
25	19.52	238.99	518.39	1,037.29	20.63	252.33	547.29	1,095.09	19.94	243.95	529.13	1,058.77
26	19.37	237.09	514.28	1,029.07	20.49	250.62	543.58	1,087.66	19.79	242.12	525.17	1,050.85
27	19.21	235.15	510.06	1,020.63	20.35	248.85	539.76	1,080.02	19.63	240.24	521.10	1,042.71
28	19.04	233.14	505.71	1,011.93	20.20	247.03	535.81	1,072.11	19.47	238.30	516.90	1,034.31
29	18.87	231.06	501.21	1,002.92	20.04	245.14	531.71	1,063.93	19.31	236.30	512.56	1,025.61
30	18.70	228.90	496.53	993.57	19.88	243.18	527.46	1,055.43	19.14	234.21	508.04	1,016.58
31	18.51	226.65	491.65	983.80	19.71	241.13	523.03	1,046.57	18.96	232.04	503.33	1,007.16
32	18.32	224.29	486.53	973.57	19.54	238.99	518.40	1,037.31	18.77	229.76	498.40	997.30
33	18.12	221.81	481.17	962.84	19.36	236.76	513.56	1,027.63	18.58	227.38	493.24	986.97
34	17.91	219.21	475.54	951.58	19.17	234.43	508.50	1,017.51	18.38	224.88	487.83	976.15
35	17.68	216.51	469.70	939.89	18.97	232.00	503.25	1,006.99	18.16	222.27	482.16	964.81
36	17.46	213.70	463.61	927.72	18.76	229.48	497.78	996.06	17.94	219.53	476.22	952.94
37	17.22	210.77	457.26	915.01	18.55	226.85	492.08	984.66	17.71	216.67	470.04	940.58
38	16.97	207.74	450.69	901.89	18.32	224.13	486.19	972.87	17.46	213.73	463.67	927.83
39	16.71	204.64	443.96	888.42	18.09	221.33	480.12	960.74	17.21	210.72	457.14	914.79
40	16.45	201.48	437.12	874.73	17.85	218.47	473.93	948.36	16.96	207.67	450.53	901.55
41	16.18	198.32	430.27	861.04	17.61	215.58	467.68	935.86	16.70	204.60	443.87	888.24
42	15.92	195.18	423.48	847.46	17.37	212.69	461.41	923.32	16.45	201.53	437.24	874.98
43	15.66	192.10	416.80	834.11	17.13	209.81	455.16	910.83	16.19	198.52	430.70	861.90
44	15.41	189.12	410.34	821.17	16.89	206.97	449.01	898.52	15.94	195.57	424.31	849.12
45	15.16	186.26	404.15	808.80	16.66	204.19	442.99	886.49	15.70	192.71	418.13	836.76
46	14.93	183.42	397.98	796.47	16.43	201.39	436.94	874.37	15.47	189.86	411.94	824.39
47	14.69	180.46	391.57	783.64	16.19	198.49	430.65	861.80	15.23	186.89	405.52	811.54
48	14.44	177.38	384.90	770.31	15.94	195.48	424.13	848.76	14.97	183.83	398.88	798.27
49	14.18	174.21	378.03	756.55	15.69	192.38	417.41	835.31	14.72	180.68	392.06	784.63
50	13.91	170.96	371.00	742.51	15.43	189.20	410.52	821.54	14.45	177.46	385.08	770.66
51	13.64	167.67	363.87	728.23	15.16	185.96	403.50	807.49	14.18	174.17	377.95	756.41
52	13.36	164.33	356.63	713.76	14.89	182.66	396.34	793.18	13.90	170.82	370.70	741.89
53	13.08	160.94	349.30	699.09	14.61	179.30	389.06	778.63	13.62	167.42	363.32	727.15
54	12.79	157.52	341.88	684.25	14.33	175.88	381.67	763.83	13.33	163.97	355.84	712.18
55	12.51	154.06	334.38	669.26	14.04	172.42	374.15	748.81	13.04	160.47	348.26	697.02

PTD OD Non-Lung

Age	Male				Female				Gender Neutral			
	Yearly	Monthly	Biweekly	Weekly	Yearly	Monthly	Biweekly	Weekly	Yearly	Monthly	Biweekly	Weekly
56	12.22	150.55	326.78	654.06	13.75	168.89	366.51	733.53	12.75	156.92	340.58	681.67
57	11.92	147.00	319.09	638.67	13.45	165.31	358.75	717.99	12.45	153.34	332.82	666.14
58	11.63	143.42	311.32	623.13	13.15	161.67	350.87	702.24	12.15	149.72	324.97	650.44
59	11.33	139.80	303.48	607.46	12.85	157.99	342.89	686.28	11.85	146.06	317.04	634.58
60	11.02	136.15	295.58	591.66	12.54	154.26	334.81	670.13	11.54	142.37	309.04	618.58
61	10.72	132.48	287.63	575.76	12.22	150.49	326.65	653.79	11.23	138.65	300.98	602.46
62	10.41	128.79	279.63	559.77	11.91	146.68	318.40	637.29	10.92	134.90	292.87	586.24
63	10.10	125.09	271.61	543.73	11.59	142.84	310.08	620.66	10.61	131.14	284.71	569.93
64	9.80	121.38	263.58	527.66	11.27	138.98	301.70	603.91	10.30	127.36	276.53	553.56
65	9.49	117.66	255.52	511.54	10.95	135.09	293.27	587.04	9.98	123.57	268.33	537.15
66	9.18	113.94	247.46	495.42	10.62	131.17	284.79	570.07	9.67	119.79	260.12	520.73
67	8.87	110.23	239.41	479.32	10.29	127.24	276.28	553.05	9.35	116.00	251.91	504.33
68	8.56	106.53	231.39	463.28	9.97	123.31	267.75	536.01	9.04	112.22	243.72	487.95
69	8.25	102.84	223.40	447.30	9.64	119.37	259.22	518.93	8.72	108.45	235.56	471.62
70	7.94	99.16	215.44	431.38	9.31	115.43	250.67	501.84	8.41	104.70	227.43	455.36
71	7.64	95.51	207.51	415.52	8.98	111.48	242.12	484.74	8.10	100.96	219.34	439.18
72	7.34	91.86	199.62	399.74	8.65	107.54	233.58	467.65	7.79	97.25	211.29	423.09
73	7.03	88.25	191.78	384.06	8.33	103.60	225.05	450.59	7.48	93.56	203.30	407.10
74	6.73	84.66	184.00	368.50	8.00	99.68	216.55	433.60	7.17	89.90	195.37	391.23
75	6.44	81.09	176.29	353.07	7.67	95.77	208.08	416.67	6.87	86.27	187.49	375.48
76	6.14	77.56	168.63	337.75	7.35	91.88	199.66	399.81	6.57	82.67	179.69	359.88
77	5.85	74.07	161.07	322.64	7.03	88.02	191.30	383.10	6.27	79.10	171.96	344.43
78	5.56	70.65	153.65	307.81	6.71	84.22	183.06	366.62	5.98	75.57	164.33	329.15
79	5.28	67.29	146.37	293.24	6.39	80.47	174.93	350.37	5.69	72.09	156.78	314.07
80	5.00	63.98	139.19	278.89	6.08	76.76	166.90	334.30	5.40	68.66	149.35	299.21
81	4.73	60.74	132.19	264.88	5.78	73.13	159.02	318.54	5.12	65.29	142.05	284.60
82	4.47	57.61	125.41	251.31	5.48	69.58	151.34	303.19	4.84	61.99	134.89	270.28
83	4.21	54.56	118.79	238.08	5.19	66.11	143.83	288.16	4.57	58.76	127.89	256.28
84	3.96	51.61	112.41	225.31	4.90	62.75	136.53	273.56	4.30	55.61	121.08	242.65
85	3.72	48.77	106.25	213.00	4.63	59.48	129.46	259.42	4.05	52.56	114.46	229.42
86	3.49	46.00	100.25	201.01	4.36	56.29	122.55	245.60	3.80	49.61	108.07	216.64
87	3.26	43.34	94.47	189.44	4.10	53.21	115.87	232.23	3.56	46.77	101.92	204.33
88	3.05	40.79	88.96	178.41	3.85	50.25	109.45	219.40	3.33	44.05	96.02	192.53
89	2.84	38.33	83.62	167.73	3.61	47.38	103.23	206.95	3.11	41.45	90.38	181.26
90	2.64	35.93	78.43	157.37	3.37	44.59	97.19	194.88	2.90	38.97	85.01	170.52
91	2.45	33.68	73.55	147.60	3.15	41.95	91.47	183.44	2.70	36.62	79.92	160.33
92	2.27	31.61	69.08	138.65	2.94	39.50	86.16	172.82	2.51	34.39	75.09	150.69
93	2.11	29.71	64.95	130.39	2.74	37.21	81.20	162.90	2.33	32.29	70.53	141.57
94	1.96	27.88	60.98	122.46	2.56	35.00	76.42	153.34	2.16	30.30	66.22	132.95
95	1.81	26.12	57.16	114.82	2.38	32.88	71.81	144.12	2.00	28.41	62.14	124.78
96	1.67	24.44	53.53	107.55	2.21	30.84	67.39	135.28	1.85	26.62	58.24	116.99
97	1.54	22.82	50.02	100.53	2.04	28.86	63.11	126.71	1.71	24.88	54.48	109.45
98	1.41	21.23	46.57	93.64	1.88	26.92	58.90	118.30	1.57	23.17	50.78	102.05
99	1.28	19.65	43.15	86.81	1.73	25.00	54.74	109.97	1.43	21.48	47.11	94.72
100	1.15	18.08	39.74	79.99	1.57	23.09	50.60	101.70	1.29	19.79	43.46	87.41
101	1.02	16.51	36.34	73.17	1.41	21.19	46.50	93.49	1.16	18.11	39.82	80.14
102	0.90	14.94	32.94	66.38	1.26	19.32	42.43	85.36	1.02	16.44	36.20	72.90
103	0.77	13.38	29.57	59.63	1.11	17.47	38.42	77.34	0.89	14.79	32.61	65.72
104	0.65	11.84	26.22	52.94	0.96	15.65	34.48	69.46	0.76	13.15	29.07	58.64
105	0.53	10.31	22.92	46.33	0.82	13.88	30.64	61.77	0.63	11.55	25.59	51.67
106	0.42	8.81	19.65	39.79	0.68	12.15	26.90	54.29	0.51	9.97	22.17	44.84
107	0.31	7.30	16.39	33.27	0.55	10.48	23.27	47.04	0.39	8.42	18.81	38.12
108	0.20	5.77	13.07	26.63	0.42	8.87	19.78	40.06	0.28	6.89	15.48	31.46
109	0.10	4.09	9.40	19.29	0.31	7.35	16.48	33.45	0.17	5.34	12.12	24.73
110	0.01	2.23	5.35	11.18	0.21	6.15	13.89	28.27	0.08	3.93	9.06	18.61

Survivor Benefit Private

Age	Gender Neutral				Age	Gender Neutral			
	Yearly	Monthly	Biweekly	Weekly		Yearly	Monthly	Biweekly	Weekly
1	21.86	266.82	578.69	1,157.87	56	14.77	181.55	393.93	788.36
2	21.74	265.34	575.48	1,151.46	57	14.57	179.10	388.64	777.78
3	21.61	263.78	572.11	1,144.71	58	14.36	176.56	383.13	766.76
4	21.48	262.15	568.58	1,137.66	59	14.15	173.89	377.34	755.18
5	21.34	260.46	564.90	1,130.31	60	13.92	171.06	371.22	742.93
6	21.20	258.69	561.07	1,122.65	61	13.67	168.06	364.72	729.95
7	21.05	256.85	557.09	1,114.67	62	13.42	164.88	357.83	716.16
8	20.89	254.93	552.93	1,106.37	63	13.14	161.51	350.52	701.55
9	20.73	252.94	548.61	1,097.72	64	12.85	157.94	342.80	686.09
10	20.56	250.86	544.12	1,088.74	65	12.55	154.19	334.65	669.80
11	20.38	248.71	539.45	1,079.40	66	12.23	150.24	326.11	652.72
12	20.20	246.47	534.60	1,069.70	67	11.89	146.13	317.19	634.88
13	20.01	244.14	529.56	1,059.62	68	11.54	141.85	307.93	616.36
14	19.82	241.73	524.33	1,049.16	69	11.18	137.44	298.37	597.24
15	19.61	239.23	518.90	1,038.31	70	10.80	132.91	288.55	577.60
16	19.40	236.62	513.27	1,027.04	71	10.42	128.28	278.53	557.55
17	19.18	233.92	507.41	1,015.32	72	10.03	123.58	268.35	537.19
18	18.95	233.43	506.36	1,013.21	73	9.64	118.84	258.07	516.64
19	19.06	234.62	508.93	1,018.37	74	9.24	114.08	247.75	496.00
20	19.13	235.32	510.45	1,021.39	75	8.84	109.32	237.45	475.39
21	19.17	235.78	511.44	1,023.38	76	8.47	104.81	227.66	455.82
22	19.20	236.00	511.92	1,024.34	77	8.09	100.25	217.79	436.08
23	19.21	235.98	511.88	1,024.26	78	7.71	95.68	207.88	416.26
24	19.19	235.73	511.33	1,023.17	79	7.33	91.12	198.00	396.50
25	19.16	235.28	510.36	1,021.21	80	6.95	86.59	188.19	376.88
26	19.12	234.68	509.06	1,018.63	81	6.57	82.11	178.50	357.50
27	19.06	233.95	507.48	1,015.45	82	6.20	77.71	168.96	338.42
28	18.99	233.09	505.60	1,011.71	83	5.84	73.40	159.61	319.72
29	18.91	232.09	503.45	1,007.39	84	5.48	69.18	150.46	301.43
30	18.82	230.96	501.00	1,002.50	85	5.14	65.06	141.55	283.59
31	18.72	229.74	498.36	997.21	86	4.80	61.09	132.94	266.37
32	18.61	228.43	495.52	991.53	87	4.48	57.30	124.73	249.95
33	18.50	227.03	492.48	985.45	88	4.17	53.69	116.92	234.33
34	18.37	225.53	489.23	978.95	89	3.88	50.27	109.50	219.51
35	18.24	223.93	485.76	972.02	90	3.60	47.03	102.49	205.47
36	18.11	222.27	482.17	964.83	91	3.34	43.97	95.85	192.21
37	17.97	220.55	478.44	957.38	92	3.10	41.09	89.61	179.71
38	17.82	218.77	474.58	949.65	93	2.86	38.38	83.74	167.97
39	17.67	216.92	470.57	941.64	94	2.65	35.84	78.25	156.99
40	17.51	215.00	466.42	933.33	95	2.45	33.49	73.14	146.78
41	17.36	213.11	462.31	925.12	96	2.26	31.29	68.38	137.27
42	17.20	211.23	458.24	916.98	97	2.09	29.23	63.92	128.34
43	17.05	209.36	454.19	908.88	98	1.92	27.31	59.75	119.99
44	16.90	207.49	450.14	900.77	99	1.77	25.51	55.86	112.22
45	16.74	205.61	446.07	892.64	100	1.63	23.84	52.24	104.98
46	16.59	203.69	441.91	884.32	101	1.50	22.28	48.86	98.21
47	16.43	201.72	437.64	875.79	102	1.38	20.81	45.68	91.86
48	16.26	199.70	433.26	867.02	103	1.26	19.46	42.74	85.98
49	16.09	197.62	428.75	858.01	104	1.16	18.22	40.05	80.60
50	15.92	195.48	424.11	848.73	105	1.07	17.08	37.59	75.68
51	15.74	193.27	419.33	839.16	106	0.98	15.99	35.23	70.97
52	15.55	190.99	414.40	829.29	107	0.89	14.84	32.74	65.97
53	15.36	188.64	409.29	819.09	108	0.79	13.47	29.77	60.04
54	15.16	186.27	404.16	808.81	109	0.66	11.53	25.56	51.62
55	14.97	183.92	399.08	798.65	110	0.45	8.03	17.98	36.47

Survivor Benefit Public

Age	Gender Neutral				Age	Gender Neutral			
	Yearly	Monthly	Biweekly	Weekly		Yearly	Monthly	Biweekly	Weekly
1	21.86	266.82	578.69	1,157.87	56	14.77	181.55	393.93	788.36
2	21.74	265.34	575.48	1,151.46	57	14.57	179.10	388.64	777.78
3	21.61	263.78	572.11	1,144.71	58	14.36	176.56	383.13	766.76
4	21.48	262.15	568.58	1,137.66	59	14.15	173.89	377.34	755.18
5	21.34	260.46	564.90	1,130.31	60	13.92	171.06	371.22	742.93
6	21.20	258.69	561.07	1,122.65	61	13.67	168.06	364.72	729.95
7	21.05	256.85	557.09	1,114.67	62	13.42	164.88	357.83	716.16
8	20.89	254.93	552.93	1,106.37	63	13.14	161.51	350.52	701.55
9	20.73	252.94	548.61	1,097.72	64	12.85	157.94	342.80	686.09
10	20.56	250.86	544.12	1,088.74	65	12.55	154.19	334.65	669.80
11	20.38	248.71	539.45	1,079.40	66	12.23	150.24	326.11	652.72
12	20.20	246.47	534.60	1,069.70	67	11.89	146.13	317.19	634.88
13	20.01	244.14	529.56	1,059.62	68	11.54	141.85	307.93	616.36
14	19.82	241.73	524.33	1,049.16	69	11.18	137.44	298.37	597.24
15	19.61	239.23	518.90	1,038.31	70	10.80	132.91	288.55	577.60
16	19.40	236.62	513.27	1,027.04	71	10.42	128.28	278.53	557.55
17	19.18	233.92	507.41	1,015.32	72	10.03	123.58	268.35	537.19
18	18.95	233.43	506.36	1,013.21	73	9.64	118.84	258.07	516.64
19	19.06	234.62	508.93	1,018.37	74	9.24	114.08	247.75	496.00
20	19.13	235.32	510.45	1,021.39	75	8.84	109.32	237.45	475.39
21	19.17	235.78	511.44	1,023.38	76	8.47	104.81	227.66	455.82
22	19.20	236.00	511.92	1,024.34	77	8.09	100.25	217.79	436.08
23	19.21	235.98	511.88	1,024.26	78	7.71	95.68	207.88	416.26
24	19.19	235.73	511.33	1,023.17	79	7.33	91.12	198.00	396.50
25	19.16	235.28	510.36	1,021.21	80	6.95	86.59	188.19	376.88
26	19.12	234.68	509.06	1,018.63	81	6.57	82.11	178.50	357.50
27	19.06	233.95	507.48	1,015.45	82	6.20	77.71	168.96	338.42
28	18.99	233.09	505.60	1,011.71	83	5.84	73.40	159.61	319.72
29	18.91	232.09	503.45	1,007.39	84	5.48	69.18	150.46	301.43
30	18.82	230.96	501.00	1,002.50	85	5.14	65.06	141.55	283.59
31	18.72	229.74	498.36	997.21	86	4.80	61.09	132.94	266.37
32	18.61	228.43	495.52	991.53	87	4.48	57.30	124.73	249.95
33	18.50	227.03	492.48	985.45	88	4.17	53.69	116.92	234.33
34	18.37	225.53	489.23	978.95	89	3.88	50.27	109.50	219.51
35	18.24	223.93	485.76	972.02	90	3.60	47.03	102.49	205.47
36	18.11	222.27	482.17	964.83	91	3.34	43.97	95.85	192.21
37	17.97	220.55	478.44	957.38	92	3.10	41.09	89.61	179.71
38	17.82	218.77	474.58	949.65	93	2.86	38.38	83.74	167.97
39	17.67	216.92	470.57	941.64	94	2.65	35.84	78.25	156.99
40	17.51	215.00	466.42	933.33	95	2.45	33.49	73.14	146.78
41	17.36	213.11	462.31	925.12	96	2.26	31.29	68.38	137.27
42	17.20	211.23	458.24	916.98	97	2.09	29.23	63.92	128.34
43	17.05	209.36	454.19	908.88	98	1.92	27.31	59.75	119.99
44	16.90	207.49	450.14	900.77	99	1.77	25.51	55.86	112.22
45	16.74	205.61	446.07	892.64	100	1.63	23.84	52.24	104.98
46	16.59	203.69	441.91	884.32	101	1.50	22.28	48.86	98.21
47	16.43	201.72	437.64	875.79	102	1.38	20.81	45.68	91.86
48	16.26	199.70	433.26	867.02	103	1.26	19.46	42.74	85.98
49	16.09	197.62	428.75	858.01	104	1.16	18.22	40.05	80.60
50	15.92	195.48	424.11	848.73	105	1.07	17.08	37.59	75.68
51	15.74	193.27	419.33	839.16	106	0.98	15.99	35.23	70.97
52	15.55	190.99	414.40	829.29	107	0.89	14.84	32.74	65.97
53	15.36	188.64	409.29	819.09	108	0.79	13.47	29.77	60.04
54	15.16	186.27	404.16	808.81	109	0.66	11.53	25.56	51.62
55	14.97	183.92	399.08	798.65	110	0.45	8.03	17.98	36.47

Orphan

Age	Gender Neutral			
	Yearly	Monthly	Biweekly	Weekly
1	13.84	168.61	365.89	732.27
2	13.40	163.18	354.13	708.74
3	12.94	157.52	341.87	684.23
4	12.46	151.63	329.11	658.70
5	11.96	145.51	315.83	632.14
6	11.44	139.13	302.01	604.51
7	10.90	132.50	287.64	575.76
8	10.33	125.60	272.69	545.86
9	9.75	118.42	257.13	514.75
10	9.14	110.95	240.96	482.39
11	8.51	103.19	224.13	448.74
12	7.85	95.11	206.63	413.75
13	7.16	86.71	188.44	377.36
14	6.45	77.98	169.52	339.52
15	5.71	68.90	149.84	300.16
16	4.94	59.46	129.38	259.23
17	4.14	49.63	108.09	216.66
18	3.31	43.68	95.20	190.87
19	3.16	40.58	88.48	177.42
20	2.80	34.83	76.00	152.46
21	2.21	28.05	61.31	123.08
22	1.68	21.65	47.42	95.29
23	1.17	14.90	32.77	65.98
24	0.59	9.46	20.94	42.26
25	0.35	4.48	9.93	20.07
26	0.00	0.00	0.00	0.00



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