



BAY AREA  
AIR QUALITY  
MANAGEMENT  
DISTRICT

## **2021 COST RECOVERY STUDY**

Prepared by the staff of the  
Bay Area Air Quality Management District  
375 Beale Street, Suite 600  
San Francisco, CA

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## **Executive Summary**

The 2021 Cost Recovery Study includes the latest fee-related cost and revenue data gathered for FYE 2020 (i.e., July 1, 2019 - June 30, 2020). The results of this 2021 Cost Recovery Study will be used as a tool in the preparation of the FYE 2022 budget, and for evaluating potential amendments to the Air District's Regulation 3: Fees.

The completed cost recovery analysis indicates that in FYE 2020 there continued to be a revenue shortfall, as overall direct and indirect costs of regulatory programs exceeded fee revenue (see Figure 2).

For the 3-year period 2018 to 2020, the Air District is recovering approximately 85 percent of its fee-related activity costs (see Figure 3). The overall magnitude of this cost recovery gap was determined to be approximately \$8.5 million. This cost recovery gap was filled using General Fund revenue received by the Air District from the counties' property tax revenue.

The 2021 Cost Recovery Study also addressed fee-equity issues by analyzing whether there is a revenue shortfall at the individual Fee Schedule level. For the 3-year period, it was noted that of the twenty-three Fee Schedules for which cost recovery could be analyzed, six of the component Fee Schedules had fee revenue contributions exceeding total cost.

## **Background**

The Air District is responsible for protecting public health and the environment by achieving and maintaining health-based national and state ambient air quality standards, and reducing public exposure to toxic air contaminants, in the nine-county Bay Area region. Fulfilling this task involves reducing air pollutant emissions from sources of regulated air pollutants and maintaining these emission reductions over time. In accordance with State law, the Air District's primary regulatory focus is on stationary sources of air pollution.

The Air District has defined units for organizational purposes (known as "Programs") to encompass activities which are either dedicated to mission-critical "direct" functions, such as permitting, rule-making, compliance assurance, sampling and testing, grant distribution, etc., or are primarily dedicated to support and administrative "indirect" functions. The Air District has also defined revenue source categories for time billing purposes (known as "Billing Codes") for all activities, i.e., the permit fee schedules, grant revenue sources, and general support activities.

The Air District's air quality regulatory activities are primarily funded by revenue from regulatory fees, government grants and subventions, and county property taxes. Between 1955 and 1970, the Air District was funded entirely through property taxes. In 1970, the California Air Resources Board (CARB) and U.S. Environmental Protection Agency began providing grant funding to the Air District. After the passage of Proposition 13, the Air District qualified as a "special district" and became eligible for AB-8 funds, which currently make up the county revenue portion of the budget.

State law authorizes the Air District to impose a schedule of fees to generate revenue to recover the costs of activities related to implementing and enforcing air quality programs. On a regular basis, the Air District has considered whether these fees result in the collection of a sufficient and appropriate amount of revenue in comparison to the cost of related program activities.

In 1999, a comprehensive review of the Air District's fee structure and revenue was completed by the firm KPMG Peat Marwick LLP (*Bay Area Air Quality Management District Cost Recovery Study, Final Report: Phase One – Evaluation of Fee Revenues and Activity Costs; February 16, 1999*). The Study recommended an activity-based costing model, which has been implemented. Also, as a result of that Study, the Air District implemented a time-keeping system. These changes improved the Air District's ability to track costs by program activities. The 1999 Cost Recovery Study indicated that fee revenue did not offset the full costs of program activities associated with sources subject to fees as authorized by State law. Property tax revenue (and in some years, fund balances) have been used to close this gap.

In 2004, the Air District's Board of Directors approved funding for an updated Cost Recovery Study that was conducted by the accounting/consulting firm Stonefield Josephson, Inc. (*Bay Area Air Quality Management District Cost Recovery Study, Final Report; March 30, 2005*). This Cost Recovery Study analyzed data collected during the three-year period FYE 2002 through FYE 2004. It compared the Air District's costs of program activities to the associated fee revenues and analyzed how these costs are apportioned amongst the fee-payers. The Study indicated that a significant cost recovery gap existed. The results of this 2005 report and subsequent internal cost recovery studies have been used by the Air District in its budgeting process, and to set various fee schedules.

In March 2011, another study was completed by Matrix Consulting Group (*Cost Recovery and Containment Study, Bay Area Air Quality Management District, Final Report; March 9, 2011*). The purpose of this Cost Recovery and Containment Study was to provide the Air District with guidance and opportunities for improvement regarding its organization, operation, and cost recovery/allocation practices. A Cost Allocation Plan was developed and implemented utilizing FYE 2010 expenditures. This Study indicated that overall, the Air District continued to under-recover the costs associated with its fee-related services. In order to reduce the cost recovery gap, further fee increases were recommended for adoption over a period of time in accordance with a Cost Recovery Policy to be adopted by the Air District's Board of Directors. Also, Matrix Consulting Group reviewed and discussed the design and implementation of the new Production System which the Air District is developing in order to facilitate cost containment through increased efficiency and effectiveness.

Air District staff initiated a process to develop a Cost Recovery Policy in May 2011, and a Stakeholder Advisory Group was convened to provide input in this regard. A Cost Recovery Policy was adopted by the Air District's Board of Directors on March 7, 2012. This policy specifies that the Air District should amend its fee regulation, in conjunction with the adoption of budgets for Fiscal Year Ending (FYE) 2014 through FYE 2018, in a manner sufficient to increase overall recovery of regulatory program activity costs to

85%. The policy also indicates that amendments to specific fee schedules should continue to be made in consideration of cost recovery analyses conducted at the fee schedule-level, with larger increases being adopted for the schedules that have the larger cost recovery gaps.

In February 2018, Matrix Consulting Group completed an update of the 2011 cost recovery and containment study for the fiscal year that ended June 30, 2017. The primary purpose of this Study was to evaluate the indirect overhead costs associated with the Air District and the cost recovery associated with the fees charged, by the Air District. The project team evaluated the Air District's FYE 2017 Programs to assess their classification as "direct" or "indirect". In addition, they audited the time tracking data associated with each of the different fee schedules. The Study provided specific recommendations related to direct and indirect cost recovery for the Air District, as well as potential cost efficiencies.

This 2021 Cost Recovery Study incorporated the accounting methodologies developed by KPMG in 1999, Stonefield Josephson, Inc. in 2005 and Matrix Consulting Group in 2011. The Study included the latest cost and revenue data gathered for FYE 2020 (i.e., July 1, 2018 - June 30, 2020). The results of the 2021 Cost Recovery Study will be used as a tool in the preparation of the budget for FYE 2022, and for evaluating potential amendments to the Air District's Regulation 3: Fees.

## **Legal Authority**

In the post-Prop 13 era, the State Legislature determined that the cost of programs to address air pollution should be borne by the individuals and businesses that cause air pollution through regulatory and service fees. The primary authority for recovering the cost of Air District programs and activities related to stationary sources is given in Section 42311 of the Health and Safety Code (HSC), under which the Air District is authorized to:

- Recover the costs of programs related to permitted stationary sources
- Recover the costs of programs related to area-wide and indirect sources of emissions which are regulated, but for which permits are not issued
- Recover the costs of certain hearing board proceedings
- Recover the costs related to programs that regulate toxic air contaminants

The measure of the revenue that may be recovered through stationary source fees is the full cost of all activities related to these sources, including all direct Program costs and a commensurate share of indirect Program costs. Such fees are valid so long as they do not exceed the reasonable cost of the service or regulatory program for which the fee is charged, and are apportioned amongst fee payers such that the costs allocated to each fee-payer bears a fair or reasonable relationship to its burden on, and benefits from, the regulatory system.

Air districts have restrictions in terms of the rate at which permit fees may be increased. Under HSC Section 41512.7, permit fees may not be increased by more than 15 percent on a facility in any calendar year.

## **Study Methodology**

The methodology for determining regulatory program revenue and costs is summarized as follows:

### Revenue

Revenue from all permit renewals and applications during the FYE 2020 was assigned to the appropriate Permit Fee Schedules. This is a continued improvement over prior years' process, as more facilities are managed in the New Production System.

### Costs

Costs are expenditures that can be characterized as being either direct or indirect. Direct costs can be identified specifically with a particular program activity. Direct costs include wages and benefits, operating expenses, and capital expenditures used in direct support of the particular activities of the Air District (e.g., permit-related activities, grant distribution, etc.).

Indirect costs are those necessary for the general operation of the Air District as a whole. Often referred to as "overhead", these costs include accounting, finance, human resources, facility costs, information technology, executive management, etc. Indirect costs are allocated to other indirect Programs, using the reciprocal (double-step down) method, before being allocated to direct Programs.

Employee work time is tracked by the hour, or fraction thereof, using both Program and Billing Code detail. This time-keeping system allows for the capture of all costs allocatable to a revenue source on a level-of-effort basis.

Employee work time is allocated to activities within Programs by billing codes (BC1-BC99), only two of which indicate general support. One of these two general support codes (BC8) is identified with permitting activities of a general nature, not specifically related to a particular Fee Schedule.

Operating and capital expenses are charged through the year to each Program, as incurred. In cost recovery, these expenses, through the Program's Billing Code profile, are allocated on a pro-rata basis to each Program's revenue-related activity. For example, employees working in grant Programs (i.e., Smoking Vehicle, Mobile Source Incentive Fund, etc.) use specific billing codes (i.e., BC3, BC17, etc.). All operating/capital expense charges in those grant Programs are allocated pro-rata to those grant activities. Employees working in permit-related Programs (i.e., Air Toxics, Compliance Assurance, Source Testing, etc.) also use specific permit-related billing codes (i.e., BC8, BC21, BC29, etc.) and all operating/capital expense charges incurred by those Programs are allocated pro-rata to those Program's activity profiles, as defined by the associated billing codes.

Direct costs for permit activities include personnel, operating and capital costs based on employee work time allocated to direct permit-related activities, and to general permit-related support and administrative activities (allocated to Fee Schedules on pro-rata basis). Indirect costs for permit activities include that portion of general support personnel, operating and capital costs allocated pro-rata to permit fee revenue-related program activities.

## **Study Results**

Figure 1 shows a summary of overall regulatory program costs and revenue for FYE 2020. Figure 2 shows the details of costs and revenue on a fee schedule basis for FYE 2020. Figure 3 shows the details of average fee schedule costs and revenue for the three-year period FYE 2018 through FYE 2020.

## **Discussion of Results**

Figure 1 indicates that in FYE 2020 there continued to be a revenue shortfall, as the direct and indirect costs of regulatory programs exceeded fee revenue. The overall magnitude of the cost recovery gap was determined to be \$9.4 million for FYE 2020. This cost recovery gap was filled by General Fund revenue received by the Air District from the counties.

Figure 2 shows that in FYE 2020 there were revenue shortfalls for most of the twenty-three fee schedules for which cost recovery can be analyzed. For FYE 2020, the Air District is recovering 84.5% of its fee-related activity costs. The revenue collected exceeded Program costs for eight fee schedules. These are, Schedule C (Stationary Containers for the Storage of Organic Liquids), Schedule D (Gasoline Transfer at Gasoline Dispensing Facilities, Bulk Plants and Terminals), Schedule E (Solvent Evaporating Sources), Schedule G-5 (Miscellaneous Sources), Schedule L (Asbestos Operations), Schedule P (Major Facility Review Fees), Schedule R (Equipment Registration Fees), and Schedule X (Community Air Monitoring). The revenue collected was less than program costs for 15 fee schedules. These are Schedule A (Hearing Board), Schedule B (Combustion of Fuels), Schedule F (Miscellaneous Sources), Schedule G-1 (Miscellaneous Sources), Schedule G-2 (Miscellaneous Sources), Schedule G-3 (Miscellaneous Sources), Schedule G-4 (Miscellaneous Sources), Schedule H (Semiconductor and Related Operations), Schedule I (Dry Cleaners), Schedule K (Solid Waste Disposal Sites), Schedule N (Toxic Inventory Fees), Schedule S (Naturally Occurring Asbestos Operations), Schedule T (Greenhouse Gas Fees), Schedule V (Open Burning), and Schedule W (Refinery Emissions Tracking),.

Figure 3 shows that over a three-year period (FYE 2018 through FYE 2020) there were revenue shortfalls for most of the twenty-three fee schedules for which cost recovery can be analyzed. For this three-year period, the Air District is recovering approximately 85.0% of its fee-related activity costs. The revenue collected exceeded costs for six fee schedules. These are Schedule C (Stationary Containers for the Storage of Organic Liquids), Schedule D (Gasoline Transfer at Gasoline Dispensing Facilities, Bulk Plants and Terminals), Schedule G-5 (Miscellaneous Sources), Schedule L (Asbestos Operations), Schedule R (Equipment Registration Fees), and Schedule X (Community Air Monitoring). The revenue collected was lower than costs for 17 fee schedules.

These are Schedule A (Hearing Board), Schedule B (Combustion of Fuel), Schedule E (Solvent Evaporating Sources), Schedule F (Miscellaneous Sources), Schedule G-1 (Miscellaneous Sources), Schedule G-2 (Miscellaneous Sources), Schedule G-3 (Miscellaneous Sources), Schedule G-4 (Miscellaneous Sources), Schedule H (Semiconductor and Related Operations), Schedule I (Dry Cleaners), Schedule K (Solid Waste Disposal Sites), Schedule N (Toxic Inventory Fees), Schedule P (Major Facility Review Fees), Schedule S (Naturally Occurring Asbestos Operations), Schedule T (Greenhouse Gas Fees), Schedule V (Open Burning), and Schedule W (Refinery Emissions Tracking).

The Air District uses the three-year averages shown in Figure 3 in evaluating proposed amendments to Regulation 3, Fees at the fee schedule level because longer averaging periods are less sensitive to year-to-year variations in activity levels that occur due to economic or market variations and regulatory program changes affecting various source categories.

## **Conclusions**

Air District staff has updated the analysis of cost recovery of its regulatory programs based on the methodology established by the accounting firms KPMG in 1999 and Stonefield Josephson, Inc. in 2005 and updated by Matrix Consulting Group in 2011 and in 2018. The analysis shows that fee revenue continues to fall short of recovering activity costs. For FYE 2018 to 2020, the Air District is recovering approximately 85.0% of its fee-related activity costs. The overall magnitude of this cost recovery gap was determined to be approximately \$8.5 million.

To reduce or stabilize expenditures, the Air District has implemented various types of cost containment strategies, including developing an online permitting system for high-volume source categories, maintaining unfilled positions when feasible, and reducing service and supply budgets. In order to reduce the cost recovery gap, further fee increases will need to be evaluated in accordance with the Cost Recovery Policy adopted by the Air District's Board of Directors.





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## **2021 Cost Recovery Study**

### **FIGURES**

Figure 1: Total Permit Fee Revenue, Costs and Gap for FYE 2020 (in Millions)

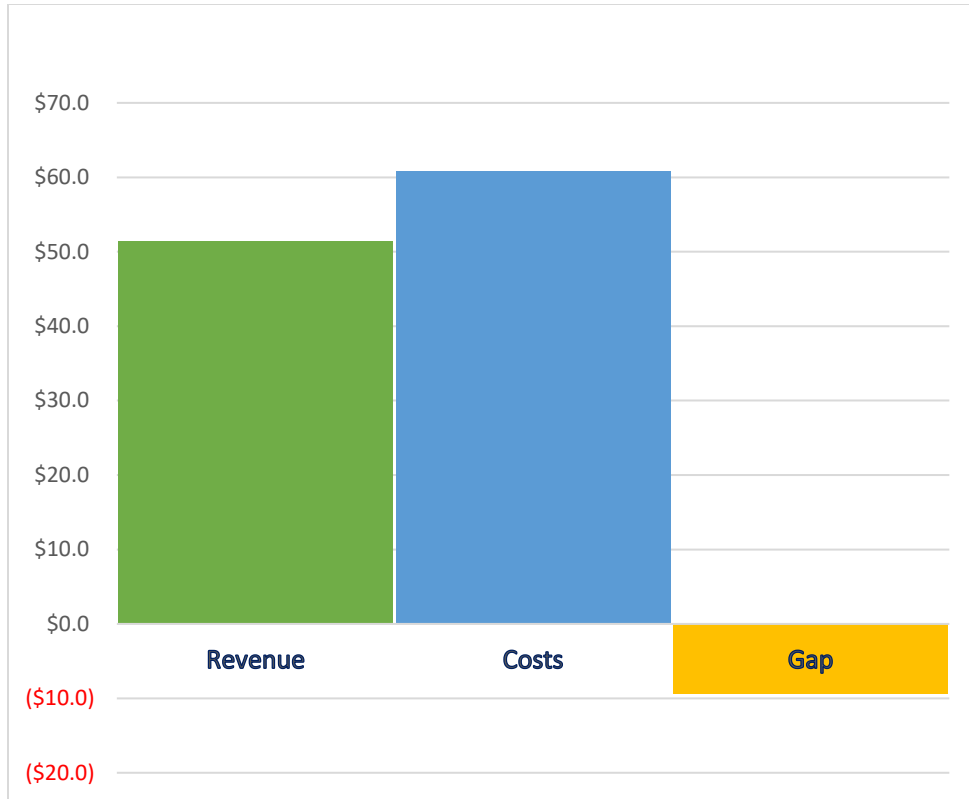


Figure 2: Fee Revenue and Program Costs by Fee Schedule, FYE 2020

		Direct Cost	Indirect Cost	Total Cost	Application & Renewal Revenue	Schedule M	Reg 3-312 Bubble	Reg 3-327 Renewal Processing	Reg 3-311 - Banking	Total Revenue	3 Yr Surplus Deficit	Cost Recovery %
A	Hearing Board	34,904	31,170	66,074	37,093	0	0	0		37,093	(28,981)	56.1%
B	Combustion of Fuel	6,502,684	3,767,955	10,270,639	8,308,863	694,801	193,890	462,260	11,176	9,670,991	(599,648)	94.2%
C	Storage Organic Liquid	754,010	428,562	1,182,572	2,258,275	139,716	172,986	32,950		2,603,926	1,421,354	220.2%
D	Gasoline Dispensing / Bulk T	3,629,779	2,103,899	5,733,678	6,737,714	43,647	58,089	238,047		7,077,497	1,343,820	123.4%
E	Solvent Evaporation	2,554,931	1,590,928	4,145,859	4,028,203	68,820	38,257	203,423		4,338,702	192,843	104.7%
F	Miscellaneous	2,720,691	1,569,518	4,290,209	2,395,565	162,906	90,929	141,782		2,791,183	(1,499,026)	65.1%
G1	Miscellaneous	3,797,994	2,189,792	5,987,787	3,092,209	147,602	94,370	43,502		3,377,683	(2,610,104)	56.4%
G2	Miscellaneous	1,107,628	644,724	1,752,352	992,082	33,564	68,224	7,851		1,101,720	(650,631)	62.9%
G3	Miscellaneous	739,290	445,393	1,184,682	701,913	21,684	63,219	567		787,383	(397,300)	66.5%
G4	Miscellaneous	2,219,283	1,295,895	3,515,178	1,448,914	792,773	61,887	619		2,304,192	(1,210,986)	65.5%
G5	Miscellaneous	339,096	226,803	565,899	670,430	31,853	61,798	335		764,415	198,516	135.1%
H	Semiconductor	170,674	99,621	270,295	236,693	0	0	4,867		241,559	(28,736)	89.4%
I	Drycleaners	26,507	17,098	43,605	2,363	0	0	358		2,721	(40,884)	6.2%
K	Waste Disposal	2,592,513	1,606,577	4,199,091	186,010	114,805	0	3,991		304,806	(3,894,285)	7.3%
L	Asbestos	1,515,640	1,204,827	2,720,468	4,283,337	0	0	0		4,283,337	1,562,869	157.4%
N	Toxic Inventory (AB2588)	1,084,457	535,641	1,620,097	754,864	0	0	0		754,864	(865,233)	46.6%
P	Major Facility Review (Title V	3,469,393	2,123,430	5,592,823	6,096,660	0	0	0		6,096,660	503,837	109.0%
R	Registration	49,201	37,869	87,071	350,329	2,365	0	13,124		365,818	278,747	420.1%
S	Naturally Occurring Asbestos	347,150	254,183	601,333	97,167	0	0	0		97,167	(504,166)	16.2%
T	GreenHouse Gas	3,112,676	1,516,281	4,628,957	3,136,724	0	0	0		3,136,724	(1,492,233)	67.8%
V	Open Burning	471,967	393,719	865,685	203,364	0	0	0		203,364	(662,322)	23.5%
W	Refinery Emissions Tracking	871,680	494,150	1,365,830	152,547	0	0	0		152,547	(1,213,283)	11.2%
X	Community Air Monitoring	47,835	29,624	77,459	860,838	0	0	0		860,838	783,379	1111.4%
	<b>Total</b>	<b>38,159,982</b>	<b>22,607,659</b>	<b>60,767,641</b>	<b>47,032,155</b>	<b>2,254,536</b>	<b>903,647</b>	<b>1,153,676</b>	<b>11,176</b>	<b>51,355,190</b>	<b>(9,412,451)</b>	<b>84.51%</b>



Figure 3: Fee Revenue and Program Costs by Fee Schedule, FYE 2018-2020, 3-Year Average

		Direct Cost	Indirect Cost	Total Cost	Application & Renewal Revenue	Schedule M	Reg 3-312 Bubble	Reg 3-327 Renewal Processing	Reg 3-311 - Banking	Total Revenue	3 Yr Surplus Deficit	Cost Recovery %
A	Hearing Board	78,865	45,023	123,889	33,380	0	0	0		33,380	(90,508)	26.9%
B	Combustion of Fuel	6,154,144	3,326,013	9,480,157	8,049,572	577,127	255,605	438,310	14,727	9,335,341	(144,816)	98.5%
C	Storage Organic Liquid	554,755	302,251	857,006	2,236,878	200,813	183,115	38,377		2,659,183	1,802,177	310.3%
D	Gasoline Dispensing / Bulk T	4,127,072	2,205,973	6,333,045	6,241,800	24,150	25,498	228,519		6,519,967	186,922	103.0%
E	Solvent Evaporation	2,836,672	1,588,611	4,425,284	3,322,888	49,874	25,453	204,841		3,603,056	(822,228)	81.4%
F	Miscellaneous	2,302,552	1,239,686	3,542,238	2,178,505	679,721	74,104	139,803		3,072,134	(470,104)	86.7%
G1	Miscellaneous	3,885,148	2,084,356	5,969,504	2,721,065	88,270	76,869	45,676		2,931,880	(3,037,624)	49.1%
G2	Miscellaneous	1,020,280	551,461	1,571,742	795,842	25,025	40,899	8,216		869,982	(701,760)	55.4%
G3	Miscellaneous	597,927	338,224	936,151	653,452	10,820	34,213	1,195		699,680	(236,471)	74.7%
G4	Miscellaneous	2,138,918	1,144,892	3,283,810	1,375,225	522,104	84,833	943		1,983,105	(1,300,705)	60.4%
G5	Miscellaneous	269,732	161,613	431,345	726,420	20,279	33,677	943		781,319	349,974	181.1%
H	Semiconductor	181,418	98,965	280,383	208,760	0	201	5,187		214,149	(66,235)	76.4%
I	Drycleaners	16,398	8,592	24,989	3,759	0	4,537	1,595		9,892	(15,098)	39.6%
K	Waste Disposal	2,065,032	1,182,426	3,247,458	171,255	120,037	110	3,873		295,275	(2,952,182)	9.1%
L	Asbestos	1,533,882	1,057,864	2,591,746	4,445,502	0	0	0		4,445,502	1,853,756	171.5%
N	Toxic Inventory (AB2588)	612,608	299,658	912,266	448,424	0	0	0		448,424	(463,842)	49.2%
P	Major Facility Review (Title V	3,992,021	2,132,956	6,124,977	5,733,911	0	0	0		5,733,911	(391,067)	93.6%
R	Registration	128,309	85,503	213,812	316,341	2,229	558	12,934		332,062	118,250	155.3%
S	Naturally Occurring Asbestos	420,488	251,837	672,325	89,437	0	0	0		89,437	(582,888)	13.3%
T	GreenHouse Gas	2,828,758	1,179,936	4,008,694	2,948,942	0	0	0		2,948,942	(1,059,752)	73.6%
V	Open Burning	380,723	275,387	656,110	194,713	0	0	0		194,713	(461,397)	29.7%
W	Refinery Emissions Tracking	606,748	325,416	932,164	144,134	0	0	0		144,134	(788,030)	15.5%
X	Community Air Monitoring	147,424	74,027	221,451	948,431	0	0	0		948,431	726,980	428.3%
	<b>Total</b>	<b>36,879,874</b>	<b>19,960,670</b>	<b>56,840,545</b>	<b>43,988,636</b>	<b>2,320,447</b>	<b>839,674</b>	<b>1,130,413</b>	<b>14,727</b>	<b>48,293,897</b>	<b>(8,546,647)</b>	<b>84.96%</b>