

Tax Revenue Forecast 2001

City of Toledo

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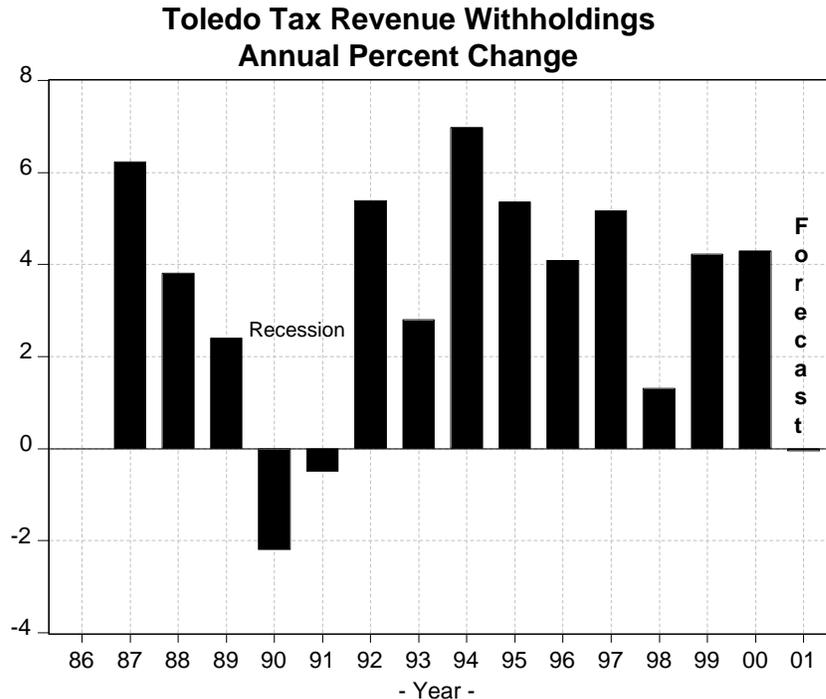
The Urban Affairs Center
The University of Toledo
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1. Summary

The Dynamic Quarterly Forecast model (DQF) and the key leading indicators for the Toledo area predict virtually no growth for Toledo's tax withholdings in 2001. That forecast is driven by observed weaknesses in Toledo's business conditions during the second-half of 2000, reflected most significantly in a rise in initial claims for unemployment insurance. In fact, in the last six months of 2000 the downside risks to the City's tax revenues increased, suggesting caution in the outlook for total tax revenue in the year ahead. At this time, the gains in tax withholdings recorded since the last recession appear unlikely for 2001. Because tax withholdings account for 85% to 89% of total tax revenue in the City, a no-growth year represents a major challenge for the City in 2001. Figure 1 shows that the annual percent change forecast for tax withholdings puts the City in a position not experienced since the 1990-1991 recession.

Figure 1

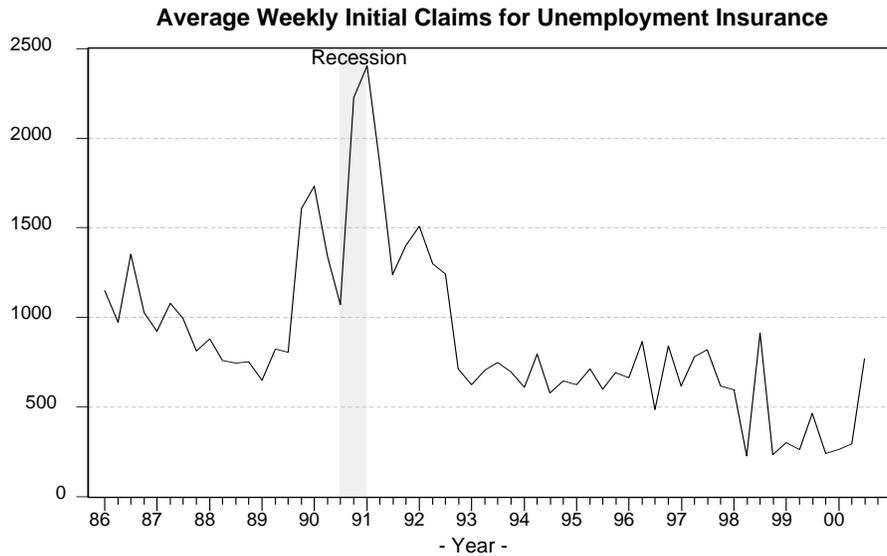


Source: University of Toledo Urban Affairs Center.

The DQF model predicts tax revenue withholdings of \$136,058,563 for 2000; that is up 4.3% from actual withholdings of \$130,461,607 for 1999. **The forecast for 2001 is \$135,979,107, a decrease of 0.06%.** This forecast for 2001 brings the string of nine years of positive gains to an end as shown in Figure 1. The economic buoyancy of the last nine years has faded during the second half of 2000, leaving the prospects for 2001 dimmer and more uncertain. The forecast procedures compile the key indicators and generate a prediction showing **total tax revenue growing only 1.3% in 2001, slowest in three years.** The slowdown in the local economy is the major issue.

2. Local Economic Conditions

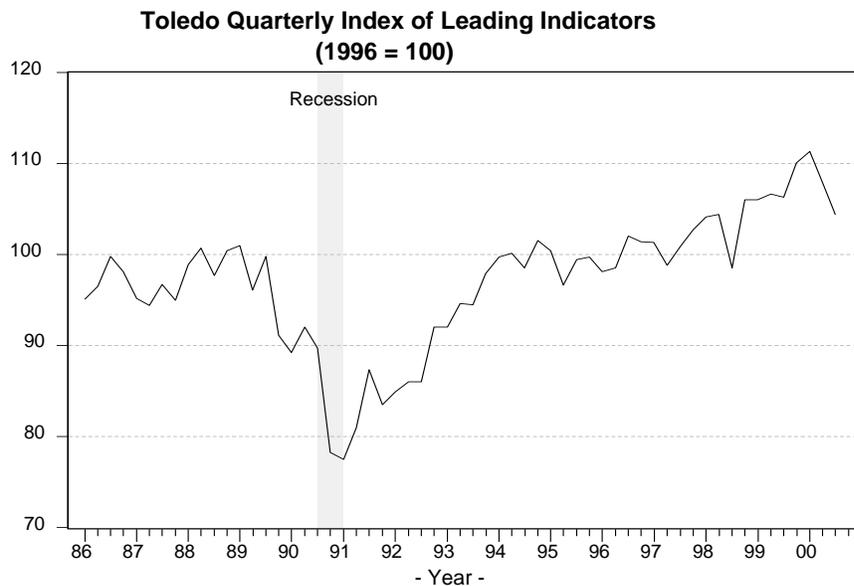
Figure 2



Source: Ohio Department of Job and Family Services and Paul J. Kozlowski.

Figures 2 and 3 present early-warning signals of economic weakness. Figure 2 reveals the upward drift in claims for unemployment insurance since early-1999. Initial claims moved up for more than a year before the 1990-91 recession actually started. Note that initial claims have remained far below recession highs during the last seven years. Figure 3 shows the sizable drop in the Toledo index of leading indicators in the second and third quarters of 2000. The details of recent performance in the index appear in the attached report on Business Conditions in the Toledo Area.

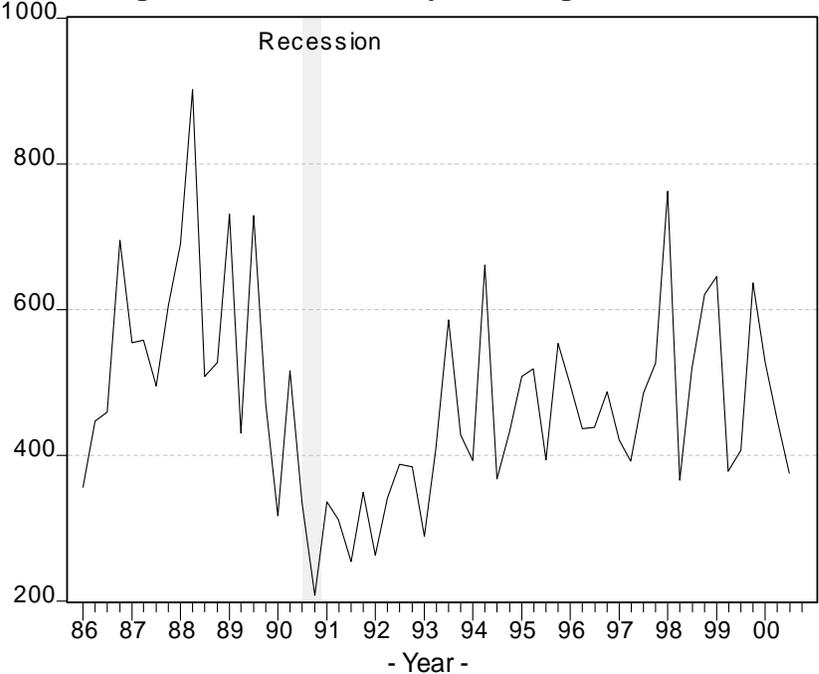
Figure 3



Source: Paul J. Kozlowski, University of Toledo College of Business Administration.

Figure 4

New Housing Units Authorized by Building Permit: Toledo Metro

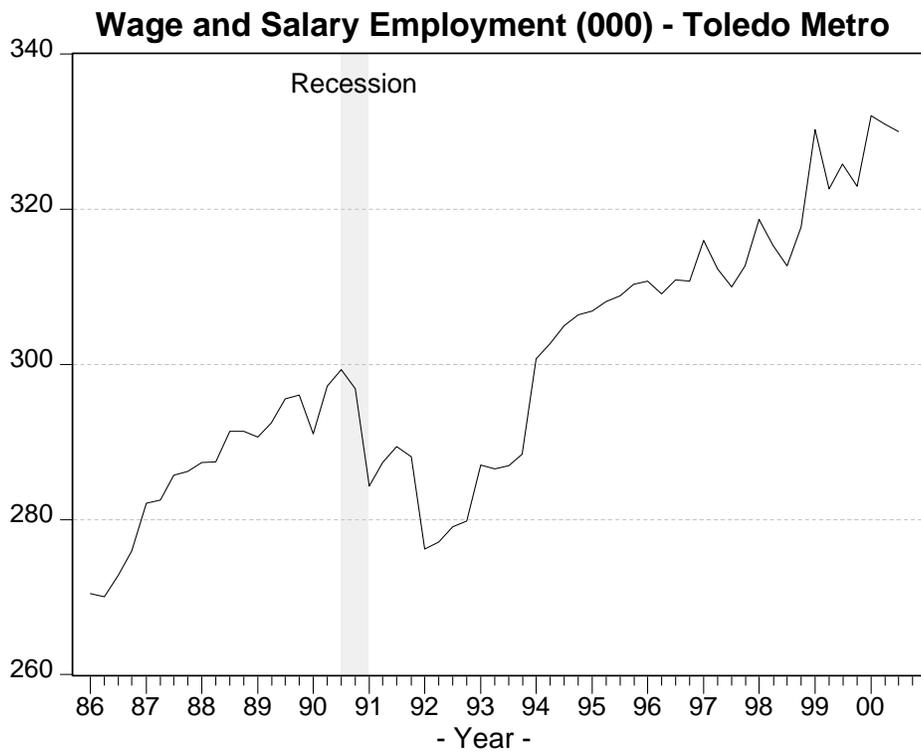


Source: U.S. Bureau of the Census.

Figure 4 reveals no advance in residential construction authorized quarterly in 2000. For the first ten months of 2000, housing units authorized in the Toledo metro area totaled 1,612, down from 1,729 in 1999 and 1,892 in 1998. Building permit data indicate that residential construction is likely to advance more slowly in 2001. While a significant falloff is not expected during 2001, neither is a rapid advance.

Figure 5 shows total wage and salary employment in the third quarter of 2000 dropping back to its level of early-1999. For the entire year, employment should exhibit a modest gain. Nevertheless, rapid advances are not expected for 2001. Special factors play a role in the outlook for employment here in 2001. Manufacturing has slowed down. This is especially noticeable in the automobile industry on which the Toledo area is still heavily dependent. There are also problems and adjustments in some major companies in Toledo that will certainly have an impact on employment growth in 2001. And that impact is most likely to be negative.

Figure 5



Source: Ohio Department of Job and Family Services and Paul J. Kozlowski.

The forecast of Toledo’s tax revenue that follow integrate these factors into an overall outlook for the local economy. The Toledo quarterly index of leading indicators, which combines four local and two national series, has fallen for two consecutive quarters. Attached is the November report on Business Conditions in the Toledo Area. The weaknesses cited will limit growth in the City’s tax revenue next year. Sizable recession retrenchment, similar to that of 1990-91 is not expected. Nevertheless, the slowdown in the local economy suggests growth in total tax revenue below the average recorded over the last eight years.

3. Tax Withholding Forecast

A. Dynamic Quarterly Forecast (DPQ): Fourth Quarter 2000

- 1) Trend estimate for 1986.1 2000.3.

ToTxwSA = seasonally adjusted Toledo tax withholdings.
 T = quarter, 1 for 1986.1, 2 for 1986.2, etc.

$$\text{ToTxwSA} = 19,755,918 + 223,514.7T$$

- 2) Trend Forecast

$$\underline{2000.4} \quad \text{ToTxSA} = \$33,166,800$$

- 3) Cyclic Forecast: Relative to Trend (>1 indicates above trend.)

$$\underline{2000.4} \quad \text{CYTRD} = 1.03179$$

- 4) Seasonally Adjusted Forecast: 2) Trend and 3) Cycle.

$$\underline{2000.4} \quad \$33,166,800 (1.03179) = \$34,221,173$$

- 5) Re-Seasonalized Data

$$\underline{2000.4} \quad \$34,221,173 (1.052495) = \$36,017,613$$

- 6) Annual Forecast 2000. Forecast is **bold**.

	DPQ	City Dept. of Finance
Actual	\$35,673,050	\$35,673,050
Actual	\$32,701,670	\$32,701,670
Actual	\$31,666,230	\$31,666,230
Forecast	\$36,017,613	\$35,646,690
Annual Total	\$136,058,563	\$135,687,640

The DQF model predicts total tax revenue withholdings of \$136,058,563 for 2000. That prediction is based on three quarters of actual revenue, and it is very close to the prediction of the City's Department of Finance on November 15, 2000. Both indicate tax withholdings up just over 4% for 2000. The small difference between the DQF and Department of Finance's prediction indicates that these forecasts for 2000, derived independently using different procedures, provide a good foundation for forecasting withholdings for 2001. The key question for 2001 is whether growth in tax revenue will continue at a rate close to recent years. **Economic conditions in the Toledo area in the second-half of 2000 indicate strongly that growth in 2001 will be considerably below that experienced in the last several years.**

B. Annual Tax Withholding Forecast 2001

1) Annual Trend and Leading Indicator Model (TLI)

$$TXW_{2001} = 90,468,799 + 3,095,090T - 181.2204UICLAIMS_{2000} = \$135,979,107$$

2) Tax Withholding Record. Forecast is **bold**.

Year	Tax Revenue Withholdings	Annual Dollar Change	Annual Percent Change
1986	84,138,728		
1987	89,382,043	5,243,315	6.232
1988	92,786,997	3,404,954	3.809
1989	95,011,996	2,224,999	2.398
1990	92,919,354	-2,092,642	-2.203
1991	92,452,379	-466,975	-0.503
1992	97,428,524	4,976,145	5.382
1993	100,159,047	2,730,523	2.803
1994	107,147,988	6,988,941	6.978
1995	112,883,989	5,736,001	5.353
1996	117,494,951	4,610,962	4.085
1997	123,559,489	6,064,538	5.162
1998	125,178,347	1,618,858	1.310
1999	130,461,607	5,283,260	4.221
2000	136,058,563	5,596,956	4.290
2001	135,979,107	-79,456	-0.058

The growth of tax withholdings, which account for about 85% to 89% of total tax revenue depending on the year, is forecast to drop considerably from the rate recorded over the last nine years. From 1991 to 2000, the change per year averaged 4.4%. The forecast for 2001 is a -.06% change, which represents virtually no gain from 2000. No growth in tax withholdings results from weakening local business conditions described in the attached report on Business Conditions in the Toledo Area. UICLAIMS represent the best leading indicator of tax revenue withholdings for the City of Toledo (see, City of Toledo Payroll Tax Revenue: Annual Budget Projections and Long-term Trends, Urban Affairs Center, The University of Toledo, October 2000), and claims are rising. Another key indicators also moved unfavorably. Private housing units authorized by building permit are off this year. For the first ten months of 2000, housing units authorized in the Toledo metro area totaled 1612, compared to 1729 in 1999 and 1892 in 1998, according to data released by the U.S. Bureau of the Census.

4. Total Tax Revenue Forecast 2001

A. Other City Tax Revenues Forecast 2001

Non-withholding tax revenues come from individuals and businesses. In 1999 those groups accounted for 13% of the City's total tax revenue. For 2000 the Finance Department projects \$18,919,688 in such revenue, or 12.2% of total projected revenue for the year. Using that base, our forecasting model predicts the City's tax revenue from sources other than withholdings to be \$21,020,960 for 2001. That is up 11.1% from 2000, but it is below the projection of \$21,855,000 submitted by the City's Finance Department on November 15, 2000. Although institutional factors and collection practices influence these tax revenues, the slowdown in the local economy is likely to keep business and individual tax revenues below that projected in mid-November. The forecast for non-withholding tax revenue is based on the estimated trend and the influence of unemployment insurance claims on such revenue similar to the annual tax withholding model in Section B above.

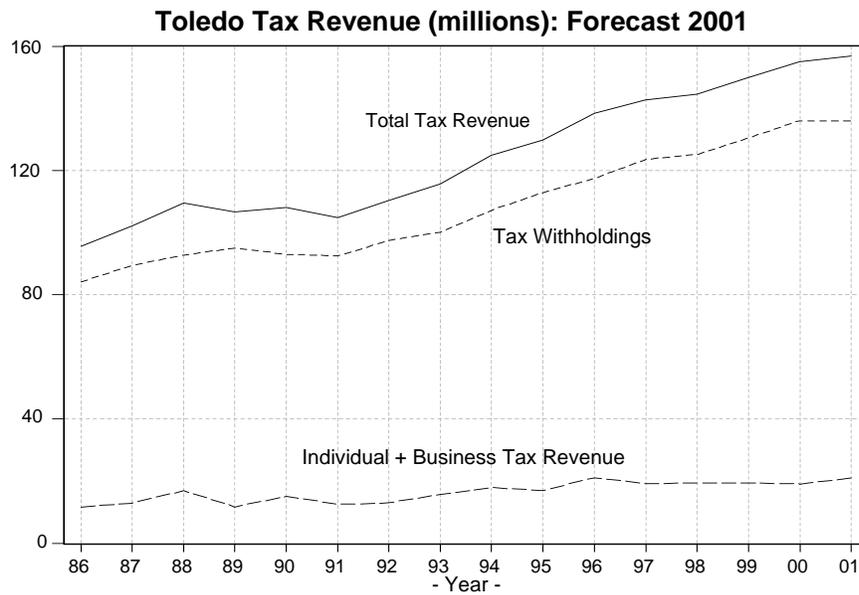
B. Tax Revenue Record. Forecast is **bold**.

	Tax Withholdings	Annual Percent Change	Individual + Business Tax Revenue	Annual Percent Change	Total Tax Revenue(\$)	Annual Percent Change
1986	84,138,728		11,511,795		95,650,523	
1987	89,382,043	6.23	12,884,837	11.93	102,266,880	6.92
1988	92,786,997	3.81	16,754,952	30.04	109,541,949	7.11
1989	95,011,996	2.40	11,689,684	-30.23	106,701,680	-2.59
1990	92,919,354	-2.20	15,060,471	28.84	107,979,825	1.20
1991	92,452,379	-0.50	12,417,651	-17.55	104,870,030	-2.88
1992	97,428,524	5.38	12,994,452	4.65	110,422,976	5.30
1993	100,159,047	2.80	15,595,966	20.02	115,755,013	4.83
1994	107,147,988	6.98	17,827,097	14.31	124,975,085	7.97
1995	112,883,989	5.35	16,904,771	-5.17	129,788,760	3.85
1996	117,494,951	4.08	20,991,756	24.18	138,486,707	6.70
1997	123,559,489	5.16	19,141,239	-8.82	142,700,728	3.04
1998	125,178,347	1.31	19,326,251	0.97	144,504,598	1.26
1999	130,461,607	4.22	19,460,028	0.69	149,921,635	3.75
2000	136,058,563	4.29	18,919,688	-2.78	154,978,251	3.37
2001	135,979,107	-0.06	21,020,960	11.11	157,000,067	1.30

Notes: 1) 2000 Individual + Business Tax Revenue is projection by the City's Finance Department.
2) Forecasts are from DQF and leading indicator models.

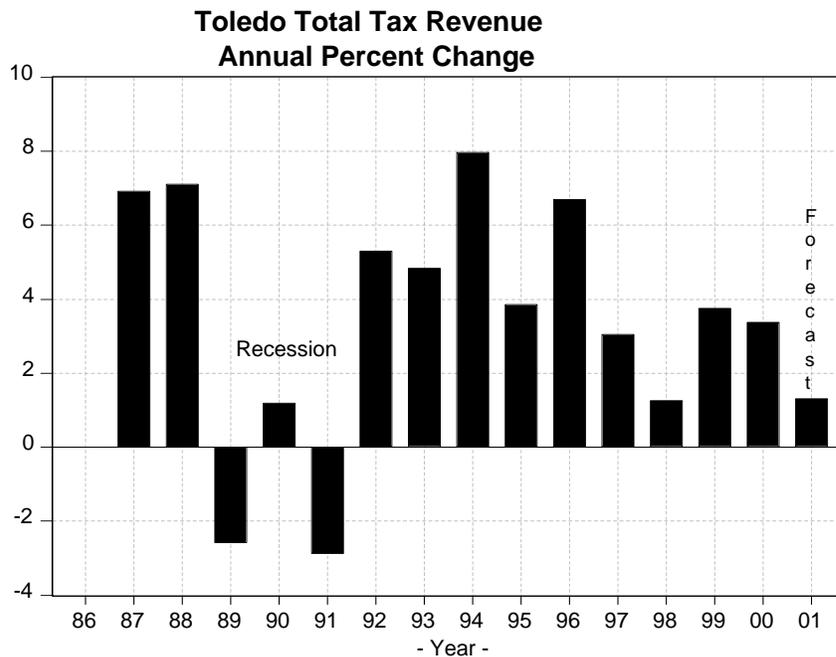
The forecast for 2001 shows an increase in total tax revenue of 1.3% for the City of Toledo, the smallest increase in three years. That gain results entirely from a predicted increase in individual and business tax revenues. Tax withholdings, which account for more than 85% of total revenue, show no gain for 2001.

Figure 6



Source: City of Toledo Finance Department and UT Urban Affairs Center.

Figure 7

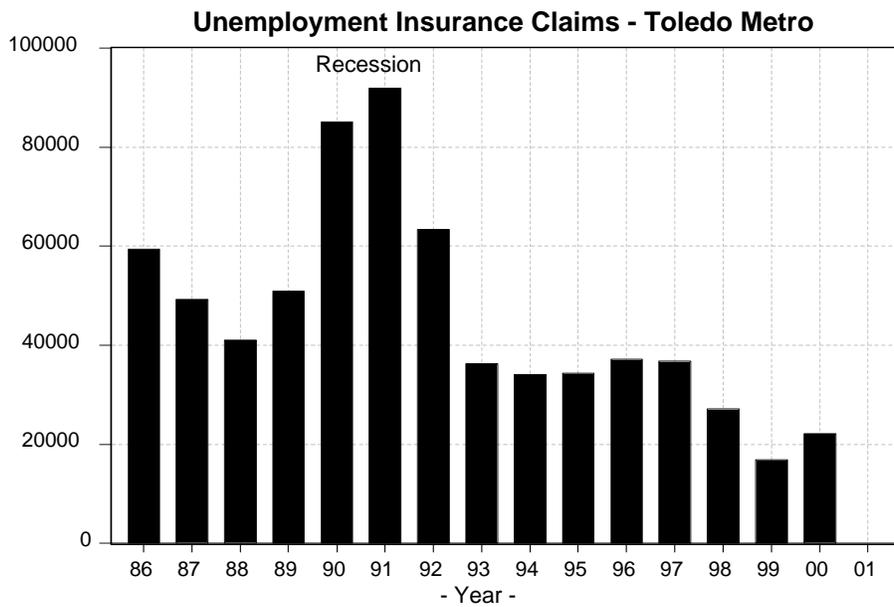


Source: University of Toledo Urban Affairs Center.

Figures 6 and 7 illustrate the forecast for the City's tax revenue in 2001 compared to the historical record. Based on economic conditions compiled through the DQF and annual forecasting procedures, little increase in tax revenue is expected next year.

The City's outlook for tax revenue growth in 2001 is captured by Figure 8, which shows annual claims for unemployment insurance. Preliminary estimates indicate that claims will be up about 32% in 2000 compared to 1999. An increase of that magnitude has not occurred since the last recession. Although claims remain far below recession levels, the jump in 2000 is not a favorable sign for the local economy in general and the growth of tax revenue in particular. In fact, the rise of initial claims of unemployment insurance reflects weakening conditions in local employment; that represents a significant limit to growth of tax revenue for 2001.

Figure 8



Source: Ohio Department of Job and Family Services and Paul J. Kozlowski.