# Iowa Legislative Fiscal Bureau 



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## Multi-State Lottery

## ISSUE

Iowa has been a member of the Multi-State Lottery since FY 1988. During that time, lowans have contributed substantially more to the multi-state jackpot than has been won by lowa players. The result has been a net outflow of $\$ 70.2$ million to winners from other states. The impact of the outflow on the lowa economy is also discussed.

## AFFECTED AGENCIES

Iowa Lottery

## CODE AUTHORITY

Chapter 99E, Code of Iowa

## BACKGROUND

Iowa has been a member of the Multi-State Lottery Association (MUSL) since FY 1988. The original game was called Lotto America. In April 1992, the multi-state game was changed to Powerball. Each Powerball play costs $\$ 1.00$. The player is asked to choose five numbers between 1 and 45, and an additional number from a separate pool of numbers between 1 and 45. This number is called the Powerball. The jackpot is won if all five numbers plus the Powerball are correctly picked. Non-jackpot prizes are won if two, three, four, five, or the Powerball are correctly picked.

Each state lottery receives the revenue from sales within its borders and is responsible for paying non-jackpot prizes won from those sales. When a jackpot is won, each state contributes a percentage of the amount needed to purchase an annuity sufficient to pay the jackpot over 20 years. Each state's percentage is equal to the percentage of sales that took place within that state to the total sales for that particular jackpot. For example, if a $\$ 10.0$ million jackpot is won, the annuity necessary to pay off the jackpot will be approximately $\$ 5.6$ million (depending on interest rates at the time the annuity is purchased). If lowa sold 5.0\% of all tickets for that particular jackpot, lowa would pay $\$ 280,000$ to the Multi-State Lottery Association for that annuity.

After sales are made, $5.0 \%$ is deposited to the General Fund as sales tax, non-jackpot prizes are subtracted, and jackpot payouts to the Multi-State Lottery Association are subtracted. The remainder is available for lottery administration and profit.

At the end of FY 1996, there were 21 members of the Multi-State Lottery Association, those states, and the name by which they advertise the Powerball game, are listed below:

Arizona - Arizona Powerball<br>Washington DC - Powerball<br>Georgia - Georgia Powerball<br>Indiana - Hoosier Lottery Powerball<br>Kansas - Kansas Powerball<br>Minnesota - Powerball<br>Montana - Powerball<br>New Hampshire - New Hampshire Powerball<br>Rhode Island - Rhode Island Powerball<br>West Virginia - West Virginia Powerball

Connecticut - Powerball Connecticut<br>Delaware - Powerball<br>Idaho - Idaho Powerball<br>lowa - lowa's Powerball<br>Louisiana - Louisiana Powerball<br>Missouri - Powerball Missouri<br>Nebraska - Nebraska Lottery Powerball<br>Oregon - Oregon Lottery Powerball<br>South Dakota - South Dakota Powerball<br>Wisconsin - Wisconsin Powerball

## CURRENT SITUATION

From February 3, 1988, to June 30, 1996, the lowa Lottery sold $\$ 300.8$ million in multi-state lottery tickets (including sales tax). During that time, the Multi-State Lottery Association has awarded $\$ 2.788$ billion in grand prize jackpots. Those jackpots had a cumulative annuity value of $\$ 1.547$ billion. Because $6.1 \%$ of the tickets for those jackpots were sold through the lowa Lottery, lowa has contributed $\$ 94.2$ million to the Multi-State Lottery Association to purchase the annuities. Over the same time period, lowans won six jackpots totaling $\$ 48.7$ million, with a cumulative annuity value of $\$ 24.0$ million ( $1.6 \%$ of the total annuity value awarded to grand prize winners). These numbers do not include a Powerball jackpot won by a South Dakota resident who purchased the winning ticket in lowa.

Because lowa has contributed $6.1 \%$ of the jackpot prize money, but lowans have won prizes with an annuity value of only $1.6 \%$ of the total awarded, lowa has contributed $\$ 70.2$ million to the jackpots of winners from other states. To eliminate the jackpot deficit, lowa residents would have to win jackpots with an advertised value of $\$ 126.4$ million, based on an annuity-to-advertised jackpot percentage of 56.0\%. Chart 1 shows graphically the jackpot deficit (based on the present value of the prize annuities) experienced by lowa over time. From July 1, 1996, through October, lowa has not won a Powerball jackpot, making the jackpot deficit even larger.

Table 1 shows the amount of Lotto America and Powerball sales in lowa, and how revenues from those sales have been distributed. The administration amount is an estimate based on the overall administration percentage of the lowa Lottery. The percentage cost of administering Powerball could be different.

## Table 1

Lottery Expenditures as a Percent of Sales - FY 1988 through FY 1996

|  | Amount | Percent of Revenue |
| :---: | :---: | :---: |
| Revenue |  |  |
| Iowa Multi-State Sales | \$ 300.8 |  |
| Expenditures |  |  |
| Sales tax | 13.8 | 4.6\% |
| lowa jackpots | 24.0 | 8.0\% |
| Jackpot winners in other states | 70.2 | 23.3\% |
| Non-jackpot lowa prizes | 44.2 | 14.7\% |
| Estimated administration | 53.0 | 17.6\% |
| Profit | 95.7 | 31.8\% |
| Total | \$ 300.8 | 100.0\% |

CHART 1
Iowa Share - Multi-State Prize Pool and Annuity Amount Won by lowans
FY 1988 - FY 1996


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## BUDGET IMPACT

The state of residence of a lottery jackpot winner does not directly impact the profitability of the lowa Lottery.

Jackpots are taxed as income by the state in which the winning ticket was sold. If tickets sold in lowa had produced the expected value of jackpots, the State General Fund would have received approximately $\$ 7.1$ million over 20 years, at present income tax rates.

## ECONOMIC IMPACT

The LFB used the Regional Economic Models, Incorporated (REMI) model to test the jobs and personal income impact on the lowa economy of trading $\$ 94.2$ million in lottery jackpot contributions for the 20-year jackpot payouts totaling $\$ 48.7$ million won by six lowans.

The REMI model indicates that over the 24 years directly effected, the cumulative real personal income of lowans decreases $\$ 84.5$ million (1996 dollars) and lowa looses an average of 30 jobs in each year, with a maximum single-year job loss of 206.
The impacts stated in the preceding paragraph are the result of lowan's being "unlucky" in terms of jackpots won. The Multi-State Lottery has other impacts on lowa's economy which were not included in the REMI simulation, including:

- Non-lowans purchase a percentage of the Multi-State Lottery tickets sold in Iowa.
- lowans purchase Multi-State Lottery tickets in other states.
- The headquarters of the Multi-State Lottery Association, with a $\$ 2.2$ million annual budget, is located in West Des Moines.
- lowa collects income tax on the jackpot won by a South Dakota resident.

A detailed explanation of the REMI model assumptions, simulation, and results is available upon request.


[^0]:    Does not include $\$ 3.2$ million (annuity value) won in Iowa by a South Dakota resident

