



Munich Personal RePEc Archive

# **A Study of Consumption Decisions and Wealth, Individual Data, Political Economy and Theory**

Curtis Jr, James

31 December 2017

Online at <https://mpra.ub.uni-muenchen.de/84461/>  
MPRA Paper No. 84461, posted 09 Feb 2018 14:33 UTC

1400  
1401  
1402  
1403  
1404  
1405  
1406  
1407  
1408  
1409  
1410  
1411  
1412  
1413  
1414  
1415  
1416  
1417  
1418  
1419  
1420  
1421  
1422  
1423  
1424  
1425  
1426  
1427  
1428  
1429  
1430  
1431  
1432  
1433  
1434  
1435  
1436  
1437  
1438  
1439  
1440  
1441  
1442  
1443  
1444  
1445  
1446  
1447  
1448  
1449  
1450  
1451  
1452

A Study of Consumption Decisions and Wealth, Individual Data, Political Economy and Theory

James E Curtis Jr

December 31, 2017

Recent studies have used regression decomposition to analyze recent data and found that over seventy percent of the black-white wealth differences remained unexplained (See, e.g., Gittleman and Wolff 2000; Altonji, Doraszelski and Segal 2000; and Blau and Graham 1990). Their results are limited to the variation in modern data. This study contributes improved methodology and historical empirical results to the literature on economic discrimination. In this paper, (i) James Curtis Jr presents structural regression decompositions, which are modifications to methods developed by Becker (1957) and Oaxaca (1973); (ii) James Curtis Jr presents a basic empirical test when analyzing structural regression decompositions; (iii) James Curtis Jr reports the estimated sources of black-white differences in wealth directly before and after emancipation; (iv) James Curtis Jr links these findings to recent studies. Empirical estimates confirm that the size and persistence of modern black-white wealth differences have historical roots. (v) James Curtis Jr presents decision-making considerations of “individuals” in an economy with grouped individuals, owners of firms, and social planner(s), conditional on wealth constraints with applied social economic considerations.

JEL Codes: J7 D9 E2 C2 H5 N3

Key words: theory of economic discrimination, structural regression decomposition, wealth inequality

Please address correspondence to independent researcher James E Curtis Jr.  
You may call (202) 739-1962, email james@jecjef.net, or  
write EF c/o James Curtis Jr, PO Box 3126, Washington District of Columbia 20010.

1453 **I. Case One: Agent-Specific Constraints**

1454

1455

1456 **MAX**<sub>{ $x_{nij} \geq 0$ }</sub>  $\mathbf{U} = \gamma_{\mathbf{U}} \prod_{SP=1} \mathbf{U}_{SP}^{\theta(SP)}$

1457

1458 *subject to*  $\mathbf{X}_{ijSP} \leq \mathbf{E}_{ijSP}$

1459

1460

1461 *Let:*  $\mathbf{U}_{SP} = \gamma_{\mathbf{U}(SP)} \prod_{j=1} (\prod_{i=1} \mathbf{u}_{ij(SP)}^{\theta_{ij(SP)}})$

1462

1463 *such that*  $\mathbf{U} = \gamma^* \prod_{SP=1} [\prod_{j=1} (\prod_{i=1} \mathbf{u}_{ij(SP)}^{\theta^*})]$

1464

1465 *where*  $\gamma^* = \gamma_{\mathbf{U}} \prod_{SP=1} \gamma_{\mathbf{U}(SP)}$

1466

1467  $\theta^* = \theta_{ij(SP)} \theta_{(SP)}$

1468

1469

1470 *Further, let:*  $\mathbf{u}_{ijSP} = \gamma_{uijSP} \prod_{n=1} (\mathbf{x}_{(n)ij} \mathbf{s}_{\mathbf{x}(n)ijSP})^{\alpha(n)}$

1471

1472 *such that*  $\mathbf{U} = \gamma' \prod_{SP=1} [\prod_{j=1} (\prod_{i=1} (\prod_{n=1} (\mathbf{x}_{(n)ij} \mathbf{s}_{\mathbf{x}(n)ijSP})^{\alpha(n)'}) )]$

1473

1474 *where*  $\gamma' = \gamma_{\mathbf{U}} [\prod_{SP=1} \gamma_{\mathbf{U}(SP)} (\prod_{j=1} (\prod_{i=1} \gamma_{uijSP}))]$

1475

1476  $\alpha(n)' = \alpha(n) \theta_{ij(SP)} \theta_{(SP)}$

1477

1478

1479 *Further, let:*  $\mathbf{E}_{ijSP} = \sum_{n=1} \mathbf{p}_{\mathbf{x}(n)} \mathbf{e}_{\mathbf{x}(n)ijSP} + \mathbf{p}_{\mathbf{x}(l)} \mathbf{e}_{\mathbf{x}(l)ij} + \mathbf{e}_{ijSP}$  for all  $n = 1, 2, \dots, E \neq l$

1480

1481

1482 *Further, let:*  $\mathbf{X}_{ij} = \sum_{n=1} \mathbf{P}_{\mathbf{x}(n)} \mathbf{x}_{(n)ij} + \mathbf{p}_{\mathbf{x}(l)} \mathbf{x}_{(l)ij}$

1483

1484 *where*  $\mathbf{P}_{\mathbf{x}(n)j} = \mathbf{p}_{\mathbf{x}(n)} (1 + \delta_{xjg} + \sum_{q=1} t'_{qx(n)})$

1485

1486  $\mathbf{P}_{\mathbf{x}(E)} = \eta(\mathbf{B})$

1487

1488

1489 *Therefore, the decision becomes:*

1490

1491 **MAX**<sub>{ $x_{nij} \geq 0$ }</sub>  $\mathbf{U} = \gamma' \prod_{SP=1} [\prod_{j=1} (\prod_{i=1} (\prod_{n=1} (\mathbf{x}_{nij} \mathbf{s}_{\mathbf{x}(n)ijSP})^{\alpha(n)'}) )]$

1492

1493 *subject to*  $\sum_{n=1} \mathbf{P}_{\mathbf{x}(n)j} \mathbf{x}_{(n)ij} + \mathbf{p}_{\mathbf{x}(l)} \mathbf{x}_{(l)ij} \leq \sum_{n=1} \mathbf{p}_{\mathbf{x}(n)} \mathbf{e}_{\mathbf{x}(n)ijSP} + \mathbf{p}_{\mathbf{x}(l)} \mathbf{e}_{\mathbf{x}(l)ij} + \mathbf{e}_{ijSP}$

1494

1495

1496 *Further, let:*  $\sum_{n=1} \mathbf{p}_{\mathbf{x}(n)} \mathbf{e}_{\mathbf{x}(n)ijSP} + \sum_{v=1} \mathbf{w}_v \mathbf{h}_{vij} = \mathbf{W}_{ij}$

1497

1498 *where*  $\mathbf{w}_v = \mathbf{p}_{\mathbf{x}(l)}$

1499

1500  $\mathbf{h}_{vij} = \mathbf{e}_{\mathbf{x}(l)ij} - \mathbf{x}_{(l)ij}$

1501

1502 **II. Case Two: One Universal Constraint**

1503  
1504  
1505  
1506  
1507  
1508  
1509  
1510  
1511  
1512  
1513  
1514  
1515  
1516  
1517  
1518  
1519  
1520  
1521  
1522  
1523  
1524  
1525  
1526  
1527  
1528  
1529  
1530  
1531  
1532  
1533  
1534  
1535  
1536  
1537  
1538  
1539  
1540  
1541  
1542  
1543  
1544  
1545  
1546

**MAX**  $\{x_{nij} \geq 0\}$   $\mathbf{U} = \gamma_{\mathbf{U}} \prod_{SP=1} \mathbf{U}_{SP}^{\theta(SP)}$

*Subject to*  $\mathbf{X} \leq \boldsymbol{\varepsilon}$

*Further, let:*  $\boldsymbol{\varepsilon} = \sum_{SP=1} \mathbf{E}_{SP} + \mathbf{e}$

$\mathbf{E}_{SP} = \sum_{i=1} \sum_{j=1} \mathbf{E}_{ijSP} + \mathbf{e}_{SP}$

$\mathbf{E}_{ijSP} = \mathbf{E}_{x(n)ijSP} + \sum_{i=1} \sum_{j=1} \mathbf{p}_{x(l)} \mathbf{e}_{x(l)ij} + \mathbf{e}_{ij}$  for all  $n = 1, 2, \dots, E \neq l$

$\mathbf{E}_{x(n)ijSP} = \sum_{n=1} \mathbf{p}_{x(n)} \mathbf{e}_{x(n)ijSP}$

*such that*  $\boldsymbol{\varepsilon} = \sum_{i=1} \sum_{j=1} \sum_{n=1} \mathbf{p}_{x(n)} \mathbf{e}_{x(n)ijSP} + \sum_{i=1} \sum_{j=1} \mathbf{p}_{x(l)} \mathbf{e}_{x(l)ij} + \mathbf{e}^*$

*where*  $\mathbf{e}^* = \mathbf{e} + \sum_{SP=1} \mathbf{e}_{SP} + \sum_{i=1} \sum_{j=1} \mathbf{e}_{ij}$

*Further, let:*  $\mathbf{X} = \sum_{i=1} \sum_{j=1} \sum_{n=1} \mathbf{P}_{x(n)j} \mathbf{x}_{(n)ij} + \sum_{i=1} \sum_{j=1} \mathbf{p}_{x(l)j} \mathbf{x}_{(l)ij}$

*where*  $\mathbf{P}_{x(n)j} = \mathbf{p}_{x(n)} (1 + \delta_{xjg} + \sum_{q=1} t'_{qx(n)})$

$\mathbf{P}_{x(E)} = \eta(\mathbf{B})$

*Therefore, the decision becomes:*

**MAX**  $\{x_{nij} \geq 0\}$   $\mathbf{U} = \gamma' \prod_{SP=1} [\prod_{j=1} (\prod_{i=1} (\prod_{n=1} (x_{nij} \cdot s_{x(n)ijSP})^{a(n)}))]$

*subject to*  $\sum_{i=1} \sum_{j=1} \sum_{n=1} \mathbf{P}_{x(n)j} \mathbf{x}_{(n)ij} + \sum_{i=1} \sum_{j=1} \mathbf{p}_{x(l)j} \mathbf{x}_{(l)ij} \leq \sum_{i=1} \sum_{j=1} \sum_{n=1} \mathbf{p}_{x(n)} \mathbf{e}_{x(n)ijSP} + \sum_{i=1} \sum_{j=1} \mathbf{p}_{x(l)} \mathbf{e}_{x(l)ij} + \mathbf{e}^*$

*Let:*  $\sum_{i=1} \sum_{j=1} \sum_{n=1} \mathbf{p}_{x(n)} \mathbf{e}_{x(n)ijSP} + \sum_{v=1} \sum_{i=1} \sum_{j=1} \mathbf{w}_v \mathbf{h}_{vij} = \sum_{i=1} \sum_{j=1} \mathbf{W}_{ij}$

*where*  $\mathbf{w}_v = \mathbf{p}_{x(l)}$

$\mathbf{h}_{vij} = \mathbf{e}_{x(l)ij} - \mathbf{x}_{(l)ij}$

1547 **III. A Model of Wealth**

1548

1549

1550 *Let:*  $\mathbf{W}_{ij} = (1-g-\sum_{q=1} t_{q1})\mathbf{I}_{ij} + \mathbf{A}_{ij} + (1-g)(\sum_{q=1} \mathbf{S}_{qij} + \mathbf{C}_{ij}) - \mathbf{G}_{ij}$

1551

1552  $\mathbf{I}_{ij} = \sum_{v=1} \mathbf{w}'_v \mathbf{h}'_{vij}$

1553

1554  $\mathbf{w}'_v = \mathbf{w}_v - \delta_{w(v)jg} - \sum_{q=1} t'_{q}$

1555

1556  $\mathbf{h}'_{vij} = \mathbf{h}_{vij} - \delta_{h(v)jg}$

1557

1558  $\mathbf{A}_{ij} = [ \mathbf{A}_{0ij}(1-g-\sum_{q=1} t_{qA(0)}) + \sum_{a=1} \mathbf{N}_{(1,a)ij}(\mathbf{R}_i, \mathbf{M}_i)(1-g-\sum_{q=1} t_{qN(1,a)})$

1559

1560  $+ \sum_{m=1} \gamma_{\pi(m)ij} \boldsymbol{\pi}_{Z(m)ij}(1-g) ] (1+ \gamma_{\rho ij} \rho)(1-\sum_{q=1} t_{q\rho})$

1561

1562  $+ \sum_{b=1} \mathbf{N}_{(2,b)ij}(\mathbf{R}_i, \mathbf{M}_i)(1-g-\sum_{q=1} t_{qN(2,b)}) - \mathbf{G}_{\rho ij} - \delta_{A_jg}(\rho, \mathbf{A}_{0ij})$

1563

1564  $\mathbf{A}_{0ij} = \mathbf{A}_{0ij}(\mathbf{x}_{n0}, \gamma_{w(0)ij} \mathbf{W}_{0F}(\mathbf{I}_0(\mathbf{w}_0, \mathbf{h}_0, \mathbf{S}_0), \mathbf{A}_0(\mathbf{A}_{(-1)}, \mathbf{N}_0(\mathbf{R}_0, \mathbf{M}_0), \gamma_0 \pi(m) \boldsymbol{\pi}_{0Zm}), t_{0q}, \delta_{0g}, \gamma_{0\rho}), \mathbf{R}, \mathbf{M})$

1565

1566  $\boldsymbol{\pi}_{Z(m)ij} = (\mathbf{P}_{Z(m)j} \mathbf{Z}_{mij} + \sum_{q=1} \mathbf{S}_{qZ(m)ij} - \sum_{d=1} \mathbf{P}_{Z(m,d)j} \mathbf{X}_{Z(m,d)ij}) (1 - \sum_{q=1} t_{q\pi(m)})$

1567

1568  $\mathbf{P}_{Z(m)j} = \mathbf{p}_{Z(m)}(1 - \delta_{Z(m)jg} + \sum_{q=1} t'_{qZ(m)})$

1569

1570  $\mathbf{Z}_{mij} = \gamma_{Zmij} \prod_{d=1} \mathbf{X}_{Z(m,d)ij}^{\beta(d)}$

1571

1572  $\mathbf{P}_{Z(m,d)j} = \mathbf{p}_{Z(m,d)}(1 - \delta_{Z(m,d)jg} - \sum_{q=1} t'_{qZ(m)})$

1573

1574  $\mathbf{X}_{Z(m,d)ij} = \mathbf{x}_{Z(m,d)ij} - \delta_{Z(m,d)jg}$

1575

1576 *where*

1577 *S* is subsidies,

1578 *g* is the tithe,

1579 *G* is offerings,

1580 *q* is governments,

1581 *C* is social capital, i.e. food and medications from societal organizations,

1582 *ρ* is the rate of return,


1583 *γ* is the knowledge on scaling the rate of return, i.e. the 1996-97 INVESCO case study,

1584 *d* is inputs,

1585 *N*<sub>1</sub> is appreciative,


1586 *N*<sub>2</sub> is non-appreciative

1587  
1588  
1589  
1590  
1591  
1592  
1593  
1594  
1595  
1596  
1597  
1598

THE JAMES EDWARD CURTIS JR EDUCATION FOUNDATION  
**JECJEF.NET** 

Services include Evangelism, Outreach, Education, Research

*Dynamic & Divine Education & Service of the Generations*

MALING ADDRESS: **James Edward Curtis Jr**  
PO Box 3126 PRESIDENT  
WASHINGTON, DC 20010 

INTERNET: JECJEF.NET  
EMAIL: JAMESJR@JECJEF.NET  
PHONE: 202 739 1962