

Volume 29, Issue 3

Do immigrants pose a fiscal burden on the host country budget? : a case study for Michigan.

Bharati Basu
Central Michigan University

Richard B Clemmer
Central Michigan University

Abstract

Using i) the Public Use Micro Sample data from the 2000 US Census of Population and Housing, and ii) fiscal information from the state of Michigan Budget Office, we estimate the net (benefit minus cost) fiscal impact of immigrants in the state of Michigan. We have shown that both immigrant and native-born households are fiscal burden to the state although financial burden for native-born households is less than that for foreign-born households. When we classify immigrants by their country of origin, immigrants from some specific countries actually add a net amount to the state coffer.

The funding for the project for this paper was provided by a Summer Grant from CBA, CMU. The authors would like to thank anonymous referees and the editor for their valuable comments and suggestions. The usual disclaimers apply.

Citation: Bharati Basu and Richard B Clemmer, (2009) "Do immigrants pose a fiscal burden on the host country budget? : a case study for Michigan.", *Economics Bulletin*, Vol. 29 no.3 pp. 2174-2201.

Submitted: Mar 04 2009. **Published:** September 02, 2009.

1. Introduction

One of the major issues confronting the US policy makers is immigration. Almost all US Presidents in the recent decades have had to focus on immigration as a dominant policy issue. It has raised concerns at different levels (see Borjas (1994) for a survey). Economists have proposed for creating “World Migration Organization” (Bhagwati, Financial Times, (Oct.2005); Baker, Wall Street Journal, (Nov 2005); etc.) and the United Nations (UN) has worked on a report by a “Commission On International Migration” to improve co-operation among UN and other international agencies to provide a global response to the issue of immigration.

International migration demands attention on three fronts; a) economic effects which analyze the effects of immigration on labor markets, b) social effects that include effects on demography of the society and other social changes and c) fiscal effects which try to find out whether immigrants are a financial burden to the US in the sense that they cost the US more than what they add to federal, state and local coffers. A large number of studies have discussed about economic effects and social effects of immigration and debates still continue. However, existing literature lacks comprehensive analyses of fiscal effects of immigration in the US (see literature review below).

The reason for this gap is that the study of fiscal effects of immigration should include effects on federal government, effects on state government and effects on local governments. The immigrants are historically known to prefer some states over others and thus create a bias in population distribution. Furthermore, due to differences in state laws and the changing nature of the allocation of financial responsibility between federal and state governments (Dunlap & Morse; 1995), a study for the nation needs to have separate studies for all the states. This makes the analysis of the fiscal impacts of immigration difficult. As a consequence, the existing literature thus far has produced fiscal impact studies only for two states (California, and New Jersey).

The Table below shows that public goods (such as defense, expenditure on science, research and development) are mostly provided by the federal government. The characteristics of public good suggest that if more people consume it, the per capita cost of provision of public goods goes down. In that sense immigrant would not be a burden for sharing public goods with native households. Furthermore, the proportionate share of state and the federal government is almost the same for public debt servicing and transfer. In this case the impact would be the same for the state and the federal government. However in the congestible goods (such as roads, fire and police protection, libraries, airports, sewers and so on) the state is the dominant contributor. Our analysis (that includes expenditure on all those goods) of the fiscal impact of immigrants for Michigan in this paper thus complements the literature.¹

¹ A study of fiscal impact of immigrants would be more effective for policy purposes if longitudinal data were available. However, to make use of what is available we use cross sectional calculations. It is a type of calculation where the question is what would have happened if all immigrants are gone today (Lee & Miller, 1998).

Table I: Government Expenditure by Category

| Budget Category | Federal Budget | State & Local Budget |
|-------------------|----------------|----------------------|
| Public goods | 24% | 0% |
| Congestible goods | 7 | 32 |
| Transfer | 55 | 53 |
| Debt Servicing | 14 | 15 |
| Total | 100 | 100 |

Source 1996 US Statistical Abstract, the Annual Survey of Government Finances and Analytical Perspective.

Michigan, like several other states, is now experiencing severe and continuing projected budget deficits, which by law are required to be closed. The economic downturns and consequent job loss of last couple years as well as that from the end of 1990's and 2001 have forced the Michigan Governors and Legislature to make difficult choices. In that respect, estimates of costs and benefits from immigrant population may provide the policy makers with alternatives. For example, if immigrants are contributing positively to the state coffers, the state of Michigan might try to attract more immigrants by facilitating their success and self-sufficiency.

The analysis in this paper shows

1) that immigrant as well as native-born population provides a net deficit to the state. This is consistent with studies regarding New Jersey and California (see section 3.2: Comparison with other States).² The deficit contributed by the immigrant population in Michigan is higher than that contributed by the native born population.

2) if we divide both the foreign households and native households in Michigan into households headed by people of less than 65 years of age and households headed by people more than 65 years of age, both immigrant households and native born households pose burden in the less than 65 age group; however, on average households headed by people of 65+ age group produce a surplus.

3) when immigrant households are grouped according to the country or region of birth of the head of the household, such as Canadian, European, Asian, Latin American,

² It is not useful to compare the statistics for Michigan with that for the country as a whole because fiscal impact study is needed to be done for each state separately. Due to differences in state laws and the changing nature of the allocation of financial responsibility between federal and state governments, a study for the nation needs to have separate studies for all the states.

Middle Eastern and African, only Canadian and European households produce a net surplus in both less than 65 and more than 65 age groups.

4) If we divide immigrants according to their country of birth and add up the net impact for two age groups (less than 65 and 65+), all foreign groups except Canadian and European households produce a net deficit for the state of Michigan budget.

5) for both foreign population and native-born population, the households headed by males produce a net surplus, while households headed by females produce a net deficit. The deficit produced by female-headed households is much higher for the native-born population than that for the foreign-born population.

6) Asian, Latin American, Middle Eastern and African households impose a net burden on the state in both male and female groups. This is partially offset by the positive contribution from Canadian and European households in both gender groups.

1.1. Review of the literature

In 1995, US Commission on Immigration Reform (created by Congress) asked National Research Council to convene an expert panel to assess the demographic, economic and fiscal consequences of immigration. This panel generated a series of studies on the fiscal analysis of immigration. In all these studies it was recognized that existing literature was more lacking in fiscal effect studies than in other effects of immigrants.

In one of these studies, MaCurdy, Nechyba, and Bhattacharyya (1998) have discussed the framework for studying the fiscal impact. They have examined whether framework for studying fiscal impacts of immigration should be one that takes care of all the existing sectors and the problems of the economy as a whole or the frameworks should focus on one issue only. Their study has classified types of government expenditures in the economy, and types of taxes from immigrants and native born population at different levels of government. Later on Garvey and Espenshade (1998), Espenshade & King (1994) and Clune (1998) have focused on New Jersey and California. Their studies have concluded that in general immigrant households are more costly than native households. No other study focuses on fiscal impact effect of immigration at the state level. Our study (the current paper) complements the literature and provides insights for policy purposes by focusing on a third state (Michigan) and comparing the impacts with those of other two states.

Borjas & Trejo (1991), Borjas (1994) and Borjas and Hilton (1996) find that as far as cash benefits from the governments are concerned, there is no difference between natives and foreign born population; however they conclude that according to the 1990 Census immigrants' receipts are higher than that of natives in non-cash benefits. Instead of focusing on cash/non-cash benefits we have compared state's tax revenue from and state's expenditure for immigrants and native born population separately. Our analysis also differs from the analyses of Borjas (1994) and Borjas and Hilton

(1996) with regard to the unit of measurement. We use household as our unit while the above mentioned studies use individual immigrant as their unit of measurement. Simon (1984) computes tax revenues and government expenditures for different immigration cohorts for the US and Akbari (1989) does the similar analysis for Canada. These two studies have classified immigrants according to their age and years of arrival in the US. Auerbach and Oreopoulos (1999) analyze the dynamic effects of migration for Germany and US. Storesletten (2001) provides a calibrated general equilibrium model for sustaining fiscal policy through immigration. It is important to note here that our study is a static partial equilibrium analysis. Unlike Auerbach and Oreopoulos (1999) we emphasize only on the short run because of the paucity of data for the long run analyses. In comparison to Storesletten's (2001) analysis, which is a calibration or simulation, the current paper uses data from Current Population Survey. Our analysis thus fills a gap in the literature by extending the analysis of the fiscal burden of immigration on the US that builds on the fiscal effects for each and every state separately.

2. Concepts and Methods:

Calculating the fiscal impact of immigrants poses some serious challenges, because expenditure on immigrants come from different levels of government such as local, state and federal government and immigrants contribute to coffers of each level of the governments. Previous (Vernez and McCarthy 1995) research suggests that immigrants actually contribute more than they receive at the federal government level. For example, in the fiscal year of 1999 and 2000, the federal government received \$31.7 million from Michigan as actual income tax, but spent only \$9.2 million on Michigan. At the state level most of the government expenditure is for mean-tested entitlement programs. At the federal and local level, most of the government expenditure is on public goods.

We choose household as our unit of analysis, since the basis of distribution of many state expenditure items (Fire, Police, etc.) is the household and some of the tax revenues (such as property tax) are calculated with the households as units. In addition to that, in most of the cases, a family represents a household in our sample; only a small fraction (2.5%) of total population lives outside the family household. Furthermore, roughly, 5% to 6% people living in the household are not related to the head of the household. We have labeled our households either as native-born households or as foreign-born households according to the place of birth of the head of the household. This may raise questions because a native born head can have a child born in a foreign country, or a foreign-born head can have child born in the U.S. However, there are a very few households like that in the sample and thus they will not have a significant impact on the outcome. We distribute expenditures on public goods on a per capita basis.

Many of the items for which the state government bears the burden of providing the service, can be grouped as congestible goods. A congestible good is defined as a good for which consumption by one individual does not reduce the consumption by other individuals (for example, park and recreation). The question is whether we should distribute the benefit on a per capita basis (as average based calculation) or whether benefit should be calculated on a marginal basis. If marginal concepts (familiar in

economics) are used, then the cost of building a new school or an additional park will fall heavily on new residents.

Another measurement problem that arises in calculating the fiscal impact is to decide whether one should follow the macroeconomic approach called “Top Down” in the literature, or the microeconomic approach called “Bottom Up” (Garvey and Espenshade, 1998). In the macroeconomic approach, usually one takes the total amount of government expenditure and divides that equally over all the households or eligible households. In the bottom up approach, each individual household’s benefit is calculated and it is then summed up over the households. Theoretically, these two approaches should result in the same amount. However, for the macro approach, each household’s share will be the same and thus it may not be the appropriate measure when the type of the expenditure is not for a public good. The numbers are entered in this paper on a per capita basis in most of the categories for which federal funding was reported and thus they will not bias our comparison between “native-born” and “foreign-born” heads of the households. However, we follow the microeconomic approach for the rest of the expenditures using 5% Public Use Micro Sample (PUMS) of the 2000 US Census data.

In our analysis, we have treated all immigrants equally; however, some of the immigrants may be illegal immigrants (there is no way to cure this limitation except trying to estimate the proportion of illegal immigration by simulation which we have not done to keep the description simple). Even among legal immigrants, the rules of taxation vary depending on the visa-status. The PUMS provides information about the place of birth and citizenship; however, this information is not enough to show the full status of the immigrants.

The approach we use in this paper is a short run approach. The basis of finding the net impact on the state budget is to balance the costs against the benefits. The problem that comes to mind is to decide about the beneficiary of a certain state expenditure in a current period. For example, consider education expenditure. Obviously, students or children of the community benefit directly and immediately. However, this has indirect effects on the community itself. It also provides the benefit to the society in the long run in the sense that the favorable labor-market effects are to be expected later in the future from a capable/educated labor force. However, that requires an inter-generational approach which can not be carried out here because of the lack of data availability.

We have used information from many sources to show the fiscal effects of immigrants. The main source of information is 5% Public Use Micro Sample (PUMS) from the U.S. Census of 2000. The total number of persons in this sample is 496,765 households. Any information related to income variable comes from the year 1999. The data set (the PUMS 5% of the US Census of Population and Households) contains detailed information for each household and for all the members of the households (Households Record and Persons Record). This is an excellent source of demographic and socio-economic information about the household.

The second major source of information is the Executive Budget of the State of Michigan for the fiscal year 2000. This document explains in detail the recommended changes in the fiscal year 2000 from the previous year, explains eligibility criteria and other details about each program. The recommendation summary reports the expenditures from federal funds, from state funds, and from local funds. However, we had to supplement our analysis with information from various branches of the state government.

We have used PUMS data to classify households headed by foreign-born and native-born. The foreign-born households have then been grouped further following the country of birth of the head of the household. Each immigrant category then is divided into two groups to show information for households headed by a person less than 65 years of age and those headed by a person of 65+ age. The same approach has been used for the native households to keep them comparable. This is very useful, because households headed by 65+ age people do not gain much from the state expenditure on education; however, the households headed by people of 65+ ages will need some governments caretaking.

3. Data Analysis

3.1: A general description

We describe the demographic characteristic of the households in Table II. The percentage of households with a foreign-born head is a little over 5%. Of all the immigrants or foreign-born households, the number of households headed by a European is the largest (32%) and Asian & Canadian households (11%) come after that. We see that very few African-born immigrants have settled in the state of Michigan. The percentage of households headed by people less than 65 years old is almost the same for native-born (77.9%) and foreign-born households; however, foreign-born household size is a little larger than the native-born household (3.71/2.41 versus 3.21/2.27). Among the foreign-born households, Middle Eastern households have the biggest size (4.38). If one compares Middle Eastern households with Canadian-born or European-born households, the difference in the household size is predictable in the sense that almost 89% of the Middle Eastern household heads is under 65 years of age. However, in spite of being relatively young, Asian household size is smaller than Latino and Middle Eastern household size (Insert Table II here)

Since the average household size is larger for the foreign-born in the 2000 Census, it is expected that they will have more young children. That is not true for all the foreign-born groups as we look at the number of children less than 18 years of age. Note that the size of the younger household is the biggest for the Middle Eastern households (4.38) and they also have the highest number of children under age 18 (1.52). The number of school age children is lower for the native born households in Michigan compared to Asian, Latin American, Middle Eastern and African households. This is in line with the findings from New Jersey and California. As far as State's fiscal burden is concerned, in 2000, the native-born households have more children in the public schools (.53 versus .51). The foreign-born households may have used up some of state's expenditure in special education programs, if provided locally, for bilingual education and English proficiency programs. The foreign-born household is a little older than average in Michigan (59.17

versus 58.92); however, the percentage of households headed by person more than 65 years of age, is higher for the native-born households (22.1% versus 22.6%).

This phenomenon points to the cultural difference between the native-born and foreign-born households. Foreign-born households are more likely to live in an extended family; the presence of grandfather and grandmother in the household is very common. In the U.S. on the other hand, the concept of the nuclear household is more prevalent.

The percentage of households headed by a male is higher for most of the foreign-born categories compared to that for the native born households. The explanation is that immigration may be job-related. It could be that when the household heads moved, their families followed them. This may also hint to the existence of cultural difference (in the U.S, the rate of divorce and the rate of female labor force participation are relatively high. The existence of single parent families with a female head is more likely for the native-born household). Insert Table III here

Table III provides us with a socio-economic profile of native-born and foreign-born households in 2000. We see that average yearly earning is higher for foreign-born households than that of native-born households (48,239 versus 40,990). The immigrants from Asia show the highest yearly earnings; Africa comes second. It is interesting to note that the number of households receiving public assistance income is less for foreign-born households in our sample. The same is true of Supplemental Security Income. Roughly 5% of total foreign born households have received Public Assistant Income (PAI) in 2000, while 4% of total native born have received PAI. The proportionate share of foreign born households receiving PAI, in total number of households is .26 percent, while that of native household is 3.29 percent. We also see that per capita income is higher for foreign-born households than that of native households according to the 2000 Census (27,029 versus 26,530). Insert Table IV here

In Part 1 of Table IV, we report the average amount the native-born and each type of foreign-born household contributes to the state revenue from taxation. We have used eight types of taxation: income tax, sales tax, automobile tax, property tax, inheritance tax, cigarette tax, fuel tax and alcohol tax.³ The tax amount for 65+ people, for all the groups (native-born and all types of foreign-born) is less than that of less than 65 years of age group, except for the Latin American. This is because Latin American born immigrants in the 65+ age group pay higher amounts for property taxes than that paid by any other groups. Among the eight tax categories mentioned above, the revenue earned from the income tax is higher than the revenue from any other taxes for all the groups except for Latin Americans in the 65+ age group. The amount received by the state government is highest from the income tax for all the groups; property tax comes out as the second largest contributor to the state coffers for most of the groups and the lowest amount of revenue comes form the alcohol tax irrespective of whether the household is native-born or foreign-born. One of the interesting features is that the tax on cigarettes generated more revenue than the revenue from alcohol tax.

³ We describe in the appendix how we have allocated the amount of revenue from each group and the expenditure for each group.

From Part 2 of Table IV, it is clear that both native born households and foreign-born households are financial burdens to the state. Although all households in 65+ age category have produced a surplus, it is not enough to compensate the total deficit from the less than 65 age groups because the number of the households headed by persons of 65+ ages is smaller than that of less than 65 age groups.

Canadian, European and Asian households according to 2000 PUMS data have generated more revenue for the state of Michigan than any of the other foreign-born groups and the native-born taxpayers. However, in the 65 + age group, Asian Immigrants have contributed the most (in total amount); the foreign born from the Middle East comes as a distant second. Except those two groups, the native-born group has paid more in the 65 + age group than the immigrants. One possible explanation is that many of the elderly people among Asian or Middle Eastern immigrants open up small businesses in order to continue to earn income. Insert Table V here

In Table V we present the net fiscal impact of households in the state of Michigan by age, sex, and nativity status of households for the fiscal year 1999-2000. The total deficit for the state, taking all households, is roughly \$49.75 million. The state enjoyed a net addition to its coffers from the households in 65+ age category for the native-born as well as foreign-born groups except from Middle Eastern households. The surplus from male-headed households is higher than that from the female-headed households. For the categories which show fiscal deficits, the burden from the female-headed household is higher than that from the male-headed household except for Latin American, Middle Eastern and African households. This finding is consistent with the facts that women earn less than men on average and women predominately get custody of children from divorce and thus become eligible for welfare payments. The foreign-born households from Canada and Europe again show that they are different from other immigrant households.

3.2: Comparison with other States

As shown in the Tables VI & VII below, the share of immigrant groups (by the country of birth) in the total number of immigrants varies by state. As mentioned in section 1 immigrants show a preference for certain states or census region in the US. The Asian immigrant group comprises the largest share of the immigrant households in the state of Michigan. The Latin American group becomes the largest group in both New Jersey and California. The household size is the biggest for the Middle-Eastern immigrants in Michigan; Asians and Latin Americans respectively have the biggest household size in New Jersey and California. Immigrant household is the youngest in Michigan when all three states are compared and a high proportion of them (69.94) are headed by males compared to 68.36 for New Jersey and 53.4 for California. The public school enrollment is also the highest in Michigan and in all three states the expenditure for public school system is higher than any other single expenditure category. The immigrants in Michigan are richer (measured by both mean household income per capita and mean earned income) when compared to New Jersey and California. This is a notable difference especially in

comparison to California. For the working age immigrant mean income is lower than that of native households in California. That may be due to the fact that the proportion of undocumented immigrants is relatively high in California and the immigrant group in California is on average less skilled compared to immigrants in Michigan.

Table VI: Comparison of Demographic Characteristics: Michigan, New Jersey and California.

| | Michigan | New Jersey | California |
|--|---|-------------------------------------|---------------------------------|
| Data (Supplemented With PUMS) | PUMS | PUMS | CPS |
| Unit of Measurement | Household | Household | Household |
| Taxes & Benefits | Same | Same | Same |
| Largest Immigrant Group | Asia | LA (Latin America) | Latin America |
| Highest Mean Income Group | Asia | Latin America | Latin America |
| Immigrant Household Size versus Native Born | Larger | Larger | Larger |
| Largest Size of Household Group | Middle East (ME) 4.38(7, 2) ^{a,b} | Asia 3.59 | Latin America 4.18 |
| Group with highest <18 children | Middle East 1.52 (7, 3) | Asia 1.14 | Latin America 1.70 |
| Group with highest School age Children | Middle East .96 (7, 4) | Asia .76 | Latin America 1.10 |
| Group with highest Public School enrolled Children | Middle East .81 (7, 5) | Asia .61 | NA NA |
| Mean Age of Immigrant Household | 41.95 (youngest, LA 37.4) | 50.03 (youngest, Asia, 42.06) | 47.7 (youngest, LA 40.0) |
| % male headed Household | 69.94 (highest, ME 86.65) | 68.36 (highest, Asia 85.40) | 53.4 (highest, Asia 66.2) |

a. The numbers in the parenthesis refer to column 7 and row 2 of Table II and III. b. The numbers in the parenthesis are taken from Table II & III. Source: Calculated from PUMS, Table II and III.

Table VII: Comparison of Economic Characteristics of Households: Michigan, New Jersey and California

| | Michigan | New Jersey | California |
|----------------------------------|--|--------------|--------------|
| Mean Household Income per capita | 27,029 (highest, Asia) ^b | 20,946 NA | 18,364 NA |
| Mean Earned Income | 48,238 (highest Asia) | NA | 41,255 |
| Mean Public Assistance Income | 2,884 | 3,900 | * |

*Clune (1998) reports as percentage of foreign household income in detailed PAI categories. Since it uses a different data set, that number is not reported.

b. The numbers in the parenthesis are taken from Table III. Source: Calculated from PUMS, Table II and III.

The immigrants in Michigan are relatively young and although the Public Assistance Income (PAI) is one of the reasons for the fiscal burden imposed by immigrants, the proportion of state expenditure going to PAI is small. The public Assistance Income is the highest in New Jersey.

The state of Michigan collects higher amount of tax revenue in both less than 65 years of age group and more than 65 years of age group compared to that of both New Jersey and California. However, the amount of state expenditure is higher for the less than 65 age group in all the states and it is highest in California (note that the data set is different for the California study). The notable fact in this comparison is that the state of Michigan runs a surplus in 65+ age group. That lowers the fiscal burden to some extent. Both New Jersey and California, at least for the sample used, run deficit in less than 65 and 65+ age group. The Latin American households are most costly in New Jersey. The highest burden comes from Middle Eastern households in Michigan. The most of these expenditures are on education.

The other fact that comes of the revenue expenditure table (Table VIII) is that the tax revenue collected from Asian immigrant households is the highest. It implies that that if Michigan tries to attract young skilled workers by investing in different projects, it may compensate some of the negative fiscal impact of immigrants.

Table VIII: Comparison of State Tax revenue and Expenditures: Michigan, New Jersey and California

| | Michigan | New Jersey | California |
|---|---|--|---|
| Average tax payment by immigrant household <65 | 6,098 (highest Asia 6,496) ^b | 2,364 (highest Asia 2,648) | 4,705 (for 15-64 years old. Highest NA) |
| Average tax payment by immigrant household >65 | 4,328 (highest, Asia, 5,670) | 1,070 (highest, Asia 1,602) | 1,462 (NA) |
| Average expenditure per immigrant household <65 | 7,400 (highest, Middle East, 11,186) | 3,693 (highest, Latin America, 4,569) | 13, 560 for 15-64 years old (NA) |
| Average expenditure per immigrant household >65 | 2,042 (highest, Middle East, 5,585) | 2,324 (highest, Latin America, 4,163) | 3,644 (NA) |
| Net impact < 65 | -1,302 (highest Middle East, -5, 169) | -1,329 (highest Latin America, 2,844) | -8,855(NA) |
| Net impact >65 | 2,286, (highest, Africa 2,505) | -1,254 (highest Latin America, -3,142) | -2,182 (NA) |

b. The numbers in the parenthesis are taken from Table III. Source: Calculated from PUMS, State Budget, Table IV.

Summarizing, the fiscal impact study for all three states (Michigan, New Jersey and California) available so far shows a negative fiscal impact of immigrants households. The burden suffered by California is the heaviest. However, the readers should keep in mind while making a comparison that the data set used for California is a little different. California is also closer to the southern border with Mexico from which the US receives the largest number of both legal and illegal immigrants. The difference between the impact of immigrant households and that of native households is the lowest in New Jersey; the state of Michigan comes second and the burden is the highest for California (-80 (NJ), -424 (MI) and -3, 523 (CA) in less than 65 age group). In 65+ age group Michigan produces surplus. Lee and Miller (1997) has calculated fiscal impact for the entire country (the US) using a different units of measurement such as immigrants only, immigrant households with their co-resident children, and immigrants and their concurrent descendants. In their study only the immigrant descendants produce a net surplus. The US National Research Council has estimated the long term impact of immigration using immigrant as an individual unit and also using the present value of future tax revenues and benefits. They, like Lee & Miller, have concluded that only descendants of immigrants produce a net surplus. It implies that the descendants have more earning power and they are expected to be more skilled. They will contribute more to the US treasury and their participation in the US entitlement program is expected to be lower compared to their parents.

3.3: Possible policy implications

One of the implications of a fiscal impact study is to disseminate information so that the authorities, if possible, can encourage a particular type of immigrants, create social, business and/or investment climate so that immigrants are encouraged to work more, or invest more and thus become net contributors (readers should note that the policy implications are based on observations from the state of Michigan and should be moderated and corrected, if possible with accompanying data, when thinking for the US as a nation).

Our first conclusion is that both immigrant and native households have negative impact on the state budget. The result is the same for other two states (NJ and CA) studied so far; however, immigrant households in Michigan have a slightly higher burden.

This suggests that no drastic policy changes favoring either immigrants or native households are necessary. The state of Michigan should rather see whether some form of incentives can be used for a particular demographic and economic group that would generate more revenue.

Next, we see that 65+ age group generates a surplus. This suggests that the state of Michigan may encourage immigrants in 65 + age group. If the elasticity of income tax revenue with respect to tax rate is greater than one (this can be estimated from the rate

increase from 2008; the official data for which is not available yet), the state may think about providing a tax break to this age group to attract them to Michigan. Also, to promote private investment in more assisted-living facilities or retirement homes, the state of Michigan could provide incentives. Our study for Michigan shows that the number for immigrant household in the 65+ age group is the highest for Canadian and European households taken together (Table II). It leaves the possibility that Michigan can take advantage of its border with Canada and can try to attract households headed by elderly people by providing some economic as well as other social incentives. All these provisions will not only generate additional revenue, but it also will have a multiplier effect by creating more jobs that would increase revenue further.

Since households headed by females mostly produce a net deficit, the state could generate social support services to reduce dissolution of marriages and/or services to generate employment opportunities for single women as the head of the household.

We have noticed that the average yearly earning is higher for foreign born households. That implies that these households generate more income tax revenue. Although we don't have data for average schooling of immigrants, the empirical literature suggests that higher earnings are returns to higher education and/or skill. It also says that parents' educational aspirations for their children are high when parents themselves are educated. Seeing that the number of children attending school (in Table II) is higher for immigrant households, the state of Michigan can take measures to encourage the business and manufacturing companies to hire more skilled immigrants. That increases total productivity and complements the native born population resulting in higher income tax and sales tax revenue.

While noticing that the group in less than 65 years of age produces a net deficit, the readers should keep in mind that this group consumes a bulk of state expenditures in education, police and other services. The cost of providing these services outweigh their short run benefits. Since appropriate data are not available we cannot calculate the long run benefits that need an intergenerational approach. The policy implication in this case is that since long run effects weigh heavily on benefits from the expenditures, the state government should improve those services by increasing the high school graduation rate, vocational training, and reducing local crime rates. That would help in generating surplus in both native born and immigrant households. Although in our sample (Table II) the number of school age children is the same in the foreign born households as it is in the native households (.59) and although there seems to be very little difference between the foreign born households and native households as far as the numbers attending public school (.51 versus .53) are considered, all the immigrant groups have sent larger number of children to school. Thus, it is most likely that long term gain would outweigh the short term loss from public educational expenditures for immigrants.

4. Conclusions:

The concern about immigration should focus not only on economic and socioeconomic effects of immigration, but also on its fiscal effects. As we have mentioned earlier,

calculating fiscal effects is difficult because of the nature of the state laws and the changing nature of the allocation of financial responsibility between federal and state governments. The analysis of fiscal effects of immigration on the country as a whole can be complete only if we calculate the effects for each state separately. So far, to the best of our knowledge, the fiscal effects have been studied for only two other states, New Jersey and California. This paper thus complements the literature by examining the fiscal effects of immigration on the State of Michigan, and shows that the results are very different from the results of these two states.

Using the most recent census data and using the household as our unit of measurement we have shown that although immigrants as a group impose a fiscal burden on the state, immigrants from specific countries actually add a net amount to the state coffers. When we compare immigrant and native-born households, both of them are considered fiscal burden although financial burden for native born household is slightly less than that for foreign born as a group.

Our study is by no means without limitations, although it provides an important insight about immigrants in Michigan. The lack of data availability has forced us to exclude the contribution of corporations to the budget. We also could not include the long run effects of immigrants, although the migration literature shows that immigrants have intergenerational effects.⁴

However in addition to providing information about Michigan immigrants, the analysis in this paper provides a basis for comparison with the analysis of fiscal effects of immigrant of two other states. Since no single state is truly representative of the U.S., developing separate studies of as many states as possible will provide a broad picture of the fiscal effects of immigration. Interstate comparison of these effects also is needed for policy purposes to see whether the U.S. can use the continuous flow of foreign-born to our advantage at least in some of the states. We also can gain insight with regard to whether a uniform Federal immigration policy is justified for all the states.

5. References:

Akbari, A. H., (1989), "The Benefits to Immigrants to Canada: Evidence on Tax and Public Services", *Canadian Public Policy*, 15: 424-35.

Auerbach, A. J., and Oreopoulos, P., (1999), "Analyzing the Fiscal Impact of Us Immigration", *A.E.R. Papers and Proceedings*, 89:176-80.

Bhagwati, J., *Financial Times*, October, 2005.

⁴ Since it will exclude the 65+ age group, we don't describe the fiscal impact by occupation (and therefore earnings). This study does not therefore look at the issue of self selection which will be valid only for the employed immigrants. For the similar reason we don't describe the fiscal impact by number of children in the household (although we focus on household size).

Borjas, George J., and Stephen J. Trejo, (1991), "Immigrant Participation in the Welfare System." *Industrial and Labor Relations Review* 44(2):195-211.

Borjas, George J. (1994), "The Economics of Immigration." *Journal of Economic Literature* 32(4):1667-1717.

Borjas, George J., and Lynette Hilton (1996) "Immigration and Welfare State: Immigrant Participation in Means-Tested Entitlement Programs." *Quarterly Journal of Economics* 111(2):575-604.

Bureau of Census (2000) *Official 2000 U.S. Census Form*. Washington, D.C.: U.S. Department of Commerce.

Bureau of Census (2002), *Census of Population and Housing. 2000: Public Use Microdata Sample Technical Documentation*. Prepared by the Microdata Access Branch, Data User Services Division. Washington. D.C.: U.S. Department of Commerce.

Clune, M.S., (1998), "The Fiscal Impacts of Immigrants: A California Case Study", in *The Immigration Debate*, ed by J. P. Smith and B. Edmonston, 120-182.

Dunlap, Jonathan C. and Ann Morse., (1995), "States Sue Feds to Recover Immigration Costs." *NCSL Legisbrief*. January, 3(1). Washington. D.C.: National Conference of State legislatures.

Espenshade. Thomas J., and Vanessa E. King., (1994), "State and Local Fiscal Impacts of U.S. Immigrants: Evidence from New Jersey." *Population Research and Policy Review* 13:225-256.

Garvey, D.L., and Espenshade, T., (1998), "Fiscal Impacts of Immigrant and Native Households: A New Jersey Case Study", in *The Immigration Debate*, ed by J. P. Smith and B. Edmonston, 66-119.

Lee, R.D. and T.W. Miller., (1998), "The Current Fiscal Impact of Immigrants and Their Descendants: Beyond the Immigrant Households" , in *The Immigration Debate*, ed by J. P. Smith and B. Edmonston, 183-205.

MaCurdy, T., Nechyba, T., & Bhattacharyya, J., (1998), " An Economic Framework for Assessing the Fiscal Impacts of Immigration" in *The Immigration Debate*, ed by J. P. Smith and B. Edmonston, 13-65.

Simon, J. L., (1984), "Immigrants, Taxes, and Welfare in the United States" *Population and Development Review*, 10,: 55-69.

Storesletten, K., (2001), "Sustaining Fiscal Policy through Immigration", *Journal of Political Economy*, vol. 108, No. 2, 300-23.

The Wall Street Journal, November 2005.

US Statistical Abstract, 1996, US government.

Vernez, G., and K. McCarthy., (1995), “The Fiscal Cost of Immigration: Analytical and Policy Issues” *DRU-958-I-IF*. Center for research on Immigration Policy. Santa Monica, California: The Rand Corporation.

6. Appendix

Information about the Data Source and Calculation:

In calculating the fiscal impact, we have made several assumptions which are necessary because appropriate data are not available (Fullerton & Rodgers; 1993). We will describe these assumptions together with the steps we have followed in calculating the fiscal impact. This will help the readers to evaluate the numbers which in some cases are sensitive to the assumptions or data availability.

We relied mostly on 5% PUMS data derived from the US Census of Population and Housing, 2000. The PUMS provides information about households (Household Record) and about each member of the household (Person Record). The sample size is 5% of total population in the states of Michigan. That is why the reader will notice that we have divided repeatedly the total revenue from a particular source by 20.

The microeconomic unit in our analysis is the household. There are 202,941 households in PUMS, 2000. The households designated as group quarters and/or institutional (12,500) are excluded. Thus we have focused on 189,616 households of which 10,109 one headed by a foreign-born person.⁵ We have calculated a) total tax paid to the state by each household, b) total benefits received from the state by each household and then disaggregated them into individual categories of tax and benefits. After each household of the sample in a particular age and a particular country of birth cohort is assigned the amount of tax and the amount of benefits, we have reported the average amount for a household in the group and then have obtained the net impact by subtracting the total benefit amount from the total tax paid to the state.

In the year 1999-2000, Michigan’s total budget was \$32.9 billion of which the current expenditure was of roughly \$510 million. We have excluded capital outlay and payment from debt services because it is nearly impossible to designate the beneficiaries of these expenditures. The total amount from these two items was .5 billion. Unlike Garvey and Espenshade’s (1998) procedure in calculating immigrants’ fiscal impact on the state of

⁵ We have grouped foreign born households into six categories and have left out any other foreign-born households because either the number was very small or we are not able to characterize their behavior if we put them together as “other foreign-born” group. That is why 202,914 minus 12,500 is not equal to 189,619.

New Jersey we have included state's expenditure on Correctional Facilities, Judiciary, and Civil Rights in our benefit calculation.

We have followed the standard rule in the literature (Rothman and Espenshade 1992; Metcalf 1993) in calculating the tax incidence. In our calculation, the household bears the burden of income tax; sales tax is paid by the consumer and property tax is paid by the owner of the property. Our focus is on the short run. Thus in calculating the benefits, the immediate or short-run beneficiary is the ultimate beneficiary. For example to calculate the beneficiary of public school expenditure, we have designated the households with school-age children as beneficiaries. We acknowledge that this may not be the best possible scenario, since the gains out of a more educated generation are distributed over a long period of time and over the society as a whole. The multiplier effect of such benefit is also assumed away, since we do not focus on a general equilibrium model.

The focus of this paper is on a cross-sectional approach. We thus cannot consider the assimilation effect of immigrants. We also cannot provide how fiscal impact may vary as the tenure of the immigrant increases; or how it varies over different cohort groups. Another limitation of this paper is that it neglects the corporate sector. Corporations pay income tax, real estate tax; banks and insurance companies pay fines and fees. Government expenditure also benefits this sector. Thus in evaluating the result, the reader should focus on the relative aspects like how a foreign-born household fare relative to a native born household and should not put too much emphasis on the absolute amount of tax and benefits.

Although immigrant's fiscal impact should include calculations at the three levels of government (local, state and federal), our focus is on the state government level, (that includes total expenditure from three levels of government). For the type of state expenditure that is more general in the sense that no eligibility rules are applied for disbursement, we have considered the expenditure as a public good and assigned the benefit as an average cost or prorated share basis. We have taken 20% of total expenditure in order to divide it over households. For expenditures which vary according to the location, we have used PUMS classification of geographic area into super PUMAs. This classification is helpful in allocating public school expenditures.

Whenever we have needed to adhere to an eligibility criterion (veteran and military benefits, supplemental social security income, Medicaid, alcohol tax, cigarette tax, etc), we have used that to separate the eligible households. Of a state budget of roughly 33 billion dollars, 3% of the total expenditure was disbursed following eligibility criteria.

In the following we describe the method of calculation more specifically.

Benefits

A. General State Services.

We include Agricultures, Judiciary, Civil service, Consumer and industry services, Environmental quality, Executive Office expenditure, Legislative Expenditure, Management and Budget, Transportation, Natural Resources, and Treasury expenditure in this category. There is no reason to believe that the share of native-born in this

category will be different form that of foreign- born. We have taken 1/20th of total expenditure and divided that by total number of households in the sample and appended the amount to each household.

B. Elementary and Secondary Education:

The Michigan Department of Education publishes several bulletins providing information on various types of expenditures by the government. We have used bulletin number 1014 for the year 2000 which provides information about per pupil expenditure in different categories by counties. We have added these per pupil expenditure for all the counties in a Super PUMA, and have divided the sum by the number of children in all the school districts to get the average per pupil expenditure in a super PUMA. Then we have added the number of school aged children (variable name: P18) in a household and multiplied the number by per pupil expenditure in that super PUMA. We have taken an average over all the households in a particular age and county of birth category to assign the expenditure in a particular group.

C. Higher Education:

We have taken 1/20th of total expenditure in this category and divided that by the total number of eligible child of 18+ age that are going to public school by looking at ENROLL and GRADE variables to arrive at per student expenditure. Then we have calculated the number of 18+ of age children (in a household) going to public school for higher education and multiplied the average expenditure amount by the number of students. We have calculated the average over household in each age and county of birth category.

D. Supplemental Security Income and Public Assistance Income:

The PUMS of the 2000 Census of US Population and Housing provides information on these two variables; the supplemental social security income (SSI) is given by the variable, INCSSI. The variable, INCPA, covers public assistance income other than SSI. That included general assistance income and temporary assistance to needy family (TANF).

E. Military and Veteran Benefits:

The total expenditure in this category is roughly \$60 million. A portion (20%) of this total is spent on the National Guard. We have divided the amount by 20 and then have divided that by the total number of people in the sample. This gives us an average for each household in the sample. The other portion (80%) is for veteran and disabled benefit. We have taken 1/20th of that and have divided that by total number of veterans and disabled. The average National Guard expenditure and average veteran expenditure has been appended to households with veterans. We have calculated the average over each category. For the households with no veterans we have used average from National Guard calculation.

Taxes

A. Sales tax:

The PUMS does not provide information on household or individual consumption expenditures which could have helped in calculating the sales tax revenue. We estimate

the sales tax revenue following the guide line from internal revenue service for itemizing sales tax deduction on the federal income tax reduction. This guideline is called the Optional Sales Tax Tables which are derived from estimates based on household consumption expenditures in the Consumer Expenditure surveys (CEX). The CEX is a detailed survey of expenditure of a random sample of the U.S. population (U.S. Bureau of Labor Statistics, 1994).

In each age group (e.g. < 65, and 65 +) and for the native-born and the foreign-born of all types (Canada, Europe, Asia, Middle East, Latin America and Africa), we have calculated the household's total income using HINC and PERSONS variables from PUMS. Using the 2000 Michigan Income Tax guide we have calculated the expenditure amount for each household. Using the Table for the state of Michigan in CEX, we get the state tax amount for each household corresponding to the total income and the number of people in the household. Then we adjusted the figure for changes in the price index (CPI from 1994 - 2000).

B. Cigarette and Alcohol Tax:

The total revenue from cigarette tax was \$529 million in the fiscal year of 2000. As mentioned in the description of the sales tax, PUMS do not provide detailed information on consumption of goods and services. The CEX provide some information, but it is not a detailed breakdown of each and every consumption item. We have divided total revenue from the cigarette tax by 20, since user information comes from 5% PUMS sample. We then calculated the total number of people who are in 18 + group and have divided the 1/20 of \$529 million by the total number of people to get a per person contribution for cigarette tax revenue. Each household's contribution to cigarette tax revenue is then calculated by multiplying the per-person contribution by the number of eligible persons in the household. After we have each household contribution, we have calculated the average in each category.

C. Alcohol tax:

The revenue from alcohol tax for the year 2000 was \$302 million. We have divided 1/20th of that by the number of people of 21 years of age and over, to get per person contribution. The per household contribution and the average for each category is derived following the same procedure used in cigarette tax revenue calculation.

D. Inheritance tax:

It is expected that immigrants of similar demographic and socio-economic background are less likely to pay inheritance tax compared to the native born. Since there is no information available on the inherited property in the Census, we have assigned inheritance tax to the household on a prorated basis. Following Garvey and Espenshade (1998), we have assumed that if a migrant has spent 20 years in the U.S., the probability of that migrant's inheritance of a property will be equal to that of a native born. Thus we have divided the total revenue from the inheritance tax (\$186 million) by 20 and then have divided the resulting amount again by the number of native born household plus the

number of foreign born household who came to U.S. before or at 1980. This information is obtained from the variable, YR2US, in the PUMS.

E. Property tax:

Since we are using the 5% PUMS, we have divided the total revenue (\$1,703 million) by 20. The PUMS gives information on ownership of houses (variable: TENURE) and the year moved into the house (variable: YRMOVED). We have taken only those households, where household head owned the house and moving year was 1999. Then we have computed the property tax for each eligible household at the rate of \$3.75 for each \$500 or a fraction thereof the property value. The information for the rate of tax is obtained from Michigan Real Estate Transfer tax. The variable, VALUE, in PUMS gives the property value. After calculating the property tax for each household in each age group for native born and foreign born, we have averaged the household tax information.

F. Automobile tax:

The census of U.S. data in PUMS gives information about vehicle ownership (variable VEHCL). For each household we multiplied the number of vehicle by \$ 58. The tax rate information was given in www.michigan.gov

7. References for Appendix

Fullerton, Donald, and Diane Lim Rodgers., (1993), “*Who Bears the Lifetime Tax Burden?*” Washington. D.C.: The Brookings Institution.

Metcalf, Gilbert E., (1993), “The Lifetime Incidence of State and Local Taxes: Measuring Changes during the 1980s” NBER Working Paper No.4252, Cambridge, Mass.

Rothman, E.S. and Espenshade, T., (1992), “Fiscal Impacts of Immigration to the United States” *Population Index* 58 (3), 381-415.

www.michigan.gov

Table II: Demographic Characteristics of Michigan Household, 2000

| | FB Born (Total) (1) | | Native Born (2) | | FB Canada (3) | | FB Europe (4) | | FB Asia (5) | | FB LA (6) | | FB M East (7) | | FB Africa (8) | |
|----------------------------------|------------------------|-------|--------------------|-------|------------------|-------|------------------|-------|----------------|-------|--------------|-------|------------------|-------|------------------|-------|
| Number of HH | 10109 | | 179510 | | 1115 | | 3260 | | 3082 | | 1271 | | 1083 | | 298 | |
| | <65 | 65+ | <65 | 65+ | <65 | 65+ | <65 | 65+ | <65 | 65+ | <65 | 65+ | <65 | 65+ | <65 | 65+ |
| | 7820 | 2289 | 139777 | 39733 | 597 | 518 | 1964 | 1296 | 2847 | 235 | 1163 | 108 | 966 | 117 | 283 | 15 |
| Persons in Household | 3.71 | 2.41 | 3.21 | 2.27 | 3.15 | 2.23 | 3.32 | 2.24 | 3.83 | 3.11 | 4.21 | 3.09 | 4.38 | 3.42 | 3.94 | 2.57 |
| Children <18 in Household | 1.03 | 0.06 | 0.86 | 0.05 | 0.75 | 0.02 | 0.72 | 0.03 | 1.11 | 0.21 | 1.46 | 0.31 | 1.52 | 0.3 | 1.15 | 0.07 |
| School-Age Children in Household | 0.59 | 0.04 | 0.59 | 0.04 | 0.51 | 0.02 | 0.01 | 0.02 | 0.71 | 0.14 | 0.89 | 0.23 | 0.96 | 0.21 | 0.78 | 0.07 |
| In public School | 0.51 | 0.04 | 0.53 | 0.03 | 0.4 | 0.02 | 0 | 0.01 | 0.62 | 0.12 | 0.77 | 0.22 | 0.81 | 0.16 | 0.62 | 0.07 |
| LEP Children <18 in Household | 0.14 | 0.01 | 0.01 | 0 | 0.01 | 0 | 0.08 | 0 | 0.19 | 0.04 | 0.34 | 0.1 | 0.24 | 0.05 | 0.11 | 0 |
| Persons 65+ in Household | 0.05 | 1.35 | 0.02 | 1.37 | 0.02 | 1.35 | 0.06 | 1.37 | 0.07 | 1.34 | 0.03 | 1.31 | 0.08 | 1.34 | 0.07 | 1.07 |
| Age of Household Head | 41.95 | 76.39 | 42.86 | 74.99 | 45.44 | 77.48 | 46.09 | 76.75 | 40.35 | 73.4 | 37.37 | 74.26 | 41.22 | 75.13 | 41.1 | 71.73 |
| % Male Household Head | 69.94 | 50.2 | 70.37 | 56.81 | 74.37 | 45.56 | 77.14 | 53.09 | 82.19 | 65.53 | 79.54 | 57.41 | 86.65 | 64.1 | 76.68 | 46.67 |

Source: Calculated by authors from 5% PUMS of 2000 US Census of Population and Housing.

a School-age children are defined as those aged 6 to 17, inclusive.

b LEP (Limited English Proficiency) children are those who speak a language other than English at home and who speak English “well”, “not well”, or “not at all” as opposed to “very well”.

c (1) = (3) + (4) + (5) + (6) + (7) + (8)

Table III: Socioeconomic Characteristics of Michigan Households, 2000.

| | FB Born (Total) (1) | Native Born (2) | FB Canada (3) | FB Europe (4) | FB Asia (5) | FB LA (6) | FB M East (7) | FB Africa (8) |
|--|------------------------|--------------------|------------------|------------------|----------------|--------------|------------------|------------------|
| Number of HH | 10109 | 179510 | 1115 | 3260 | 3082 | 1271 | 1083 | 298 |
| Mean # of wage (earning in household) | 48238.45 | 40990.35 | 39531.12 | 41965.01 | 59042.6 | 43654.46 | 48307.06 | 57009.16 |
| # of HH receiving Public assistance Income 1999 | 501 | 6228 | 15 | 106 | 183 | 56 | 132 | 9 |
| # of HH receiving SSI 1999 | 454 | 7847 | 27 | 152 | 124 | 56 | 84 | 11 |
| Mean Public Assistance income of recipient HH, 1999 | 2883.95 | 2560.98 | 1956 | 2445.47 | 3335.74 | 3237.86 | 3727.42 | 1905.56 |
| Median PAI of RHH | 1700 | 1400 | 1500 | 1490 | 1700 | 1900 | 2100 | 1300 |
| Mean HH income per capita | 27029.08 | 26529.81 | 32648.58 | 29620.14 | 27994.73 | 19531.5 | 19479.21 | 27086.97 |
| Median household income | 44500 | 42600 | 42340 | 42610 | 52000 | 39000 | 39000 | 45070 |

Source: Calculated by authors from 5% PUMS of 2000 US Census of Population and Housing.

a (1) = (3) + (4) + (5) + (6) + (7) + (8)

Table IV: Average State Expenditure, Revenue and Net Fiscal Impact per household by age, nativity status of Head, FY 1999-2000

(all numbers in dollar) Part 1

| | FB Born (Total) (1) | | Native Born (2) | | FB Canada (3) | | FB Europe (4) | | FB Asia (5) | | FB LA (6) | | FB M East (7) | | FB Africa (8) | |
|-----------------|------------------------|---------|--------------------|---------|------------------|---------|------------------|---------|----------------|---------|--------------|---------|------------------|---------|------------------|---------|
| | <65 | 65+ | <65 | 65+ | <65 | 65+ | <65 | 65+ | <65 | 65+ | <65 | 65+ | <65 | 65+ | <65 | 65+ |
| Sales Tax | 79.7959 | 65.9436 | 74.8252 | 63.9907 | 82.9776 | 64.0482 | 81.2431 | 64.8274 | 81.1259 | 76.119 | 72.8904 | 65.8254 | 76.4929 | 70.1801 | 77.2499 | 68.7742 |
| Automobile Tax | 107.285 | 71.4562 | 111.496 | 80.0115 | 109.782 | 70.8764 | 114.819 | 68.8302 | 104.612 | 86.6298 | 101.238 | 70.3519 | 106.874 | 82.2906 | 101.654 | 88.9333 |
| Fuel Tax | 235.159 | 156.626 | 244.39 | 175.378 | 240.633 | 155.355 | 251.673 | 150.87 | 229.3 | 189.885 | 221.905 | 154.205 | 234.258 | 180.374 | 222.816 | 194.934 |
| Property Tax | 1431.87 | 1270.39 | 1062.92 | 957.287 | 1681.64 | 1269.89 | 1520.88 | 1190.63 | 1525.44 | 1406.25 | 772.385 | 1518.75 | 1570.03 | 1170 | 1678.13 | 637.5 |
| Inheritance Tax | 1398.19 | 1111.01 | 996.954 | 855.225 | 1394.42 | 1064.52 | 1395.65 | 1110.64 | 1614.36 | 1420.02 | 778.056 | 773.843 | 1509.94 | 1283.28 | 1321.61 | 1148.86 |
| Cigarette Tax | 263.04 | 163.76 | 138.21 | 192.58 | 209.33 | 126.47 | 242.74 | 150.92 | 269.24 | 253.01 | 284.19 | 188.85 | 302.68 | 269.8 | 232.51 | 153.75 |
| Alcohol Tax | 30.59 | 53.8 | 78.55 | 72.65 | 33.22 | 58.57 | 32.76 | 51.39 | 27.97 | 50.08 | 36.62 | 66.19 | 23.6 | 55.51 | 35.43 | 52.31 |
| Income Tax | 2551.59 | 1434.6 | 2164.46 | 1234.66 | 2970.38 | 1350.61 | 2735.06 | 1336.33 | 2643.42 | 2187.82 | 1824.5 | 1322.71 | 2192.87 | 1832.99 | 2378.68 | 1720.55 |
| Total | 6097.51 | 4327.59 | 4871.81 | 3631.78 | 6722.38 | 4160.34 | 6374.83 | 4124.44 | 6495.47 | 5669.82 | 4091.78 | 4160.72 | 6016.75 | 4944.42 | 6048.07 | 4065.62 |

a (1) = (3) + (4) + (5) + (6) + (7) + (8)

Table IV: Average State Expenditure, Revenue and Net Fiscal Impact per household by age, nativity status of Head, FY 1999-2000

(all numbers in dollar) Part 2

| | FB Born (Total) (1) | | Native Born (2) | | FB Canada (3) | | FB Europe (4) | | FB Asia (5) | | FB LA (6) | | FB M East (7) | | FB Africa (8) | |
|---|------------------------|---------|--------------------|---------|------------------|---------|------------------|---------|----------------|---------|--------------|---------|------------------|---------|------------------|---------|
| | <65 | 65+ | <65 | 65+ | <65 | 65+ | <65 | 65+ | <65 | 65+ | <65 | 65+ | <65 | 65+ | <65 | 65+ |
| Military & Veteran | 38.121 | 44.5727 | 56.8791 | 85.6276 | 43.4644 | 54.7407 | 44.2795 | 42.742 | 32.4728 | 34.2222 | 40.7602 | 45.724 | 36.3687 | 38.6339 | 30.6627 | 25.1033 |
| Health & Independence | 688.392 | 326.451 | 388.402 | 185.188 | 293.759 | 161.92 | 427.06 | 223.571 | 701.7 | 843.613 | 865.43 | 282.406 | 1207.68 | 1173.07 | 700.527 | 508.331 |
| University Grants & Fin. Aid | 1056.03 | 149.896 | 625.479 | 70.8578 | 621.963 | 81.6629 | 842.39 | 97.9198 | 1398.32 | 360.012 | 557.714 | 522.239 | 1128.81 | 281.206 | 1810.31 | 0 |
| Education | 4658.58 | 288.945 | 3698.79 | 213.755 | 3256.96 | 96.7027 | 3154.53 | 139.288 | 5166.06 | 1037.93 | 6481.16 | 1405.29 | 7320.09 | 1509.19 | 5182.58 | 259.595 |
| General | 634.514 | 634.514 | 634.514 | 634.514 | 634.514 | 634.514 | 634.514 | 634.514 | 634.514 | 634.514 | 634.514 | 634.514 | 634.514 | 634.514 | 634.514 | 634.514 |
| Mean SSI Income | 190.102 | 516.69 | 246.263 | 418.846 | 114.74 | 194.981 | 189.868 | 539.275 | 193.994 | 1024.26 | 183.674 | 0 | 384.679 | 1652.99 | 220.212 | 0 |
| Mean Public Assistance income of recipient HH | 133.908 | 80.6144 | 99.7455 | 50.529 | 47.7219 | 1.6409 | 86.8432 | 68.4105 | 189.108 | 306.596 | 145.365 | 113.519 | 473.509 | 295.812 | 53.5336 | 133.333 |
| Total | 7399.64 | 2041.68 | 5750.08 | 1659.32 | 5013.12 | 1226.16 | 5379.49 | 1745.72 | 8316.17 | 4241.14 | 8908.62 | 3003.69 | 11185.7 | 5585.42 | 8632.34 | 1560.88 |
| Net Fiscal Impact | -1302.1 | 2285.91 | -878.27 | 1972.46 | 1709.26 | 2934.17 | 995.346 | 2378.72 | -1820.7 | 1428.68 | -4816.8 | 1157.03 | -5168.9 | -641 | -2584.3 | 2504.74 |

a (1) = (3) + (4) + (5) + (6) + (7) + (8)

Table V: Net Fiscal impact of Households (HH) on State of Michigan, by age, sex, and nativity status of HH, 1999-2000(in \$)

| | FB Born (Total) (1) | | Native Born (2) | | FB Canada (3) | | FB Europe (4) | | FB Asia (5) | | FB LA (6) | | FB M East (7) | | FB Africa (8) | |
|------------------------|------------------------|--------|--------------------|--------|------------------|--------|------------------|--------|----------------|--------|--------------|--------|------------------|--------|------------------|--------|
| | <65 | 65+ | <65 | 65+ | <65 | 65+ | <65 | 65+ | <65 | 65+ | <65 | 65+ | <65 | 65+ | <65 | 65+ |
| All Households | | | | | | | | | | | | | | | | |
| State Total (millions) | -10.18 | 5.2324 | -122.8 | 78.372 | 1.0204 | 1.5199 | 1.9549 | 3.0828 | -5.184 | 0.3357 | -5.602 | 0.125 | -4.993 | -0.075 | -0.731 | 0.0376 |
| Per household | -1302 | 2285.9 | -878.3 | 1972.5 | 1709.3 | 2934.2 | 995.35 | 2378.7 | -1821 | 1428.7 | -4817 | 1157 | -5169 | -641 | -2584 | 2504.7 |
| per Capita | -513.3 | 1875.4 | -370.3 | 1589.4 | 753.08 | 2986.1 | 396.93 | 2032.2 | -597.4 | 635.87 | -1410 | 595.04 | -1370 | -249.2 | -914.2 | 2087.3 |
| Male Households | | | | | | | | | | | | | | | | |
| State Total (millions) | -7.546 | 18.307 | -14.96 | 52.762 | 0.8851 | 0.8028 | 1.5044 | 2.1326 | -4.197 | 0.2454 | -4.429 | 0.0157 | -4.224 | -0.029 | -0.509 | 0.0277 |
| Per household | -1202 | 14981 | -152.1 | 2337.3 | 1993.5 | 3401.5 | 992.99 | 3099.7 | -1793 | 1593.3 | -4788 | 252.88 | -5047 | -389.4 | -2344 | 3960.5 |
| per Capita | -444 | 8165.5 | -58.79 | 1336.6 | 787.45 | 2042.6 | 356.66 | 1728.2 | -550.5 | 561.49 | -1351 | 99.232 | -1307 | -120.2 | -771.9 | 1732.7 |
| Female Households | | | | | | | | | | | | | | | | |
| State Total (millions) | -2.96 | 1.7604 | -115.2 | 22.837 | 0.1379 | 0.7842 | 0.4385 | 0.9633 | -0.992 | 0.0936 | -1.186 | -0.035 | -0.783 | -0.042 | -0.214 | 0.0048 |
| Per household | -1919 | 1649.8 | -2783 | 1330.9 | 901.38 | 2781 | 976.68 | 1584.4 | -1956 | 1155.1 | -4985 | -752.3 | -6072 | -1003 | -3247 | 605.78 |
| per Capita | -1041 | 3212.4 | -1495 | 2322.3 | 597.02 | 6760.7 | 620.27 | 3404 | -940.7 | 1028.2 | -1702 | -665.5 | -1901 | -726.3 | -1520 | 2423.1 |

a (1) = (3) + (4) + (5) + (6) + (7) + (8)