

What difference does a multiplier make when there is a residential credit?

A “multiplier” attempts to adjust the monthly basic support obligation to take account of the higher costs of raising children living part-time in two residences. This analysis illustrates how a multiplier would affect an NCP’s residential credit and support obligation.

To determine these effects of a multiplier, we need several pieces of information:

1. The combined family income and number of children. These determine the monthly basic support obligation from the DCS table.
2. The NCP’s share of combined family income, which when multiplied by the monthly basic support obligation determines the dollar amount of the NCP’s support obligation.
3. The residential credit schedule, which determines the credit as a percentage of the NCP’s obligation as children’s time in residence varies from 0 to 50 percent.
4. The actual percentage of time the children reside with the NCP. This, the credit schedule, and the NCP’s obligation determine the dollar amount of residential credit.
5. The size of the multiplier, which raises the monthly basic support obligation and, hence, affects the size of the residential credit and the support obligation.

We use 2 of the residential credit schedules examined by the “Unit of measurement” subcommittee. We apply each to 3 couples with different levels of combined family income – low, middle and high. For each couple we examine the effect of a multiplier for NCPs whose shares of total combined income are 90%, 75% or 50%. Thus, there are 9 examples (3 income levels times 3 shares) for each residential credit schedule.

The analysis does not recommend whether a multiplier should be used when children reside part-time with both parents. It simply presents the effects for the Workgroup’s consideration.

At the end, I offer a comment about the appropriate size of the multiplier.

Assumptions about combined family income and number of children and the basic support obligation

Low income family:

Two children

Combined monthly family income of \$2,500 (This is within the range of incomes for about a third of all cases.)

Basic support obligation is about \$900 based on Washington table

Middle income family:

Two children

Combined monthly family income of \$5,000

Basic support obligation is about \$1,300 based on Washington table

High income family:

Two children

Combined monthly family income of \$10,000

Basic support obligation is about \$2,300 based on Washington table

NCP's monthly basic support obligation

We compute the NCP's monthly basic support obligation for the 9 cases. Table 1 shows the results. For example, the low income family has a total basic support obligation of \$900. If the NCP had 75% of this family's combined income, his obligation would be \$675. We use these results and the residential credit schedules to calculate the size of the credit for the 9 NCPs.

Table 1: NCP monthly basic support obligation based on combined family income and NCP's share of that income

NCP share of combined family income	Combined family income (Total basic support obligation)		
	Low (\$900)	Middle (\$1,300)	High (\$2,300)
90%	\$810	\$1,170	\$2,070
75%	\$675	\$975	\$1,725
50%	\$450	\$650	\$1,150

Residential credit schedules

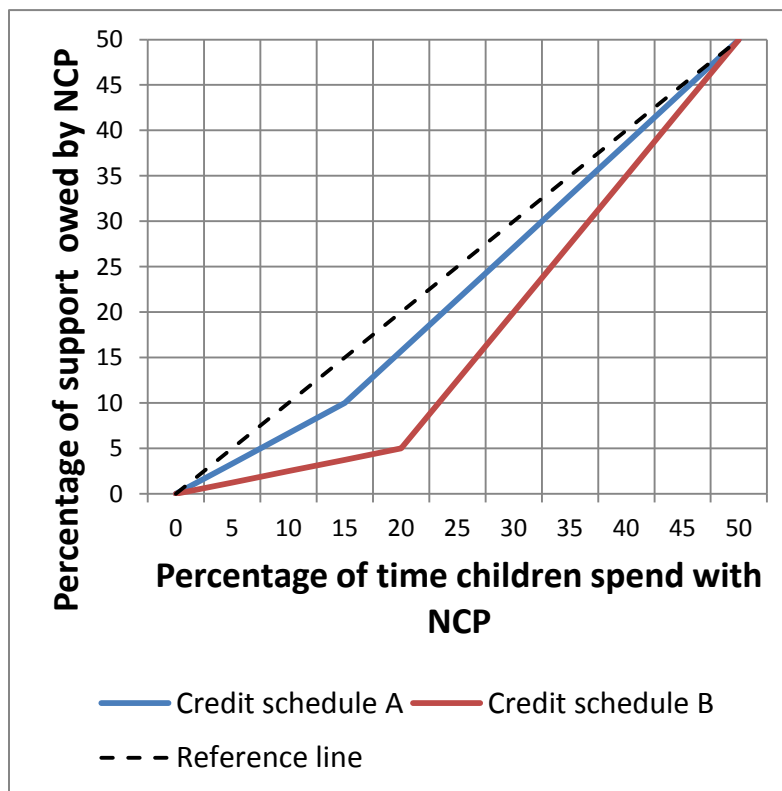
Residential credit schedule A: See Figure 1. As the percentage of time children spend with the NCP rises, the credit initially rises more slowly than the percentage. When the percentage of time is 15%, the credit is 10%. When the percentage of time exceeds 15%, the credit rises faster so that, when the percentage time is 50%, the credit is also 50%. The blue line shows the credit as a percentage of the NCP’s obligation at different percentages of time with the NCP.

The dollar amount of the credit equals the percentage multiplied by the NCP’s support obligation.

Residential credit schedule B: See Figure 1. Like schedule A, as the percentage of time children spend with the NCP rises, the credit initially rises more slowly than the percentage. When the percentage of time is 20%, the credit is 5%. When the percentage of time exceeds 20%, the credit rises faster so that, when the percentage time is 50%, the credit is also 50%. Compared to A, the NCP receives less credit for all percentages of time until 50%. The red line shows schedule B.¹

The black line shows the percentage of credit always equal to the percentage of time.

Figure 1: Residential credit schedules used in analysis



¹ The other 2 schedules presented by the Unit of measurement subgroup give results in-between the results based on these two schedules

The dollar amount of residential credit

Table 2A is based on schedule A. It presents for all 9 cases the NCP's residential credit as children's time in residence rises from 0 to 50 percent. The top cell in each column shows the NCP's obligation for different mixes of combined family income and the NCP's share of that income, as shown in table 1.

Table 2B shows the same information, but uses schedule B.

Table 2C shows the difference in credit between schedule A and B. As children spend more time with the NCP, the difference initially expands then contracts. The largest difference shown in the table is when the children reside 20% of the time with the NCP. It equals 11% of the obligation shown at the top of each column.

Effect of a 25% multiplier on the NCP's credit and net support obligation

The "net support obligation" is defined as the difference between the NCP's monthly basic support obligation (see table 1) and residential credit. A multiplier has two offsetting effects on the net support obligation. First, by increasing the basic support obligation, it increases the amount of support the NCP (and CP) owes. For example, if the NCP's basic support obligation was \$675, a multiplier of 25% would raise it to \$844.

Second, because the NCP's obligation increases, the value of any residential credit increases proportionally and offsets part of the increase in the obligation.

Table 3A reports the **change** in residential credit **assuming a multiplier of 25%** based on Schedule A. The obligations in the top row have been increased by 25% to reflect the multiplier. Table 3B reports the same change based on Schedule B.

Table 4A reports the **dollar change** in the NCP's net support obligation **assuming a multiplier of 25%** based on Schedule A. Holding constant the percent of time the children are with the NCP, the change in net obligation is determined by the change in the total basic support obligation and the ensuing change in residential credit.

Table 4B reports the same change based on Schedule B.

For all the examples in tables 4A and 4B, the **percentage change** in the NCP's net support obligation (i.e. the required monthly payment to the CP) is 25%.

For a 50% multiplier, every value in tables 3A, 3B, 4A and 4B simply doubles.

What should the multiplier be?

The most recent USDA report on the cost of raising children (http://www.cnpp.usda.gov/sites/default/files/expenditures_on_children_by_families/crc2013.pdf) has findings for 2013. It estimates that housing accounts for 30% of the total costs for a two child, two parent family and suggests but does state directly that the percentage is similar for a single parent family.

The report briefly comments on expenses for noncustodial parents as follows:

For single parents, the estimates only cover out-of-pocket child-rearing expenditures made by the parent who has primary care of the child. **The estimates do not include child-related expenditures made by the parent without primary care or by others**, such as grandparents. **The parent with whom the child does not reside the majority of the time may** incur transportation, food, and entertainment expenses during visitation days and **maintain a larger living unit because the child stays with him or her on weekends**. The noncustodial parent could also contribute to the child's clothing and health care expenses. **Although it would be ideal to include these expenditures, such expenditures could not be estimated** from the CE data. Overall expenses paid by both parents on a child in a single-parent household, therefore, are likely to be greater than this study's estimates. (Page 14, emphasis added.)

Though the noncustodial parent pays for some transportation, food, health care and other non-housing expenses, such expenditures would, I think, largely substitute for expenses on the same things by the custodial parent and would not significantly increase the total amount needed for basic support. Extra housing expenses, however, would not substitute since both parents need a larger living unit with when children reside with both.

Without careful estimates of the extra costs of maintaining two households, there is no objective basis for any choice of multiplier.

Suppose the NCP incurs extra housing costs equal to 50% of the CP's costs. If housing accounts for 30% of the CP's expenditures on children, the NCP's extra housing cost is equal to $.5 * 30 = 15\%$ of total expenditures. Under this assumption a multiplier of 15% is appropriate.

Table 2A: Residential credit with no multiplier for NCPs with different support obligations, Schedule A

Percent of time children are with NCP	Low income \$810	Low income \$675	Low income \$450	Middle income \$1,170	Middle income \$975	Middle income \$650	High income \$2,070	High income \$1,725	High income \$1,150
0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
5	\$27	\$23	\$15	\$39	\$33	\$22	\$69	\$58	\$38
10	\$54	\$45	\$30	\$78	\$65	\$43	\$138	\$115	\$77
15	\$81	\$68	\$45	\$117	\$98	\$65	\$207	\$173	\$115
20	\$127	\$106	\$71	\$184	\$153	\$102	\$325	\$271	\$181
25	\$174	\$145	\$96	\$251	\$209	\$139	\$444	\$370	\$246
30	\$220	\$183	\$122	\$318	\$265	\$176	\$562	\$468	\$312
35	\$266	\$222	\$148	\$384	\$320	\$214	\$680	\$567	\$378
40	\$312	\$260	\$174	\$451	\$376	\$251	\$798	\$665	\$444
45	\$359	\$299	\$199	\$518	\$432	\$288	\$917	\$764	\$509
50	\$405	\$338	\$225	\$585	\$488	\$325	\$1,035	\$863	\$575

Table 2B: Residential credit with no multiplier, for NCPs with different support obligations, Schedule B

Percent of time children are with NCP	Low income \$810	Low income \$675	Low income \$450	Middle income \$1,170	Middle income \$975	Middle income \$650	High income \$2,070	High income \$1,725	High income \$1,150
0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
5	\$10	\$8	\$6	\$15	\$12	\$8	\$26	\$22	\$14
10	\$20	\$17	\$11	\$29	\$24	\$16	\$52	\$43	\$29
15	\$30	\$25	\$17	\$44	\$37	\$24	\$78	\$65	\$43
20	\$41	\$34	\$23	\$59	\$49	\$33	\$104	\$86	\$58
25	\$101	\$84	\$56	\$146	\$122	\$81	\$259	\$216	\$144
30	\$162	\$135	\$90	\$234	\$195	\$130	\$414	\$345	\$230
35	\$223	\$186	\$124	\$322	\$268	\$179	\$569	\$474	\$316
40	\$284	\$236	\$158	\$410	\$341	\$228	\$725	\$604	\$403
45	\$344	\$287	\$191	\$497	\$414	\$276	\$880	\$733	\$489
50	\$405	\$338	\$225	\$585	\$488	\$325	\$1,035	\$863	\$575

Table 2C: Difference between schedule A and B residential credit with no multiplier

Percent of time children are with NCP	Low income \$810	Low income \$675	Low income \$450	Middle income \$1,170	Middle income \$975	Middle income \$650	High income \$2,070	High income \$1,725	High income \$1,150
0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
5	\$17	\$14	\$9	\$24	\$20	\$14	\$43	\$36	\$24
10	\$34	\$28	\$19	\$49	\$41	\$27	\$86	\$72	\$48
15	\$51	\$42	\$28	\$73	\$61	\$41	\$129	\$108	\$72
20	\$87	\$72	\$48	\$125	\$104	\$70	\$222	\$185	\$123
25	\$72	\$60	\$40	\$104	\$87	\$58	\$185	\$154	\$103
30	\$58	\$48	\$32	\$84	\$70	\$46	\$148	\$123	\$82
35	\$43	\$36	\$24	\$63	\$52	\$35	\$111	\$92	\$62
40	\$29	\$24	\$16	\$42	\$35	\$23	\$74	\$62	\$41
45	\$14	\$12	\$8	\$21	\$17	\$12	\$37	\$31	\$21
50	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Table 3A: Increase in residential credit with a multiplier of 25% for NCPs with different support obligations, Schedule A

Percent of time children are with NCP	Low income \$1,013	Low income \$844	Low income \$563	Middle income \$1,463	Middle income \$1,219	Middle income \$813	High income \$2,588	High income \$2,156	High income \$1,438
0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
5	\$7	\$6	\$4	\$10	\$8	\$5	\$17	\$14	\$10
10	\$14	\$11	\$8	\$20	\$16	\$11	\$35	\$29	\$19
15	\$20	\$17	\$11	\$29	\$24	\$16	\$52	\$43	\$29
20	\$32	\$27	\$18	\$46	\$38	\$26	\$81	\$68	\$45
25	\$43	\$36	\$24	\$63	\$52	\$35	\$111	\$92	\$62
30	\$55	\$46	\$31	\$79	\$66	\$44	\$140	\$117	\$78
35	\$67	\$55	\$37	\$96	\$80	\$53	\$170	\$142	\$94
40	\$78	\$65	\$43	\$113	\$94	\$63	\$200	\$166	\$111
45	\$90	\$75	\$50	\$130	\$108	\$72	\$229	\$191	\$127
50	\$101	\$84	\$56	\$146	\$122	\$81	\$259	\$216	\$144

The support obligations have been increased by 25% to reflect the multiplier.

Table 3B: Increase in residential credit with a multiplier of 25% for NCPs with different support obligations, Schedule B

Percent of time children are with NCP	Low income \$1,013	Low income \$844	Low income \$563	Middle income \$1,463	Middle income \$1,219	Middle income \$813	High income \$2,588	High income \$2,156	High income \$1,438
0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
5	\$3	\$2	\$1	\$4	\$3	\$2	\$6	\$5	\$4
10	\$5	\$4	\$3	\$7	\$6	\$4	\$13	\$11	\$7
15	\$8	\$6	\$4	\$11	\$9	\$6	\$19	\$16	\$11
20	\$10	\$8	\$6	\$15	\$12	\$8	\$26	\$22	\$14
25	\$25	\$21	\$14	\$37	\$30	\$20	\$65	\$54	\$36
30	\$41	\$34	\$23	\$59	\$49	\$33	\$104	\$86	\$58
35	\$56	\$46	\$31	\$80	\$67	\$45	\$142	\$119	\$79
40	\$71	\$59	\$39	\$102	\$85	\$57	\$181	\$151	\$101
45	\$86	\$72	\$48	\$124	\$104	\$69	\$220	\$183	\$122
50	\$101	\$84	\$56	\$146	\$122	\$81	\$259	\$216	\$144

The support obligations have been increased by 25% to reflect the multiplier.

Table 4A: Increase in net support obligation with a multiplier of 25% for NCPs with different support obligations, Schedule A

Percent of time children are with NCP	Low income \$1,013	Low income \$844	Low income \$563	Middle income \$1,463	Middle income \$1,219	Middle income \$813	High income \$2,588	High income \$2,156	High income \$1,438
0	\$203	\$169	\$113	\$293	\$244	\$163	\$518	\$431	\$288
5	\$196	\$163	\$109	\$283	\$236	\$157	500.25	\$417	\$278
10	\$189	\$158	\$105	\$273	\$228	\$152	\$483	\$403	\$268
15	\$182	\$152	\$101	\$263	\$219	\$146	\$466	\$388	\$259
20	\$171	\$142	\$95	\$247	\$205	\$137	\$436	\$363	\$242
25	\$159	\$133	\$88	\$230	\$192	\$128	\$407	\$339	\$226
30	\$148	\$123	\$82	\$213	\$178	\$118	\$377	\$314	\$209
35	\$136	\$113	\$76	\$196	\$164	\$109	\$347	\$290	\$193
40	\$124	\$104	\$69	\$180	\$150	\$100	\$318	\$265	\$177
45	\$113	\$94	\$63	\$163	\$136	\$91	\$288	\$240	\$160
50	\$101	\$84	\$56	\$146	\$122	\$81	\$259	\$216	\$144

The support obligations have been increased by 25% to reflect the multiplier.

Table 4B: Change in net support obligation with a multiplier of 25% for NCPs with different support obligations, Schedule B

Percent of time children are with NCP	Low income \$1,013	Low income \$844	Low income \$563	Middle income \$1,463	Middle income \$1,219	Middle income \$813	High income \$2,588	High income \$2,156	High income \$1,438
0	\$203	\$169	\$113	\$293	\$244	\$163	\$518	\$439	\$288
5	\$200	\$167	\$111	\$289	\$241	\$160	511.0313	\$433	\$284
10	\$197	\$165	\$110	\$285	\$238	\$158	\$505	\$428	\$280
15	\$195	\$162	\$108	\$282	\$235	\$156	\$498	\$423	\$277
20	\$192	\$160	\$107	\$278	\$232	\$154	\$492	\$417	\$273
25	\$177	\$148	\$98	\$256	\$213	\$142	\$453	\$385	\$252
30	\$162	\$135	\$90	\$234	\$195	\$130	\$414	\$353	\$230
35	\$147	\$122	\$82	\$212	\$177	\$118	\$375	\$320	\$208
40	\$132	\$110	\$73	\$190	\$158	\$106	\$336	\$288	\$187
45	\$116	\$97	\$65	\$168	\$140	\$93	\$298	\$255	\$165
50	\$101	\$84	\$56	\$146	\$122	\$81	\$259	\$223	\$144

The support obligations have been increased by 25% to reflect the multiplier.