



110 West Berry Street
Suite 1300
Fort Wayne, IN 46802

August 30, 2024

Mr. Tom Causey
Executive Director
State of North Carolina
Department of State Treasurer
Retirement Systems Division
3200 Atlantic Avenue
Raleigh, NC 27604

**Firefighters' and Rescue Squad Workers' Pension Fund
GASB 67 Disclosure for Fiscal Year Ending June 30, 2024
Based on Valuation Date of December 31, 2023**

Dear Mr. Causey:

We have prepared the required accounting information for Governmental Accounting Standards Board (GASB) Statement No. 67 for the North Carolina Firefighters' and Rescue Squad Workers' Pension Fund (FRSWPF) for fiscal year ending June 30, 2024 based on a valuation date of December 31, 2023.

GASB Statement No. 67

GASB Statement No. 67 set forth certain Items of information to be disclosed in the financial statements of the Plan.

1. One such item is a distribution of the number of employees by type of membership, as follows:

Number of Active and Retired Participants as of 12/31/2023	
Retired members and survivors of deceased members currently receiving benefits	15,263
Terminated members and survivors of deceased members entitled to benefits but not yet receiving benefits	99
Active members ¹	<u>44,394</u>
Total membership	59,756

¹ Includes all members who have not received a refund of contributions. This group includes 25,621 active members and 18,773 lapsed members who did not contribute or whose service did not increase during 2023.

2. Following is the schedule of changes in Net Pension Liability

Schedule of Changes in Net Pension Liability as of June 30, 2024		
Total Pension Liability		
Service Cost	\$	7,230,000
Interest		32,342,000
Changes in Benefit Terms		0
Differences between Expected and Actual Experience		(1,153,000)
Changes of Assumptions		0
Benefits Payments, including Refund of Member Contributions		<u>(31,298,000)</u>
Net Change in Total Pension Liability	\$	7,121,000
Total Pension Liability – Beginning of Year	\$	505,749,000
Total Pension Liability – End of Year	\$	512,870,000
Plan Fiduciary Net Position		
Employer Contributions	\$	20,052,000
Member Contributions		2,571,000
Net Investment Income		40,231,000
Benefit Payments, including Refund of Member Contributions		(31,298,000)
Administrative Expenses		(1,004,000)
Other		<u>18,000</u>
Net Change in Plan Fiduciary Net Position	\$	30,570,000
Plan Fiduciary Net Position – Beginning of Year	\$	496,440,000
Plan Fiduciary Net Position – End of Year	\$	527,010,000

Net Pension Liability (Asset)	June 30, 2024	June 30, 2023
Total Pension Liability	\$ 512,870,000	\$ 505,749,000
Plan Fiduciary Net Position	<u>527,010,000</u>	<u>496,440,000</u>
Net Pension Liability/(Asset)	\$ (14,140,000)	\$ 9,309,000
Plan Fiduciary Net Pension as a Percentage of the Total Pension Liability (Asset)	102.76%	98.16%

3. Following is the sensitivity of the Net Pension liability to changes in the discount rate.

Sensitivity of the Net Pension Liability to Changes in Discount Rate			
	1% Decrease	Current	1% Increase
Discount Rate	5.50%	6.50%	7.50%
Net Pension Liability (Asset)	\$ 50,992,000	\$ (14,140,000)	\$ (67,380,000)

4. The discount rate used to measure the total pension liability was 6.50%. The projection of cash flows used to determine the discount rate assumed that System contributions will continue to follow the current funding policy, including "direct-rate smoothing" as adopted by the Board of Trustees on January 28, 2021. It is also assumed that for fiscal years ending 2024 through 2027, System contributions will follow the State Contribution Rate Stabilization Policy as adopted by the Board of Trustees on April 29, 2021. It is further assumed that for fiscal years 2028 and beyond, System contributions will be based on the actuarially determined contribution amounts. Investment earnings are based on actual returns through June 30, 2024, and on the assumed investment rate of return thereafter. In addition, future administrative expenses are assumed equal to actual expenses paid in the prior year, but no less than a flat rate per active and in-pay member equal to \$30 in 2023 and increased by 2.5% per year thereafter. Based on those assumptions, the System's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Please see Appendix A for additional detail.
5. Methods and assumptions used to calculate the actuarially determined contribution rate are as follows.

Valuation Date	12/31/2023
Actuarial Cost Method	Entry Age
Amortization Method	Level dollar closed
Amortization Period	12-year closed period
Asset Valuation Method	Asset returns in excess of or less than the expected return on market value of assets reflected over a five-year period (not greater than 120% of market value and not less than 80% of market value)
Actuarial Assumptions:	
Investment Rate of Return ¹	6.50%
Projected Salary Increases	N/A
Cost-of-living Adjustments	N/A

The June 30, 2024 total pension liability was determined by an actuarial valuation as of December 31, 2023, based on the assumptions adopted by the Board of Trustees on January 28, 2021, which are based on the experience study prepared as of December 31, 2019, including a discount rate of 6.50%. The economic

¹ Includes inflation at 2.50%

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assumptions with respect to investment yield, salary increase, and inflation have been based upon a review of the existing portfolio structure as well as recent and anticipated experience.

The plan sponsor selected the assumptions used for the accounting results in this letter. We believe that these assumptions are reasonable and comply with the Actuarial Standards of Practice ("ASOPs") 27 and 35 and the requirements of GASB statement No. 67. We prepared this letter in accordance with the requirements of this standard.

ASOPs 27 and 35 ask the actuary to disclose the information and analysis used to support the actuary's determination that the assumptions selected by the plan sponsor do not significantly conflict with what, in the actuary's professional judgment, are reasonable for the purpose of the measurement. In the case of the plan sponsor's selection of expected return on assets ("EROA"), the signing actuaries have used economic information and tools provided by the Financial Risk Management ("FRM") practice at Gallagher. A spreadsheet tool created by the FRM team converts averages, standard deviations, and correlations from Gallagher's Capital Markets Assumptions ("CMA") that are used for stochastic forecasting into approximate percentile ranges for the arithmetic and geometric average returns. It is intended to suggest possible reasonable ranges for EROA without attempting to predict or select a specific best estimate rate of return. It takes into account the duration (horizon) of investment and the target allocation of assets in the portfolio to various asset classes. Based on the actuary's analysis, including consistency with other assumptions used in the valuation and the percentiles generated by the spreadsheet described above, the actuary believes the EROA is reasonable for the purpose of the measurement.

The June 30, 2024 total pension liability is based on the same plan provisions as used in the previous valuation. To the extent there have been changes to FRSWPF provisions enacted by the legislature, they have been reviewed with staff of the Retirement Systems Division and were not considered material to the current valuation. To the extent the legislature enacts additional legislation that has a material impact on the valuation, revised GASB 67 disclosures may be required.

Full summaries of the plan provisions used in the previous valuation and for the June 30, 2024 total pension liability were provided in October 2023 in the "Report on the Actuarial Valuation of the North Carolina Firefighters' and Rescue Squad Workers' Pension Fund Prepared as of December 31, 2022".

The actuarial cost method used to develop the total pension liability is the Entry Age Normal Cost Method as required by GASB Statement No. 67.

The results of this letter are based upon participant data supplied by the Retirement Systems Division and unaudited financial data supplied by the Financial Operations Division. reviewed the data for reasonableness and consistency with data for the prior valuation but performed no audit of the data. The results of this letter are dependent on the accuracy of the data.

The primary purpose of this letter is to provide information that the Office of the State Controller (OSC) requires for its Comprehensive Annual Financial Report. This letter may also be used in conjunction with other materials for purposes of the pension plan audit. Use of this letter for any other purposes or by anyone other than OSC and its auditors may not be appropriate and may result in mistaken conclusions because of failure to understand applicable assumptions, methods, or inapplicability of the letter for that purpose. Because of the risk of misinterpretation of actuarial results, you should ask us to review any statement you wish to make on the results contained in this report. Gallagher will not accept any liability for any such statement made without prior review by Gallagher.

Future actuarial measurements may differ significantly from current measurements due to plan experience differing from that anticipated by the economic and demographic assumptions, increases or decreases expected as part of the natural operation of the methodology used for these measurements, and changes in

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plan provisions or applicable law. Because of limited scope, Gallagher performed no analysis of the potential range of such future differences other than the sensitivity to changes in the discount rate required by GASB Statement No. 67.

Actuarial Standard of Practice No. 56 ("ASOP 56") provides guidance to actuaries when performing actuarial services with respect to designing, developing, selecting, modifying, using, reviewing, or evaluating models. Gallagher uses third-party software in the performance of annual actuarial valuations and projections. The model is intended to calculate the liabilities associated with the provisions of the Plan using data and assumptions as of the measurement date under the accounting rules specified in this report. The output from the third-party vendor software is used as input to an internally developed model that applies applicable accounting rules to the liabilities derived and other inputs, such as Plan assets and contributions, to generate many of the exhibits found in this report. Gallagher has an extensive review process whereby the results of the liability calculations are checked using detailed sample output, changes from year to year are summarized by source, and significant deviations from expectations are investigated. Other accounting outputs and the internal model are similarly reviewed in detail and at a high level for accuracy, reasonability, and consistency with prior results. Gallagher also reviews the third-party model when significant changes are made to the software. The review is performed by experts within the company who are familiar with applicable accounting rules as well as the manner in which the model generates its output. If significant changes are made to the internal model, extra checking and review are completed. Significant changes to the internal model that are applicable to multiple clients are generally developed, checked and reviewed by multiple experts within the company who are familiar with the details of the required changes.

Where presented, references to "net pension liability" and "fiduciary net position as a percentage of the total pension liability" may be appropriate for evaluating the need and level of future contributions but makes no assessment regarding the funded status of the Fund if the Fund were to settle (i.e., purchase annuities to cover) any portion of its liabilities.

This report was prepared under our supervision and in accordance with all applicable Actuarial Standards of Practice. We are Fellows of the Society of Actuaries, Enrolled Actuaries, Members of the American Academy of Actuaries, and Fellows of the Conference of Consulting Actuaries. We meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein. We are available to discuss this report with you at your convenience.

Please let us know if you require additional information.

Sincerely,

Buck Global, LLC (Buck),
Gallagher Benefit Services, Inc. (hereinafter "Gallagher")



Michael A. Ribble, FSA, EA, MAAA, FCA
Principal, Retirement Actuary



Elizabeth A. Wiley, FSA, EA, MAAA, FCA
Director, Retirement Actuary

Appendix A Table 1 – Projection of Fiduciary Net Positions

(\$ in Thousands)

Calendar Year	Beginning Fiduciary Position	Member Contributions	Employer Contributions	Benefit Payments	Administrative Expenses	Investment Earnings	Ending Fiduciary Position
2024	\$ 511,322	\$ 2,736	\$ 20,227	\$ 34,420	\$ 1,143	\$ 37,273	\$ 535,995
2025	535,995	2,659	20,577	33,533	1,188	34,472	558,982
2026	558,982	2,518	20,927	34,187	1,188	35,952	583,004
2027	583,004	2,369	10,789	34,674	1,188	37,168	597,468
2028	597,468	2,227	237	35,071	1,188	37,754	601,427
2029	601,427	2,075	0	35,501	1,188	37,985	604,798
2030	604,798	1,943	0	35,898	1,188	38,188	607,843
2031	607,843	1,816	0	36,201	1,188	38,371	610,641
2032	610,641	1,683	0	36,505	1,188	38,539	613,170
2033	613,170	1,565	0	36,689	1,188	38,695	615,553
2034	615,553	1,428	0	36,937	1,188	38,836	617,692
2035	617,692	1,304	0	37,063	1,188	38,968	619,713
2036	619,713	1,185	0	37,287	1,188	39,088	621,511
2037	621,511	1,065	0	37,591	1,188	39,192	622,989
2038	622,989	936	0	37,887	1,188	39,274	624,124
2039	624,124	801	0	38,174	1,188	39,333	624,896
2040	624,896	671	0	38,581	1,188	39,367	625,165
2041	625,165	551	0	38,952	1,188	39,369	624,945
2042	624,945	435	0	39,288	1,188	39,340	624,244
2043	624,244	305	0	39,653	1,188	39,279	622,987
2044	622,987	73	0	40,231	1,188	39,171	620,812
2045	620,812	10	0	40,742	1,188	39,012	617,904
2046	617,904	4	0	40,939	1,224	38,816	614,561
2047	614,561	2	0	41,032	1,262	38,593	610,862
2048	610,862	1	0	41,014	1,299	38,352	606,902
2049	606,902	0	0	40,916	1,335	38,097	602,748
2050	602,748	0	0	40,857	1,372	37,828	598,347
2051	598,347	0	0	40,786	1,410	37,542	593,693
2052	593,693	0	0	40,662	1,448	37,243	588,826
2053	588,826	0	0	40,340	1,480	36,936	583,942
2054	583,942	0	0	40,008	1,512	36,628	579,050
2055	579,050	0	0	39,578	1,539	36,323	574,256
2056	574,256	0	0	39,085	1,565	36,026	569,632
2057	569,632	0	0	38,521	1,588	35,743	565,266
2058	565,266	0	0	37,821	1,605	35,481	561,321
2059	561,321	0	0	36,941	1,613	35,253	558,020
2060	558,020	0	0	35,880	1,612	35,072	555,600
2061	555,600	0	0	34,649	1,602	34,954	554,303
2062	554,303	0	0	33,414	1,589	34,910	554,210
2063	554,210	0	0	32,190	1,575	34,943	555,388
2064	555,388	0	0	30,976	1,560	35,060	557,912
2065	557,912	0	0	29,773	1,542	35,263	561,860
2066	561,860	0	0	28,580	1,523	35,558	567,315
2067	567,315	0	0	27,399	1,502	35,951	574,365
2068	574,365	0	0	26,230	1,479	36,447	583,103
2069	583,103	0	0	25,071	1,454	37,052	593,630
2070	593,630	0	0	23,925	1,428	37,776	606,053
2071	606,053	0	0	22,790	1,399	38,620	620,484
2072	620,484	0	0	21,667	1,368	39,595	637,044
2073	637,044	0	0	20,557	1,334	40,707	655,860

Appendix A

Table 1 – Projection of Fiduciary Net Positions (continued)

(\$ in Thousands)

Calendar Year	Beginning Fiduciary Position	Member Contributions	Employer Contributions	Benefit Payments	Administrative Expenses	Investment Earnings	Ending Fiduciary Position
2074	\$ 655,860	\$ 0	\$ 0	\$ 19,461	\$ 1,299	\$ 41,967	\$ 677,067
2075	677,067	0	0	18,380	1,261	43,380	700,806
2076	700,806	0	0	17,314	1,221	44,959	727,230
2077	727,230	0	0	16,266	1,180	46,712	756,496
2078	756,496	0	0	15,237	1,136	48,649	788,772
2079	788,772	0	0	14,228	1,090	50,780	824,234
2080	824,234	0	0	13,242	1,042	53,119	863,069
2081	863,069	0	0	12,280	993	55,675	905,471
2082	905,471	0	0	11,344	942	58,461	951,646
2083	951,646	0	0	10,438	891	61,495	1,001,812
2084	1,001,812	0	0	9,563	838	64,785	1,056,196
2085	1,056,196	0	0	8,721	785	68,349	1,115,039
2086	1,115,039	0	0	7,915	731	72,201	1,178,594
2087	1,178,594	0	0	7,146	677	76,359	1,247,130
2088	1,247,130	0	0	6,416	624	80,838	1,320,928
2089	1,320,928	0	0	5,727	571	85,658	1,400,288
2090	1,400,288	0	0	5,080	520	90,840	1,485,528
2091	1,485,528	0	0	4,477	470	96,401	1,576,982
2092	1,576,982	0	0	3,918	421	102,365	1,675,008
2093	1,675,008	0	0	3,403	375	108,754	1,779,984
2094	1,779,984	0	0	2,933	331	115,595	1,892,315
2095	1,892,315	0	0	2,506	290	122,910	2,012,429
2096	2,012,429	0	0	2,123	252	130,732	2,140,786
2097	2,140,786	0	0	1,781	216	139,087	2,277,876
2098	2,277,876	0	0	1,479	184	148,009	2,424,222
2099	2,424,222	0	0	1,214	154	157,531	2,580,385
2100	2,580,385	0	0	984	128	167,689	2,746,962
2101	2,746,962	0	0	787	105	178,523	2,924,593
2102	2,924,593	0	0	620	85	190,076	3,113,964
2103	3,113,964	0	0	481	67	202,390	3,315,806
2104	3,315,806	0	0	367	53	215,515	3,530,901
2105	3,530,901	0	0	274	40	229,499	3,760,086
2106	3,760,086	0	0	201	30	244,398	4,004,253
2107	4,004,253	0	0	144	22	260,270	4,264,357
2108	4,264,357	0	0	101	16	277,180	4,541,420
2109	4,541,420	0	0	69	11	295,189	4,836,529
2110	4,836,529	0	0	46	8	314,372	5,150,847
2111	5,150,847	0	0	30	5	334,804	5,485,616
2112	5,485,616	0	0	19	3	356,564	5,842,158
2113	5,842,158	0	0	12	2	379,740	6,221,884
2114	6,221,884	0	0	7	1	404,422	6,626,298
2115	6,626,298	0	0	4	1	430,709	7,057,002
2116	7,057,002	0	0	2	1	458,705	7,515,704
2117	7,515,704	0	0	1	0	488,520	8,004,223
2118	8,004,223	0	0	1	0	520,275	8,524,497
2119	8,524,497	0	0	0	0	554,092	9,078,589
2120	9,078,589	0	0	0	0	590,108	9,668,697
2121	9,668,697	0	0	0	0	628,465	10,297,162
2122	10,297,162	0	0	0	0	669,316	10,966,478
2123	10,966,478	0	0	0	0	712,821	11,679,299

Appendix A

Table 2 – Actuarial Present Values of Projected Benefit Payments
(\$ in Thousands)

Calendar Year	Beginning Fiduciary Position	Benefit Payments	Funded Benefit Payments	Unfunded Benefit Payments	Present Value of Benefit Payments		
					Funded Payments at 6.50%	Unfunded Payments at 3.93%	Using Single Discount Rate of 6.50%
2024	\$ 511,322	\$ 34,420	\$ 34,420	\$ 0	\$ 33,353	\$ 0	\$ 33,353
2025	535,995	33,533	33,533	0	30,510	0	30,510
2026	558,982	34,187	34,187	0	29,207	0	29,207
2027	583,004	34,674	34,674	0	27,815	0	27,815
2028	597,468	35,071	35,071	0	26,416	0	26,416
2029	601,427	35,501	35,501	0	25,108	0	25,108
2030	604,798	35,898	35,898	0	23,840	0	23,840
2031	607,843	36,201	36,201	0	22,573	0	22,573
2032	610,641	36,505	36,505	0	21,374	0	21,374
2033	613,170	36,689	36,689	0	20,170	0	20,170
2034	615,553	36,937	36,937	0	19,067	0	19,067
2035	617,692	37,063	37,063	0	17,965	0	17,965
2036	619,713	37,287	37,287	0	16,970	0	16,970
2037	621,511	37,591	37,591	0	16,064	0	16,064
2038	622,989	37,887	37,887	0	15,203	0	15,203
2039	624,124	38,174	38,174	0	14,383	0	14,383
2040	624,896	38,581	38,581	0	13,649	0	13,649
2041	625,165	38,952	38,952	0	12,939	0	12,939
2042	624,945	39,288	39,288	0	12,254	0	12,254
2043	624,244	39,653	39,653	0	11,613	0	11,613
2044	622,987	40,231	40,231	0	11,064	0	11,064
2045	620,812	40,742	40,742	0	10,520	0	10,520
2046	617,904	40,939	40,939	0	9,926	0	9,926
2047	614,561	41,032	41,032	0	9,341	0	9,341
2048	610,862	41,014	41,014	0	8,767	0	8,767
2049	606,902	40,916	40,916	0	8,213	0	8,213
2050	602,748	40,857	40,857	0	7,700	0	7,700
2051	598,347	40,786	40,786	0	7,218	0	7,218
2052	593,693	40,662	40,662	0	6,757	0	6,757
2053	588,826	40,340	40,340	0	6,294	0	6,294
2054	583,942	40,008	40,008	0	5,861	0	5,861
2055	579,050	39,578	39,578	0	5,444	0	5,444
2056	574,256	39,085	39,085	0	5,048	0	5,048
2057	569,632	38,521	38,521	0	4,672	0	4,672
2058	565,266	37,821	37,821	0	4,307	0	4,307
2059	561,321	36,941	36,941	0	3,950	0	3,950
2060	558,020	35,880	35,880	0	3,602	0	3,602
2061	555,600	34,649	34,649	0	3,266	0	3,266
2062	554,303	33,414	33,414	0	2,958	0	2,958
2063	554,210	32,190	32,190	0	2,676	0	2,676
2064	555,388	30,976	30,976	0	2,417	0	2,417
2065	557,912	29,773	29,773	0	2,182	0	2,182
2066	561,860	28,580	28,580	0	1,967	0	1,967
2067	567,315	27,399	27,399	0	1,770	0	1,770
2068	574,365	26,230	26,230	0	1,591	0	1,591
2069	583,103	25,071	25,071	0	1,428	0	1,428
2070	593,630	23,925	23,925	0	1,280	0	1,280
2071	606,053	22,790	22,790	0	1,145	0	1,145
2072	620,484	21,667	21,667	0	1,022	0	1,022
2073	637,044	20,557	20,557	0	910	0	910

Appendix A

Table 2 – Actuarial Present Values of Projected Benefit Payments (continued)
(\$ in Thousands)

Calendar Year	Beginning Fiduciary Position	Benefit Payments	Funded Benefit Payments	Unfunded Benefit Payments	Present Value of Benefit Payments		
					Funded Payments at 6.50%	Unfunded Payments at 3.93%	Using Single Discount Rate of 6.50%
2074	\$ 655,860	\$ 19,461	\$ 19,461	\$ 0	\$ 809	\$ 0	\$ 809
2075	677,067	18,380	18,380	0	718	0	718
2076	700,806	17,314	17,314	0	635	0	635
2077	727,230	16,266	16,266	0	560	0	560
2078	756,496	15,237	15,237	0	492	0	492
2079	788,772	14,228	14,228	0	432	0	432
2080	824,234	13,242	13,242	0	377	0	377
2081	863,069	12,280	12,280	0	329	0	329
2082	905,471	11,344	11,344	0	285	0	285
2083	951,646	10,438	10,438	0	246	0	246
2084	1,001,812	9,563	9,563	0	212	0	212
2085	1,056,196	8,721	8,721	0	181	0	181
2086	1,115,039	7,915	7,915	0	155	0	155
2087	1,178,594	7,146	7,146	0	131	0	131
2088	1,247,130	6,416	6,416	0	110	0	110
2089	1,320,928	5,727	5,727	0	93	0	93
2090	1,400,288	5,080	5,080	0	77	0	77
2091	1,485,528	4,477	4,477	0	64	0	64
2092	1,576,982	3,918	3,918	0	52	0	52
2093	1,675,008	3,403	3,403	0	43	0	43
2094	1,779,984	2,933	2,933	0	35	0	35
2095	1,892,315	2,506	2,506	0	28	0	28
2096	2,012,429	2,123	2,123	0	22	0	22
2097	2,140,786	1,781	1,781	0	17	0	17
2098	2,277,876	1,479	1,479	0	14	0	14
2099	2,424,222	1,214	1,214	0	10	0	10
2100	2,580,385	984	984	0	8	0	8
2101	2,746,962	787	787	0	6	0	6
2102	2,924,593	620	620	0	4	0	4
2103	3,113,964	481	481	0	3	0	3
2104	3,315,806	367	367	0	2	0	2
2105	3,530,901	274	274	0	2	0	2
2106	3,760,086	201	201	0	1	0	1
2107	4,004,253	144	144	0	1	0	1
2108	4,264,357	101	101	0	0	0	0
2109	4,541,420	69	69	0	0	0	0
2110	4,836,529	46	46	0	0	0	0
2111	5,150,847	30	30	0	0	0	0
2112	5,485,616	19	19	0	0	0	0
2113	5,842,158	12	12	0	0	0	0
2114	6,221,884	7	7	0	0	0	0
2115	6,626,298	4	4	0	0	0	0
2116	7,057,002	2	2	0	0	0	0
2117	7,515,704	1	1	0	0	0	0
2118	8,004,223	1	1	0	0	0	0
2119	8,524,497	0	0	0	0	0	0
2120	9,078,589	0	0	0	0	0	0
2121	9,668,697	0	0	0	0	0	0
2122	10,297,162	0	0	0	0	0	0
2123	10,966,478	0	0	0	0	0	0